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**JOINT SERVICES AMMUNITION AND  
AMMUNITION PACKAGE MARKINGS HANDBOOK**

**SECTION 1—GENERAL INTRODUCTION (1960)**

**SUPPLEMENT No. 1**

**COLOUR CODING AND MARKING OF AMMUNITION**  
(except ammunition of a calibre below 20 mm)

**1964**

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## JOINT SERVICES AMMUNITION AND AMMUNITION PACKAGE MARKINGS HANDBOOK

## SECTION 1—SUPPLEMENT No. 1

COLOUR CODING AND MARKING OF AMMUNITION  
(except ammunition of a calibre below 20 mm)

## INTRODUCTION

This supplement has been prepared to assist in the identification of ammunition which has been colour coded and marked in accordance with the method adopted by member countries of N.A.T.O. to conform to the provisions of STANAG No. 2321.

## PART I ROLE AND HAZARD CODING COLOURS

1. Colours shown against serials 3, 7, 12, 13, 14 and 18 are U.K. national colours which may or may not be used by other member countries of N.A.T.O.
2. Member countries of N.A.T.O. other than the U.K. may also adopt colours for camouflage or other special purposes which are not shown in the table.
3. The colour shown in column 4 is the nearest U.K. equivalent to the standard N.A.T.O. colour in column 3; other member countries will use their own nearest equivalent colour which may not agree with that used by the U.K.
4. To use Part I, refer to Table for the colour or colours on the ammunition and the information in the Table should assist in the primary identification of the ammunition, for example:—

## (a) A shell with

## (i) Basic body colour:

Deep bronze green—camouflage, no coding significance.

## (ii) Wide band:

Yellow—High (effect) explosive role and hazard (Hazard band omitted as it would coincide with the role band, *See* Note 4).

## (iii) Lettering:

Yellow—high (effect) explosive role or hazard (*See* Note 6).

Therefore the above store is identified as a high (effect) explosive shell.

## (b) A shell with

## (i) Basic body colour:

Light green—smoke role (*See* Note 1)

## (ii) Narrow band:

Brown—low explosive hazard (*See* Note 4).

## (iii) Lettering:

Brown—low explosive hazard (*See* Note 6).

Therefore the store is a smoke shell with a low explosive bursting charge.

## NOTES

### APPLICATION OF ROLE COLOURS

1. The primary role(s) of ammunition will be indicated by the appropriate coding colour applied by one of the following methods:—

- (a) As an overall body colour; or
- (b) When a non-significant overall body colour is used for camouflage or other purposes;
  - (i) Coloured circumferential band(s) of a minimum width equal to one half of the calibre with a maximum width of two inches;
  - (ii) Coloured lettering and figures for the main identification details; or
  - (iii) Coloured discs which will be as large as possible consistent with the use, size and shape of the item.

2. Where the ammunition has more than one essential role, e.g. a high (effect) explosive shell having an armour defeating capability (HESH), or in certain natures of 20 mm ammunition, the combined roles will be indicated by the appropriate coding colours.

3. Chemical Ammunition—The band(s) used to indicate the type of chemical agent will be approximately one half inch wide and, where more than one is used, they shall be approximately one half inch apart. The abbreviation or code of the chemical filling or charging agent shall also be marked in the same colour as the band(s).

### APPLICATION OF HAZARD MARKINGS

4. Where the colour appropriate to the hazard is the same as the role colour, the role coding will be regarded as an indication also of the hazard. Where this does not apply the hazard or hazards will be denoted by a narrow band or bands one quarter of the calibre in width, but with a maximum width of one inch.

The colour of the main identification details may also indicate a hazard.

Where more than one hazard is present, the hazard(s) additional to any indicated by the role colour will be shown only by narrow band(s) in the appropriate colour(s).

5. Coding colours shall be used to denote hazards only if the quantities of explosive or other hazardous material present are sufficient to cause the item to function as a high or low explosive and/or are particularly hazardous to the user. It should be noted that in the U.K. the presence of a tracer or tracer composition in shot, inert filled shell or projectiles will be indicated only by the appropriate tracer symbol, and that coloured bands denoting hazards will not be applied to Signal Cartridges since coloured bands are already used on these cartridges to indicate the colour(s) of the effects produced.

### APPLICATION OF COLOURS FOR MAIN IDENTIFICATION DETAILS

6. Main identification details will normally be in the colour appropriate to the role or hazard, except that:

- (a) BLACK or WHITE will be used if there is no hazard or if there are two or more hazards in addition to any shown by the role coding.
- (b) BLACK will be used on Illuminating and Signalling ammunition which has an overall body colour of WHITE, on U.K. Land Service Anti-Tank GM Rocket motors and on U.K. HESH projectiles.
- (c) WHITE will be used on Illuminating, Signalling and Counter-measure ammunition which has an overall non-significant body colour and on U.K. Land Service GM Rocket motors other than those for Anti-Tank Missiles.
- (d) LIGHT RED will be used on Smoke ammunition filled White Phosphorus.

TABLE 1—COLOUR CODING OF AMMUNITION (except ammunition of a calibre below 20 mm)

| SERIAL | COLOUR                    | NATO COLOUR                           | U.K. COLOUR AND BS. 381 C NUMBER | WHEN APPLIED IN THE FORM OF                  |                               |                                   |                                                   |                                                     | REMARKS                                                                                                                                                                                |
|--------|---------------------------|---------------------------------------|----------------------------------|----------------------------------------------|-------------------------------|-----------------------------------|---------------------------------------------------|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|        |                           |                                       |                                  | OVERALL BODY COLOUR                          | WIDE BAND(S)                  | DISCS                             | LETTERS AND FIGURES (MAIN IDENTIFICATION) DETAILS | NARROW BAND(S)                                      |                                                                                                                                                                                        |
|        |                           |                                       |                                  | See Note 1 (a)                               | See Note 1 (b) (i) IDENTIFIES | See Note 1 (b) (iii) PRIMARY ROLE | See Notes 1(b)(ii), 4&6                           | See Note 4                                          |                                                                                                                                                                                        |
| 1      | 2                         | 3                                     | 4                                | 5                                            | 6                             | 7                                 | 8                                                 | 9                                                   |                                                                                                                                                                                        |
| 1      | BLACK                     | BLACK                                 | Black                            | Armour Defeating<br>See Remarks              | Armour Defeating              | Armour Defeating                  | No coding significance                            | —                                                   | Underwater ammunition such as mines may have a basic body colour of black, in which case the colour has NO SIGNIFICANCE.                                                               |
| 2      | BLUE LIGHT                | LIGHT BLUE                            | Deep Sage Blue No. 113           | Practice<br>See remarks                      | Practice                      | Practice                          | Practice                                          | —                                                   | Items coloured light blue may be associated with explosive components. For guided missiles, the Practice heads only (interior and exterior) will have an overall colour of Light Blue. |
| 3      | BLUE DARK                 | —                                     | Oxford Blue No. 105              | Drill                                        | Drill                         | Drill                             | Drill                                             | —                                                   | —                                                                                                                                                                                      |
| 4      | BROWN                     | BROWN                                 | Middle Brown No. 411             | Low Explosive                                | Low Explosive                 | Low Explosive                     | Low Explosive role and/or hazard                  | Low Explosive hazard                                | —                                                                                                                                                                                      |
| 5      | GREEN LIGHT               | LIGHT GREEN                           | Eau-de-Nil No. 216               | Smoke                                        | Smoke                         | Smoke                             | Smoke role and/or Smoke producing agent present   | Smoke producing agent present                       | —                                                                                                                                                                                      |
| 6      | GREEN DARK                | DARK GREEN                            | Traffic Green No. 267            | —                                            | —                             | —                                 | —                                                 | Casualty Agent (Chemical Ammunition)<br>See remarks | See Note 3.<br>One band = Non Persistent.<br>Two bands = Persistent.<br>Three bands = Nerve Gases (G Series)                                                                           |
| 7      | GREEN DEEP BRONZE         | See remarks                           | Deep Bronze Green No. 224        | No coding significance—<br>camouflage colour | —                             | —                                 | —                                                 | —                                                   | Use on chemical stores prohibited. OLIVE DRAB will be used by U.S.A. and some other N.A.T.O. countries, see Serial 11.                                                                 |
| 8      | GREY                      | GREY                                  | Light grey No. 631               | Chemical<br>See remarks                      | —                             | —                                 | —                                                 | —                                                   | Used as an overall body coding colour for Chemical ammunition only, in conjunction with band(s) of DARK GREEN (Serial No. 6) or RED (Serial No. 15).                                   |
| 9      | GREY, DARK<br>See remarks | —                                     | Admiralty grey No. 632           | No coding significance—<br>camouflage colour | —                             | —                                 | —                                                 | —                                                   | May be used on underwater ammunition such as mines.                                                                                                                                    |
| 10     | MAGENTA/<br>RED VIOLET    | MAGENTA/<br>RED VIOLET<br>See remarks | See Serial 12                    | Radioactive (Nuclear)                        | Radioactive (Nuclear)         | Radioactive (Nuclear)             | Radioactive (Nuclear) role and/or hazard          | Radioactive (Nuclear) hazard                        | Will be used only by N.A.T.O. countries other than U.K., see Serial 12.                                                                                                                |

TABLE 1 (continued)

|    | 1             | 2                         | 3                       | 4                                                               | 5                          | 6                          | 7                                          | 8                                                       | 9                                                                                                                                                                                                                              |
|----|---------------|---------------------------|-------------------------|-----------------------------------------------------------------|----------------------------|----------------------------|--------------------------------------------|---------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 11 | OLIVE DRAB    | —                         | See remarks             | No coding significance—camouflage colour                        | —                          | —                          | —                                          | —                                                       | Use on chemical stores prohibited. Used by U.S.A. and some other N.A.T.O. countries. U.K. equivalent is DEEP BRONZE GREEN, Serial 7.                                                                                           |
| 12 | ORANGE, LIGHT | See remarks and Serial 10 | Light Orange No. 557    | Radioactive (Nuclear)                                           | Radioactive (Nuclear)      | Radioactive (Nuclear)      | Radioactive (Nuclear) role and/or hazard   | Radioactive (Nuclear) hazard                            | N.A.T.O. countries other than the U.K. will use MAGENTA/RED VIOLET, Serial 10.                                                                                                                                                 |
| 13 | PINK          | —                         | Shell Pink No. 453      | Acquisition; Servicing; External Telemetry senders. See remarks | —                          | —                          | —                                          | —                                                       | Used on certain training versions of guided missiles. In certain instances where operational non-explosive parts are used in the assembly of these training versions, the coding colour may be applied in the form of patches. |
| 14 | RED, POPPY    | —                         | Poppy Red No. 536       | No coding significance. See remarks                             | —                          | —                          | —                                          | —                                                       | Used only on certain Guided Missiles when photographic records are required.                                                                                                                                                   |
| 15 | RED           | RED                       | Post Office Red No. 538 | —                                                               | —                          | —                          | —                                          | Harassing Agent. (Chemical Ammunition) See remarks      | See Note 3.<br>One band = Non Persistent<br>Two bands = Persistent                                                                                                                                                             |
| 16 | RED, LIGHT    | LIGHT RED                 | Signal Red No. 537      | Incendiary                                                      | Incendiary                 | Incendiary                 | Incendiary role and/or hazard. See remarks | Incendiary hazard                                       | Always used on smoke stores filled WHITE PHOSPHORUS                                                                                                                                                                            |
| 17 | SILVER        | SILVER/ALUMINIUM          | Silver/Aluminium        | Countermeasure. See remarks                                     | Countermeasure             | Countermeasure             | Countermeasure                             | —                                                       | The term "countermeasure" includes items such as radar echo, leaflets, etc.                                                                                                                                                    |
| 18 | VIOLET DARK   | —                         | Dark Violet No. 796     | Experimental. See remarks                                       | —                          | —                          | Experimental                               | —                                                       | Where Service type ammunition is used for experimental and trials purposes this colour may be applied in the form of longitudinal stripes in addition to other standard marks.                                                 |
| 19 | WHITE         | WHITE                     | White                   | Illuminating or Signalling. See remarks                         | Illuminating or Signalling | Illuminating or Signalling | No coding significance                     | Illuminating or signalling pyrotechnic material present | May also be applied as a non-significant overall body colour for Naval and Air guided Missiles, their associated motors and (external) warheads.                                                                               |
| 20 | YELLOW        | YELLOW                    | Golden Yellow No. 356   | High (effect) explosive                                         | High (effect) explosive    | High (effect) explosive    | High (effect) explosive role and/or hazard | High (effect) explosive hazard                          | —                                                                                                                                                                                                                              |

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**JOINT SERVICES  
AMMUNITION  
AND AMMUNITION PACKAGE  
MARKINGS HANDBOOK**

**Section 2 Part 1**

**PROJECTILES**

**1960**

*(Supersedes Section 2, Part 1, 1954 edition)*

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20 pr.—

|                        |    |        |
|------------------------|----|--------|
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120 mm. B.A.T.—

|                         |    |        |
|-------------------------|----|--------|
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120 mm. TK.—

|                         |    |        |
|-------------------------|----|--------|
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|                         |    |        |
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### INTRODUCTION

1. The general principles of colour identification and details of markings in this section follow those laid down in Section 1 "General Introduction", which should be read in conjunction with it. There are exceptions, and some of these are explained by examples.

### METHODS OF IDENTIFICATION—GENERAL

2. The following methods of identification, or a combination of these methods, may be used:—

- Stamping, embossing, engraving, etc.
- Basic body identification colours.
- Ring to indicate projectile contains an active agent.
- Ring(s) indicating type of charging of chemical shell.
- Ring(s) indicating special features.
- Symbols indicating special characteristics.
- Stencilling (including transfer and printing processes).
- Filling abbreviations and codes.

3. The distinctive colours of paints or other marking media used will be as follows:—

(a) For basic body colours:—

- Black
- Turquoise blue
- Deep bronze green
- Sea green
- Light grey
- Red oxide
- White

(b) For rings, stripes, symbols, stencilling, etc:—

- Black
- Azure blue
- Brilliant green
- Signal red
- White
- Golden yellow
- Light brown

### STAMPINGS, EMBOSSING, ENGRAVING, ETC.

4. The following permanent markings will be applied by an approved method or process in an approved and prominent position. They are usually stamped on the base of projectiles of separate loading ammunition and on the body above the driving band on projectiles of fixed rounds. On cast iron projectiles, the nomenclature and mark may be embossed (or recessed) on the base.

They are required to indicate details of manufacture and acceptance inspection of the empty store or assembly. They are **not normally required by the user** and are usually over-painted with the basic body identification colour and stencilled markings.

Calibre and mark and/or part number of empty projectile.

Initials or recognized mark of manufacturer

Date of manufacture. (month and year).

Lot or batch number of empty projectile.

Projectile material i.e.,

|    |            |                            |
|----|------------|----------------------------|
| CS | indicating | Cast steel                 |
| FS | „          | Forged steel               |
| BS | „          | Bored from billet of steel |
| CI | „          | Cast iron                  |
| SS | „          | Semi-steel                 |

Abbreviations denoting special features e.g.:-

|       |            |                             |
|-------|------------|-----------------------------|
| SMK   | indicating | Smoke shell                 |
| P.SPL | „          | Special practice projectile |
| B.E.  | „          | Base ejection               |
| P/T   | „          | Practice/Tracer             |
| P     | „          | Practice                    |

In Naval and Land Services additional stamping may also be used to facilitate identification in case other markings become obliterated.

In Naval Service, the code ~~letters~~ indicating the nature of filling (see Table 2 of Section 1) are also stamped on the body of shell.

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### BASIC BODY IDENTIFICATION COLOURS

5. The basic body colour and the colour of the main details stencilled thereon indicate the type of the projectile, as follows:—

| Colour of                                                                |                             | In Naval Service                                                                                                |                           | In Land and Air Services                                                                           |                                 |
|--------------------------------------------------------------------------|-----------------------------|-----------------------------------------------------------------------------------------------------------------|---------------------------|----------------------------------------------------------------------------------------------------|---------------------------------|
| Body                                                                     | Stencilling (main details)  | Full title                                                                                                      | Abbreviation              | Full title                                                                                         | Abbreviation                    |
| Deep bronze green                                                        | Golden yellow               | Shell:<br>High effect                                                                                           | HE                        | Shell:<br>High explosive<br>High explosive squash head<br>High explosive anti-tank (shaped charge) | HE<br>HESH<br>HEAT              |
| Deep bronze green, with ballistic cap (where fitted) coloured signal red |                             | Shell:<br>Armour piercing<br>Semi-armour piercing<br>Semi-armour piercing ballistic cap<br>High effect piercing | AP<br>SAP<br>SAPBC<br>HEP |                                                                                                    |                                 |
| Upper portion:<br>Deep bronze green<br>Lower portion:<br>Sea green       | Golden yellow               |                                                                                                                 |                           | Shell:<br>Coloured bursting                                                                        | COLBURST*                       |
| Sea green                                                                | Black                       | Shell:<br>Smoke                                                                                                 | SMK                       | Shell:<br>Smoke bursting<br>Smoke screening B.E.<br>Smoke coloured B.E.                            | SMK<br>SMK BE<br>COL SMK<br>BE* |
| Light grey                                                               | Black but see also para. 11 | Shell:<br>Chemical                                                                                              | CHEM                      | Shell:<br>Chemical                                                                                 | CHEM                            |
| Red oxide                                                                | Black                       | Shell:<br>Incendiary                                                                                            | INCDY                     | Shell:<br>Incendiary                                                                               | INCDY                           |
| White                                                                    | Black                       | Shell:<br>Star<br>Illuminating<br>Flare                                                                         | STAR<br>ILLUM<br>FLARE    | Shell:<br>Star<br>Illuminating<br>Flare                                                            | STAR<br>ILLUM<br>FLAR*          |

| Colour of      |                               | In Naval Service                                                                                     |                         | In Land and Air Services                                                                                                                                         |                                                                                                        |
|----------------|-------------------------------|------------------------------------------------------------------------------------------------------|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| Body           | Stencilling<br>(main details) | Full title                                                                                           | Abbreviation            | Full title                                                                                                                                                       | Abbreviation                                                                                           |
| Black          | White                         | Shell:<br>Inert<br>Radar echo/P or W<br>Drill<br><br>Shot:<br>Drill                                  | { RE/P<br>or<br>RE/W    | Shell:<br>Inert<br>Radar echo B.E.<br>Drill<br>Drill squash head<br>Shot:<br>Drill<br>Drill flat head<br>Drill discarding sabot<br>Paper<br>Canister<br>Break-up | INERT<br>RE BE<br>DRILL<br>DRILL SH<br><br>DRILL<br>DRILL FH<br>DRILL DS<br>PAPER<br>CNSTR<br>BREAK-UP |
| Black          | Signal red                    | Shot:<br>Armour piercing<br>Armour piercing<br>capped<br>Armour piercing<br>capped, ballistic<br>cap | AP<br>APC<br><br>APCBC  | Shot:<br>Armour piercing<br>Armour piercing<br>capped<br>Armour piercing<br>capped, ballistic cap<br><br>Armour piercing<br>discarding sabot.                    | AP<br>APC<br><br>APCBC<br><br>APDS                                                                     |
| Turquoise blue | White                         | Projectiles<br>Practice<br>Shell:<br>Practice                                                        | PRACT INERT<br><br>PRAC | Projectiles:<br>Practice<br>Shell:<br>Practice<br>Practice squash head<br>Shot:<br>Practice<br>Practice flathead<br>Practice discarding<br>sabot                 | PRAC INER<br><br>PRAC<br>PRAC SH<br><br>PRAC<br>PRAC FH<br>PRAC DS                                     |

\*With the addition of YELLOW, ORANGE, RED, GREEN or BLUE (as applicable)

**Note—1.** Combinations of the above basic body colours are employed on projectiles of composite nature e.g. operational and practice ammunition with composite high explosive, smoke and/or chemical filling.

**2.** Land Service—the metal driving bands of projectiles of all ammunition (B.L., Q.F. separate and Q.F. fixed) are to be painted the same colour as the body in accordance with the principles outlined hereunder:—

- (a) There will be complete coverage of the joint between the driving band and steel of the shell body.
- (b) The high diameter surface of the controlling driving band (i.e. the band which provides the gascheck) and that portion of any driving band which enters, and is in contact with the cartridge case when assembled, must be completely free from paint.
- (c) Driving bands and/or centring bands, other than those mentioned in (b) above, may be painted overall.
- (d) An encroachment of paint on the controlling driving band (as defined at (b) above), is permissible but should be the minimum compatible with the production technique used.

**6. Coloured rings**—These may be painted over the basic body colour to indicate:—

- (a) That the projectile contains or is assembled with an active agent.
- (b) The type of charging of chemical shell.
- (c) Special features.

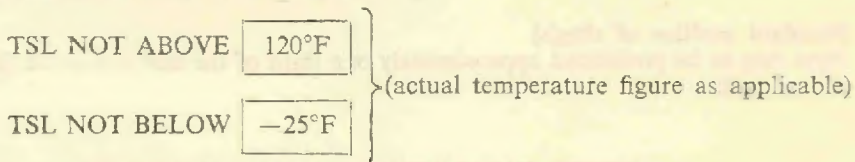
Where the ring is of the same colour as the basic body colour of the projectile on which it appears, it will be denoted by two black or white hair lines appropriately spaced.

7. **Coloured symbols**—These may be painted over the basic body identification colour to indicate other special characteristics.

### RING TO INDICATE PROJECTILE CONTAINS AN ACTIVE AGENT

8. A signal red ring painted around the ogive or nose of the projectile denotes that the projectile contains an active agent (explosive, chemical or otherwise) and is normally required to be classified for storage, transit and handling in a Government Explosives Group. This identification marking will also be used on projectiles with an inert filling and fitted with a tracer or tracer filling, shot fitted with a tracer or tracer filling, and on practice shell or practice projectiles fitted with flash pellets or spotting charges. There are three types of red ring, as follows:—

- (a) *A plain red ring* (Plate 8, Fig. 1) indicates suitability for issue and storage under all climatic conditions.
- (b) *A cross-bar-cross red ring* (Plate 8, Fig. 2) indicates a limited life in hot or cold climates. It is a cautionary warning denoting that the store should be frequently inspected and/or tested to confirm its continued serviceability. In addition to this red ring, when the store is restricted in transit and storage to below or above a specified temperature, the critical temperature figures enclosed in a rectangle preceded by the letters TSL (denoting Transit and Storage Temperature Limitation) and the words NOT ABOVE or NOT BELOW (as applicable) will be stencilled in red on the body of the projectile e.g.



Where applicable the above-mentioned indications may be amalgamated, either following or underneath one another, in which case the words NOT ABOVE or NOT BELOW will be omitted, see Plate 8, Fig. 6.

- (c) *A hatched red ring* (Plate 8, Fig. 3) indicates restrictions of issue and storage to temperate climates only.

### 9. Standard width of ring for projectiles

|                          | <i>3 inch calibre and above</i>                                             | <i>Below 3 inch calibre</i>                                                 |
|--------------------------|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| Plain red ring           | $\frac{1}{2}$ inch                                                          | $\frac{1}{4}$ inch                                                          |
| Cross-bar-cross red ring | $\frac{1}{2}$ inch                                                          | $\frac{1}{4}$ inch                                                          |
| Hatched red ring         | $\frac{1}{2}$ inch wide centre ring with hatched bars of $\frac{7}{8}$ inch | $\frac{1}{4}$ inch wide centre ring with hatched bars of $\frac{1}{2}$ inch |

### 10. Standard position of red rings on projectiles

- (a) *3 inch and above*  
1 inch below the nose or lip (but see para. 20 for exceptions).
- (b) *below 3 inch calibre*  
As near to the nose or lip as is possible.
- (c) *Piercing projectiles*

Below the cap or caps when space permits. For shell having the cap painted a basic body colour of red, the red filling ring will be separated from the cap by a space equal to not more than half the width of the ring.

(d) *Shell having a basic body colour of red*

The plain red filling ring will be indicated by two black hair lines appropriately spaced, but cross-bar-cross and hatched red filling rings will be superimposed on a black ring to render them easily distinguishable from the red basic body colour. Alternatively, the same effect may be produced by stencilling a black ring from which the appropriate marking has been cut out, leaving the basic body colour showing through.

### RING(S) INDICATING TYPE OF CHARGING OF CHEMICAL SHELL

11. The basic body colour of chemical shell will be light grey and the type of charging will be classified according to its tactical use, *see Plate 4*.  
Green ring(s), with the code indicating the chemical agent also stencilled in green, indicate a casualty producing agent.  
Red ring(s), with the code indicating the chemical agent also stencilled in red, indicate a harassing agent.  
One coloured ring indicates a non-persistent and two rings a persistent agent.
12. **Standard width of rings**  
4 inch Calibre and above—1 inch wide with 1 inch between rings if two are used.  
Below 4 inch calibre — $\frac{1}{2}$  inch wide with  $\frac{1}{2}$  inch between rings if two are used.
13. **Standard position of ring(s)**  
First ring to be positioned approximately one third of the distance down from the shoulder of the shell.

### RINGS INDICATING SPECIAL FEATURES

14. The following coloured rings will be used to indicate special features:—
  - (a) *A light brown ring (Plate 9, Fig. 7)* placed above and adjacent to the red filling ring indicates a cast iron or semi-steel projectile. This includes cast iron Shot practice and Shot practice flathead. The width of the ring will be the same as that for the red filling ring. To avoid the two different coloured paints intermingling at the time of application, the bands may be separated by a space equal to but not more than a  $\frac{1}{4}$  width of the rings.  
On inert filled shell, shot and practice projectiles, where a red filling ring is not required to be applied, the light brown ring will be positioned approximately 1 inch below the nose or lip of the projectile.
  - (b) *A black ring (Plate 9, Fig. 4)* (Land Service only) extending from the rear of the driving band, half-way down to the base, indicates a projectile of different nominal weight from normal, fired from the same gun but requiring a different charge i.e. 5.5 inch gun (80 lb. projectile).
  - (c) *White rings:—*
    - (i) A  $\frac{1}{2}$  inch wide white ring (Plate 9, Fig. 5) placed in front of and adjacent to the driving band indicates that the projectile is fitted with a driving band of abnormal design or material differing from that for the normal standard projectiles used in the particular equipment.
    - (ii) A white zig-zag ring (Plate 9, Fig. 8) of double standard width, with the letters "FT" stencilled in white at three intervals equally spaced around the ring, applied around the body of a projectile, indicates a Falling B.E. Target projectile.

(iii) A white zig-zag (Plate 9, Fig. 9) of double standard width placed on the shoulder indicates a Radar Echo projectile.

The letters "RE/P" or "RE/W" (indicating Radar Echo protection or Radar Echo wind finding) are stencilled in white in the zig-zag at three equally spaced intervals.

(d) A broken yellow ring (Plate 8, Fig. 5) half standard width, painted around the body, indicates a break-up projectile. An exception however, occurs in the case of 40 mm. break-up shot, which will not bear this ring, but will have the mean design weight stencilled around the body in white stencilling, see Plate 7, Fig. 5.

(e) A red ring (Naval Service only), indicated by two black hair lines appropriately spaced, is painted on the nose of the ballistic cap of SAP shell to indicate the presence of a "K" device.

**15. Standard width of rings.** The standard widths for coloured identification rings are:—

|                                                  |                    |
|--------------------------------------------------|--------------------|
| Projectiles 6 inch calibre and above .....       | 2 inches           |
| Projectiles below 6 inch to 3 inch calibre ..... | 1 inch             |
| Projectiles below 3 inch to 2 inch calibre ..... | $\frac{1}{2}$ inch |
| Projectiles below 2 inch to 1 inch calibre ..... | $\frac{3}{4}$ inch |

**SYMBOLS INDICATING SPECIAL CHARACTERISTICS**

**16. Centre of gravity symbol.** Centre of gravity symbols (Plate 9, Fig. 1) consisting of two horizontal stripes intersecting a circle are applied to projectiles 9.2 inch gun (heavy) and above to facilitate lifting operations during transit and loading. The symbols are painted in the same colour as the other main details stencilled on the projectile, in three places equidistantly, around the projectile at the centre of gravity. The dimensions of the C. of G. symbol are as follows:

|                                   |                       |
|-----------------------------------|-----------------------|
| External diameter of the circle = | $2\frac{1}{2}$ inches |
| Thickness of all portions =       | $\frac{3}{8}$ inch    |
| Length of each stripe =           | 2 inches              |

**17. Coloured circles.** The inclusion of a TNT/AL smoke producing pellet in the filling of a projectile will be indicated by two golden yellow circles approximately 1 inch internal diameter with a  $\frac{1}{2}$  inch letter T in the centre also in golden yellow, diametrically opposed, stencilled on the ogive of the projectile, see Plate 9, Fig. 3.

**18. Coloured discs.** The inclusion of a flash producing pellet in the filling of a projectile will be indicated by two 1 inch diameter aluminium coloured discs, diametrically opposed, painted on the ogive of the projectile, see Plate 8, Fig. 4.

**19. Coloured stars**

(a) A star of the appropriate colour (as applicable) denotes the presence of a star composition filling. Two stars of the appropriate colour (as applicable) positioned one above the other, denotes a change colour star unit, the colour of the top star indicating the colour of the star which appears first on ejection. A number in the same colour and positioned to the right and closely adjacent to the star symbol denotes the actual number of stars present. The letter "M" or abbreviation "MULTI" immediately below the star denotes the presence of more than two star units when the exact number is unimportant. The numeral, letter or abbreviation (as applicable) will be stencilled in not less than  $\frac{1}{2}$  inch bold characters.

The letter "S" in the same colour and positioned immediately below the star denotes a "Success Signal".

The letter "P" in the same colour and positioned immediately below the star denotes that the star is suspended from a parachute. The mark of the parachute (where applicable) is added after the letter P viz. "P6".



The letters "S" and "P" (as applicable) will be stencilled in not less than 1 inch bold type.

An exception to the above occurs in the case of shell which eject a signal white star where, because the basic body colour of the shell is white, the star symbol will be painted black in colour. The letter "P" followed by a code number indicating that the star is suspended from a parachute will, if applicable, be also stencilled in black immediately below the star symbol.

**NOTE.** Illuminating shell are not marked with a star symbol, *see* Plate 7, Fig. 2.

(b) *Standard size of stars*

On projectiles 4 inch calibre and above .....  $1\frac{1}{2}$  inch

On projectiles below 4 inch calibre ..... 1 inch\*

\*This may be reduced to  $\frac{3}{4}$  inch were space is restricted.

**20. Coloured stripes.** The following methods will be used to indicate different designs of exploder cavities:—

(a) *Naval Service*, H.E. shell with universal exploder cavities will be identified by two  $1\frac{1}{2}$  inch  $\times$   $\frac{3}{4}$  inch vertical golden yellow stripes, diametrically opposed, painted on the nose, *see* Plate 1, Fig. 1.

(b) *Land Service*—H.E. shell, practice shell and practice projectiles with exploder cavities suitable for either No. 117 type or V.T. (but not for intermediate depth of intrusion) fuzes will be identified by two  $1\frac{1}{2}$  inch  $\times$   $\frac{3}{4}$  inch vertical golden yellow stripes, diametrically opposed, painted on the nose, *see* Plate 8, Fig. 8.

(c) *Land Service*—H.E. shell, practice shell and practice projectiles with exploder cavities suitable for No. 117 type, V.T. and intermediate depth of intrusion fuzes will be identified by two broken  $1\frac{3}{4}$  inch  $\times$   $\frac{3}{4}$  inch (overall) vertical golden yellow stripes with the figure 3 also in golden yellow, stencilled between the two portions, diametrically opposed, painted on the nose, *see* Plate 8, Fig. 9.

To avoid overpainting, the red filling ring may be positioned approximately  $1\frac{3}{4}$  inches (*see* (a) and (b) above) or 2 inches (*see* (c) above) below the lip of the projectile so that the vertical golden yellow stripes terminate just above them.

**21. Dagger symbol.** A white dagger placed adjacent to and immediately behind the filled tracer series lot number of Land Service D.S. shot indicates that the rear taper of the sub-projectile has been treated with lanolin.

**22. Tracer, tracer igniter, etc., symbols.** These, when applicable, will be marked in signal red on the body of the shell and shot. Details of the symbols are depicted in Plate 10.

(a) *Dimensions of the curved tracer symbol*

The curved tracer symbol will be of the following dimensions:

Projectiles below 4 inches

Internal radius .....  $\frac{1}{4}$  inch

Thickness .....  $\frac{1}{8}$  inch

Projectiles 4 inches to below 6 inches

Internal radius .....  $\frac{1}{2}$  inch

Thickness .....  $\frac{3}{16}$  inch

Projectiles 6 inches and above

Internal radius ..... 1 inch

Thickness .....  $\frac{3}{16}$  inch

The bar symbol associated with a tracer fuze is of corresponding dimensions, the length being equal to twice the radius. The space between the bar and the curve is equal to the thickness.

(b) *Dimensions of the chevron symbol*

The chevron symbol associated with igniters will be of the following dimensions:

|                                           |                           |
|-------------------------------------------|---------------------------|
| Angle between the two arms of the chevron | ...90 degrees.            |
| Length of each arm                        | ..... $\frac{3}{16}$ inch |
| Thickness of the arms                     | ..... $\frac{1}{8}$ inch  |

23. **Weight symbols**

(a) *Land Service*.—Weight markings (**Plate 9, Fig. 2**) are applied in accordance with a "Unit System" to separate loading shell, except 25 pr. and 120 mm. tank shell, star, smoke, flare, illuminating and chemical shell, the units being based on accuracy requirements for each equipment.

- (i) Projectiles within the normal Dead Weight limits of the Range Table Standard are marked with an "O". Where the weight is not within these limits the shell is marked with a number, prefixed by a plus or minus sign (e.g. + 1 or - 1) to indicate, in units, the variation of weight from the normal. The value of the weight unit varies with the calibre, and may also vary according to the role of the equipment (e.g., Coast Artillery weight units normally indicate finer variations than those used in Field Branch Artillery). Dead weight limits are also finer for Coast Artillery projectiles.
- (ii) The value of a unit in terms of weight is given in the range table in which the correction columns are headed to indicate corrections corresponding to a variation of one weight unit.
- (iii) Chemical, smoke, flare, illuminating, and star shell are not weight marked, because accurate ballistics are not so important as for other types.
- (iv) Fixed Q.F. ammunition used in anti-aircraft, tank or anti-tank roles is not weight marked as the marking is not a requirement in these roles.
- (v) The reader should refer to the appropriate range table for the value of the weight unit in connection with any given shell.
- (vi) The position of the weight marking is as follows:—

On projectiles above 6 inches calibre—in three places equidistant around the ogive. On projectiles 6 inches calibre and below—in two places, diametrically opposite, on the ogive.

(b) *Naval Service*

- (i) *Shell below 3 inches calibre*. These have no weight markings.
- (ii) *Shell of 3 inches calibre and above*—The original service design in each category of shell supplied for any one calibre gun has no weight marking. Subsequent designs of different weights, in the same category and for the same calibre gun, are marked with the appropriate "NOMINAL" weight.

24. **Projectiles suitable for fuzing without additional exploding.** Certain Field Branch Artillery filled H.E. shell, practice shell and practice projectiles with 2 inch fuze-hole, are issued with the top exploder assembled in position. When such shell are issued plugged, the head of the Plug, fuze-hole, will be painted a turquoise blue colour, *see Plate 8, Fig. 7*.

25. **Base markings on projectiles to indicate restrictions to firing with special charges.** Certain tank (separate loading) projectiles are restricted to firing with special propelling charges. Such projectiles will be distinguished by symbols applied by paint or other approved means on the base of the projectile matching those on the cartridge case, *see Plates 14 and 15*.

26. **Filled Series Number**—*In Land Service*, a circle with a serial number inside (**Plate 9, Fig. 6**) in the same colour as the other main details stencilled on the projectile, relates to the filled Series for H.E., smoke, flare, illuminating, star, chemical and inert filled shell and practice projectiles and the filled tracer or tracer composition series for shot. Some projectiles, for example, A.P.D.S. shot, will also have the **empty** lot number of the assembly (e.g., sub-projectile, sabot and base) marked in red in an approved position. This marking will be on the sabot for 17 pr, 105 mm. and 120 mm. tank and on the side of the base for 20 pr. APDS shot. For DS Practice shot, similar information will be marked in white characters. In addition, the body charging “lot” number of smoke and chemical shell (liquid charged) is also stencilled on the body.

*In Naval Service*. The initials or recognized monogram of filler and date of filling (month and year) and the filled series number is stencilled in one line on the body e.g. GD 8/59 123.

27. **Other coloured symbols or markings**. Certain other coloured symbols or markings may be used to indicate special characteristics of the projectile not covered by the standard approved markings.

#### STENCILLING (including transfer or printing process)

28. These details are applied over the basic body identification colour and give such additional information as is necessary to make identification complete. Examples of this information are given in the following paragraphs and in **Plates 1 to 7, 11 to 13 and 16**.

#### 29. Calibre and mark ordnance

The calibre, identification letter and mark of ordnance will be stencilled above the type and mark of the projectile.

The identifying letters approved are “H” for Howitzer and “G” for Gun, e.g.:

5.5 IN. G MK 3      7.2 IN. H MK 6      20 PR G MK 1

##### (a) *Land Service*

- (i) The mark of ordnance will be omitted where projectiles are suitable for firing in all marks of the same nature of ordnance.
- (ii) With new equipments, the model number will replace the “mark” previously used to identify the particular equipment i.e. L2.
- (iii) Where it is necessary to differentiate between projectiles for weapons or ordnance of the same calibre **but differing in role and design** and those of the **same calibre and role but of differing design**, the system of identification marking outlined in para. 14(b) of Section 1 “General Introduction” will be followed.

##### (b) *Naval Service*

- (i) The identifying letter and mark of ordnance are omitted, and in the case of Q.F. 6 pr. and below, the calibre also is omitted.

#### 30. Type and mark of projectile

The type and mark of the projectile will be stencilled below the calibre, identification letter and mark of the ordnance, e.g.:—

SMK BE MK 1  
APCBC MK 1  
HE SAPBC MK 6  
HE MK 2  
HE 80 LB. Mk 3 (for 5.5 in. G Mk. 3 80 lb. H.E. projectiles)  
COL SMK BE MK 2 RED (or Blue, Green or Yellow, as applicable)

(a) *Land Service*

- (i) With new designs of separate loading projectiles, the model number followed by the letter "A" and number will be stencilled after the abbreviated letters indicating the type of the projectile and will replace the mark previously used to identify the design, e.g.:—

APCBC I2A1                      CNSTR L6A1, etc.

- (ii) With designs of rounds of fixed Q.F. ammunition for new equipments the model number followed by the letter "A" and number will be omitted from the particulars on the projectile and will be replaced by the Part Number allocated to the filled projectile. In such instances the model number of the complete assembled round will be stencilled with the marking indicating type of projectile on the base of the cartridge case or in such other position as may be approved, e.g.:—

|       |       |      |
|-------|-------|------|
| APCBC | CNSTR | HE   |
| L12A1 | L9A1  | L4A1 |

- (iii) New patterns of rounds for fixed Q.F. ammunition for existing equipments will continue to be designated "Cartridges", the mark only being advanced. Where, however, new natures of rounds are introduced they may be designated "Rounds", the projectile being allotted a Part number and the complete assembled store a Model number.

(b) *Naval Service*

The nature of the projectile is omitted from the particulars stencilled on the body and, for Q.F. 6 pr. and below, the mark of the projectile also is omitted.

31. **Method of filling code (Land Service only)**

- (a) This information and particulars of filler and date is stencilled in a single horizontal line around the ogive of the projectile; it is called the "one-line-code". **Example:—**

L 10 CY 11/53, where:—

|       |                                                         |
|-------|---------------------------------------------------------|
| L     | denotes Land Service                                    |
| 10    | is the code number of the method of filling             |
| CY    | is the filling contractor's initials or recognized mark |
| 11/53 | is the date of filling (month and year).                |

- (b) The code number of the method of filling is governed by the details of the initiating system which, in H.E. projectiles for example, has the following main variables:—

- (i) Steel or paper exploder containers.
- (ii) Depth of cavity.
- (iii) Nature, number and size of exploders or the serial number of the gaine, tracer, etc.
- (iv) On smoke, flare, etc. projectiles, the code number indicates details of the powder burster and filling, and the number and arrangement of the containers.

The main features of the Method of Filling design corresponding to the code markings will be available to the Services in Regulations for Army Ordnance Services, Volume 4.

- (c) When the new "L" model number system is adopted for separate loading projectile nomenclature, the "One-line-code" previously used to denote the type of filling will be dispensed with, as particulars relating to the nature and variations in the Method of Filling will be identifiable by the model number allocated to the store. The Filled, or Assembly, Series number, the initials or recognized monogram of the Filler and date of filling (month and year) will however, still be required to be stencilled on the store. (see **para. 26**). With projectiles which are components of Q.F. fixed rounds, a filled Part Number will replace the model number referred to above.

32. **Number of fuze.** When a plugged projectile is issued to the Services which can be used with one type of fuze only, the following details are stencilled in an approved position:  
"USE No.....FUZE"
33. **Fuze details.** The following details are stencilled on fuzed projectiles, except those with universal cavities:—
- (a) *Naval Service*  
FZD denoting that projectile is fuzed.\*  
Serial number of fuze.  
Filled lot number and mark of fuze.  
Date of filling of the fuze.  
Initials of the maker of the empty fuze or monogram of the converting station.  
\*For 6 pr. and 3 pr. projectiles "FZD" denotes presence of fuze. Below 3 pr. no stencilling denoting presence of fuze is shown.  
Similar information concerning the gaine, where fitted, is also marked on the shell.
- (b) *Land Service.* Base fuzed shell will be marked with the abbreviation "FZD" followed by the Model number, Lot number, initials or monogram of filler and date of filling (month and year) of the fuze.
34. **Picric powder exploders.** The Lot number of the picric powder in the bag is stencilled on projectiles explodered for use with igniferous fuzes.
35. **"K" device.** The colour of the "K" device is stencilled in full.
36. **Smoke projectiles.** Projectiles filled with white phosphorus will have the abbreviation "WP" in white lettering marked on the body in two positions diametrically opposite and, wherever possible, in characters twice the size of the other main identification details.
37. **Coloured smoke and coloured flare projectiles.** Projectiles filled with coloured smoke compositions will have the colour "BLUE", "GREEN", "RED", or "YELLOW" (as applicable) stencilled on golden yellow, while projectiles filled with coloured flare compositions will have the colour (as applicable) stencilled in black. Initial letters or abbreviations will **not** be used. The word denoting the colour of the particular smoke or flare composition should, so far as space permits, be twice the size of the other main filling details stencilled on the projectiles, *see Plate 5.*
38. **Drill projectiles.** Drill projectiles painted black will have the word "DRILL" prominently stencilled in white, in two places diametrically opposite on projectiles 6 inch and above, and once on others, *see Plates 14 and 15.*
39. **Projectiles with inert fillings.** These will be identified as follows:—
- (a) Projectiles filled with sand, salt or weighted to conform to the operational equivalent will have the word "SAND", "SALT" or "WEIGHTED" (as applicable) stencilled in white lettering on the body. Where such projectiles are assembled with tracers or incorporate a gunpowder charge, or flash pellets, etc. in the filling, a plain red filling ring will be painted around the ogive or nose.
- (b) Projectiles filled with H.E. substitute composition will have the abbreviation **HE SUB** stencilled in white lettering on the body. Where such projectiles are assembled with tracers or incorporate a gunpowder charge, or flash pellets, etc. in the filling, a plain red filling ring will be painted around the ogive or nose, *see Plate 6.*
- (c) Where the projectile is restricted to firing with a reduced propelling charge and must **not** be fired with a full charge, the abbreviation **RED** (denoting reduced) will be stencilled in white lettering above the driving band.

- (d) The abbreviation or word referred to in sub-paras. (a), (b) and (c) above will be stencilled in the same size of character as used for the main details marked on the projectile, and will, unless otherwise shown on the relevant marking drawing, be applied twice on projectiles of 6 inch calibre and above, and once on others.

**40. Letters or figures—size of type.** Main filling details will normally be stencilled in the following sizes:—

- For projectiles 6 inch calibre and above— $\frac{3}{4}$  inch
- For projectiles below 6 inch to 4 inch calibre— $\frac{1}{2}$  inch
- For projectiles below 4 inch to 2 inch calibre— $\frac{3}{8}$  inch
- For projectiles below 2 inch calibre— $\frac{1}{4}$  inch

### FILLING ABBREVIATIONS AND CODES

- 41.** Filling abbreviations and codes will be found listed in Tables 1 to 3 of Section 1—General Introduction. They should, so far as space permits, be stencilled twice the size and in the same colour (but see para. 36) as the other main filling details stencilled on the body. Filling abbreviations and codes denoting the type of H.E. fillings will be stencilled twice, diametrically opposite, on projectiles 6 inch dia. and above and once on others unless otherwise shown on the relevant marking drawings. Code abbreviations indicating the particular compositions used in flare, illuminating, incendiary, smoke and star shell will be stencilled once only on the body.

### POSITION OF MARKINGS EXCEPTIONS TO RULES

- 42.** While adhering generally to the foregoing rules, the position but **not** the sequence of markings, may be varied in special cases to avoid obliteration by package supports, etc. The sizes of all markings, notwithstanding the dimensions given, may be proportionally adjusted to the space available and size of the store.

CHART OF APPROVED MARKING COLOURS

|                              |                                                                                     |                                         |                                                                                      |
|------------------------------|-------------------------------------------------------------------------------------|-----------------------------------------|--------------------------------------------------------------------------------------|
| Azure BLUE<br>Colour No. 104 |    | Light brunswick GREEN<br>Colour No. 225 |    |
| Turquoise BLUE<br>102        |    | Grass GREEN<br>218                      |    |
| Light purple BROWN<br>449    |    | Sea GREEN<br>217                        |    |
| Middle BROWN<br>411          |    | Dark Admiralty GREY<br>632              |    |
| Service BROWN<br>499         |    | Light GREY<br>631                       |    |
| Middle BUFF<br>359           |    | Light ORANGE<br>557                     |    |
| CRIMSON<br>540               |   | Red OXIDE<br>446                        |   |
| Brilliant GREEN<br>221       |  | Signal RED<br>537                       |  |
| Deep bronze GREEN<br>224     |  | Golden YELLOW<br>356                    |  |

Note:- These colours, which are the same as used in the illustrated plates of all sections of this handbook, are the nearest to the true colours that can be obtained from printers inks, having regard to problems of uniformity in repetitive reproduction, and should only be regarded as an approximate guide.

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**RESTRICTED**

**GENERAL INTRODUCTION**

**THE JOINT AMMUNITION MARKINGS SUB-COMMITTEE**

1. By an agreement reached between the Services, a committee known as the Inter-Service Ammunition and Ammunition Package Markings Committee was formed to allocate markings to ammunition and ammunition packages and to standardize such markings as far as possible throughout the three Services.  
The Inter-Service Committee was later reconstituted as the Joint Ammunition Markings Sub-Committee and now reports to the Joint Equipment Standardization Committee, Ministry of Defence. Its terms of reference have been extended to take account of international activities in the field of ammunition and ammunition package markings, and this handbook will include details of all such international markings which are the subject of standardization agreements ratified by the United Kingdom. These may take the form of N.A.T.O. Standardization Agreements (short title STANAG) and quadripartite (America Britain Canada Australia) Standards (short titles ABCA-NAVY-STD, ABCA-ARMY-STD and ABCA-AIR-STD).

**COMPOSITION OF THE JOINT AMMUNITION MARKINGS  
SUB-COMMITTEE**

2. The sub-committee comprises representatives of the following:—

*Chairman*

Nominated by the Director General of Artillery.

*Members*

Director of Armament Supply, Navy Department.  
Director of Ordnance Services.  
Director of Ordnance Factories (Filling)  
Director of Weapons Engineering, Air Force Department.  
Deputy Controller of Guided Weapons, Ministry of Aviation.  
Director of Aeronautical Inspection, Ministry of Aviation.  
Director, Inspectorate of Armaments.

In addition to the above, representatives of the following may be invited to attend when necessary:

Director General of Weapons, Navy Department.  
Director, Royal Armament Research and Development Establishment.  
Director of Royal Engineer Equipment.  
Commander, H.Q. Ammunition Organization, R.A.O.C.  
Director General of Equipment, Air Force Department.  
Director, Atomic Weapons Research Establishment.

**PANELS AND WORKING PARTIES**

3. A panel or working party may be convened as and when necessary by the Chairman to study and report on any subject coming within the terms of reference of the sub-committee. Its recommendations are submitted to the sub-committee.

**COMMUNICATIONS TO THE SUB-COMMITTEE**

4. All communications should be addressed to the Secretary, Joint Ammunition Markings Sub-Committee, Ministry of Defence (Army Department) Stan 7 (A), First Avenue House, High Holborn, London, W.C.1.

## DEFINITION OF AMMUNITION

5. Ammunition may be broadly defined as any munition of war whether defensive or offensive, including:—
- (a) any case or contrivance whether filled or charged or intended to be filled or charged with an explosive, propellant, incendiary, smoke, chemical or pyrotechnic composition or liquid, or any of those compositions or liquids in bulk.
  - (b) any non-explosive replica of the foregoing.
  - (c) any non-explosive component, part or assembly of the foregoing.

## THE HANDBOOK

6. The Handbook has three functions:
- (a) To specify those markings which are to be applied in accordance with statutory regulations.
  - (b) To provide design, inspection and production authorities with details of approved Joint Service standards on colour coding and marking of ammunition and its packages, and illustrated guides for use as standard references during the preparation of marking drawings which will be the authority for the process of marking individual items.
  - (c) To provide the Services with a guide to the identification of ammunition and its packages, with details of the system to be used when marking or re-marking such items.

## REQUESTS FOR AMMUNITION AND PACKAGE MARKINGS—PROCEDURE

7. All requests for the allocation or approval of markings for **new designs** of ammunition stores and their packages will normally be submitted through the appropriate representative member to the sub-committee, who will agree upon certain markings and recommend their adoption to the approving authority concerned.

Where no new principle is involved and where a precedent has already been established, the representative member may deal with the request and then inform the sub-committee of his action. Before taking this action, the member will ensure that there has been no subsequent changes in the markings previously authorized for that particular classification, nature or individual store, *see paras. 16 and 17.*

## THE PURPOSES OF MARKING

8. Markings, including overall or basic body colours, are applied to ammunition stores and their packages for the following reasons:—
- (a) To provide all necessary manufacturing and filling details to assist inspection, to guard against the supply of faulty or unproved ammunition to users, to trace suspect ammunition and to aid investigation into the causes of blinds, prematures or other failures or defects.
  - (b) To facilitate the issue of the correct nature and type of ammunition, to enable ammunition to be clearly and easily identified by the user under all conditions of service and to provide the user with the maximum information possible concerning the nature, type and function of the ammunition supplied.
  - (c) To provide sufficient information to storage, transport and other services to ensure that all ammunition is correctly stored, handled and transported according to the nature of the explosive or other risk under which it is classified.
  - (d) To provide some measure of protection against corrosion, damage or other harmful effects and, where possible, to aid camouflage.

## THE PRINCIPLES OF MARKING

9. The principles that are observed in deciding the markings to be allocated to ammunition and ammunition packages are as follows:—

(a) *Clarity and simplicity*

The complete markings for any one ammunition store and its package consist of the clearest and simplest combination of any of the methods detailed in paragraph 9, consistent with ease of identification. Markings that are considered necessary for immediate general identification are made more prominent in size and position than those required for detailed identification.

Special markings may be allocated to meet some particular requirement, but only in instances where the standard markings are proved to be inadequate.

(b) *Uniformity*

Uniformity between the three Services is most desirable in order to facilitate production, inspection, storage, handling and use. It is also most effective during combined Services operations, and when extended into the international field it aids closer co-operation between the armed forces of the countries concerned.

Uniformity in marking is maintained wherever possible and practicable within groups of stores having similar characteristics, but it should be appreciated that the large variety of stores involved, with their widely differing characteristics and uses, and occasional restrictions or other variants, make it extremely difficult to achieve complete uniformity. Some small inconsistencies in markings may therefore be found.

As markings allocated to ammunition cannot always be reproduced in full on their packages, the markings or abbreviations which do appear on the packages are deemed sufficient to ensure correct and complete identification of the package contents. Abbreviations, based on the main descriptive nomenclature of the store, are the responsibility of the Joint Ammunition Markings Sub-Committee and are agreed on a Joint Services basis. They may be used, for the sake of brevity, in signals or other messages to facilitate demands and enquiries.

Instances may occur where the main descriptive nomenclature of a store is deemed inadequate to identify its role and use in order to meet Services operational requirements. In such instances, the Joint Ammunition Markings Sub-Committee may recommend additional markings for the store and/or package.

(c) *Ease of application*

Excessive markings, complicated symbols and superimposed colours are avoided wherever possible.

## METHODS OF MARKING

10. There are four methods in general use for marking ammunition and ammunition packages, based on the principles outlined in paragraph 9. They are:—

(a) *Colour markings*

These include distinctive overall or basic body colours which, besides providing a protective coating, also indicate the primary nature of the store, e.g. high explosive, practice, smoke, incendiary, etc. They are applied to the maximum possible surface area of the store. Markings such as bands, rings, stripes and symbols may be used, also, to indicate certain characteristics of the store.

The colours selected are mainly of a vivid or contrasting nature, and in some cases fluorescent colours may be used to help identification at night or in poor light.

*(b) Stamping and embossing (including engraving, moulding and etching)*

These methods are normally used for marking manufacturing details on empty stores, but for small items such as fuzes and tracers they may also be employed to mark filling details and other information.

Embossing is generally used where night identification of the store is required.

*(c) Stencilling (including transfer and printing processes)*

This method is used for marking final details on the store and, in combination with the methods described at (a) and (b) above, provides complete identification. It should be noted that when markings are applied by transfer or printing processes, continuous lines may be used instead of the normal broken lines as occur in stencilled characters.

*(d) Labels*

The use of paper labels on outer packages is not now recommended and this method of marking is being replaced where possible by the more permanent stencilled marking. The use of metal tags is now generally restricted to conveying an instruction or warning to the user.

## COLOURS FOR MARKING

### 11. Table of colours

The following colours, selected from British Standard 381C "Colours for ready mixed paints" are approved for all paints, varnishes, lacquers and other finishes and markings used for ammunition and ammunition packages:

| <i>Colour</i>            | <i>No.</i> | <i>Colour</i>               | <i>No.</i> |
|--------------------------|------------|-----------------------------|------------|
| Azure blue .....         | 104        | Light brunswick green ..... | 225        |
| Turquoise blue .....     | 102        | Grass green .....           | 218        |
| Light purple brown ..... | 449        | Sea green .....             | 217        |
| Middle brown .....       | 411        | Dark admiralty grey .....   | 632        |
| Service brown .....      | 499        | Light grey.....             | 631        |
| Middle buff .....        | 359        | Light orange .....          | 557        |
| Crimson .....            | 540        | Red oxide .....             | 446        |
| Brilliant green .....    | 221        | Signal red .....            | 537        |
| Deep bronze green .....  | 224        | Golden yellow .....         | 356        |

- NOTES:
1. Champagne colour, No. 386, is used throughout this handbook to depict stores and packages which are issued in the natural colour of the material from which they are made and has no colour identification significance.
  2. Where a lacquered finish is specified for parts or components of certain ammunition, including guided missiles, a Rhodamine Red dye may be used in the lacquer as an indicator. This dye will produce tints ranging from red to violet, depending upon the natural colour of the metal surface to which the lacquer is applied. These tints or colours shall have no identification significance.
  3. Certain ammunition and its packages may be found with markings in Dark Violet, Colour No. 796 of B.S.381C, and these markings may appear as basic body colours, stencilling, stripes, cartridge base colours, or in other forms, either alone or with white stencilling or background. This colour indicates that the whole or part of the ammunition so marked is of an experimental design which has NOT been approved for Service use. The only exception to this rule is that certain V.T. Fuzes have already been allocated a coding colour of dark violet which is applied to the protective cover and fuze housing, *see* para. 6(b)(ii) of Section 4.
  4. *See* Plate 1 for chart of approved colours.

**12. Approved combinations of basic body and stencilling colours**

Main details are stencilled in a distinctive and contrasting colour on the basic body colour of the store and package. Approved combinations of basic body and stencilling colours are given in the following table.

| Basic body colour       | Stencilling colour |
|-------------------------|--------------------|
| Middle buff             | } Black            |
| Light brunswick green   |                    |
| Light grey              |                    |
| Red oxide               |                    |
| Signal red              |                    |
| White                   |                    |
| Golden yellow           | } White            |
| Turquoise blue          |                    |
| Azure blue              |                    |
| Dark admiralty grey     |                    |
| Dark brown (phosphated) | } Golden yellow    |
| Deep bronze green       |                    |
| Service brown           | } Red for shot     |
| Black                   |                    |

Exceptions to these colour combinations are as follows:—

- (a) Chemical charges stores and certain special identification markings for other stores are required in colours which contrast with the basic body and stencilling colours of the store. Details of these markings will be found in the appropriate Sections of this Handbook.
- (b) Operational abbreviations for Land Service must always be stencilled in white.

**SPECIAL MARKINGS****13. Naval Service**

The letter N invariably appears in the nomenclature of ammunition stores intended for the Naval Service. For numbered stores, the letter prefixes the Number and for un-numbered stores it prefixes the Mark, e.g. No. N24 and Mark N1.

Similar stores may be used by other Services but they will not bear the prefix letter N.

**14. Land Service**

(a) For new designs of certain ammunition stores, a model letter and number series will replace the number and mark previously allocated to the store and included in its nomenclature and markings.

For existing stores, however, the number and mark is being retained and will be advanced, as formerly, when new patterns of that store are introduced.

(b) For ammunition introduced for new designs of equipments, the nomenclatures and markings will omit all reference to the method of obturation, e.g. BL, QF, RCL.

Where it is necessary to differentiate between ammunition for weapons or ordnance of the same calibre but differing in design and role, a reference to the role will be included in the markings, for example

120 MM BAT

120 MM TK

It will be noted that these markings omit any reference to the design (or model number) of the weapon or ordnance.

The same system of marking will also be used for ammunition for weapons or ordnance of the same calibre and role but of differing design where the ammunition may be used in all designs of the weapon, but for ammunition which is restricted to specific designs of a weapon a reference to the model number of the weapon will be included in the markings, for example

120 MM TK L1

120 MM TK L11

- (e) For fixed ammunition introduced for **new design of equipments**, the name "Round" will be used in place of "Cartridge" to describe the complete store, that is, cartridge case and projectile assembled.

#### 15. All Services

Where ammunition is manufactured in the United Kingdom to a design which originated from another country, and is to be used by United Kingdom armed forces in weapons designed by the same country, the ammunition will normally be marked in accordance with the system authorized for use in that particular country of origin.

Markings to indicate conversion, modification, repair or examination, and Inspectorate workmarks, may also be found on ammunition in Service use, but these markings are not included in this handbook.

### CHANGES IN MARKINGS AND THEIR IMPLEMENTATION

16. It should be understood that a considerable number of changes have taken place in markings for ammunition and ammunition packages during recent years and most of these changes are related to future production and new designs, that is, without retrospective action being required on existing stocks. As a result of these decisions, therefore, similar stores may be found in current use having differing basic colours and markings, depending upon their date of production, and if earlier stocks bearing obsolete or superseded markings are not expended within a reasonable period of time, the authorities concerned should re-mark them, as opportunity offers, in accordance with the latest information shown in this handbook or obtained from the appropriate representative member on the Joint Ammunition Markings Sub-Committee.
17. All future production of ammunition and ammunition packages, whether to existing or to new designs, will be marked in conformity with the relevant sections of this handbook. At the same time, it must be appreciated that there is a time lag between a decision of the Sub-Committee and the publication of the consequential amendment to the handbook, and, because of this delay, authorities responsible for preparing marking drawings and related documents may consider it advisable to refer them to the appropriate representative member of the Sub-Committee for checking before they are finalized. Marking drawings and related documents for current stores, should be amended at the earliest opportunity to conform to the latest requirements shown in this handbook.

### MARKING CLASSIFICATIONS

18. For marking purposes, ammunition stores with few exceptions may be divided into five groups, as follows:
- (a) *Operational*  
These are fired or otherwise used for effect in combat and may also be used for adjustment, observation, registration or Service training.
- (b) *Practice*  
These are fired or otherwise used for effect in simulated combat and may also be used for training in observation and marksmanship, and for trials and testing of equipment and components. They differ from operational stores in their being specially designed or filled for use over shortened or restricted ranges or to limit damage to the target. They are usually inert filled or solid and have similar ballistic properties to their operational equivalents. They may contain a small charge of some active agent to indicate functioning or for spotting, and may be designed to take operational components.

(c) *Blank*

These are used for demonstration and saluting purposes and may also be used for flash spotting and sound location training. They usually consist of metal cartridge cases, or bags, containing a gunpowder charge or, for some equipments, a cordite charge, the cartridge case being fitted with a primer.

Blank ammunition and charges, with the exception of bulleted blank small arms ammunition, must **NEVER** be used in conjunction with a projectile.

(d) *Drill*

These are used for training in handling, loading, fuzing and other drill purposes but not for firing. They are at all times completely inert.

(e) *Instructional*

These are used in lecture rooms, for teaching identification and functioning, and for display purposes. They may be complete stores or components of a store, sectioned or unsectioned, or may be imitation models to the shape and dimensions of the Service store or components they represent or scaled down replicas of them.

They may contain inert fillings and are at all times free from explosives or other active agents.

They will bear the identical colours and markings of the particular Service store they represent, with the additional marking **"INERT"** stencilled prominently on each separately assembled component, in the same colour as used for stencilling the main details.

**Note:** The descriptions "Training" and "Dummy" will not be used in future nomenclature of ammunition stores as they are considered to be of too wide a meaning to adequately indicate the specific use of a particular store.

The description "Inert" and "Imitation", although not generally used, may be found in the nomenclature of certain Royal Engineer Stores, *see Section 7* of this handbook.

### ABBREVIATIONS OF FILLINGS, FILLING AND PROPELLANT CODES

19. Reference is made in sections and parts of this handbook to abbreviations which are used to describe types of fillings and to codes which indicate the actual filling or nature of propellant of an ammunition store.

The code for high explosive fillings, in addition to indicating the actual filling, also shows where a mixture or a composite filling is used, as follows:—

(a) A mixture is indicated by an oblique stroke in the code, e.g. RDX/TNT 1 indicates a mixture of RDX/TNT of certain grades in certain proportions.

(b) A composite filling is indicated by a plus sign in the code, e.g. 808 + PEN 3.

The code for Flare, Illuminating, Incendiary, Smoke and Star compositions consists only of a letter or letters, e.g. PA is the code for PN443 smoke composition. Propellant codes are usually compound codes in that they indicate not only the nature and composition of the propellant but also its size and shape. There are exceptions, however, as shown in Appendix I.

20. Full details of these abbreviations and codes may be found as follows:—

Table 1: Abbreviations of fillings.

Table 2: Codes for high explosive fillings.

Table 3: Codes for Flare, Illuminating, Incendiary, Smoke and Star compositions.

Appendix I: Codes for propellants, with examples and tables.

Codes for chemical fillings are not at present listed in the handbook.

### HANDBOOK ILLUSTRATIONS LIMITATIONS

21. It should be noted that illustrations throughout this handbook depict **typical identification markings only**. It is emphasized that the actual markings to be applied to a specific ammunition store must be included on the relevant marking sketch or drawing which will be prepared and issued for that particular item.

Details of markings should not be reproduced arbitrarily from illustrations in this handbook.

### NEW SYSTEM OF COLOUR CODING AND MARKING

22. A new system of colour coding and marking to denote role and hazard in accordance with STANAG No. 2321, and consequential changes in U.K. national coding colours, will be introduced into the Services as from an agreed date. Brief details of the new system are given in Supplement No. 1 at the end of this Section, and should be referred to in conjunction with current Sections of the Handbook. In due course these new coding colours and markings, with other markings from STANAG No. 2322 (when ratified), will be published in a revised or new edition of the Handbook.



## ABBREVIATIONS OF FILLINGS

| Abbreviation | Filling                                                                        |
|--------------|--------------------------------------------------------------------------------|
| A            | Ammonal                                                                        |
| AL           | Aluminium powder                                                               |
| AML          | Amatol                                                                         |
| AMX          | Amatex                                                                         |
| B            | Burrowite                                                                      |
| BAR          | Baratol                                                                        |
| BWX          | Beeswax (desensitizer)                                                         |
| CE           | Composition exploding (tetryl)                                                 |
| CE/A         | Composition exploding (tetryl) with additives                                  |
| COL SMK      | Coloured smoke (followed by the colour in full)                                |
| CSAM         | Chloro-sulphonic acid mixture                                                  |
| FM           | Titanium tetrachloride                                                         |
| LYD          | Lyddite                                                                        |
| MN           | Minol                                                                          |
| MNT          | Mononitrotoluene                                                               |
| MX           | Minolex                                                                        |
| PEN          | Pentolite                                                                      |
| PEN/D        | Pentolite desensitized                                                         |
| PETN         | Penta <sup>ERYTHRITOL</sup> <del>erythritol</del> tetranitrate (penthrite) 43. |
| PE           | Plastic explosive                                                              |
| PWX          | Paraffin wax (desensitizer)                                                    |
| RDX          | Cyclonite                                                                      |
| SH           | Shellite                                                                       |
| SMK          | Smoke (screening)                                                              |
| TNT          | Trinitrotoluene                                                                |
| TL           | Tritonal                                                                       |
| TX           | Torpex                                                                         |
| WP           | White phosphorus                                                               |
| WX6          | Wax 6 (desensitizer)                                                           |

**TABLE 2**  
**CODES FOR HIGH EXPLOSIVE FILLINGS**

| Item No. | Filling                  | Composition                                                                    | Code  |
|----------|--------------------------|--------------------------------------------------------------------------------|-------|
| 1        | AMMONAL                  | 65% Ammonium nitrate<br>17% Aluminium powder<br>15% TNT Grade 2<br>3% Charcoal | A     |
| 2        | AMATOL                   | 40% Ammonium nitrate<br>60% TNT Grade 1                                        | AML 1 |
|          |                          | 50% Ammonium nitrate<br>50% TNT Grade 1                                        | AML 2 |
|          |                          | 60% Ammonium nitrate<br>40% TNT Grade 1                                        | AML 3 |
|          |                          | 70% Ammonium nitrate<br>30% TNT Grade 1                                        | AML 4 |
|          |                          | 72% Ammonium nitrate<br>28% TNT Grade 1                                        | AML 5 |
|          |                          | 80% Ammonium nitrate<br>20% TNT Grade 1                                        | AML 6 |
| 3        | AMATEX                   | 51% Ammonium nitrate<br>40% TNT Grade 1<br>9% RDX                              | AMX 1 |
| 4        | BARATOL                  | 10% Barium nitrate<br>90% TNT Grade 1                                          | BAR 1 |
|          |                          | 20% Barium nitrate<br>80% TNT Grade 1                                          | BAR 2 |
| 5        | BURROWITE                | Proprietary                                                                    | B     |
| 6        | COMPOSITION<br>EXPLODING | Trinitro-phenyl-methyl-nitramine                                               | CE    |
|          |                          | CE with additives, as follows:—<br>0.5% Zinc stearate<br>0.25% Graphite        | CE/A  |
| 7        | LYDDITE                  | Picric acid                                                                    | LYD   |
| 8        | MINOL                    | 48% TNT Grade 1<br>42% Ammonium nitrate<br>10% Aluminium powder                | MN 1  |
|          |                          | 40% TNT Grade 1<br>40% Ammonium nitrate<br>20% Aluminium powder                | MN 2  |

TABLE 2 (Cont'd)

| Item No. | Filling           | Composition                                                                                                           | Code      |
|----------|-------------------|-----------------------------------------------------------------------------------------------------------------------|-----------|
| 9        | MINOLEX           | 20% Ammonium nitrate<br>40% TNT Grade 1<br>20% RDX<br>20% Aluminium powder                                            | MX 1      |
| 10       | PLASTIC EXPLOSIVE | 88.3% RDX<br>11.7% PE oil Type 1                                                                                      | PE 1      |
|          |                   | 88.3% RDX<br>11.7% PE oil Type 2                                                                                      | PE 2      |
|          |                   | 87.7% RDX<br>10.5% Shell Mex oil 119<br>0.6% Lecithin<br>1.2% Carbon black                                            | PE 3      |
|          |                   | 87.7% RDX<br>6.2% Shell Mex oil 119<br>4.1% Liquid paraffin Grade 1<br>0.5% Lecithin<br>up to 1.5% carbon black added | PE 3A     |
|          |                   | PE Aluminized—<br>80% PE 2 (see above)<br>20% Aluminium powder                                                        | PE/A      |
|          |                   | 88% RDX Grade 1A<br>11% Plasticiser (PE 4)<br>1% Penta erythritol dioleate                                            | PE 4      |
| 11       | PENTOLITE         | 50% PETN<br>50% TNT Grade 1                                                                                           | PEN 1     |
|          |                   | 75% PETN<br>25% TNT Grade 1                                                                                           | PEN 2     |
|          |                   | 25% PETN<br>75% TNT Grade 1                                                                                           | PEN 3     |
|          |                   | 92% PEN 1 (see above)<br>8% Desensitizer, comprising:—<br>6.9% Paraffin wax<br>1.0% Nitrocellulose<br>0.1% Lecithin   | PEN/D 1   |
|          |                   | 93% PETN<br>7% Wax Desensitizer                                                                                       | PEN/D2    |
| 12       | RDX               | 91% RDX Grade 1, 1A, (B) 1 or (B)1A<br>9% Beeswax                                                                     | RDX/BWX 1 |

TABLE 2 (Cont'd)

| Item No.                                   | Filling   | Composition                                                                                                             | Code       |
|--------------------------------------------|-----------|-------------------------------------------------------------------------------------------------------------------------|------------|
| 12<br><i>Cont'd</i>                        | RDX       | 91% RDX Grade 2 or (B)2<br>9% Beeswax                                                                                   | RDX/BWX 2  |
| 13                                         | RDX/PWX   | 86% RDX Grade 1<br>14% Paraffin wax                                                                                     | RDX/PWX 1  |
| 14                                         | RDX/TNT   | 60% RDX Grade 1A, (B)1 or (B)1A<br>40% TNT Grade 1                                                                      | RDX/TNT 1  |
|                                            |           | 60% RDX Grade 1<br>40% TNT Grade 1                                                                                      | RDX/TNT 1A |
|                                            |           | 60% RDX Grade 1<br>40% TNT Grade 1<br>plus 0.25% $\frac{1}{4}$ inch chopped Terylene (polyethylene terephthalate) fibre | RDX/TNT 1B |
|                                            |           | 60% RDX Grade 2 or (B)2<br>40% TNT Grade 1                                                                              | RDX/TNT 2  |
|                                            |           | 55% RDX Grade 1, (B)1 or (B)1A<br>45% TNT Grade 1                                                                       | RDX/TNT 3  |
|                                            |           | 55% RDX Grade 1A<br>45% TNT Grade 1                                                                                     | RDX/TNT 3A |
|                                            |           | 55% RDX Grade 2 or (B)2<br>45% TNT Grade 1                                                                              | RDX/TNT 4  |
|                                            |           | 50% RDX Grade 1, 1A, (B)1 or (B)1A<br>50% TNT Grade 1                                                                   | RDX/TNT 5  |
|                                            |           | 50% RDX Grade 2 or (B)2<br>50% TNT Grade 1                                                                              | RDX/TNT 6  |
|                                            |           | 40% RDX Grade 1, 1A, (B)1 or (B)1A<br>60% TNT Grade 1                                                                   | RDX/TNT 7  |
| 40% RDX Grade 2 or (B)2<br>60% TNT Grade 1 | RDX/TNT 8 |                                                                                                                         |            |
| RDX/WX6                                    |           | 86% RDX Grade 1 or 1A<br>14% Wax 6                                                                                      | RDX/WX6/1  |
|                                            |           | 91% RDX Grade 1 or 1A<br>9% Wax 6                                                                                       | RDX/WX6/2  |
|                                            |           | 88% RDX Grade 1 or 1A<br>12% Wax 6                                                                                      | RDX/WX6/3  |

TABLE 2 (Cont'd)

| Item | Filling    | Composition                                                           | Code      |
|------|------------|-----------------------------------------------------------------------|-----------|
| 16   | RDX/WX8    | 88% RDX Grade 1<br>12% Wax 8                                          | RDX/WX8/1 |
| 17   | RDX/WAX/AL | 67.5% RDX Grade 1 or 1A<br>12.5% Paraffin wax<br>20% Aluminium powder | RDX/AL 1  |
|      |            | 68% RDX Grade 1 or 1A<br>12% Paraffin wax<br>20% Aluminium powder     | RDX/AL 2  |
| 18   | SHELLITE   | 60% Trinitrophenol<br>40% Dinitrophenol                               | SH 1      |
|      |            | 70% Trinitrophenol<br>30% Dinitrophenol                               | SH 2      |

*(Cont'd on page 15)*

TABLE 2 (Contd.)

| Item No. | Filling | Composition                                                                                                     | Code         |
|----------|---------|-----------------------------------------------------------------------------------------------------------------|--------------|
| 18<br>19 | TNT     | TNT Grade 1                                                                                                     | TNT 1        |
|          |         | TNT Grade 2                                                                                                     | TNT 2        |
|          |         | TNT contaminated with up to 1% RDX                                                                              | TNT 3        |
|          |         | 93% TNT Grade 1<br>7% Beeswax                                                                                   | TNT/BWX 1    |
| 19<br>20 | TNT/CE  | 55% TNT Grade 1<br>45% CE                                                                                       | TNT/CE 1     |
|          |         | 70% TNT Grade 1<br>30% CE                                                                                       | TNT/CE 2     |
|          |         | 45% TNT Grade 1<br>55% CE                                                                                       | TNT/CE 3     |
|          |         | 60% TNT Grade 1<br>40% CE                                                                                       | TNT/CE 60/40 |
| 20<br>21 | TORPEX  | 45% RDX<br>37% TNT Grade 1<br>18% Aluminium powder                                                              | TX 1         |
|          |         | 42% RDX<br>40% TNT Grade 1<br>18% Aluminium powder                                                              | TX 2         |
|          |         | TORPEX 2 (TX 2)<br>plus 5% desensitizer No. 1                                                                   | TX 2A        |
|          |         | (Reserved for American variant of<br>TORPEX 2 with added calcium<br>chloride.)                                  | TX 3         |
|          |         | 20% RDX<br>55% TNT<br>25% Aluminium powder<br>up to 1.5% Carbon black added                                     | TX 4         |
|          |         | 20% RDX<br>55% TNT<br>25% Aluminium powder<br>0.2% Lecithin<br>up to 2.5% carbon black<br>3% Paraffin wax added | TX 4A        |

TABLE 2 (Cont'd)

| Item No. | Filling         | Composition                                                                                                         | Code  |
|----------|-----------------|---------------------------------------------------------------------------------------------------------------------|-------|
| 20<br>21 | TORPEX (Cont'd) | 20% RDX<br>55% TNT<br>25% Aluminium powder<br>0.2% Lecithin<br>up to 2.5% carbon black<br>5% Paraffin wax added     | TX 4B |
|          |                 | 30% RDX<br>50% TNT<br>20% Aluminium powder<br>up to 1.25% Carbon black added                                        | TX 5  |
|          |                 | 30% RDX<br>50% TNT<br>20% Aluminium powder<br>0.2% Lecithin<br>up to 1.25% Carbon black<br>3% Paraffin wax added    | TX 5A |
|          |                 | 20% RDX<br>50% TNT<br>30% Aluminium powder<br>0.2% Lecithin<br>up to 1.5% Carbon black<br>3% Paraffin wax added     | TX 6A |
|          |                 | 20% RDX<br>50% TNT<br>30% Aluminium powder<br>no wax, but up to 1.5% Carbon black added                             | TX 6B |
| 21<br>22 | TRITONAL        | 80% TNT<br>20% Aluminium powder                                                                                     | TL 1  |
|          |                 | 75% TNT<br>25% Aluminium powder<br>with up to 2.5% Carbon black added                                               | TL 2  |
| 22<br>23 | 704B            | 15.0% TNT Grade 1<br>67.5% Ammonium nitrate<br>16.0% Aluminium powder<br>0.5% Calcium stearate<br>1.0% Paraffin wax | 704B  |
| 23<br>24 | 808             | 61.5% Nitroglycerine<br>16.0% Nitrocellulose<br>0.5% Calcium carbonate<br>22.0% MNT                                 | 808   |

TABLE 2 (Cont'd)

| Item No. | Filling            | Composition                                                                                                             | Code                                     |
|----------|--------------------|-------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| 25       | 808 +<br>PENTOLITE | 70% 808 (see Item No. 24)<br>30% { 25% PETN<br>75% TNT Grade 1<br>(see Item No. 11)                                     | 808 + PEN 3                              |
| 26       | 808 + RDX/TNT      | 70% 808 (see Item No. 24)<br>30% { 50% RDX<br>50% TNT Grade 1<br>(see Item No. 14)                                      | 808 + RDX/TNT 5<br>or<br>808 + RDX/TNT 6 |
| 27       | 851                | 83.0% { 50% PETN<br>50% TNT Grade 1<br>(see Item No. 11)<br>14.0% Dibutyl phthalate<br>3.0% Nitro cotton                | 851                                      |
| 28       | 852                | 66.6% PETN<br>3.0% HM Nitro cotton<br>0.4% Blasting soluble nitro cotton<br>29.5% Non-freezing nitro body<br>0.5% Resin | 852                                      |
| 29       | EDC                | 70.25% HMX<br>24.75% TNT Grade 1<br>4.00% RDX Grade 1<br>1.00% Beeswax                                                  | EDC 1                                    |
|          |                    | EDC 1 (see above)<br>plus 5% TNT Grade 1                                                                                | EDC 1A                                   |



TABLE 3

CODES FOR FLARE, ILLUMINATING, INCENDIARY, SMOKE AND STAR  
COMPOSITIONS

| Item No. | Code | Composition             | Remarks                                                |
|----------|------|-------------------------|--------------------------------------------------------|
| 1        | S    | S.R. 264B and S.R. 264D | Obsolete                                               |
| 2        | T    | S.R. 905                | Obsolete                                               |
| 3        | U    | S.R. 907                | Obsolete                                               |
| 4        | W    | S.R. 332B               | Code "W" is also used in propellant nomenclature       |
| 5        | Y    | S.R. 321 and S.R. 322   |                                                        |
| 6        | Z    | S.R. 899                | Obsolete Code "Z" is also used to denote "Lead Azide"  |
| 7        | BA   | S.R. 264C               |                                                        |
| 8        | CA   | S.R. 306                |                                                        |
| 9        | EA   | S.R. 306B               |                                                        |
| 10       | GA   | S.R. 563                |                                                        |
| 11       | MA   | S.R. 375                |                                                        |
| 12       | OA   | S.R. 562                |                                                        |
| 13       | PA   | P.N. 443                |                                                        |
| 14       | QA   | P.N. 431A               |                                                        |
| 15       | RA   | P.N. 435                |                                                        |
| 16       | UA   | P.N. 407                |                                                        |
| 17       | YA   | S.R. 534                | Superseded by Item No. 10, Code "GA"                   |
| 18       | ZA   | S.R. 232                |                                                        |
| 19       | AB   | S.R. 287                |                                                        |
| 20       | CB   | S.R. 297B               |                                                        |
| 21       | DB   | S.R. 300A               |                                                        |
| 22       | EB   | S.R. 338                | Obsolete                                               |
| 23       | FB   | S.R. 475                |                                                        |
| 24       | GB   | S.R. 477A               | Superseded by Item No. 37, Code "BC"                   |
| 25       | HB   | S.R. 479A               | Superseded by Item No. 40, Code "GC"                   |
| 26       | JB   | S.R. 565                | Superseded by Item No. 12, Code "OA"                   |
| 27       | KB   | S.R. 209                | Obsolete                                               |
| 28       | MB   | S.R. 209A               | Obsolete                                               |
| 29       | NB   | S.R. 221                |                                                        |
| 30       | PB   | S.R. 221B               |                                                        |
| 31       | RB   | S.R. 571A               |                                                        |
| 32       | TB   | S.R. 237                |                                                        |
| 33       | UB   | S.R. 297C               | Obsolete                                               |
| 34       | WB   | S.R. 367                |                                                        |
| 35       | YB   | S.R. 389                |                                                        |
| 36       | ZB   | S.R. 406                |                                                        |
| 37       | BC   | S.R. 427                |                                                        |
| 38       | DC   | S.R. 427A               |                                                        |
| 39       | EC   | S.R. 428                |                                                        |
| 40       | GC   | S.R. 429                | Abbrev. "GC" is also used to denote "Guncotton"        |
| 41       | HC   | S.R. 429A               | Abbrev. "HC" is also used to denote "Hexachloroethane" |
| 42       | JC   | S.R. 477B               | Obsolete                                               |
| 43       | KC   | S.R. 413                |                                                        |

TABLE 3 (Cont'd)

| Item No. | Code | Composition                  | Remarks                                                         |
|----------|------|------------------------------|-----------------------------------------------------------------|
| 44       | MC   | S.R. 415                     | Code "MC" is also used in propellant nomenclature               |
| 45       | NC   | S.R. 568A                    |                                                                 |
| 46       | OC   | S.R. 580                     |                                                                 |
| 47       | PC   | S.R. 580A                    |                                                                 |
| 48       | QC   | S.R. 581A                    | Superseded by S.R. 560                                          |
| 49       | UC   | S.R. 588                     |                                                                 |
| 50       | WC   | S.R. 238                     |                                                                 |
| 51       | AD   | S.R. 424                     |                                                                 |
| 52       | BD   | S.R. 431                     |                                                                 |
| 53       | DD   | S.R. 307A                    |                                                                 |
| 54       | ED   | S.R. 571                     | Superseded by S.R. 571A                                         |
| 55       | GD   | S.R. 391                     |                                                                 |
| 56       | HD   | S.R. 452                     |                                                                 |
| 57       | JG   | S.R. 453                     |                                                                 |
| 58       | KD   | S.R. 454                     |                                                                 |
| 59       | LD   | S.R. 578                     |                                                                 |
| 60       | MD   | S.R. 481                     | Obsolescent. Code "MD" is also used in propellant nomenclature. |
| 61       | ND   | S.R. 586                     |                                                                 |
| 62       | OD   | S.R. 594M                    | Obsolete                                                        |
| 63       | PD   | S.R. 343A                    |                                                                 |
| 64       | QD   | S.R. 563A                    |                                                                 |
| 65       | TD   | S.R. 255                     |                                                                 |
| 66       | UD   | S.R. 365                     |                                                                 |
| 67       | ZD   | S.R. 379                     |                                                                 |
| 68       | AE   | S.R. 382                     |                                                                 |
| 69       | DE   | S.R. 400                     |                                                                 |
| 70       | EE   | S.R. 269(M) and P.N. 83(M)   |                                                                 |
| 71       | FE   | S.R. 269(M)                  |                                                                 |
| 72       | GE   | S.R. 264A(M)                 |                                                                 |
| 73       | JE   | P.N. 83(M)                   |                                                                 |
| 74       | KE   | S.R. 264A(M) and S.R. 269(M) |                                                                 |
| 75       | LE   | P.N. 402                     | Obsolete                                                        |
| 76       | ME   | P.N. 403                     | "                                                               |
| 77       | NE   | S.R. 232 and S.R. 590        |                                                                 |
| 78       | OE   | S.R. 232 and S.R. 429        |                                                                 |
| 79       | PE   | S.R. 232 and S.R. 428        | Code "PE" is also used to denote "Plastic Explosive"            |
| 80       | QE   | S.R. 232 and S.R. 413        |                                                                 |
| 81       | SE   | S.R. 238 and S.R. 389        |                                                                 |
| 82       | TE   | S.R. 255 and S.R. 297B       |                                                                 |
| 83       | YE   | S.R. 209A and S.R. 415       | S.R. 209A Obsolete                                              |
| 84       | ZE   | S.R. 239 and S.R. 578        |                                                                 |
| 85       | AF   | S.R. 357 and S.R. 481        | Obsolescent                                                     |
| 86       | BF   | S.R. 297B and S.R. 413       |                                                                 |
| 87       | CF   | S.R. 297B and S.R. 429A      |                                                                 |
| 88       | DF   | S.R. 297B and S.R. 406       |                                                                 |
| 89       | EF   | S.R. 329 and S.R. 460        | Obsolete                                                        |
| 90       | FF   | S.R. 329 and S.R. 427        | S.R. 329 Obsolete                                               |
| 91       | GF   | S.R. 427 and S.R. 429        |                                                                 |
| 92       | HF   | S.R. 413 and S.R. 428        |                                                                 |

TABLE 3 (Cont'd)

| Item No. | Code | Composition                                                                            | Remarks                                           |
|----------|------|----------------------------------------------------------------------------------------|---------------------------------------------------|
| 93       | JF   | S.R. 513 and S.R. 568A                                                                 | S.R. 513 Obsolete                                 |
| 94       | KF   | S.R. 429A and S.R. 568A                                                                |                                                   |
| 95       | LF   | S.R. 406 and S.R. 568A                                                                 |                                                   |
| 96       | MF   | S.R. 413 and S.R. 429                                                                  |                                                   |
| 97       | NF   | S.R. 429 and S.R. 429A                                                                 |                                                   |
| 98       | OF   | S.R. 406 and S.R. 429                                                                  |                                                   |
| 99       | PF   | S.R. 415 and S.R. 427A                                                                 |                                                   |
| 100      | RF   | S.R. 406 and S.R. 427A                                                                 |                                                   |
| 101      | SF   | S.R. 406, S.R. 413 and S.R. 568A                                                       |                                                   |
| 102      | TF   | S.R. 406, S.R. 429A and S.R. 568A                                                      |                                                   |
| 103      | UF   | S.R. 413, S.R. 429A and S.R. 568A                                                      |                                                   |
| 104      | WF   | S.R. 406, S.R. 413 and S.R. 429                                                        |                                                   |
| 105      | YF   | S.R. 406, S.R. 429 and S.R. 429A                                                       |                                                   |
| 106      | ZF   | S.R. 413, S.R. 429 and S.R. 429A                                                       |                                                   |
| 107      | AG   | S.R. 239, S.R. 491 and S.R. 584                                                        |                                                   |
| 108      | BG   | S.R. 214, S.R. 232 and S.R. 237. S.R. 288, S.R. 477B, S.R. 562 and Rocket composition. |                                                   |
| 109      | CG   | S.R. 297B, S.R. 406 and S.R. 413                                                       |                                                   |
| 110      | DG   | S.R. 297E, S.R. 406 and S.R. 429A                                                      |                                                   |
| 111      | EG   | S.R. 297B, S.R. 413 and S.R. 429A                                                      |                                                   |
| 112      | GG   | P.N. 61                                                                                | Code "NF" is also used in propellant nomenclature |
| 113      | JG   | P.N. 118                                                                               |                                                   |
| 114      | KG   | P.N. 276                                                                               |                                                   |
| 115      | MG   | P.N. 307                                                                               |                                                   |
| 116      | NG   | P.N. 307A                                                                              |                                                   |
| 117      | OG   | P.N. 314A                                                                              |                                                   |
| 118      | PG   | P.N. 314                                                                               |                                                   |
| 119      | QG   | P.N. 317                                                                               |                                                   |
| 120      | RG   | S.R. 361                                                                               |                                                   |
| 121      | SG   | S.R. 332                                                                               |                                                   |
| 122      | TG   | S.R. 581                                                                               |                                                   |
| 123      | UG   | S.R. 590                                                                               |                                                   |
| 124      | WG   | S.R. 233B                                                                              |                                                   |
| 125      | YG   | S.R. 512B                                                                              |                                                   |
| 126      | ZG   | S.R. 442                                                                               |                                                   |
| 127      | AH   | S.R. 576A                                                                              |                                                   |
| 128      | BH   | S.R. 562A                                                                              | Superseded by S.R. 332B                           |
| 129      | CH   | S.R. 541B                                                                              |                                                   |
| 130      | DH   | S.R. 274B                                                                              |                                                   |
| 131      | EH   | S.R. 430                                                                               |                                                   |
| 132      | FH   | Calcium Phosphide                                                                      |                                                   |

TABLE 3 (Cont'd)

| Item No. | Code | Composition                                                                                       | Remarks                                              |
|----------|------|---------------------------------------------------------------------------------------------------|------------------------------------------------------|
| 133      | GH   | Rocket composition                                                                                |                                                      |
| 134      | HH   | Smoke composition                                                                                 |                                                      |
| 135      | JH   | Aluminium, Magnesium phosphide Fast calcium phosphide, Sodium nitrate and Potassium acid sulphate |                                                      |
| 136      | KH   | Aluminium, Magnesium phosphide, Sodium nitrate and Potassium acid sulphate                        |                                                      |
| 137      | LH   | Portfire composition                                                                              |                                                      |
| 138      | MH   | Potassium nitrate                                                                                 |                                                      |
| 139      | NH   | Star composition, Delay composition and flare composition                                         | Code "NH" is also used in propellant nomenclature    |
| 140      | OH   | Sodium phosphide                                                                                  |                                                      |
| 141      | PH   | S.R. 580 and potassium nitrate                                                                    |                                                      |
| 142      | QH   | S.R. 306 and S.R. 460                                                                             | Obsolete                                             |
| 143      | TH   | S.R. 288 and rocket composition                                                                   |                                                      |
| 144      | UH   | S.R. 427 and rocket composition                                                                   |                                                      |
| 145      | WH   | F.3                                                                                               |                                                      |
| 146      | YH   | Delay composition filling composition and match composition P.N. 196                              |                                                      |
| 147      | ZH   | P.N. 398                                                                                          | Obsolete                                             |
| 148      | AJ   | P.N. 405                                                                                          |                                                      |
| 149      | BJ   | P.N. 411                                                                                          | Obsolete                                             |
| 150      | CJ   | P.N. 421                                                                                          | Obsolete                                             |
| 151      | DJ   | P.N. 422                                                                                          | Obsolete                                             |
| 152      | EJ   | P.N. 429                                                                                          |                                                      |
| 153      | FJ   | P.N. 432                                                                                          |                                                      |
| 154      | GJ   | P.N. 436                                                                                          | Obsolete                                             |
| 155      | HJ   | P.N. 437                                                                                          | Obsolete                                             |
| 156      | JJ   | S.R. 264B                                                                                         | Superseded by S.R. 264R(M)                           |
| 157      | KJ   | S.R. 264D                                                                                         | Obsolete                                             |
| 158      | LJ   | P.N. 453                                                                                          | Obsolete                                             |
| 159      | MJ   | P.N. 454                                                                                          | Obsolete                                             |
| 160      | NJ   | S.R. 905 and S.R. 907                                                                             | See under T and U                                    |
| 161      | OJ   | Calcium magnesium phosphide                                                                       |                                                      |
| 162      | PJ   | S.R. 904M                                                                                         |                                                      |
| 163      | QJ   | S.R. 213 and S.R. 236                                                                             |                                                      |
| 164      | RJ   | S.R. 806                                                                                          |                                                      |
| 165      | SJ   | S.R. 801A and S.R. 804                                                                            |                                                      |
| 166      | TJ   | S.R. 397                                                                                          | Obsolete                                             |
| 167      | UJ   | P.N. 118 and P.N. 120                                                                             | Obsolete                                             |
| 168      | WJ   | S.R. 264A(M) and S.R. 264B                                                                        | Obsolete                                             |
| 169      | YJ   | P.N. 327                                                                                          | Obsolete                                             |
| 170      | ZJ   | S.R. 456                                                                                          | Obsolete                                             |
| 171      | BK   | S.R. 264A and S.R. 269                                                                            | Obsolete                                             |
| 172      | CK   | S.R. 264B and S.R. 264D                                                                           | Obsolete                                             |
| 173      | DK   | S.R. 300                                                                                          |                                                      |
| 174      | EK   | S.R. 479A and S.R. 477A                                                                           | S.R. 479A obsolete. S.R. 477A superseded by S.R. 427 |

TABLE 3 (Cont'd)

| Item No. | Code | Composition                          | Remarks                                          |
|----------|------|--------------------------------------|--------------------------------------------------|
| 175      | FK   | S.R. 477A and S.R. 232               | S.R. 477A superseded by S.R. 427                 |
| 176      | GK   | Penametal Sodium Nitrate             |                                                  |
| 177      | HK   | P.N. 646                             |                                                  |
| 178      | JK   | P.N. 469                             |                                                  |
| 179      | LK   | P.N. 470                             |                                                  |
| 180      | NK   | P.N. 471                             |                                                  |
| 181      | OK   | P.N. 472                             | Obsolete                                         |
| 182      | PK   | P.N. 474                             |                                                  |
| 183      | QK   | P.N. 490                             |                                                  |
| 184      | RK   | P.N. 491                             | Obsolete                                         |
| 185      | SK   | P.N. 726                             |                                                  |
| 186      | TK   | P.N. 508                             | Abbrev. "TK" is also used to denote "Tank"       |
| 187      | UK   | P.N. 509                             |                                                  |
| 188      | VK   | P.N. 493                             |                                                  |
| 189      | XK   | P.N. 507                             |                                                  |
| 190      | YK   | P.N. 468A                            |                                                  |
| 191      | ZK   | P.N. 469A                            |                                                  |
| 192      | CL   | P.N. 470A                            |                                                  |
| 193      | DL   | P.N. 471A                            |                                                  |
| 194      | EL   | P.N. 490A                            |                                                  |
| 195      | GL   | P.N. 653                             |                                                  |
| 196      | HL   | P.N. 738                             |                                                  |
| 197      | JL   | P.N. 641                             |                                                  |
| 198      | KL   | P.N. 641M                            |                                                  |
| 199      | LL   | S.R. 582                             |                                                  |
| 200      | NL   | P.N. 740                             |                                                  |
| 201      | OL   | P.N. 742                             |                                                  |
| 202      | PL   | P.N. 744                             |                                                  |
| 203      | QL   | S.R. 472                             |                                                  |
| 204      | TL   | S.R. 472M                            | Code "TL" also denotes Tritonal (High explosive) |
| 205      | UL   | P.N. 734                             |                                                  |
| 206      | VL   | P.N. 757                             |                                                  |
| 207      | WL   | P.N. 758                             |                                                  |
| 208      | XL   | P.N. 759                             |                                                  |
| 209      | YL   | P.N. 650                             |                                                  |
| 210      | ZL   | P.N. 751                             |                                                  |
| 211      | BM   | P.N. 752                             |                                                  |
| 212      | EM   | S.R. 264A(M), S.R. 269M and P.N. 83M |                                                  |
| 213      | HM   | S.R. 264A(M) and P.N. 83M            |                                                  |

## APPENDIX 1

### CODES FOR PROPELLANTS

*(Used in the marking of gun, howitzer and mortar cartridges, and unguided rocket mortars)*

1. Codes are allocated to provide an abbreviated, but complete, description of the propellant and may include such details as its composition, shape and size, these codes being combined in a certain order of application for marking on to the store concerned.

The composition and shape of a propellant are usually indicated by code letters, although figures may also be used in some instances. The significance of a code letter may vary according to its position in the combination.

The size of a propellant is usually indicated by figures, the three-figure code being actual dimensions to one-thousandth of an inch and the two-figure code to one-hundredth of an inch, the decimal point being omitted.

#### Propellant composition code

2. Each type of propellant is allocated a code to indicate its basic composition, including additives and modifiers, and may also contain approved abbreviations such as NC, denoting nitrocellulose. Examples of basic codes in use at present are as follows:—

|    |                                                                   |
|----|-------------------------------------------------------------------|
| A  | Nitrocellulose of 12·2 per cent nitrogen content made from cotton |
| C  | Carbamite (diethyl—diphenyl—urea)                                 |
| F  | Nitrocellulose of 12·2 per cent nitrogen content made from wood.  |
| H  | Hotter composition                                                |
| K  | Addition of potassium cryolite.                                   |
| M  | Modified                                                          |
| N  | Picrite propellant                                                |
| P  | Addition of 1 per cent potassium sulphate                         |
| 2P | Addition of 2 per cent potassium sulphate                         |
| 5P | Addition of 5 per cent potassium sulphate                         |
| Q  | Higher calorimetric value                                         |
| S  | Solventless propellant                                            |
| U  | Unrotated rocket motor colloidal propellant                       |
| W  | A Land Service propellant.                                        |

### GUN, HOWITZER AND MORTAR PROPELLANTS

#### Code to indicate type of propellant

3. The following codes are used in the marking of gun, howitzer and mortar cartridges to indicate the type of the propellant.

| CODE                                                | PROPELLANT NOMENCLATURE                           |
|-----------------------------------------------------|---------------------------------------------------|
| <i>(a) Nitrocellulose (single base propellants)</i> |                                                   |
| NCRP (8Z)                                           | Nitrocellulose rifle powder Mk. 8Z                |
| NRN9                                                | Neonite No. 9                                     |
| NRN12                                               | Neonite No. 12                                    |
| NCT*                                                | NCT powder (U.S. NC (pyro) 1914-18 production)    |
| NH*                                                 | { NH powder (US Hercules NH)                      |
|                                                     | { NH powder (US Dupont NH—Later M.6)              |
| FNH*                                                | { FNH powder (US Dupont FNH—later M.1)            |
|                                                     | { FNH powder (U.S. Hercules FNH—later M.4)        |
| FNHP*                                               | { FNHP powder (U.S. Dupont production for U.K.)   |
|                                                     | { FNHP powder (U.S. Hercules production for U.K.) |
| NCY                                                 | Commercial sporting gun propellant                |

(b) Nitrocellulose—Nitroglycerine Composition (double base non-picrite propellants)

|            |                                                                                |
|------------|--------------------------------------------------------------------------------|
| BAL B      | Ballistite B                                                                   |
| A          | Propellant A                                                                   |
| AN         | Propellant AN                                                                  |
| ASN        | Propellant ASN                                                                 |
| CD         | Propellant CD                                                                  |
| HSC        | Propellant HSC                                                                 |
| HSCK       | Propellant HSCK                                                                |
| MC         | Propellant MC                                                                  |
| MD         | Propellant MD                                                                  |
| MDC        | Propellant MDC                                                                 |
| RDB        | Propellant RDB                                                                 |
| SC         | Propellant SC                                                                  |
| W          | Propellant W                                                                   |
| WM         | Propellant WM                                                                  |
| M4X        | M4X (U.S. Dupont)                                                              |
| HERC81 mm. | 81 mm. mortar powder (U.S. Hercules)                                           |
| FNHDB*     | { FNHDB (U.S. Hercules (FNH—later M.2))<br>FNHDB (U.S. Hercules FNH—later M.5) |

NOTE: \*See paragraph 4.

(c) Nitrocellulose—Nitroglycerine—Picrite compositions (double base picrite propellants, sometimes known as triple base propellants)

|        |                   |
|--------|-------------------|
| NA     | Propellant NA     |
| NF     | Propellant NF     |
| N      | Propellant N      |
| NQF    | Propellant NQF    |
| NQ     | Propellant NQ     |
| NP     | Propellant NP     |
| NQFP   | Propellant NQFP   |
| N2P    | Propellant N2P    |
| MNF    | Propellant MNF    |
| MNQF   | Propellant MNQF   |
| MNF2P  | Propellant MNF2P  |
| MNLF2P | Propellant MNLF2P |

{ These are Naval equivalents of cordite N and NQ respectively, made by the semi-solvent process.

4. Notes on U.S. propellants. The British nomenclatures for U.S. gun propellants do not agree with those now used by the United States armed forces. The following is a brief summary of the position:—

NCT This code was adopted by us in the 1914-18 war to indicate "nitrocellulose tubular", but in the U.S. the propellant was designated "powder propellant nitrocellulose (pyro)". It is now obsolete.

NH This code was used in the U.S. to mean non-hygroscopic in the designation of both Hercules and Dupont smokeless cannon powders when we began to import these propellants in 1940. We used the codes in the designation NH powder which we adopted for both. Later, only the Dupont powder was produced and in time became known in the U.S. as powder propellant M.6. We have continued to use the designation—NH powder.

FNH This code was used in the U.S. to mean—flashless, non-hygroscopic in the designation of both Hercules and Dupont Flashless cannon powders when we began to import these propellants in 1940. We used the codes in the designation —FNH powder, which we adopted for both. Later, under American nomenclature, the Hercules powder became—powder propellant M.4 and the Dupont,— powder propellant M.1, and the letters FNH were used only as marking to indicate a flashless performance in a given gun irrespective of the composition. In time only the M.1 was produced and this we have continued to call—FNH powder.

- FNHP This code has not been used in U.S. nomenclature but was adopted in British nomenclature for Hercules and Dupont flashless cannon powders specially produced to meet a British requirement in 1940. Later only the Dupont powder was produced.
- FNHDB This code has not been used in U.S. nomenclature but was introduced in the British designation of the two Hercules double base flashless cannon powders imported during 1939-1945. Under U.S. nomenclature these propellants were later designated "Powder propellant M.2 (and M.5)". Neither is used in British ammunition and the letters have remained unchanged.

#### Code to indicate propellant shape and size

5. The complete designation for gun, howitzer and mortar propellants includes the shape and size code, except for those of fine granular form. Examples of fine grain propellants are as follows:—

Nitrocellulose rifle powder Mk. 8Z  
 Neonite No. 9 and No. 12  
 Ballistite  
 M4X (U.S. Dupont)  
 81 mm. mortar powder (U.S. Hercules)

##### (a) Shape

The shape (i.e. physical form) in which the propellant has been produced is normally indicated by the use of a single code letter as a suffix to the code given in paragraph 3 above.

The shape code letter is always preceded by a solidus sign to separate it from the propellant identification letters. The code letters used are:—

- |   |                                               |
|---|-----------------------------------------------|
| M | Multi-tubular (multiple perforation) granules |
| R | Ribbon (strip)                                |
| T | Tubular cord                                  |
| S | Slotted tubular cord                          |
| Z | Scroll                                        |

No letter is used to indicate a propellant in cord (stick) form because this is the normal shape. Likewise, the suffix letter M is not used in connection with U.S. propellants because "multiperforated" is the normal U.S. shape.

##### (b) Size

The normal size dimensions corresponding to the shape in which the propellant has been produced follow the shape letter, where used, and are indicated by the appropriate numerals and signs as follows:—

- |                      |                                                                                       |
|----------------------|---------------------------------------------------------------------------------------|
| Cord or stick        | Diameter, e.g. 16 or 182                                                              |
| Multi-tubular        | Mean thickness of webs between perforations, e.g. 055                                 |
| Ribbon or strip      | Thickness and width of strip separated by a multiplication sign, e.g. 014 × 048.      |
| Scroll               | Thickness of sheet, e.g. 008                                                          |
| Tubular cord         | } External and internal diameters of tube separated<br>by a minus sign, e.g. 206-100. |
| Slotted tubular cord |                                                                                       |



### Examples of propellant codes

6. Examples of complete propellant identification codes, which may be found marked on ammunition stores and included in propellant nomenclatures, are given in the table below. These examples combine the codes in paragraphs 3 and 5 above.

| Propellant   |                |              |                 | Granular<br>NC powders        |
|--------------|----------------|--------------|-----------------|-------------------------------|
| Cord (stick) | Ribbon         | Tubular      | Slotted tubular |                               |
| AN 048       | NQ/R 014 × 048 | SC/T 198-100 | N/S 164-048     | FNH 057<br>FNHP 038<br>NH 050 |
| N 048        |                | W/T 206-100  | NQ/S 164-048    |                               |
| NQ 050       |                | WM/T 211-100 | NP/S 263-066    |                               |
| SC 048       |                | NQ/T 114-040 | NF/S 164-048    |                               |
| W 057        |                |              | MNF2P/S168-048  |                               |
| WM 017       |                |              |                 |                               |

### UNGUIDED ROCKET MOTOR PROPELLANTS

7. Codes for unguided rocket motor colloidal propellants are described in paragraph 8 and differ somewhat from those for gun, howitzer and mortar propellants dealt with in the foregoing paragraphs.

Details of guided missile propellant codes may be found in Section 10, Guided Missiles, 1960 edition.

1962

#### Propellant Codes

8. Unguided rocket motor propellant codes have, in the past, followed the system described in paragraph 1, but current practice, however, is to simplify the code by omitting any reference to additives, shape and size. In these instances, the composition is regarded as a separate entity and only that part of the code given in paragraph 8(a) is quoted.

Details of past and current methods of coding are as follows:—

(a) *Composition*

The composition code normally consists of two letters. The first letter is non-significant and is followed by the letter U, denoting an unrotated rocket motor colloidal propellant. The following are examples of composition codes allocated:—

CU HU SU

(b) *Additives*

The next part of the code, when used, will indicate additives and will normally be separated from the composition code by a solidus sign. One of the additives most commonly used is potassium cryolite and this is indicated by the code letter K, see paragraph 2.

(c) *Shape*

The shape code, preceded by a solidus sign, follows next. The code letters are as shown below but, if applicable, the code given in paragraph 5(a) may be used:—

X Cruciform cross section  
D Drilled  
G Grooved  
C Cogged cross section.  
SG Slotted tube, grooved.

(d) *Size*

The size of a propellant is usually expressed in inches (*see* paragraph 1), the actual detail depending upon its shape. For example, with tubular propellants the external and internal diameters are quoted (*see* paragraph 6) while for cogged cross section propellants the size code gives width of cog and length of stick. An exception to this method of sizing is the cruciform cross section propellant, which is known by its weight in pounds.

(e) *Example*

The following is an example of a complete colloidal propellant code which may still be found marked on unguided rocket motors in the services, although current practice is to quote only the composition code.

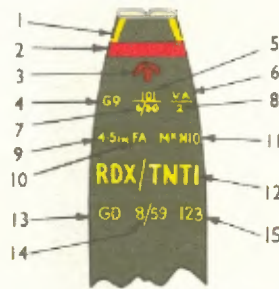
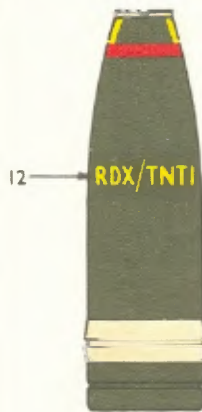
*Example* = SU/K/X/11

|    |                                                          |
|----|----------------------------------------------------------|
| SU | Solventless unrotated rocket motor colloidal propellant. |
| K  | Addition of potassium cryolite, <i>see</i> para. 8(b)    |
| X  | Cruciform cross section, <i>see</i> para. 8(c)           |
| 11 | Weight in lbs., <i>see</i> para. 8(d)                    |

TYPICAL MARKINGS ON HIGH EXPLOSIVE SHELL (NAVAL SERVICE)

FIG.1

HIGH EFFECT SHELL WITH UNIVERSAL CAVITY

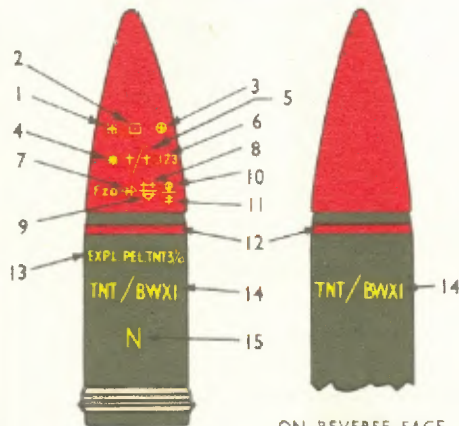


ON REVERSE FACE

- 1... 2 VERTICAL STRIPES DIAMETRICALLY OPPOSITE SIGNIFYING UNIVERSAL CAVITY
- 2... RED FILLING RING
- 3... TRACER SYMBOL
- 4... GAINE PARTICULARS
- 5... FILLED LOT NUMBER
- 6... CONTRACTORS RECOGNIZED MARK OR INITIALS OF EMPTY GAINE
- 7... DATE OF FILLING (MONTH AND YEAR)
- 8... MARK OF GAINE
- 9... CALIBRE
- 10... "FA" SIGNIFYING FIXED AMMUNITION (IF APPLICABLE)
- 11... MARK OF SHELL
- 12... FILLING CODE (IN TWO PLACES DIAMETRICALLY OPPOSITE)
- 13... RECOGNISED MONOGRAM OR INITIALS
- 14... DATE OF FILLING OF FILLER
- 15... FILLED LOT SERIAL NUMBER

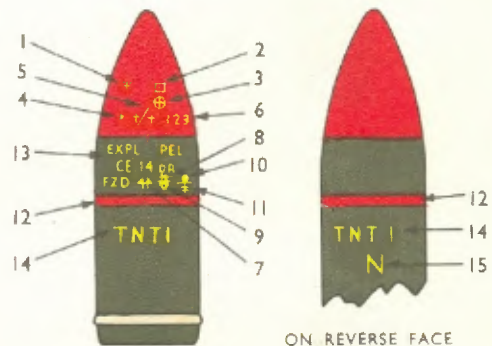
FIG.2

SAP/BC SHELL WITH "K" DEVICE



ON REVERSE FACE

AP SHELL WITH "K" DEVICE



ON REVERSE FACE

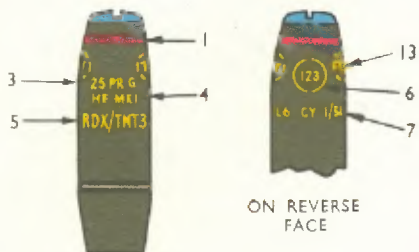
- 1... CALIBRE
- 2... SIGNIFYING "HEAVY" OR "LIGHT"
- 3... MARK OF SHELL (INCLUDING "K" FOR "K" SHELL)
- 4... CONTRACTORS RECOGNIZED MARK OR INITIALS OF FILLER
- 5... DATE OF FILLING (MONTH AND YEAR)
- 6... FILLED LOT SERIAL NUMBER

FUZE  
DETAILS

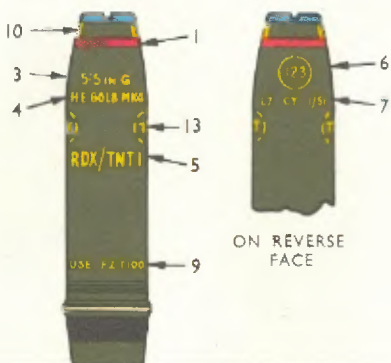
- 7... FUZE NUMBER
- 8... FILLED LOT NUMBER
- 9... DATE OF FILLING (MONTH AND YEAR)
- 10... MONOGRAM OR INITIALS OF EMPTY MANUFACTURER (OR CONVERTING STATION)
- 11... MARK OF FUZE
- 12... RED FILLING RING
- 13... DETAILS OF EXPLODER
- 14... FILLING CODE (IN TWO PLACES DIAMETRICALLY OPPOSITE)
- 15... "N" SIGNIFYING NAVAL SHELL

TYPICAL MARKINGS ON HIGH EXPLOSIVE SHELL (LAND SERVICE)

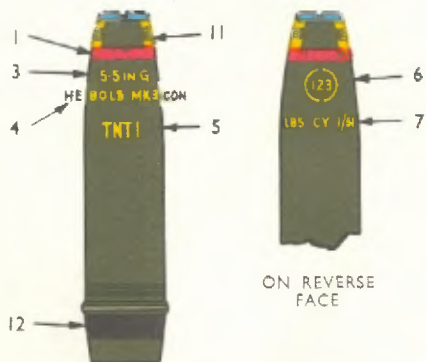
SEPARATE LOADING AMMUNITION  
FIG.1



SEPARATE LOADING AMMUNITION  
FIG.2



SEPARATE LOADING AMMUNITION  
FIG.3



SEPARATE LOADING AMMUNITION  
FIG.4

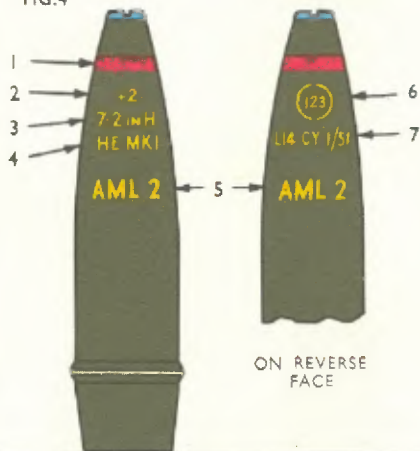


FIG.5  
FIXED AMMUNITION

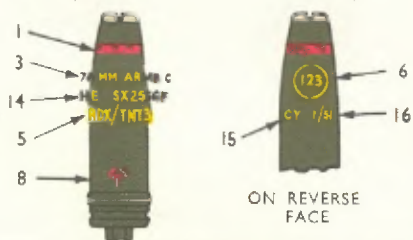
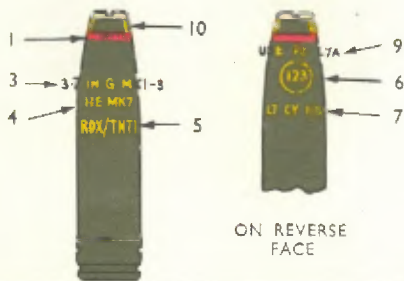


FIG.6  
FIXED AMMUNITION



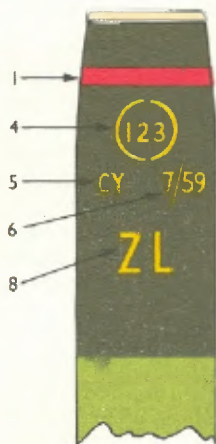
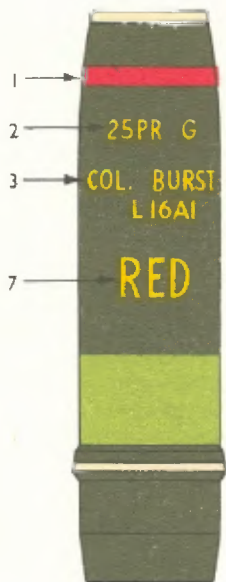
- 1... RED FILLING RING
- 2... WEIGHT MARKING
- 3... CALIBRE, AND NATURE OF ORDNANCE
- 4... TYPE AND MARK OF PROJECTILE
- 5... CODE DENOTING FILLING COMPOSITION
- 6... FILLED SERIES NUMBER
- 7... ONE LINE CODE (METHOD OF FILLING)

- 8... TRACER SYMBOL
- 9... FUZING INSTRUCTIONS
- 10... DENOTES EXPLODER CAVITY (See Plate 8 Fig 8)
- 11... DENOTES EXPLODER CAVITY (See Plate 8 Fig 9)
- 12... DENOTES SPECIAL WEIGHT (See Plate 9 Fig 4)
- 13... DENOTES SMOKE PELLETT (See Plate 9 Fig 3)
- 14... TYPE OF PROJECTILE AND DESIGN DRAWING OR PART NUMBER
- 15... INITIALS OR RECOGNIZED MONOGRAM OF FILLER
- 16... DATE OF FILLING (MONTH AND YEAR)

TYPICAL MARKINGS ON HIGH EXPLOSIVE SHELL (LAND SERVICE)

COLOURED BURSTING SHELL

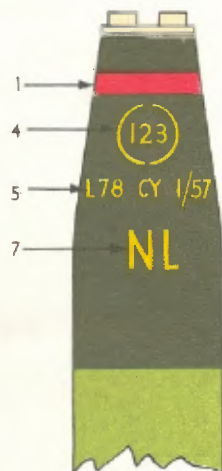
FIG.1 SEPARATE LOADING AMMUNITION



ON REVERSE FACE

- 1...RED FILLING RING (TYPE AS APPLICABLE)
- 2...CALIBRE AND NATURE OF ORDNANCE
- 3...TYPE AND MARK (OR MODEL NUMBER) OF PROJECTILE
- 4...FILLED SERIES/LOT NUMBER
- 5...RECOGNIZED MONOGRAM OR INITIALS OF FILLER
- 6...DATE OF FILLING (MONTH AND YEAR)
- 7...COLOUR OF SMOKE
- 8...COMPOSITION CODE LETTERS

FIG.2 FIXED AMMUNITION



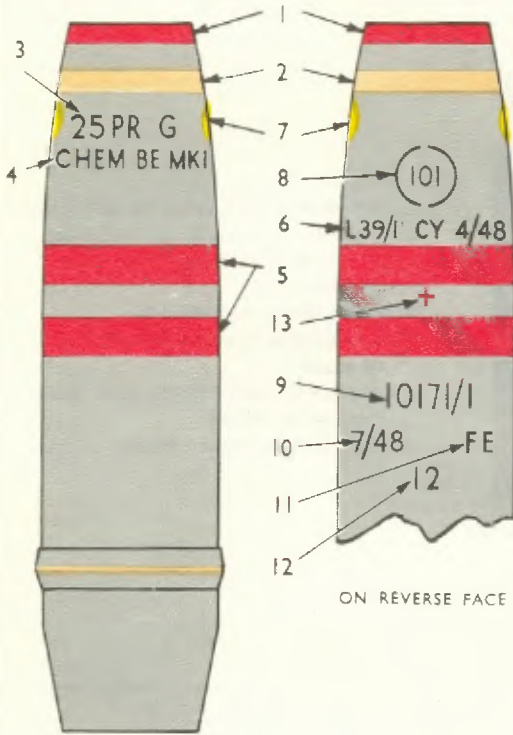
ON REVERSE FACE

- 1...RED FILLING RING (TYPE AS APPLICABLE)
- 2...CALIBRE, NATURE AND MARK OF ORDNANCE
- 3...TYPE AND MARK (OR MODEL NUMBER) OF PROJECTILE
- 4...FILLED SERIES/LOT NUMBER
- 5...ONE LINE CODE (METHOD OF FILLING)
- 6...COLOUR OF SMOKE
- 7...COMPOSITION CODE LETTERS

TYPICAL MARKINGS ON CHEMICAL SHELL (LAND SERVICE)

FIG. 1

EXAMPLE: HARASSING AGENT, PERSISTENT



- 1... RED FILLING RING
  - 2... DETECTOR PAINT (AS APPLICABLE)
  - 3... CALIBRE AND NATURE OF ORDNANCE
  - 4... TYPE AND MARK OF PROJECTILE
  - 5... TYPE OF CHARGING (TACTICAL USE)
  - 6... ONE LINE CODE (METHOD OF FILLING)
  - 7... DENOTES SMOKE PELLET (See Plate 9 Fig 3 )
  - 8... FILLED SERIES NUMBER
- BODY CHARGING DETAILS:-
- 9... DESIGN NUMBER (METHOD OF BODY CHARGING)
  - 10... DATE OF BODY CHARGING (MONTH AND YEAR)
  - 11... CONTRACTORS RECOGNIZED MARK OR INITIALS
  - 12... CHEMICAL CHARGING LOT NUMBER
  - 13... CODE LETTER OF CHARGING (AS APPLICABLE)  
 IN SAME COLOUR AS ITEM 5  
 GREEN FOR CASUALTY AGENT  
 RED FOR HARASSING AGENT

ON REVERSE FACE

FIG.2

CASUALTY AGENT

PERSISTENT

NON-PERSISTENT

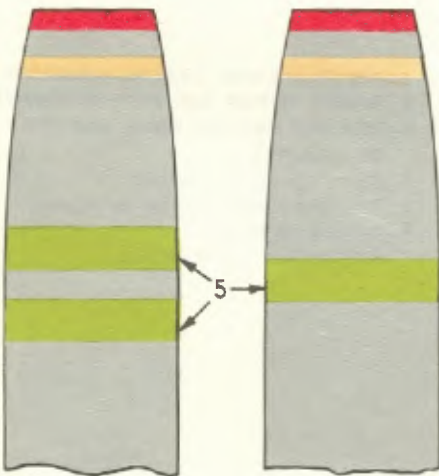
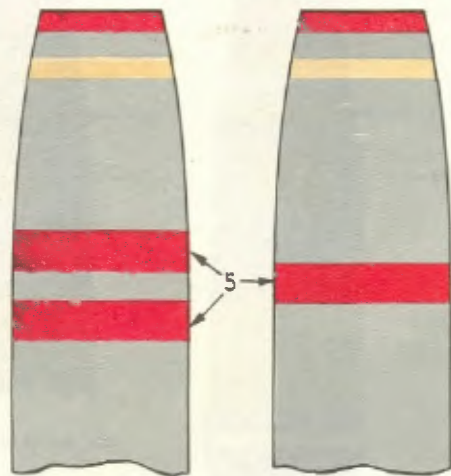


FIG.3

HARASSING AGENT

PERSISTENT

NON-PERSISTENT



TYPICAL MARKINGS ON SMOKE SHELL (LAND SERVICE)

FIG.1

COLOURED SMOKE

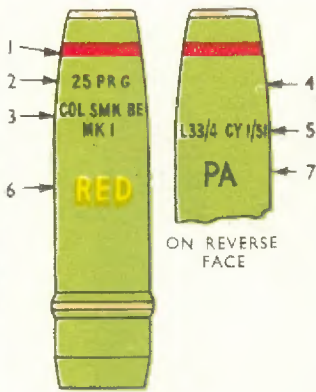


FIG.2

SCREENING SMOKE

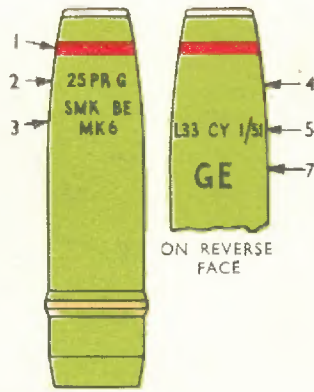
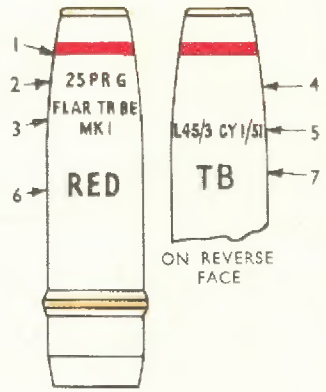


FIG.3

FLARE



- 1... RED FILLING RING (TYPE AS APPLICABLE)
- 2... CALIBRE AND NATURE OF ORDNANCE
- 3... TYPE AND MARK (OR MODEL NUMBER) OF PROJECTILE
- 4... FILLED SERIES /LOT NUMBER

- 5... ONE LINE CODE (METHOD OF FILLING)
- 6... COLOUR OF SMOKE (OR FLARE)
- 7... COMPOSITION CODE LETTERS

TYPICAL MARKINGS ON SHOT (LAND SERVICE)

FIG.4

ARMOUR PIERCING

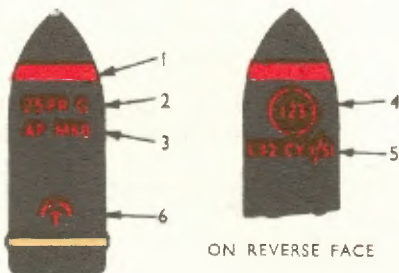
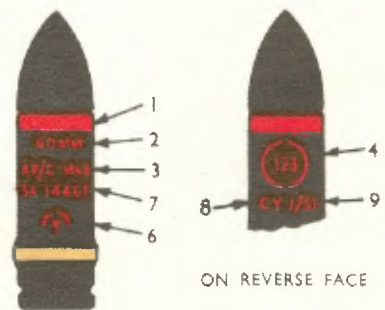


FIG.5

ARMOUR PIERCING CAPPED



- 1... RED FILLING RING
- 2... CALIBRE, AND NATURE OF ORDNANCE
- 3... TYPE AND MARK OF PROJECTILE
- 4... FILLED SERIES NUMBER
- 5... ONE LINE CODE (METHOD OF FILLING)

- 6... TRACER SYMBOL
- 7... DESIGN DRAWING OR PART NUMBER
- 8... INITIALS OF FILLER OR ASSEMBLER OF TRACER
- 9... DATE OF FILLING OR ASSEMBLY OF TRACER (MONTH & YEAR)

TYPICAL MARKINGS ON PRACTICE PROJECTILES

FIG. 1

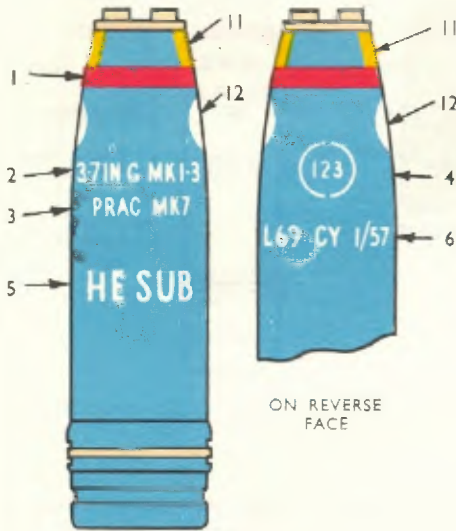


FIG. 2

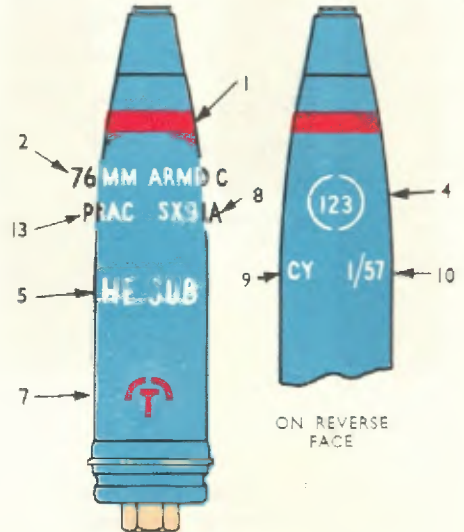
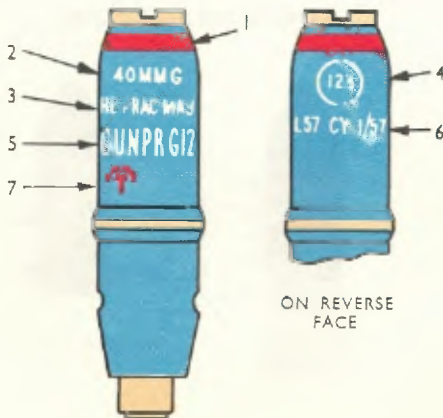


FIG. 3



- 1... RED FILLING RING (TYPE AS APPLICABLE)
- 2... CALIBRE, NATURE AND MARK OF ORDNANCE
- 3... TYPE AND MARK (OR MODEL NUMBER) OF PROJECTILE
- 4... FILLED SERIES / LOT NUMBER
- 5... CODE DENOTING FILLING COMPOSITION
- 6... ONE LINE CODE (METHOD OF FILLING)
- 7... TRACER SYMBOL
- 8... DESIGN DRAWING OR PART NUMBER
- 9... INITIALS OR RECOGNIZED MONOGRAM OF FILLER
- 10... DATE OF FILLING (MONTH AND YEAR)
- 11... DENOTES EXPLODER CAVITY (See Plate 8 Fig 8)
- 12... DENOTES FLASH PELLET (See Plate 8 Fig 4)
- 13... TYPE OF PROJECTILE



TYPICAL MARKINGS ON MISCELLANEOUS PROJECTILES

FIG.1  
STAR WITH PARACHUTE

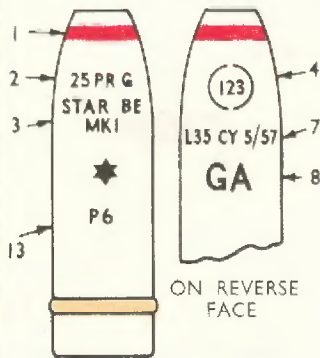


FIG.2  
ILLUMINATING

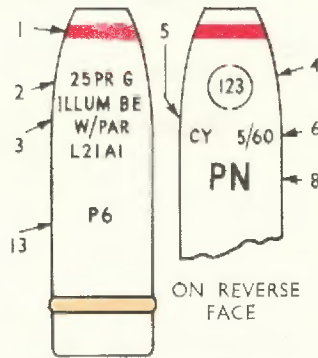


FIG.3  
INCENDIARY BE

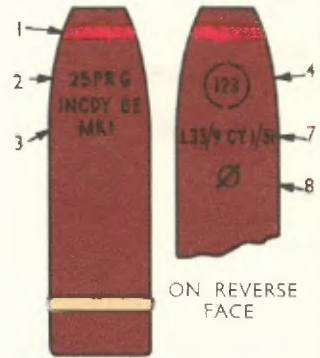


FIG.4  
PRACTICE FLATHEADED SHOT

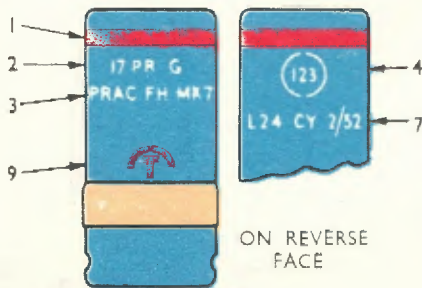


FIG.5  
BREAK - UP SHOT, 40MM

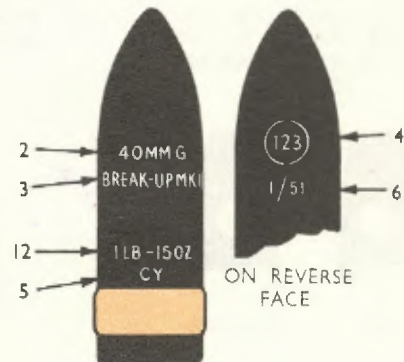
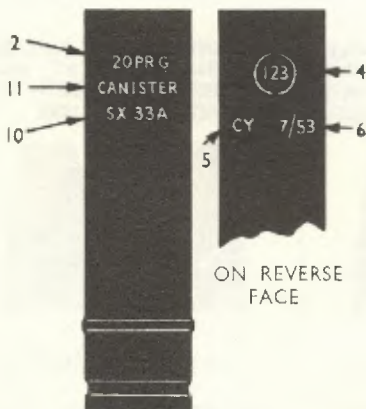


FIG.6  
CANISTER SHOT



- 1... RED FILLING RING (TYPE AS APPLICABLE)
- 2... CALIBRE AND NATURE OF ORDNANCE
- 3... TYPE AND MARK (OR MODEL NUMBER) OF PROJECTILE
- 4... FILLED SERIES /LOT NUMBER
- 5... RECOGNIZED MONOGRAM OR INITIALS OF FILLER
- 6... DATE OF FILLING (MONTH AND YEAR)
- 7... ONE LINE CODE (METHOD OF FILLING)
- 8... CODE DENOTING FILLING COMPOSITION
- 9... TRACER SYMBOL
- 10... DESIGN DRAWING OR PART NUMBER
- 11... TYPE OF PROJECTILE
- 12... MEAN DESIGN WEIGHT
- 13... DENOTES TYPE OF PARACHUTE FITTED

MARKINGS ON PROJECTILES TO DENOTE SPECIAL FEATURES

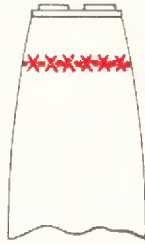
RED FILLING RING DENOTING PRESENCE OF AN ACTIVE AGENT  
 (EXPLOSIVE, CHEMICAL OR OTHERWISE)

FIG.1



SUITABLE FOR ALL CLIMATIC  
 CONDITIONS

FIG.2



LIMITED LIFE IN HOT OR  
 COLD CLIMATES

FIG.3



TEMPERATE CLIMATES ONLY

FIG.4

HE OR PRACTICE SHELL, AND  
 PRACTICE PROJECTILES, FITTED  
 WITH FLASH PRODUCING  
 PELLET(S)



HE PRACTICE

TWO ALUMINIUM DISCS,  
 DIAMETRICALLY OPPOSED  
 ON OGIVE

FIG.5

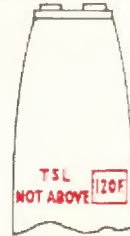
BREAK-UP SHOT  
 (EXCEPT 40mm.)



BROKEN GOLDEN YELLOW RING,  
 HALF STANDARD WIDTH

FIG.6

TRANSIT AND STORAGE  
 TEMPERATURE LIMITATION



OR

TSL NOT BELOW -25F OR TSL 120F -25F

FIG.7

TOP EXPLODER IN  
 POSITION

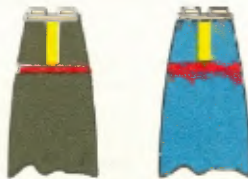


HE PRACTICE

HEAD OF PLUG COLOURED  
 TURQUOISE BLUE

FIG.8

EXPLODER CAVITY SUITABLE  
 FOR No.117 TYPE AND V.T. FUZES  
 (BUT NOT FOR INTERMEDIATE  
 DEPTH OF INTRUSION FUZES)



HE PRACTICE

TWO GOLDEN YELLOW STRIPES  
 DIAMETRICALLY OPPOSED  
 ON OGIVE

FIG.9

EXPLODER CAVITY SUITABLE  
 FOR No.117 TYPE, V.T. AND  
 INTERMEDIATE DEPTH OF  
 INTRUSION FUZES



HE PRACTICE

TWO GOLDEN YELLOW SYMBOLS  
 DIAMETRICALLY OPPOSED  
 ON OGIVE

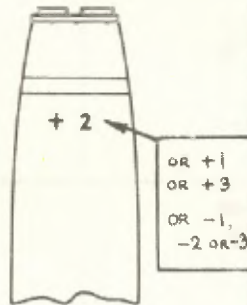
MARKINGS ON PROJECTILES TO DENOTE SPECIAL FEATURES

FIG.1  
CENTRE OF GRAVITY SYMBOL



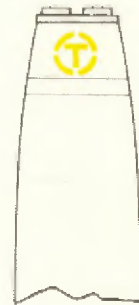
SAME COLOUR AS MAIN DETAILS ON PROJECTILE

FIG.2  
WEIGHT MARKING



SAME COLOUR AS MAIN DETAILS ON PROJECTILE

FIG.3  
TNT/AL SMOKE PELLET FITTED



TWO GOLDEN YELLOW SYMBOLS DIAMETRICALLY OPPOSED ON OGIVE ON HE, CHEMICAL & PRACTICE

FIG.4  
PROJECTILES WITH ABNORMAL NOMINAL WEIGHT, FIRED FROM SAME ORDNANCE BUT REQUIRING DIFFERENT CHARGE



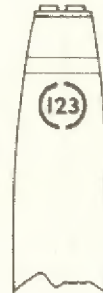
BLACK RING EXTENDING HALFWAY BETWEEN DRIVING BAND AND BASE

FIG.5  
PROJECTILES FITTED WITH DRIVING BAND DIFFERENT TO NORMAL



WHITE RING IN FRONT OF DRIVING BAND

FIG.6  
FILLED SERIES/LOT NUMBER



ON REVERSE, SAME COLOUR AS MAIN DETAILS ON PROJECTILE

FIG.7  
CAST IRON OR SEMI-STEEL BODY



PRACTICE PROJECTILE

SHOT

LIGHT BROWN RING, ABOVE AND ADJACENT TO RED FILLING RING, SAME WIDTH

FIG.8  
FALLING B.E. TARGET PROJECTILE















WHITE ZIG-ZAG RING, DOUBLE STANDARD WIDTH, WITH LETTERS "FT" AT 3 EQUALLY SPACED INTERVALS

FIG.9  
RADAR ECHO PROJECTILE



WHITE ZIG-ZAG RING, DOUBLE STANDARD WIDTH, WITH LETTERS RE/P or RE/W AT 3 EQUALLY SPACED INTERVALS

TRACER SYMBOLS ON PROJECTILES ALL SERVICES

| PREPARED FOR                                                                                                             | FITTED WITH                                                                                                                                    |
|--------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| <br>TRACER                              | <br>TRACER                                                    |
| <br>TRACER FUZE                         | <br>TRACER FUZE                                               |
| <br>IGNITER                             | <br>IGNITER<br>(SELF - DESTROYING)                            |
| <br>TRACER IGNITER                      | <br>TRACER IGNITER<br>(SELF - DESTROYING)                     |
| <br>TRACER (DARK IGNITION)            | <br>TRACER (DARK IGNITION)                                  |
| <br>TRACER IGNITER<br>(DARK IGNITION) | <br>TRACER IGNITER<br>(DARK IGNITION,<br>SELF - DESTROYING) |

X...TIME TO SELF-DESTRUCTION IN SECONDS

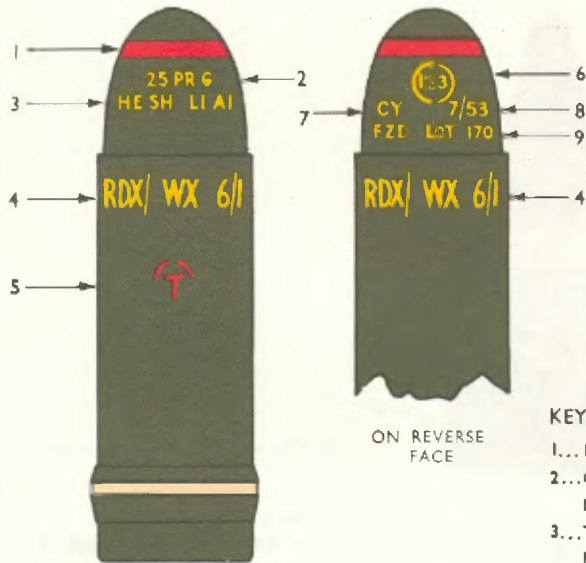
NOTE:-

A "T" IN THE EYEBROW SHOWS THAT THE PROJECTILE IS FITTED WITH A TRACER.

TYPICAL IDENTIFICATION MARKINGS ON PROJECTILES - 25 PR

SHELL

FIG. 1 HE SH

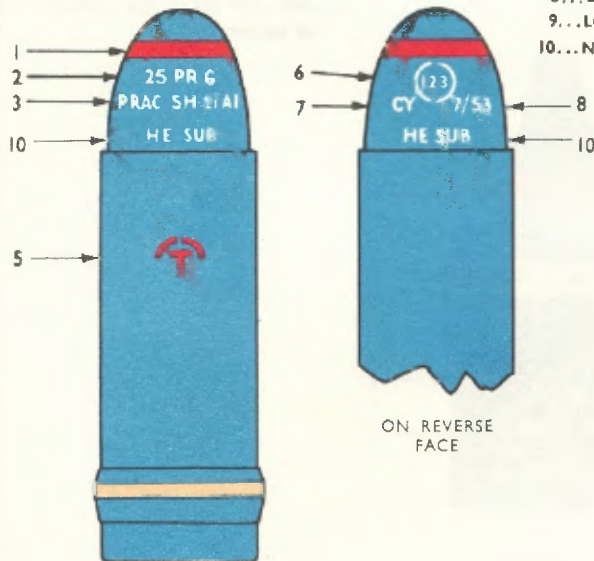


ON REVERSE  
 FACE

KEY TO STENCILLED MARKINGS

- 1... RED FILLING RING
- 2... CALIBRE AND NATURE AND/OR MODEL NUMBER OF ORDNANCE
- 3... TYPE AND MARK OR MODEL NUMBER OF PROJECTILE
- 4... CODE DENOTING FILLING COMPOSITION USED
- 5... TRACER SYMBOL
- 6... FILLED SERIES NUMBER
- 7... RECOGNIZED MONOGRAM OR INITIALS OF FILLER
- 8... DATE OF FILLING (MONTH AND YEAR)
- 9... LOT NUMBER OF FUZE
- 10... NATURE OF PRACTICE FILLING

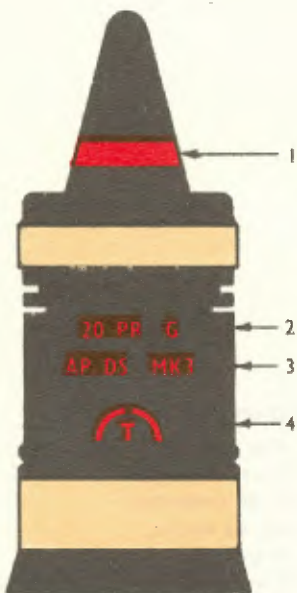
FIG. 2 PRAC SH



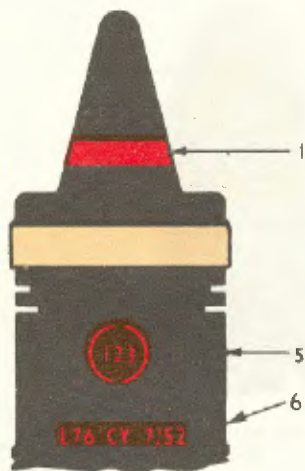
ON REVERSE  
 FACE

TYPICAL IDENTIFICATION MARKINGS ON PROJECTILES - 20 PR  
 (LAND SERVICE)

FIG.1 AP DS



SHOT

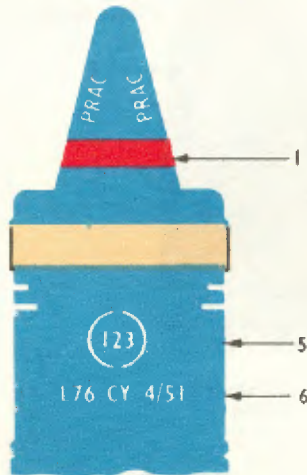
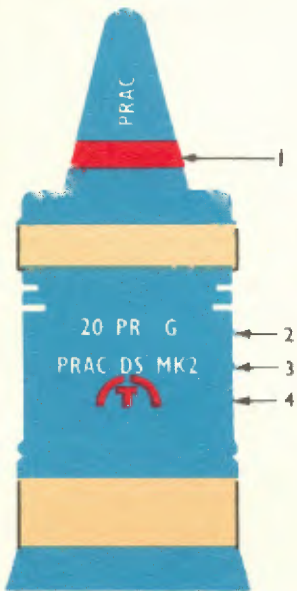


ON REVERSE  
 FACE

KEY TO STENCILED MARKINGS

- 1...RED FILLING RING
- 2...CALIBRE AND NATURE AND/OR MODEL NUMBER OF ORDNANCE
- 3...TYPE AND MARK OR MODEL NUMBER OF PROJECTILE
- 4...TRACER SYMBOL
- 5...FILLED SERIES NUMBER
- 6...ONE LINE CODE FOR METHOD OF FILLING

FIG.2 PRAC DS

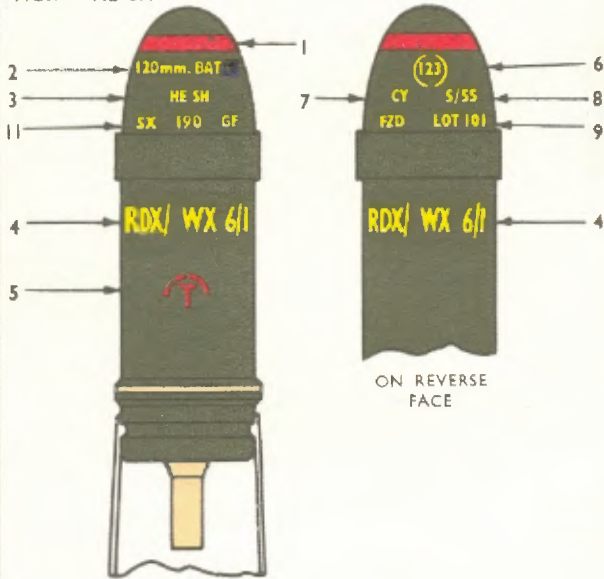


ON REVERSE  
 FACE

TYPICAL IDENTIFICATION MARKINGS ON PROJECTILES— 120mm. BAT.

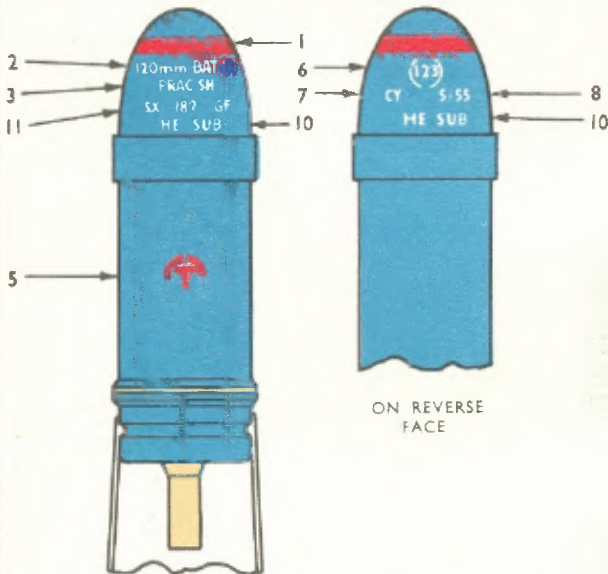
SHELL

FIG.1 HE SH



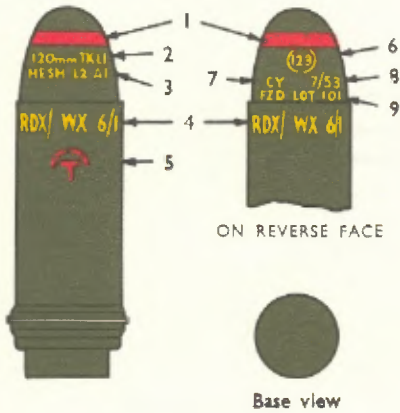
- 1...RED FILLING RING
- 2...CALIBRE AND NATURE AND/OR MODEL NUMBER OF ORDNANCE
- 3...TYPE AND/OR NATURE OF PROJECTILE
- 4...CODE DENOTING FILLING COMPOSITION USED
- 5...TRACER SYMBOL
- 6...FILLED SERIES NUMBER
- 7...RECOGNIZED MONOGRAM OR INITIALS OF FILLER
- 8...DATE OF FILLING (MONTH AND YEAR)
- 9...LOT NUMBER OF FUZE
- 10...NATURE OF PRACTICE FILLING
- 11...DESIGN DRAWING OR PART NUMBER

FIG.2 PRAC SH



TYPICAL IDENTIFICATION MARKINGS ON PROJECTILES - 120mm TK

FIG.1 HE SH

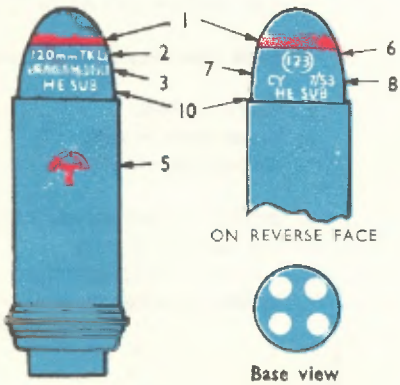


SHELL

ON REVERSE FACE

Base view

FIG.2 PRAC SH



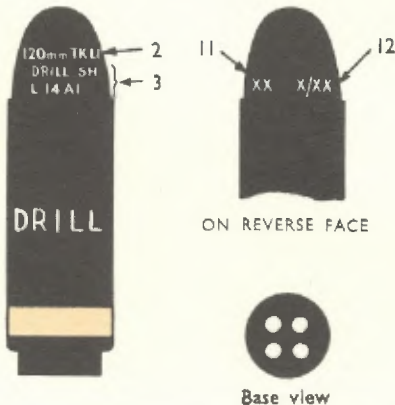
ON REVERSE FACE

Base view

KEY TO STENCILED MARKINGS

- 1.. RED FILLING RING
- 2.. CALIBRE AND NATURE AND/OR MODEL NUMBER OF ORDNANCE
- 3.. TYPE AND MARK OR MODEL NUMBER OF PROJECTILE
- 4.. CODE DENOTING FILLING COMPOSITION USED
- 5.. TRACER SYMBOL
- 6.. FILLED SERIES NUMBER
- 7.. RECOGNIZED MONOGRAM OR INITIALS OF FILLER
- 8.. DATE OF FILLING (MONTH & YEAR)
- 9.. LOT NUMBER OF FUZE
- 10.. NATURE OF PRACTICE FILLING
- 11.. RECOGNIZED MONOGRAM OR INITIALS OF MANUFACTURER
- 12.. DATE OF MANUFACTURE (MONTH & YEAR)

FIG.3 DRILL



ON REVERSE FACE

Base view



TYPICAL IDENTIFICATION MARKINGS ON PROJECTILES — 120mm TK

SHOT

FIG.1 AP DS

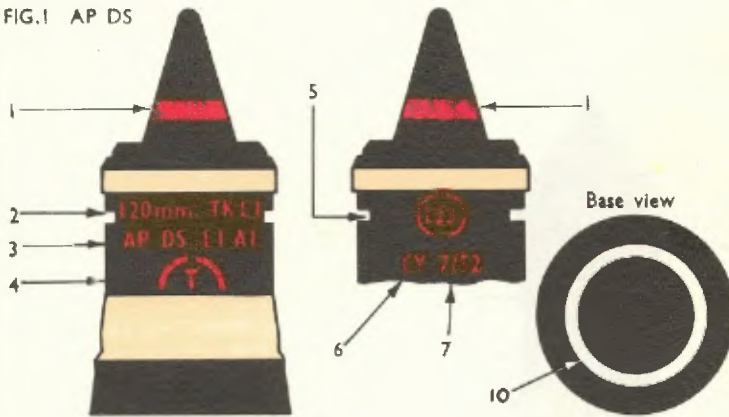


FIG.2 PRAC DS

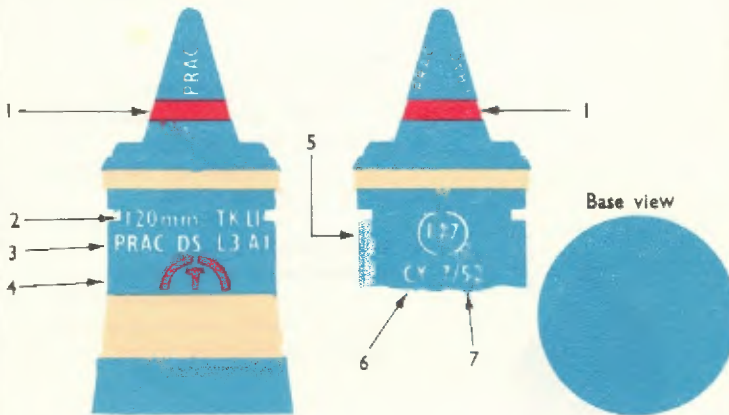
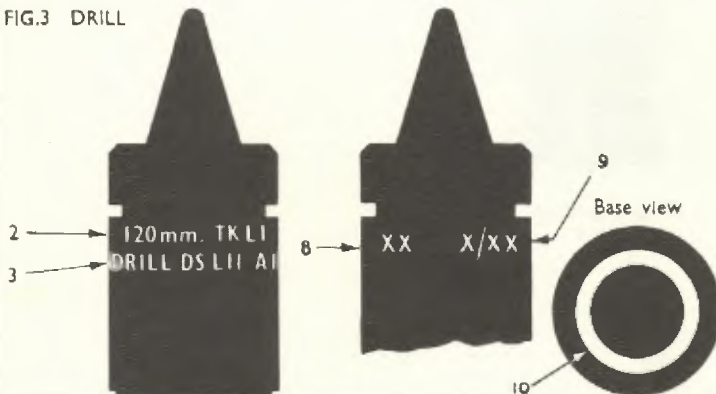


FIG.3 DRILL



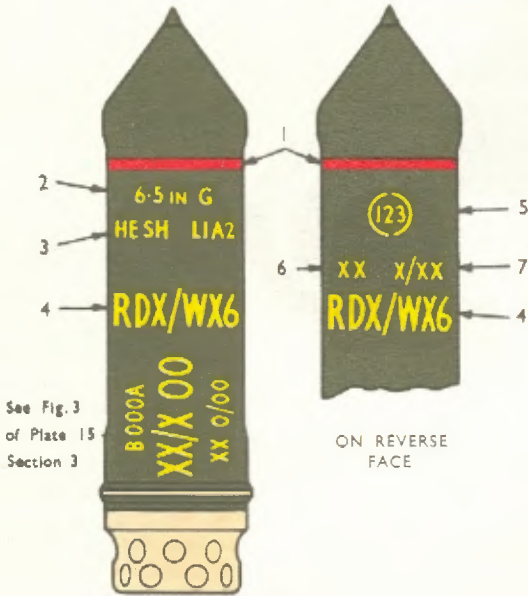
KEY TO  
 STENCILED MARKINGS

- 1... RED FILLING RING
- 2...CALIBRE AND NATURE AND /OR MODEL NUMBER OF ORDNANCE
- 3...TYPE OF PROJECTILE (WITH MARK OR MODEL NUMBER)
- 4...TRACER SYMBOL
- 5... FILLED SERIES NUMBER
- 6...RECOGNIZED MONOGRAM OR INITIALS OF ASSEMBLER
- 7...DATE OF ASSEMBLY(MONTH AND YEAR)
- 8...RECOGNIZED MONOGRAM OR INITIALS OF MANUFACTURER
- 9...DATE OF MANUFACTURE (MONTH & YEAR)
- 10...IDENTIFICATION RING

TYPICAL IDENTIFICATION MARKINGS ON PROJECTILES—6.5 in.

SHELL

FIG. 1 HE SH

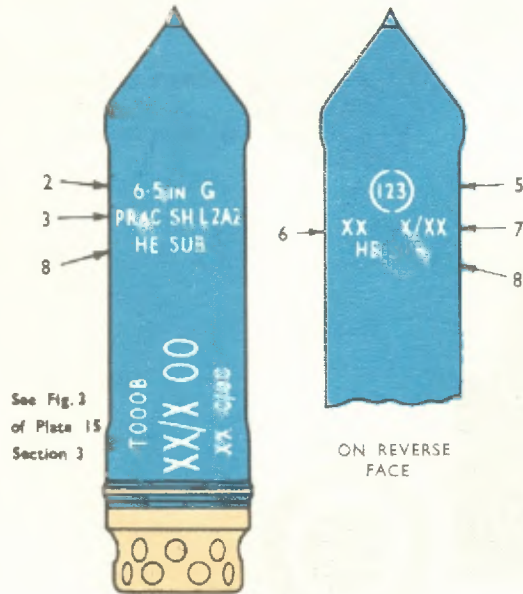


See Fig. 3  
 of Plate 15  
 Section 3

ON REVERSE  
 FACE

- 1.. RED FILLING RING
- 2.. CALIBRE AND NATURE AND/OR MODEL NUMBER OF ORDNANCE
- 3.. TYPE AND MARK OR MODEL NUMBER OF PROJECTILE
- 4.. CODE DENOTING FILLING COMPOSITION USED
- 5.. FILLED SERIES NUMBER
- 6.. RECOGNIZED MONOGRAM OR INITIALS OF FILLER
- 7.. DATE OF FILLING (MONTH AND YEAR)
- 8.. NATURE OF PRACTICE FILLING

FIG. 2 PRACTICE SH



See Fig. 3  
 of Plate 15  
 Section 3

ON REVERSE  
 FACE

57

AMMUNITION

5541

RESTRICTED

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JOINT SERVICES  
AMMUNITION  
AND AMMUNITION PACKAGE  
MARKINGS HANDBOOK

Section 2 Part 2

BOMBS - MORTAR

1960

*(Supersedes Section 2, Part 2, 1954 edition)*

*Promulgated by Command of Their Lordships,*

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*Promulgated by Command of The Army Council,*

*R. E. Day*

*Promulgated by Command of The Air Council,*

*L. J. Dean*



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## RESTRICTED

### INTRODUCTION

1. The general principles of colour identification and details of markings in this section follow those laid down in Section 1 "General Introduction", which should be read in conjunction with it. There are exceptions, and some of these are explained by examples.

### METHODS OF IDENTIFICATION—GENERAL

2. The following methods of identification, or a combination of these methods may be used:—
  - Stamping, embossing, engraving, etc.
  - Basic body identification colours.
  - Ring to indicate bomb contains an active agent.
  - Special feature rings, symbols or markings.
  - Stencilling (including transfer and printing processes)
  - Filling abbreviations and codes.
3. The distinctive colours of paints or other marking media used will be as follows:—
  - (a) For basic body colours:—
    - Black
    - Turquoise blue
    - Deep bronze green
    - Sea green
    - Light grey
    - Oxide red
    - White
  - (b) For rings, stripes, symbols, stencilling, etc.:—
    - Azure blue
    - Black
    - Brilliant green
    - Signal red
    - Golden yellow
    - White

### STAMPINGS, EMBOSSING, ENGRAVING, ETC.

4. The following permanent markings will be applied to the bomb body. They are required to indicate details of manufacture and acceptance inspection of the empty store or assembly. **They are not normally required by the user**, and are usually overpainted with the basic body identification colour, or varnish, and the stencilled markings.
  - (a) *2 inch Mortar Bombs*

The following details relating to the manufacture of the empty bomb are stamped on the forward part of the body:—

    - 2" MOR MK. (as applicable)
    - Contractors initials or recognized trade mark.
    - Date of manufacture (month and year).
  - (b) *3 inch and 4.2 inch Mortar bombs*

The following details relating to the manufacture of the empty bomb are cast below the guide band. Alternatively, these details may be embossed or rolled on around the body:—

    - 3" or 4.2" MOR (as applicable)
    - Part number of empty bomb (as applicable)
    - Contractors initials or recognized trade mark
    - Date of manufacture (month and year)
    - C.I. indicating Cast iron (if applicable)
    - SMK. indicating Smoke (if applicable)

(c) Embossing may also be used to facilitate identification of stores by touch, i.e. night identification. Subject to space being available, the following symbols will be embossed on 2 inch Mortar and B.T. Signal and Illuminating bombs:—

|                             |                  |    |  |
|-----------------------------|------------------|----|--|
| Single stars                |                  |    |  |
| Red                         | are indicated by | +  |  |
| Green                       | " "              | △  |  |
| Yellow or White             | " "              | O  |  |
| Multi-star                  |                  |    |  |
| Red                         | " "              | ++ |  |
| Green                       | " "              | △△ |  |
| Red and green               | " "              | +△ |  |
| Yellow or White             | " "              | OO |  |
| Illuminating with parachute | " "              | P  |  |
| Signal Success              | " "              | S  |  |

The embossing will normally be found on the heads of the bombs.

### BASIC BODY IDENTIFICATION COLOURS

5. The basic body colour and the colour of the main details stencilled thereon (see Plates 1 to 8) indicate the type of bomb as follows:—

| Body              | Colour of                   |                                                         | Type                                                                                          | Abbreviation                                 |
|-------------------|-----------------------------|---------------------------------------------------------|-----------------------------------------------------------------------------------------------|----------------------------------------------|
|                   | Stencilling (main details)  | Tail unit                                               |                                                                                               |                                              |
| Deep bronze green | Golden yellow               | Stove varnished (no colour identification significance) | High explosive                                                                                | HE                                           |
| Sea green         | White<br>Black              | "                                                       | Smoke—bursting<br>Smoke—screening B.E.<br>Smoke—coloured B.E.<br>Skytrail coloured smoke B.E. | SMK<br>SMK BE<br>SMK BE*<br>SMK TRAIL<br>BE* |
| Light grey        | Black but see also para. 13 | "                                                       | Chemical                                                                                      | CHEM                                         |
| Red oxide         | Black                       | "                                                       | Incendiary                                                                                    | INCDY                                        |
| Signal red        | Black                       | "                                                       | Flame                                                                                         | FLAME                                        |
| Turquoise blue    | White                       | "                                                       | Practice                                                                                      | PRAC                                         |
| Black             | White                       | "                                                       | Signals<br>Radar Echo, B.E.<br>Drill                                                          | RE BE<br>DRILL                               |
| White             | Black                       | "                                                       | Flare, TR. B.E.<br>Illuminating<br>Star                                                       | FLAR TR BE*<br>ILLUM<br>STAR                 |

\*Yellow, orange, red, green or blue (as applicable)



### Bombs 3 inch and above

The whole of the body and tail unit are phosphated and then stove varnished. On streamline bombs the head, and on cylindrical bombs the head and space between the guide bands only is painted the appropriate identification colour; the remainder of the bomb body and tail unit being left varnished but unpainted.

### Bombs 2 inch

The whole of the body and tail unit are phosphated and then stove varnished and then the body, with the exception of the guide, is painted the appropriate identification colour. The guide, tail unit and cap are left varnished but unpainted.

### Notes

1. Combinations of the above basic body identification colours are employed on bombs of a composite nature, e.g. operational and practice bombs with combination high explosive, smoke and/or chemical filling.
2. Throughout the Plates of this Section coloured parts of bombs which have no colour identification significance are depicted in champagne. Exceptions are where the body of the bomb has been shown in dark brown colour (representing a phosphated and varnished surface) in order that the stencilling may be reproduced in the appropriate contrasting colour.
6. **Coloured rings.** These are painted over the basic body colour to indicate:—
  - (a) That the bomb contains or is assembled with an active agent.
  - (b) The type of charging of chemical bombs.
  - (c) Special features.

Where the ring is of the same colour as the basic body colour of the bomb on which it appears, it will be denoted by two black or white hair lines appropriately spaced.

7. **Coloured symbols.** These are painted over the basic body colour to indicate:—
  - (a) A star or stars of the appropriate colour, or a star composition filling.
  - (b) A circle with a serial number inside, in the same colour as the other main details stencilled on the bomb relates to the filled series for H.E., smoke, star, illuminating flare, chemical and inert bombs.
8. **Other coloured symbols or markings.** Certain other coloured symbols or markings may also be used to indicate special characteristics of the bomb not covered by the standard approved markings.

### RING TO INDICATE BOMB CONTAINS AN ACTIVE AGENT

9. A signal red ring painted around the nose of the bomb denotes that the bomb contains an active agent (explosive, chemical or otherwise) and is normally required to be classified for storage, transit and handling in a Government Explosives Group. This identification marking will also be used on practice bombs with flash pellets or spotting charges incorporated in the filling (*see also para 12*).

There are three types of red ring, as follows:—

- (a) *A plain red ring* indicates suitability for issue and storage under all climatic conditions.
- (b) *A cross-bar-cross red ring* indicates a limited life in hot or cold climates. It is a cautionary warning denoting that the store should be frequently inspected and/or tested to confirm its continued serviceability. In addition to this symbol, when the store is restricted in transit and storage to below or above a specified temperature, the critical temperature figures enclosed in a rectangle preceded by the letters

TSL (denoting "Transit and Storage Temperature Limitation") and the words "NOT ABOVE" or "NOT BELOW" (as applicable) will be stencilled in red on the body of the bomb e.g.

TSL NOT ABOVE 120°F (actual temperature figure as applicable)

TSL NOT BELOW -25°F (actual temperature figure as applicable)

Where applicable the above-mentioned indications may be amalgamated, either following or underneath one another, in which case the words "NOT ABOVE" or "NOT BELOW" will be omitted.

(c) *A hatched red ring* indicates restrictions of issue and storage to temperate climates only.

10. **Standard position of red rings.** The ring will be painted on the ogive of the bomb or on cylindrical shaped bomb bodies near the head, care being taken that they are easily visible whether or not a removable cap is fitted.

11. **Standard width of ring**

|                          | For bombs                                                                          |                                                                                    |
|--------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
|                          | Above 3 inch<br>calibre                                                            | 3 inch calibre<br>and below                                                        |
| Plain red ring           | $\frac{1}{2}$ inch                                                                 | $\frac{1}{4}$ inch                                                                 |
| Cross-bar-cross red ring | $\frac{1}{2}$ inch                                                                 | $\frac{1}{4}$ inch                                                                 |
| Hatched red ring         | $\frac{1}{2}$ inch wide centre<br>ring with hatched<br>bars of $\frac{7}{8}$ inch. | $\frac{1}{4}$ inch wide centre<br>ring with hatched<br>bars of $\frac{1}{2}$ inch. |

On bombs having a basic body colour of red, the plain red filling ring will be indicated by two black hair lines appropriately spaced. Cross-bar-cross and hatched red filling rings will be superimposed on a black ring to render them easily distinguishable from the red basic body colour. Alternatively the same effect may be produced by stencilling a black ring from which the appropriate marking has been cut out, leaving the basic body colour showing through.

12. **Practice bombs with inert fillings** (see Fig. 1 Plate 3, Fig. 2 Plate 4 and Fig. 2 Plate 6). Although it is an exception to the general rule for all other natures of inert projectiles, Practice inert filled mortar bombs will, if such are issued with operational propelling cartridges assembled in the tail unit, have a plain red filling ring painted around the nose of the bomb. The package containing such bombs will have the appropriate Explosive Group Classification symbol or label painted or affixed (as applicable) on the top or lid, and the package will be transported, handled and stored accordingly.

### RING(S) INDICATING TYPE OF CHARGING OF CHEMICAL BOMBS

13. The basic body colour of chemical bombs will be light grey and the type of charging will be classified according to its tactical use.

Green ring(s) with the code letters indicating the chemical agent also stencilled in green, indicate a casualty producing agent.

Red ring(s) with the code letters indicating the chemical agent also stencilled in red, indicate a harassing agent.

One coloured ring indicates a non-persistent and two rings a persistent agent.

**14. Standard width of rings**

4 inch Calibre and above—1 inch wide with 1 inch between rings if two are used.  
Below 4 inch calibre — $\frac{1}{2}$  inch wide with  $\frac{1}{2}$  inch between rings if two are used.

**15. Standard position of ring(s)**

First ring to be positioned approximately one third of the distance down from the head of the bomb.

**RINGS INDICATING SPECIAL FEATURES**

**16. The following coloured bands will be used to indicate special features:—**

- (a) *A light brown ring (Fig. 2 Plate 1)* placed above and adjacent to the red filling ring indicates a cast iron or semi-steel bomb. The width of the ring will be the same as that for the red filling ring. To avoid the two different coloured paints intermingling at the time of application, the bands may be separated by a space equal to but not more than a  $\frac{1}{4}$  width of the rings.  
On inert filled bombs, where a red filling ring is not required to be applied, the light brown ring will be positioned approximately 1 inch below the nose or lip of the bomb.
- (b) *A white zig-zag ring* approximately  $1\frac{1}{2}$  inches in width placed on the shoulder indicates a Radar Echo bomb.

**SYMBOLS INDICATING SPECIAL CHARACTERISTICS**

**17. Coloured stars.** A star of the appropriate colour (as applicable) denotes the presence of a star filling. Two stars of the appropriate colour (as applicable) positioned one above the other denotes a change colour star unit, the colour of the top star indicating the colour of the star which appears first on ejection. A number in the same colour and positioned on the right and adjacent to the star denotes the number of stars present. The letter "M" or "MULTI" immediately below the star denotes the presence of more than two star units when the exact number is unimportant.

The numeral or letter(s) (as applicable) will be stencilled in not less than  $\frac{1}{2}$  inch bold type. The letter "S" in the same colour and positioned immediately below the star denotes a success signal.

The letter "P" in the same colour and positioned immediately below the star denotes the signal is suspended from a parachute. The mark of the parachute (where applicable) is added after the letter e.g. P6.

The letters "S" and "P" (as applicable) will be stencilled in not less than 1 inch bold type. The abbreviated code identifying the particular filled star composition (*see Table 3 of Section 1*), will be stencilled in black on the body of the bomb.

**NOTE:—**Illuminating Bombs are not marked with a star symbol (*see Fig. 1 Plate 8*)

- 18. Position.** They are usually placed on the body of the bomb immediately below the main stencilled details.
- 19. Size.** They will normally be 1 inch in diameter but may be reduced to  $\frac{3}{4}$  inch diameter where space is restricted.

**STENCILLING (including transfer or printing processes)**

**20. These details are applied over the basic body colour, and give such additional information as is necessary to make identification complete. The following are examples of this information (*see also Plates 1 to 8*):—**



25. **Batching.** Fuzed M.L. mortar bombs are batched by filled fuze lots and sub-batched where necessary, by primary cartridge lots.

(a) *By factories*

Batch numbers are allocated by the Inspectorate of Armaments at the time of assembly. Such numbers run consecutively for any given nature of bomb. Each batch has a prefix letter which indicates the nature of the bomb and the parent batch number is allocated a suffix letter for each sub-batch where necessary. Thus, if batch B34 were divided into three sub-batches, they would be numbered as follows:—B.34A, B.34B and B.34C. The batch number will be stencilled on the body of the bomb in the same colour stencilling as used for the other main details.

(b) *Re-batching by the Services*

When for any reason, original components are replaced in the Services by components of another lot, new batch numbers and sub-batch letters will normally be allotted by H.Q. Ammunition Organization, R.A.O.C., as follows:—

- (i) Primary component—new batch number.
- (ii) Secondary component—new sub-batch letter.

**NOTE:** When 24 sub-batches already exist, a new secondary component may entail the allocation of a new batch number.

The exchange of other components with new lots does not affect the batch number or sub-batch letter.

Plugged M.L. mortar bombs and bombs M.L. mortar in which fuzes are not used i.e. 2 inch mortar smoke, illuminating, etc. are identified by a filled series number.

26. **Smoke bombs.** Smoke bombs filled with white phosphorus will have the abbreviation "WP" in white lettering, in as large a type as possible, stencilled twice, diametrically opposite, on the body or ogive.
27. **Coloured smoke and flare bombs.** Bombs filled with coloured smoke compositions will have the colour "BLUE", "GREEN", "RED" or "YELLOW" (as applicable) stencilled in golden yellow, while bombs filled with coloured flare compositions will have the colour as applicable) stencilled in black. Initial letters or abbreviations will **not** be used. The word denoting the colour of the particular smoke or flare composition should, so far as space permits, be twice the size of the other main filling details stencilled on the bomb.
28. **Drill bombs.** Drill bombs painted black will have the word "DRILL" prominently stencilled in white on the body.
29. **Bombs with inert fillings.** Practice bombs having inert fillings will have the nature of the filling i.e., "SAND", "WEIGHTED", etc. stencilled in white lettering on the body. Practice bombs filled H.E. substitute composition will have the abbreviation "HE SUB" stencilled in white lettering on the body. Where practice bombs filled H.E. substitute composition or other inert filling also incorporate a gunpowder charge, etc., or are issued with operational propelling charges assembled in the tail unit (see para. 12) a plain red filling ring will also be applied to the ogive.
30. **Letters or figures—size of type.** Main filling details will normally be stencilled in the following sizes:  
For bombs 4 inch calibre and above— $\frac{1}{2}$  inch.  
For bombs below 4 inch calibre— $\frac{3}{8}$  inch.

## FILLING ABBREVIATIONS AND CODES

31. Filling abbreviations and codes will be found listed in Tables 1 to 3 of Section 1 "General Introduction". They should, so far as space permits, be stencilled twice the size and in the same colour as the other main filling details stencilled on the bomb (*see para. 26 for exception*).

Filling abbreviations and codes denoting the type of H.E. fillings will be stencilled twice, diametrically opposite, on bombs 3 inch dia. and above and once on others. Code abbreviations indicating the particular composition used in Flare, Illuminating, Incendiary, Smoke and Star bombs will be stencilled once only on the body.

## POSITION OF MARKINGS—EXCEPTIONS TO RULES

32. While adhering generally to the foregoing rules, the position but **not** the sequence of markings, may be varied to avoid obliteration in special cases by package supports, etc. The sizes of all markings, notwithstanding the dimensions given, may be proportionately adjusted to the space available and size of the store.

## LABELS, INCLUDING METAL TAGS

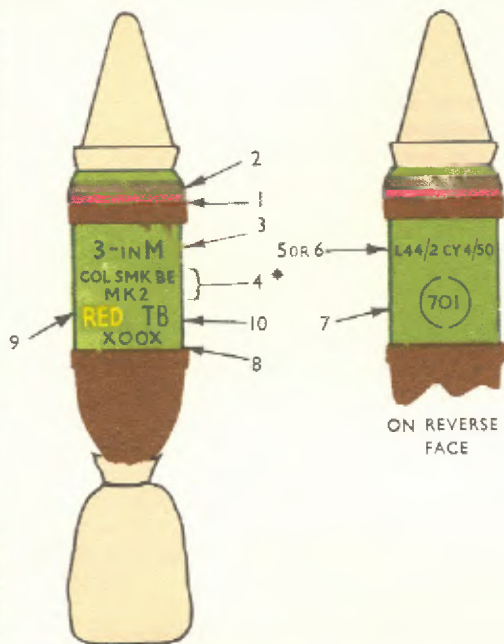
33. Special warning or instructional labels or tags may be used as necessary.

## MORTAR BOMB CARTRIDGES

34. Particulars of markings required to be applied on Mortar bomb cartridges will be found in Section 3—Cartridges (excluding S.A.A., 20 mm. and 30 mm. and pyrotechnics).

TYPICAL MARKINGS ON MORTAR BOMBS - 3 INCH

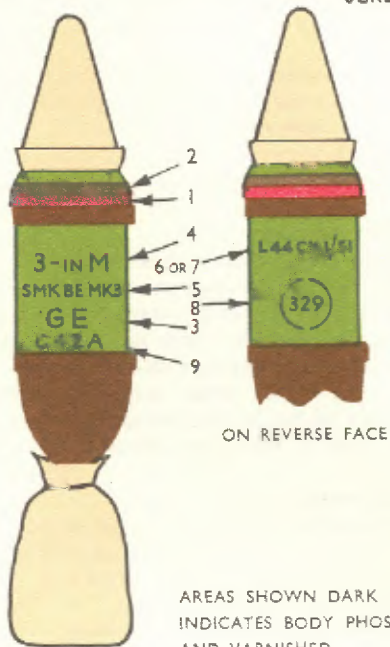
FIG.1 COLOURED SMOKE BE AND COLOURED SMOKE SKYTRAIL



AREAS SHOWN DARK BROWN INDICATES BODY PHOSPHATED AND VARNISHED

- 1 RED FILLING RING
- 2 BROWN RING (DENOTING CAST IRON)
- 3 CALIBRE AND NATURE OF WEAPON
- 4 TYPE AND MARK, OR MODEL NUMBER, OF BOMB \* (SMK TRAIL BE MK 2 FOR SKYTRAIL)
- 5 ONE LINE CODE (METHOD OF FILLING) FOR BOMBS WITH MARK NUMBER
- 6 INITIALS OR RECOGNIZED MONOGRAM OF FILLER AND DATE OF FILLING (FOR BOMBS WITH MODEL NUMBER)
- 7 FILLED SERIES NUMBER
- 8 BATCH NUMBER, WHEN BOMBS ARE ISSUED FUZED AND CARTRIDGED
- 9 COLOUR OF SMOKE (AS APPLICABLE)
- 10 CODE DENOTING NATURE OF FILLING

FIG.2 SCREENING SMOKE BE



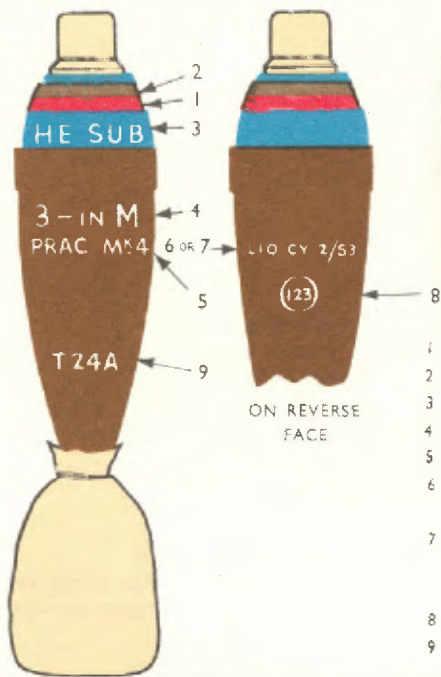
AREAS SHOWN DARK BROWN INDICATES BODY PHOSPHATED AND VARNISHED

- 1 RED FILLING RING
- 2 BROWN RING (DENOTING CAST IRON)
- 3 CODE DENOTING NATURE OF FILLING
- 4 CALIBRE AND NATURE OF WEAPON
- 5 TYPE AND MARK, OR MODEL NUMBER, OF BOMB
- 6 ONE LINE CODE (METHOD OF FILLING) FOR BOMBS WITH MARK NUMBER
- 7 INITIALS OR RECOGNIZED MONOGRAM OF FILLER AND DATE OF FILLING (FOR BOMBS WITH MODEL NUMBER)
- 8 FILLED SERIES NUMBER
- 9 BATCH NUMBER, WHEN BOMBS ARE ISSUED FUZED AND CARTRIDGED

TYPICAL MARKINGS ON MORTAR BOMBS - 3 INCH

FIG. 1

PRACTICE



AREAS SHOWN DARK BROWN INDICATES BODY PHOSPHATED AND VARNISHED

- 1 RED FILLING RING (WHEN CARTRIDGE IS FITTED)
- 2 BROWN RING (DENOTING CAST IRON)
- 3 NATURE OF FILLING
- 4 CALIBRE AND NATURE OF WEAPON
- 5 TYPE AND MARK, OR MODEL NUMBER, OF BOMB
- 6 ONE LINE CODE (METHOD OF FILLING) FOR BOMBS WITH MARK NUMBER
- 7 INITIALS OR RECOGNIZED MONOGRAM OF FILLER AND DATE OF FILLING (FOR BOMBS WITH MODEL NUMBER)
- 8 FILLED SERIES NUMBER
- 9 BATCH NUMBER, WHEN BOMBS ARE ISSUED FUZED AND CARTRIDGED

FIG. 2

DRILL



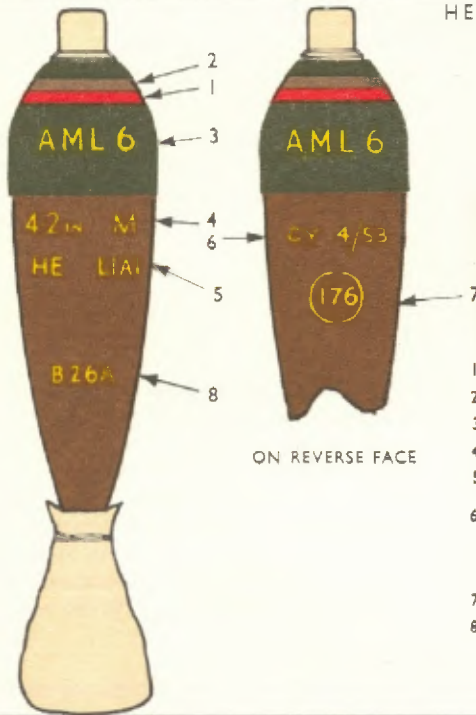
AREAS SHOWN DARK BROWN INDICATES BODY PHOSPHATED AND VARNISHED

- 1 CALIBRE AND NATURE OF WEAPON
- 2 NUMBER, AND MARK, OF BOMB
- 3 RECOGNISED MONOGRAM OR INITIALS OF MANUFACTURER AND DATE OF MANUFACTURE (MONTH AND YEAR)
- 4 TYPE OF BOMB



TYPICAL MARKINGS ON MORTAR BOMBS - 4.2 INCH

FIG. 1

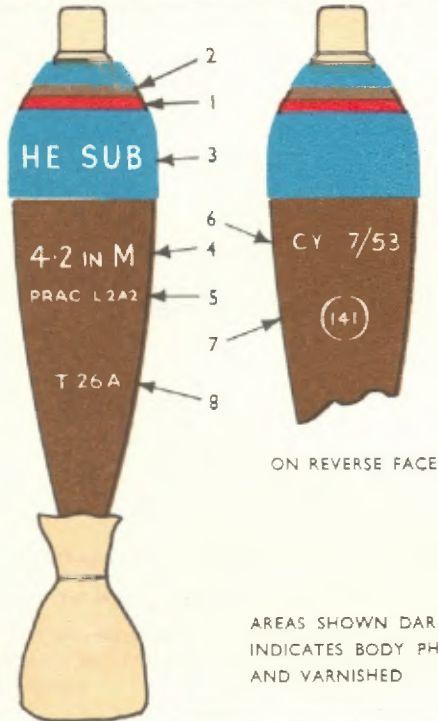


HE

AREAS SHOWN DARK BROWN  
 INDICATES BODY PHOSPHATED  
 AND VARNISHED

- 1 RED FILLING RING
- 2 BROWN RING (DENOTING CAST IRON)
- 3 CODE DENOTING NATURE OF FILLING
- 4 CALIBRE AND NATURE OF WEAPON
- 5 TYPE AND MARK, OR MODEL NUMBER, OF BOMB
- 6 INITIALS OR RECOGNIZED MONOGRAM OF FILLER AND DATE OF FILLING
- 7 FILLED SERIES NUMBER
- 8 BATCH NUMBER, WHEN BOMBS ARE ISSUED FUZED AND CARTRIDGED

FIG. 2



PRACTICE

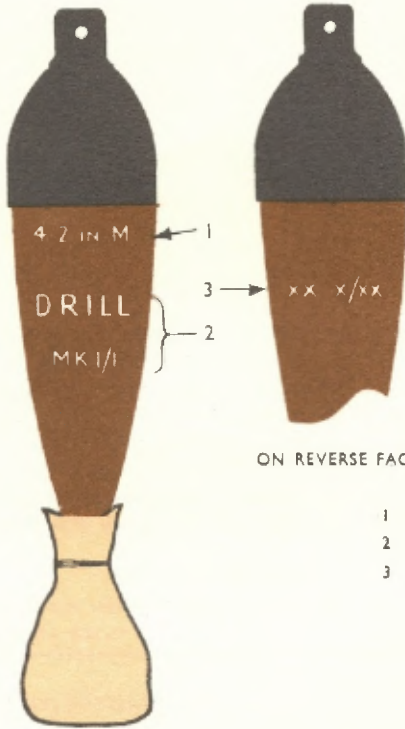
- 1 RED FILLING RING (WHEN CARTRIDGE IS FITTED)
- 2 BROWN RING (DENOTING CAST IRON)
- 3 NATURE OF FILLING
- 4 CALIBRE AND NATURE OF WEAPON
- 5 TYPE AND MARK, OR MODEL NUMBER, OF BOMB
- 6 INITIALS OR RECOGNIZED MONOGRAM OF FILLER AND DATE OF FILLING
- 7 FILLED SERIES NUMBER
- 8 BATCH NUMBER, WHEN BOMBS ARE ISSUED FUZED AND CARTRIDGED

AREAS SHOWN DARK BROWN  
 INDICATES BODY PHOSPHATED  
 AND VARNISHED

TYPICAL MARKINGS ON MORTAR BOMBS - 4.2 INCH

FIG.1

DRILL



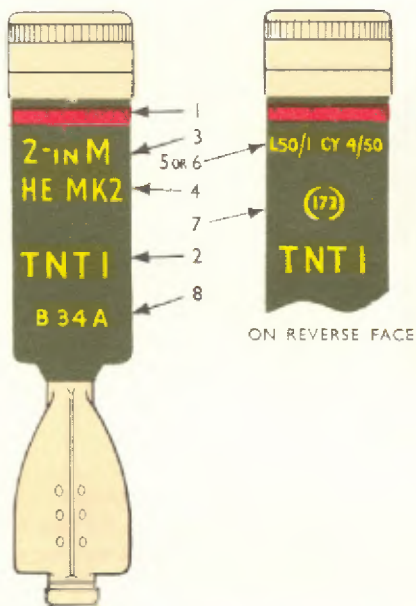
AREAS SHOWN DARK BROWN  
INDICATES BODY PHOSPHATED  
AND VARNISHED

- 1 CALIBRE AND NATURE OF WEAPON
- 2 TYPE AND MARK, OR MODEL NUMBER, OF BOMB
- 3 RECOGNISED MONOGRAM OR INITIALS OF  
MANUFACTURER AND DATE OF MANUFACTURE  
(MONTH AND YEAR)

TYPICAL MARKINGS ON MORTAR BOMBS - 2-INCH

FIG. 1

HE

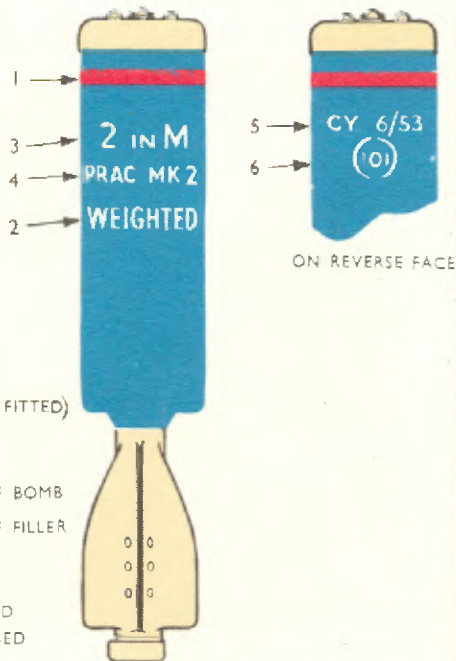
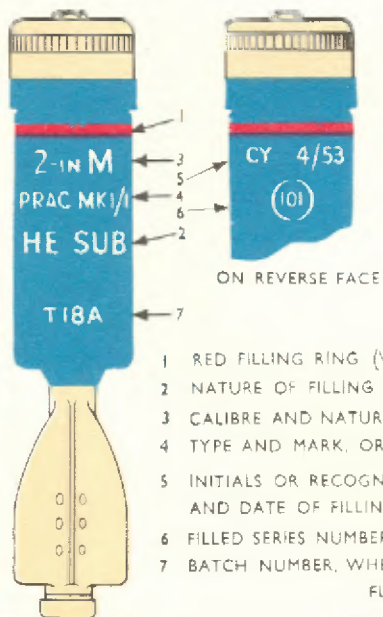


- 1 RED FILLING RING
- 2 CODE DENOTING NATURE OF FILLING
- 3 CALIBRE AND NATURE OF WEAPON
- 4 TYPE AND MARK, OR MODEL NUMBER, OF BOMB
- 5 ONE LINE CODE (METHOD OF FILLING) FOR BOMBS WITH MARK NUMBER
- 6 INITIALS OR RECOGNIZED MONOGRAM OF FILLER AND DATE OF FILLING (FOR BOMBS WITH MODEL NUMBER)
- 7 FILLED SERIES NUMBER
- 8 BATCH NUMBER WHEN BOMBS ARE ISSUED FUZED AND CARTRIDGED

FIG. 2

PRACTICE (REP. HE)

PRACTICE (REP. SMOKE)

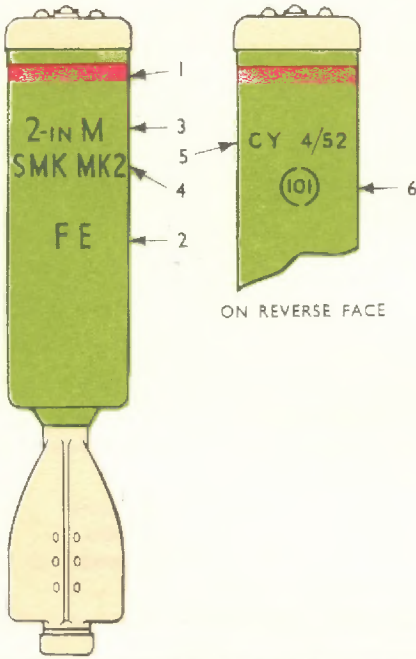


- 1 RED FILLING RING (WHEN CARTRIDGE IS FITTED)
- 2 NATURE OF FILLING
- 3 CALIBRE AND NATURE OF WEAPON
- 4 TYPE AND MARK, OR MODEL NUMBER, OF BOMB
- 5 INITIALS OR RECOGNIZED MONOGRAM OF FILLER AND DATE OF FILLING
- 6 FILLED SERIES NUMBER
- 7 BATCH NUMBER WHEN BOMBS ARE ISSUED FUZED AND CARTRIDGED

TYPICAL MARKINGS ON MORTAR BOMBS - 2 INCH

FIG. 1

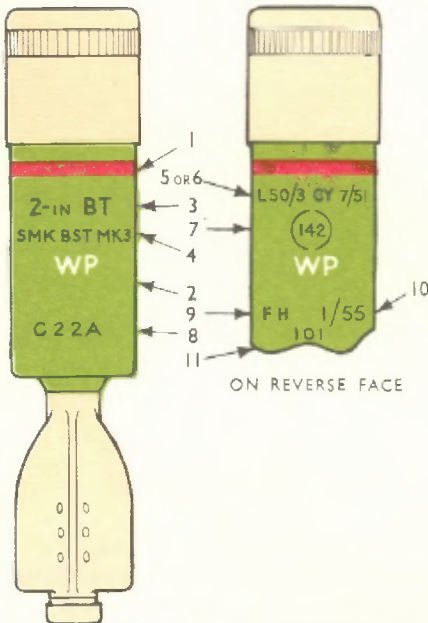
SCREENING SMOKE BE



- 1 RED FILLING RING
- 2 CODE DENOTING NATURE OF FILLING
- 3 CALIBRE AND NATURE OF WEAPON
- 4 TYPE AND MARK, OR MODEL NUMBER, OF BOMB
- 5 INITIALS OR RECOGNIZED MONOGRAM OF FILLER AND DATE OF FILLING
- 6 FILLED SERIES NUMBER

FIG. 2

SMOKE BURSTING FOR BOMB - THROWER

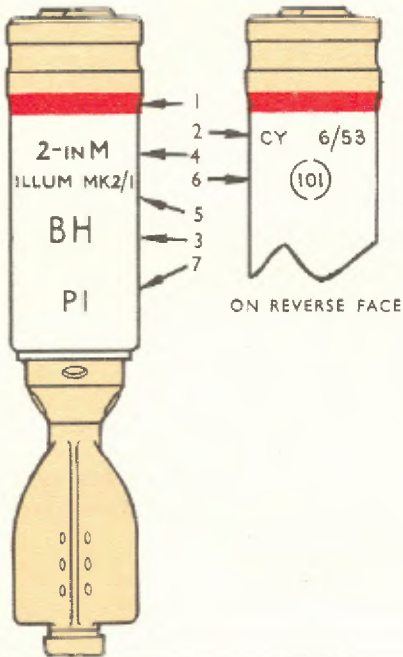


- 1 RED FILLING RING
- 2 CODE DENOTING NATURE OF FILLING
- 3 CALIBRE AND NATURE OF WEAPON
- 4 TYPE AND MARK, OR MODEL NUMBER, OF BOMB
- 5 ONE LINE CODE (METHOD OF FILLING) FOR BOMBS WITH MARK NUMBER
- 6 INITIALS OR RECOGNIZED MONOGRAM OF FILLER AND DATE OF FILLING (FOR BOMBS WITH MODEL NUMBER)
- 7 FILLED SERIES NUMBER
- 8 BATCH NUMBER, WHEN BOMBS ARE ISSUED FUZED AND CARTRIDGED
- 9 RECOGNIZED MONOGRAM OR INITIALS OF CHARGING STATION
- 10 DATE OF CHARGING (MONTH & YEAR)
- 11 CHARGING LOT NUMBER

TYPICAL MARKINGS ON MORTAR BOMBS - 2 INCH

FIG. 1

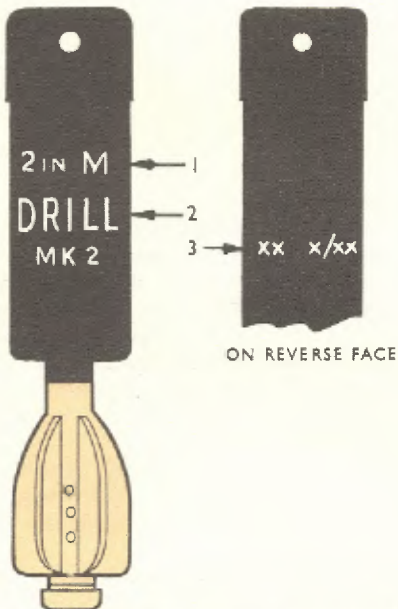
ILLUMINATING WITH PARACHUTE



- 1 RED FILLING RING
- 2 INITIALS OR RECOGNIZED MONOGRAM OF FILLER AND DATE OF FILLING
- 3 CODE DENOTING NATURE OF FILLING
- 4 CALIBRE AND NATURE OF WEAPON
- 5 TYPE AND MARK, OR MODEL NUMBER, OF BOMB
- 6 FILLED SERIES NUMBER
- 7 DENOTES PARACHUTE (WITH MARK NUMBER)

FIG. 2

DRILL (REP. HE)



- 1 CALIBRE AND NATURE OF WEAPON
- 2 TYPE AND MARK OF BOMB
- 3 RECOGNISED MONOGRAM OR INITIALS OF MANUFACTURER AND DATE OF MANUFACTURE (MONTH AND YEAR)

57

AMMUNITION

5541

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**JOINT SERVICES  
AMMUNITION  
AND AMMUNITION PACKAGE  
MARKINGS HANDBOOK**

**Section 2 Part 3**

**BOMBS - AIRCRAFT**

**1960**

*(Supersedes Section 2, Part 3, 1954 edition)*

*Promulgated by Command of Their Lordships,*

*J. G. Lang*

*Promulgated by Command of The Army Council,*

*R. E. Day*

*Promulgated by Command of The Air Council,*

*L. J. Dean*



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| marking of operational tail units ... ..                        | }      |
| when used for drill purposes ... ..                             | 5 Note |

## RESTRICTED

## INTRODUCTION

1. The general principles of colour identification and details of markings in this section follow those laid down in Section 1 "General Introduction" which should be read in conjunction with it. There are exceptions, and some of these are explained by examples.

## METHODS OF IDENTIFICATION—GENERAL

2. The following methods of identification, or a combination of these methods, are used:—
  - Stamping, embossing, engraving, etc.
  - Basic body identification colours.
  - Ring to indicate bomb contains an active agent.
  - Ring(s) indicating type of charging of chemical bombs.
  - Identification plates or tags.
  - Stencilling (including transfer and printing processes).
  - Filling abbreviations and codes.
3. The distinctive colour of paints or other marking media used will be as follows:—
  - (a) For basic body colours:—
    - Black
    - Turquoise blue
    - Deep bronze green
    - Sea green
    - Light grey
    - Red oxide
  - (b) For rings, stripes, symbols, stencilling, etc:—
    - Black
    - Azure blue
    - Brilliant green
    - Signal red
    - White
    - Golden yellow

## STAMPING, EMBOSSING, ENGRAVING, ETC.

4. The following permanent markings will be applied by an approved method or process in an approved and prominent position. They are usually stamped on the base or rear face of the bomb, but on cast iron bombs they may be embossed (or recessed).

They are required to indicate details of manufacture and acceptance inspection of the empty store or assembly. **They are not normally required by the user** and are usually over-painted by the basic body identification colour and stencilled markings.

Abbreviated nomenclature and mark

Initials or recognised mark of manufacturer.

Date of manufacture (month and year)

Lot or batch number, or identification mark of cast and heat treatment batch.

Bomb material, i.e.,

|    |            |              |
|----|------------|--------------|
| CS | indicating | Cast steel   |
| FS | „          | Forged steel |
| CI | „          | Cast iron    |
| SS | „          | Semi-steel   |

## BASIC BODY IDENTIFICATION COLOURS

5. The basic body colour and the colour of the main details stencilled thereon indicate the type of bomb, as follows:—

| Basic body colour | Stencilling colour<br>(main details— when applicable) | Type of bomb                                                     | Abbreviations     |
|-------------------|-------------------------------------------------------|------------------------------------------------------------------|-------------------|
| Deep bronze green | Golden yellow                                         | High explosive                                                   | HE                |
| Sea green         | Black                                                 | Smoke                                                            | SMK               |
| Light grey        | Black, but <i>see</i> also <b>para. 11</b>            | Chemical                                                         | CHEM              |
| Red oxide         | Black                                                 | Incendiary                                                       | INCDY             |
| Black             | White                                                 | Target indicating<br>containing pyro-<br>technic stores<br>Drill | T.I.<br><br>DRILL |
| Turquoise blue    | White                                                 | Practice                                                         | PRAC              |

*Note.* Aircraft bomb tail units, when separately demandable and a component of more than one store, other than drill, will be painted a basic colour of deep bronze green. If operational tail units are assembled to drill stores, these should be retained solely for drill purposes, and have the word DRILL stencilled in golden yellow lettering in large type in a conspicuous position.

6. **Coloured rings, bands and stripes** are painted over the basic body colour to indicate:—

- (a) That the bomb contains or is assembled with an active agent.
- (b) The type of charging of chemical bombs.

7. **Other coloured symbols or markings**

Certain other coloured symbols or markings may also be used to indicate special characteristics of the bombs not covered by the standard markings.

### RING TO INDICATE BOMB CONTAINS AN ACTIVE AGENT

8. A signal red ring painted around the nose or front portion of the bomb denotes that the bomb contains an active agent (explosive, chemical or otherwise) and is normally required to be classified for storage, transit and handling in a Government Explosives Group, or as 'Dangerous Goods' of a non-explosive category related by function to explosives. This identification marking will also be used on practice bombs with an inert filling which are fitted with exploders, flash pellets or spotting charges.

There are three types of red ring, as follows:—

- (a) *A plain red ring* indicates suitability for issue and storage under all climatic conditions.

(b) A cross-bar-cross red ring indicates a limited life in hot or cold climates. It is a cautionary warning denoting that the store should be frequently inspected and/or tested to confirm its continued serviceability. In addition to this red ring, when the store is restricted in transit and storage to below or above a specified temperature, the critical temperature figures enclosed in a rectangle preceded by the letters TSL (denoting "Transit and Storage Temperature Limitation") and the words "NOT ABOVE" or "NOT BELOW" (as applicable) will be stencilled in red on the body of the bomb, e.g.

TSL NOT ABOVE 

|       |
|-------|
| 120°F |
|-------|

 (actual temperature figure as applicable)

TSL NOT BELOW 

|       |
|-------|
| -25°F |
|-------|

 (actual temperature figure as applicable)

Where applicable the above markings may be combined, either following or underneath one another, in which case the words "NOT ABOVE" or "NOT BELOW" will be omitted.

(c) A hatched red ring indicates restrictions on issue and storage to temperate climates only.

#### 9. Standard width of ring

|                          | For bombs                                                                  |                                                       |
|--------------------------|----------------------------------------------------------------------------|-------------------------------------------------------|
|                          | up to 4,000 lb.                                                            | above 4,000 lb.                                       |
| Plain red ring           | $\frac{1}{2}$ inch                                                         | 1 inch                                                |
| Cross-bar-cross red ring | $\frac{1}{2}$ inch                                                         | 1 inch                                                |
| Hatched red ring         | $\frac{1}{2}$ inch wide centre ring with hatched bars $\frac{3}{8}$ inches | 1 inch wide centre ring with hatched bars of 2 inches |

10. **Standard position of ring.** It will normally be positioned on the nose, ogive or front portion of the bomb or section concerned and above the stencilled details.

*Note.* For bombs having a basic body colour of red the plain red ring may be indicated by two black hair lines appropriately spaced, but cross-bar-cross or hatched red filling rings will be superimposed on a black ring to render them easily distinguishable from the red basic body colour. Alternatively, the same effect may be produced by stencilling a black ring from which the appropriate marking has been cut out, leaving the basic body colour showing through.

#### RING(S) INDICATING TYPE OF CHARGING OF CHEMICAL BOMBS

11. The basic body colour of chemical bombs will be light grey and the type of charging will be classified according to its tactical use.

Green ring(s), with the chemical agent code also stencilled in green, indicate a casualty producing agent

Red ring(s), with the chemical agent code also stencilled in red, indicate a harassing agent.

One coloured ring indicates a non-persistent and two rings a persistent agent.

#### 12. Standard width of rings

Up to 4,000 lb.—1 inch wide, with 1 inch between rings where two are used.

Above 4,000 lb.—2 inches wide, with 2 inches between rings where two are used.

### 13. Standard position of ring(s)

First ring to be positioned approximately one third of the distance down from the nose of the bomb.

### IDENTIFICATION PLATES OR TAGS

14. Full identification particulars are stamped or otherwise marked on a metal plate permanently affixed to the base of the bomb and in some instances also on the transit base. The different types of metal plates used are illustrated on **Plate 1, Fig. 1.**

These particulars include:—

- Type, weight and mark.
- Empty manufacturers initials and date (month and year).
- Empty lot number (if applicable).
- Empty bomb series number.
- Fillers initials and date (month and year).
- Abbreviation or code indicating nature of filling.
- Filled lot number.
- Filled bomb series number.
- Stores reference number.

*Note. Naval Service only*—Identification plates are not required to be affixed to transit bases.

### STENCILLING (including transfer and printing processes)

15. Stencilled details, when required, are applied over the basic body colour and give such additional information as is necessary to make identification complete. The following paragraphs give examples of the information required.

### 16. Operational bombs

(a) *Air Service*—Identification particulars are not normally *stencilled* on such bombs, this information being marked on a metal identification plate securely affixed to the base of the bomb and/or transit base.

(b) *Naval Service*—Identification particulars will be marked on the metal identification plate where fitted. Where the information marked on the identification plate is obscured by the transit base the following additional particulars will be stencilled on the body of the bomb:

- Type, weight and mark of filled bomb.
- Abbreviation or code indicating nature of filling.
- Initials or monogram of filler.
- Date of filling (month and year).

*Note.* Where no identification plate is fitted, identification will be by the above-mentioned stencilled markings only.

17. **Practice and drill bombs.** These will be painted a basic body colour of turquoise blue and black respectively and the following details will be stencilled in white lettering on the body of the bomb:—

- Abbreviated nomenclature and mark.  
“PRACTICE”, “PRAC. INERT” or “DRILL” (as applicable).
- “HE SUB”, “SAND/PITCH”, “WEIGHTED”, etc. (as applicable).
- Detail of filling composition.
- Filled series lot number.
- Initials or recognised monogram of filler.
- Date of filling (month and year).
- Stores reference number.

The tail cone of practice bombs, except the 100 lb., will also have the word “SMOKE”, “BROWN”, “FLASH” or “FLAME”, or a combination of these as applicable (*see Plate 2*) stencilled on in bold white letters.

18. **Explodered practice bombs.** These will be painted a basic body colour of turquoise blue and will have the word "PRACTICE" or abbreviation "PRAC" together with the abbreviation "HE SUB", indicating H.E. substitute composition, (if applicable) stencilled on the body in bold white letters.

To indicate the presence of an exploder a plain red filling ring will be painted around the nose and the abbreviation "EXPD" will be stencilled in signal red at either end and/or in the centre of the body.

19. **Coloured flare, flame, flash or smoke bombs.** In addition to the details described in para. 16 above, bombs filled with coloured smoke, flame, flare, or flash compositions will have the colour "BLUE", "GREEN", "RED", "YELLOW" (as applicable) and the words "FLAME", "FLARE" or "FLASH" (as applicable) stencilled in white on the body. Initial letters or abbreviations will **not** be used. These words should be stencilled in letters twice the size of the remaining details stencilled on the body.
20. **Drill bombs.** In addition to the details described in para. 17 above, drill bombs will have the word "DRILL" prominently stencilled in white, in two places, diametrically opposed, on bombs of 500 lb. and above, and once on others.
21. **Main filling details. Size of stencilling.** The sizes of letters and figures used will normally be as follows:

|                                        |                    |
|----------------------------------------|--------------------|
| For bombs 4,000 lb. and above .....    | $\frac{3}{4}$ inch |
| For bombs 250 lb. up to 4,000 lb. .... | $\frac{1}{2}$ inch |
| For bombs 25 lb. up to 250 lb. ....    | $\frac{3}{8}$ inch |
| For bombs below 25 lb. ....            | $\frac{1}{4}$ inch |

#### FILLING ABBREVIATIONS AND CODES

22. The nature of filling is indicated by an abbreviation or code letters and numbers stamped on the identification plate. In *Naval Service* this code is additionally stencilled on the body. In *Air Service* the actual abbreviated designation of the compositions, other than H.E., is used in preference to the code letters allotted to these compositions. This is stencilled on the body of the store only.

When stencilled, filling abbreviations, codes *and* abbreviated composition designations should be in the same colour and, so far as space permits, be twice the size of the other main filling details stencilled on the bomb.

Particulars of filling abbreviations and codes will be found listed in Tables 1 to 3 of Section 1, "General Introduction".

Stores which are classified as "Dangerous Goods" (*see* Appendix A of the Comprehensive Classified List of Government Explosives, 1958, prepared by the E.S.T.C.) will be marked with the nature of the filling, particularly when they are stored and transported unpackage.

#### POSITION OF MARKINGS EXCEPTIONS TO RULES

23. While adhering generally to the foregoing requirements, the position but *not* the sequence of markings may be varied to avoid concealment by other parts or components, or obliteration by package supports, battens, etc. The size of all markings, notwithstanding any dimensions given, may be proportionally adjusted to the space available and the size of the store.

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## AIRCRAFT BOMBS MISCELLANEOUS (TYPICAL)

FIG. 1

TYPICAL IDENTIFICATION PLATES

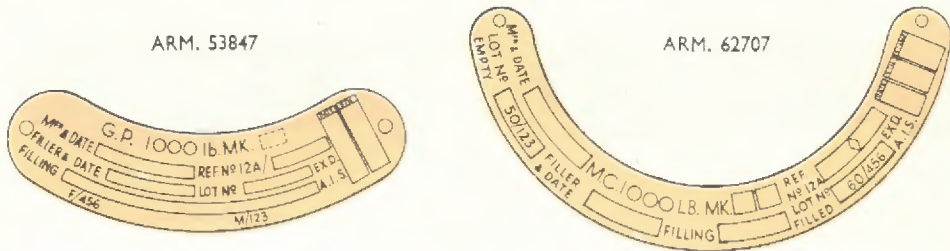


FIG. 2

H.E.



FIG. 3

H.E. (NAVAL SERVICE)

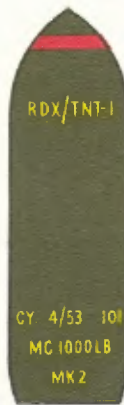


FIG. 4

AIRCRAFT TARGET INDICATOR

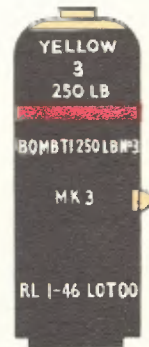


FIG. 5

PRACTICE,  
FILLED INERT  
AND EXPLODERED

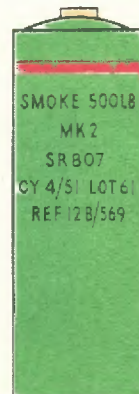
OR CODE INDICATING  
NATURE OF FILLING

FIG. 6

DRILL  
FILLED INERT

FIG. 7

500-LB. SMOKE B.E.



AIRCRAFT PRACTICE BOMBS (TYPICAL)

FIG. 1

BROWN SMOKE

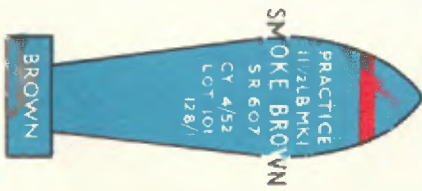


FIG. 2

FLAME



FIG. 3

FLASH



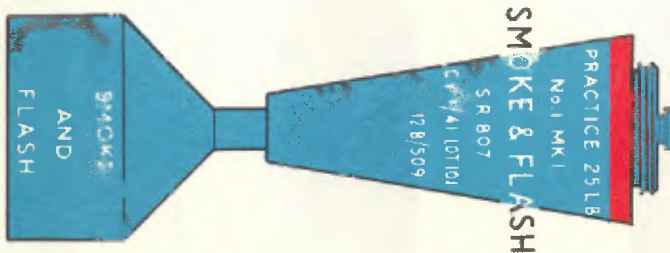
FIG. 4

SMOKE AND FLASH 100-lb. (CENTRE ONLY)



FIG. 5

SMOKE AND FLASH 25-lb. (TAIL UNIT ONLY)





AIRCRAFT CHEMICAL BOMBS (TYPICAL)

FIG. 1

CASUALTY AGENT



DETECTOR PAINT (AS APPLICABLE)

PERSISTENT



NON-PERSISTENT

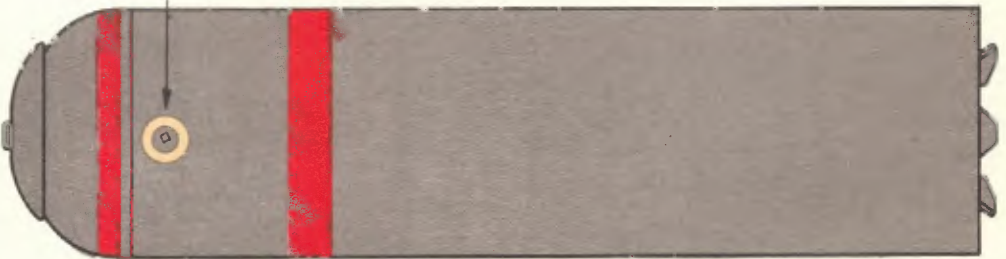
FIG. 2

HARASSING AGENT



DETECTOR PAINT (AS APPLICABLE)

PERSISTENT



NON-PERSISTENT

57

AMMUNITION

5541

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**JOINT SERVICES  
AMMUNITION  
AND AMMUNITION PACKAGE  
MARKINGS HANDBOOK**

**Section 3**

**CARTRIDGES (excluding S.A.A., 20mm and 30mm  
and Pyrotechnics)**

**1960**

*(Supersedes Section 3, 1953 edition)*

*Promulgated by Command of Their Lordships,*

*J. G. Lang*

*Promulgated by Command of The Army Council,*

*R. E. Day*

*Promulgated by Command of The Air Council,*

*L. J. Dean*



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| Naval Service ... ..                                                                                                  | 9  | " 2      |           |
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| Q.F. Blank cartridges ... ..                                                                                          | 10 | " 1      |           |
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| Q.F. Paper shot cartridges ... ..                                                                                     | 11 | " 1      |           |
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| —repaired case                                                  | ... | ... | ... | ... | ... | ... | ... | 22(a)         |
| —size of                                                        | ... | ... | ... | ... | ... | ... | ... | 24            |
| Stencilling—Bags containing sectioned or incremental charges    | ... | ... | ... | ... | ... | ... | ... | 12(b)         |
| —B.L. blank cartridges                                          | ... | ... | ... | ... | ... | ... | ... | 21            |
| —B.L. cartridges                                                | ... | ... | ... | ... | ... | ... | ... | 15            |
| —B.L. drill cartridges                                          | ... | ... | ... | ... | ... | ... | ... | 18            |
| —B.L. igniters                                                  | ... | ... | ... | ... | ... | ... | ... | 17            |
| —On cartridge to indicate charges designed for special purposes | ... | ... | ... | ... | ... | ... | ... | 11            |
| —Q.F. Blank cartridges                                          | ... | ... | ... | ... | ... | ... | ... | 20            |
| —Q.F. Clearing cartridges                                       | ... | ... | ... | ... | ... | ... | ... | 20            |
| —Q.F. Drill cartridges                                          | ... | ... | ... | ... | ... | ... | ... | 19            |
| —Q.F. fixed—                                                    |     |     |     |     |     |     |     |               |
| Marked under the batching system                                | ... | ... | ... | ... | ... | ... | ... | 13            |
| Not marked under the batching system                            | ... | ... | ... | ... | ... | ... | ... | 14            |
| —Q.F. general                                                   | ... | ... | ... | ... | ... | ... | ... | 10            |
| —Q.F. Paper shot cartridges                                     | ... | ... | ... | ... | ... | ... | ... | 20            |
| —Q.F. separate loading                                          | ... | ... | ... | ... | ... | ... | ... | 12            |
| —Size of—on base                                                | ... | ... | ... | ... | ... | ... | ... | 10(a)         |
| —on side                                                        | ... | ... | ... | ... | ... | ... | ... | 10(a)         |
| —propellant code letters and special markings                   | ... | ... | ... | ... | ... | ... | ... | 10(a)         |

## INTRODUCTION

1. The principles of colour identification and details of markings in this Section follow those laid down in Section 1, "General Introduction" which should be read in conjunction with it. There are exceptions, and some of these are explained by examples.

## METHODS OF IDENTIFICATION—GENERAL

2. The following methods of identification or a combination of these methods are used:—

Colour markings  
 Coloured or dyed fabrics  
 Stencilling (including transfer or printing processes)  
 Stampings  
 Labels

*NOTE.* The red filling ring indicating that the store contains an active agent (explosive, chemical or otherwise) as found, for example, on filled projectiles, bombs, etc., is *not* applied on cartridges or on the propellant section (i.e. case) of rounds governed by this Section.

3. Land Service only

(a) Ammunition for *new equipments*, will omit all reference to the method of obturation such as B.L., Q.F., R.C.L., etc., from primary nomenclatures and markings. When, however, it is required to differentiate between two weapons of similar calibre but of different role and design, a reference to the role will be incorporated to make identification complete, e.g.

120 mm BAT L2  
 120 mm TK L1

(b) Separate loading cartridges for *new equipments* will have a Model number followed by the letter A and a serial number; these will be used in nomenclatures and markings in lieu of the number and Mark which was previously used to identify the store.

Where, however, *new patterns of existing cartridges* are introduced, the number and/or mark will continue to be advanced as heretofore.

(c) For fixed ammunition (projectile and case) for *new equipments*, the term "Round" (in lieu of "Cartridge") will be used to designate the complete assembled store, in both nomenclature and markings.

Where, however, *new patterns of cartridges for existing equipments* are introduced, such will continue to be introduced under the nomenclature of "Cartridges" as heretofore, the mark only being advanced. Where however, *new natures of rounds* for existing equipments are introduced these may be designated "ROUNDS", the projectile being allocated a Part number and the complete assembled round a model number.

## COLOUR MARKINGS

4. Basic body colours involving the use of paint are *not* used for identification, as paint on cartridge bag fabrics or on cartridge cases might introduce undesirable effects. An exception to this rule, however, may occur in certain identification markings on the base of cartridge cases for new equipments which relate to matching projectiles. (For example *see Plate 14*).



5. In Naval Service, the following identification colour markings are used on cartridges as appropriate:—

A red band on the body of B.L. bags indicates the igniter end of the charge. (This is applied to 6 inch cartridges and above).

A black band on the body of B.L. bags indicates the position of the tin foil in the charge. (This is applied to 6 inch cartridges and above).

On the base of the cartridge case of V.T. fuze Q.F. fixed ammunition a bar of colour is applied, to match the colour of the V.T. fuze (see Section 4 para. 2.4.4.). This will normally be positioned as near as possible to the detail of the shell and propellant lot number.

NOTE. Previously, a white cross on the base of Q.F. cartridge cases indicated a flashless charge. This has now been dispensed with.

6. In Land Service, the following identification colour markings are used:—

(a) Charges B.L. 5.5 inch gun

A black band, 1 inch wide and 7 inches from one end of a B.L. 5.5 inch gun cartridge denotes a super charge for use with 80 lb. shell only.

(b) Charges Q.F. 25 pr.

The normal charge consists of three portions, each contained in a coloured cambric bag:—

|                         |            |              |              |
|-------------------------|------------|--------------|--------------|
| 1st portion (red bag)   | 1st charge | } 2nd charge | } 3rd charge |
| 2nd portion (white bag) |            |              |              |
| 3rd portion (blue bag)  |            |              |              |

The intermediate charge increment (for use with charge 1 and 2 only) is contained in a white cylindrical cambric bag, and is identified by being marked axially with red stripes  $\frac{5}{8}$  inch wide at  $\frac{3}{8}$  inch intervals.

7. Drill cartridges

Where drill ammunition is made from the material used for the operational version, it will be coloured black all over. Exceptions to this rule are:—

(a) Brass cases are *not* coloured black; instead, the word DRILL is stamped on the base of the case (see Fig. 2, Plate 11).

(b) When made from material other than that used for the equivalent operational store, e.g. wood, rubber, etc. it will be left in its natural state. When made from steel, aluminium and/or brass components these will be phosphated and lacquered or anodised. The abbreviated nomenclature, type, mark or model number, the contractor's initials and last two figures of year of manufacture and the word DRILL will be stamped or engraved on the base prior to treatment and the letters afterwards filled in with white paint or wax (see Plate 16).

(c) Drill cartridges made up in the same colour and cloth material as the equivalent Service store and will have the word DRILL stencilled in black in a prominent position (see Fig. 2 Plate 12).

### COLOURED OR DYED FABRICS

8. Dyed fabrics are used for making up igniter bags and in the Land Service they aid identification of the charges for certain Q.F. separate loading cartridges (see para. 6(b)).

(a) The distinctive colours used are:—

Azure blue  
Light brunswick green  
Signal red

## STENCILLING (including transfer or printing processes)

9. Stencilling, or other approved method, is used on assembled rounds and/or cartridges for marking details relating to the propellant filling.

### 10. Stencilling on Q.F. Cartridges (General)

Particulars relating to the propellant filling are marked in black. These are normally marked on the base of the cartridge case, but where the base does not provide sufficient room for the stencilling, the side of the case may be used for all or part of the markings. (*see Plates 14 and 15*).

*NOTE.* In 6.5 inch ammunition, the cartridge case does not permit stencilling to be applied. All particulars relating to the model number of the assembled round and propellant are, therefore, stencilled on the rear portion of the projectile. (*See Plate 15 Fig. 3 and Plate 16 of Section 2 Part 1*).

#### (a) Size of stencils

The sizes of the stencils used for the various calibres of cartridges will be as follows:—

|                           |                    |
|---------------------------|--------------------|
| On the base               |                    |
| Up to and including 6 pr. | $\frac{3}{8}$ inch |
| Above 6 pr.               | $\frac{3}{4}$ inch |
| On the side               |                    |
| Up to and including 6 pr. | $\frac{1}{4}$ inch |
| Above 6 pr.               | $\frac{3}{8}$ inch |

Propellant letters and special markings (*see Plates 1 and 5*)—1 inch.

### 11. Stencilling on Q.F. fixed and separate loading cartridges to indicate charges designed for special purposes (Plate 1).

| Marking   | indicating |                                                    |
|-----------|------------|----------------------------------------------------|
| SUPER     | indicating | super charge                                       |
| SV        | "          | super velocity charge                              |
| HV        | "          | high velocity charge                               |
| RED       | "          | reduced charge (Land Service)                      |
| REDUCED   | "          | reduced charge (Naval Service)                     |
| PRAC. RED | "          | practice reduced charge                            |
| CLEARING  | "          | clearing charge                                    |
| BLANK     | "          | blank charge                                       |
| BOM       | "          | bombardment charge (NS)                            |
| AA        | "          | suitability for anti-aircraft practice firing (NS) |
| BF TGT    | "          | charge for back firing target shell (NS)           |
| PAPER     | "          | charge for paper shot                              |
| BREAK-UP  | "          | charge for break-up shot                           |
| FLG TGT   | "          | charge for falling target shell (NS)               |

### 12. Stencilling on Q.F. cartridges (separate loading) (Plates 2 and 3)

(a) Cases are stencilled as follows:—

Mark of the filled cartridge.

*NOTE:*—In new designs of Land Service cartridges the model number will be stencilled after or below the abbreviation indicating the type of charge and will replace the mark of the assembled cartridge previously used to identify the design e.g. PRAC L2A9.

Propellant identification letters, shape letters and size figures (Land Service).  
(See Appendix 1 of Section 1 "General Introduction").

Propellant lot number or numbers. This may be suffixed by the letter "R" for a re-worked lot in both Naval and Land Service.

In some new designs of Land Service cartridges an abbreviation or combination of abbreviations (see para. 13 (e)) indicating the type(s) of projectile for which the cartridge is approved will be stencilled on the side of the cartridge case (for example see Plate 14).

Nominal charge weight. (Naval Service only).

Recognized mark or initials of the filler.

Date of filling (month and year).

"R.U." indicating cartridges which are, or have been, stowed in ready use lockers (Naval Service).

(b) Bags containing sectioned or incremental charges are marked as follows:—

Calibre.

Mark of filled cartridge.

Propellant identification letters, shape letter and size figures (see Appendix 1 of Section 1 "General Introduction")

Lot number of propellant.

Nominal charge weight.

Date of filling (month and year).

Recognized mark or initials of the filler.

The type letter or letters of the bag and the recognized mark or initials of the contractor making the empty bag are printed as close as possible to the mouth of the bag, so that they are hidden by the choke or seam when the bag is closed after filling.

### 13. Stencilling on Q.F. cartridges (fixed) marked under the batching system

To facilitate issue to the user of homogeneous groups of ammunition, to simplify the tracing and elimination of faulty components and to reduce stencilling to a minimum and enable records to be kept of all components, fixed cartridges for the Land Service are assembled and marked in groups known as "batches" or "sub-batches".

(a) Each batch is given a prefix letter, known as the batch letter, followed by a serial number.

The batch letter is particular to, and gives indication of, the nature of projectile and charge as follows:—

#### OPERATIONAL AMMUNITION

##### Full charge

H.E.S.H.

H.E.

Smoke (screening)

Smoke (coloured)

Piercing shot

Break-up shot

Inert projectile

Coloured, bursting projectile

Flare (coloured)

Illuminating

Canister

Radar echo

##### Reduced charge

H.E.

##### BATCH LETTER

A

B

C

D

E

F

G

J

K

L

N

W

M

**Practice ammunition—****BATCH LETTER****Full Charge**

Practice projectile (filled)  
Practice projectile (weighted)  
and practice shot.

S  
T

**Reduced charge**

Practice projectile (filled)  
Shot, flat-head and practice, pointed

U  
X

(b) A batch contains only one lot of propellant. It is divided into sub-batches by the next most important component when the number constituting a lot of this component is insufficient to match the number of charges obtainable from the propellant lot. For the method of batching mortar ammunition *see para. 28.*

For fuze ammunition, the sub-batch is governed by the fuze and contains only one fuze lot.

For piercing shot, the sub-batch is governed by the shot and contains only one shot series or lot.

Sub-batches are distinguished by a suffix letter (A B C etc. except I and O) to the batch number, e.g. B123C.

B is the batch letter indicating a full charge with H.E. shell.

123 is the batch number, i.e. the 123rd batch of B type rounds produced for the equipment.

C is the sub-batch letter indicating that this sub-batch contains a different lot of fuzes (or other sub-batch component) from those in sub-batches A or B.

All other components, e.g. gaines, tracers, primers, cartridge cases, etc. in the sub-batch are restricted as far as possible to one lot of each component.

(c) A batch label in the package gives details of the batch and its components.

As each batch or sub-batch is completed at the assembly station, an ammunition record sheet (Army Form G3625) is prepared in triplicate, recording the particulars and quantities of the filled components of the complete round comprising the batch or sub-batch. The original sheet is forwarded to the consignee depot, the first copy to the D.I. Arm. Woolwich and the second copy to:—

(a) For Land Service—Commander H.Q., Ammunition Organization, R.A.O.C.

or (b) Air Service—Under Secretary of State, Air Ministry (D.A.I.S./I.S.3.(P.C.S.)).

The ammunition record sheet is an important document and constitutes the history sheet of the ammunition for the whole of its life.

(d) Stencilling on batched cartridges (**Plate 4**).

The following details are stencilled on the side of the cartridge case:—

Batch letter and number and sub-batch letter where applicable.

Propellant identification letters, shape letter and size figures (*see Appendix 1 of Section 1 "General Introduction"*)

Initials or monogram of assembler of complete round. Date of assembly (month and year).

(e) For ease of identification, the mark of the assembled cartridge, i.e. the complete round, and the following details are stencilled on the base (*see Plate 5*) or in some new designs on the side of the cartridge case (*see Plate 15*) as appropriate:—

|       |            |                                            |
|-------|------------|--------------------------------------------|
| HE    | indicating | high explosive shell                       |
| HESH  | ”          | high explosive squash head shell           |
| AP    | ”          | armour piercing shot                       |
| APC   | ”          | armour piercing capped shot                |
| APCBC | ”          | armour piercing capped, ballistic cap shot |

|            |            |                                                                          |
|------------|------------|--------------------------------------------------------------------------|
| APDS       | indicating | armour piercing discarding sabot projectile                              |
| SMK        | ..         | smoke, bursting shell                                                    |
| SMK BE     | ..         | smoke, base ejection shell                                               |
| SMK YEL*   | ..         | coloured smoke, base ejection shell                                      |
| SMK BX     | ..         | smoke box in shell                                                       |
| PRAC PROJ  | ..         | practice projectile                                                      |
| PRAC SH    | ..         | practice squash head shell                                               |
| RE         | ..         | radar echo. The type is indicated by an oblique stroke and suffix letter |
| FL         | ..         | flash pellet in shell                                                    |
| PRAC DS    | ..         | discarding sabot practice projectile                                     |
| CNSTR      | ..         | canister                                                                 |
| FL BE YEL* | ..         | coloured flare base ejection shell                                       |
| INERT PROJ | ..         | inert shell                                                              |

or\* RED, BLUE or GRN as applicable.

*NOTE.* New designs of Land Service Q.F. fixed ammunition will, in future, be designated as "Rounds". In such instances the model number e.g. "L13A1" of the complete assembled round will be stencilled with the type of the round on the base of the cartridge case or in such other position as may be approved e.g.

|      |       |       |
|------|-------|-------|
| HE   | HESH  | CNSTR |
| L3A1 | L12A1 | L7A1  |

- (f) The presence of a tracer is indicated by the tracer symbol over the letter "T" stencilled on the base of the cartridge case.
- (g) In Naval Service, a modified form of the batching system is used for 40 mm. ammunition only. The batch letter carries the same significance as in Land Service and is followed by a number which is changed whenever any of the lot numbers of the components of the round alter. Sub-batch letters are not used.

#### 14. Stencilling on Q.F. cartridges (fixed) not marked under the batching system (Plate 6)

- (a) In Naval Service, where (except for 40 mm.) the batch system of marking is not used, cartridge cases are marked (as applicable) with details of the nature of the shell as follows:—

|           |            |                                                                                 |
|-----------|------------|---------------------------------------------------------------------------------|
| RE        | indicating | radar echo shell. The type is indicated by an oblique stroke and suffix letter. |
| FLG TGT   | ..         | falling target shell                                                            |
| HE        | ..         | high effect (or high explosive) shell                                           |
| HE(U)     | ..         | high effect (or high explosive) shell with universal cavity.                    |
| PRAC      | ..         | practice (inert shell or projectile).                                           |
| PRAC PROJ | ..         | practice projectile (A.A.)                                                      |
| PRAC RED  | ..         | practice with reduced charge                                                    |
| PROOF     | ..         | proof projectile                                                                |
| SAP       | ..         | semi-armour piercing shell                                                      |
| SMK       | ..         | smoke shell                                                                     |
| SMK BE    | ..         | smoke, base ejection shell                                                      |
| STAR      | ..         | star shell.                                                                     |

- (b) A letter "T" is added, as applicable, to the above-mentioned symbols when the shell or projectile is fitted with a tracer.

The following additional stencillings relating to the charge and fuze are also used:—

- Mark of assembled cartridge, i.e. complete round.
- Distinguishing letter of propellant manufacturer.
- Lot number of propellant and sub-lot as applicable.
- Particulars of fuze when shell is fitted with base fuze.
- Recognized mark or initials of the assembler.
- Date of assembly (month and year).
- Batch letter and number (40 mm. only).

#### 15. B.L. cartridges (Plate 7)

The charges of B.L. cartridges are contained in undyed fabric bags on which stencilling and printing are the usual means of identification. Fabrics which have been treated with D.A.N. (dinitro-alpha-naphthol) may assume a yellow colour.

The following are the normal markings which are stencilled in printer's black ink. Red ink may be used to indicate special markings:—

Calibre and (if practicable) the mark of gun with which the cartridge is to be used.

Mark of the filled cartridge and details of igniter where applicable.

Propellant identification letters, shape letter and size figures (*see Appendix 1 of Section 1—General Introduction*).

Lot number of propellant. This may be prefixed by the letter "(C)" for a composite lot in Naval Service or suffixed by the letter "R" for a reworked lot in both Naval and Land Service.

Nominal charge weight.

Date of filling (month and year).

Recognized mark or initials of the filler.

A fraction (indicating the fraction of the full charge), i.e.  $\frac{1}{2}$

Number of charge, e.g. "Charge ONE".

Where a certain charge consists of a lower charge plus an increment, the "CHARGE" is printed as in the preceding sub-para. The number of the charge e.g. "TWO" is printed on the increment in such a position that when the two are laced together, the word "CHARGE" is in alignment with the charge number.

#### 16. Other markings on cartridge bags.

The word "SUPER" indicating super charge.

The word "REAR" (for 6 inch and above) in Naval Service only.

The number of the lower charge and the calibre are also printed across the bottom of the bag, opposite to the igniter end.

The words "NOT TO BE FIRED SEPARATELY" are printed on the bottom of the charge increment when these can only be fired in conjunction with the lower charge.

The type letter or letters of the bag and recognized mark or initials of contractor, making the empty bag are printed as close as possible to the mouth of the bag, so that they are hidden by the seam when the bag is closed after filling.

### 17. Igniters (Plate 8)

The outer worsted cloth disc of all igniters is dyed red, on which the following details are stencilled or otherwise marked in printer's black ink:—

Type letter or number and/or weight in ounces of gunpowder.

Recognized mark or initials of filler.

Calibre (Naval Service).

*NOTE.* When the type letter is not used, e.g. for igniters made integral with the cartridge bag, it is replaced by the details of the calibre of the weapon and the weight of the charge.

### 18. B.L. Drill cartridges (Plate 12)

B.L. drill cartridges are filled inert and are normally made up, as regards material, shape and identification markings to resemble externally the particular operational cartridge they represent.

In addition to reproducing the details as stencilled on the operational equivalent the word DRILL is marked in bold type on each portion or increment of the charge and on the igniter.

### 19. Q.F. Drill cartridges

The word DRILL, together with the type of round (as applicable) will be marked on the side of the case in white lettering where the store is coloured black, or made from material left in its natural colour, or in black when cartridges are made up with brass cases (*see Fig. 2 Plate 11*).

### 20. Q.F. Blank, clearing and paper shot cartridges

The word BLANK or CLEARING (as applicable) will be marked (if not already stamped) on the base and on the side of the cartridge case in black in large type (*see Plate 10*). Paper shot cartridges will have the word PAPER marked on the base and the words "PAPER SHOT" marked on the side of the cartridge case (*see Fig. 1 Plate 11*).

In addition, the following will be marked in the position shown:—

Base and side of case

Mark or model number of complete assembled cartridge.

Side of case

Nominal charge weight.

Propellant identification code, size and lot number.

Recognized mark or initials of filler and date of filling (month and year).

### 21. Charges for blank cartridges

Blank charges may be of two types, i.e. charges consisting of gunpowder or of cordite.

The gunpowder charges are normally contained in a silk-cloth bag which will have the following particulars marked in black lettering around the circumference (*see Plate 12*).

Mark of charge.

"BLANK"

Nature of equipment(s) for which approved.

Weight and nature of gunpowder.

Recognized mark or initials of filler.

Date of filling (month and year)

Lot number of gunpowder.

## STAMPINGS

22. Stampings (*see Plate 9*) are used for recording manufacturing particulars on the base of metal cases of Q.F. cartridges, on cartridge clips and on metal components of cartridges. They are also used on the bases of cartridge cases to denote the number of times they have been filled, fired or re-formed.

(a) *Particulars of the empty case normally consist of the following:—*

Calibre and mark or model number of gun or calibre and number of case for 2 pr./HV. The mark or model number of gun is only included when the cartridge is peculiar to a particular mark or model of gun.

Mark or part number of empty case.

Lot number of empty case.

The letter "S" is added to the mark of the empty case when the primer hole is rebushed, (Naval Service).

The word "BLANK" when cases are specifically sentenced or manufactured for firing blank only.

The word "CLEARING" when cases are specifically sentenced or manufactured for firing clearing charges only.

Year of manufacture.

Contractor's recognized mark or initials.

Examiner's work mark (Land Service).

Acceptance mark (Land Service).

The letter "G" when cases are sentenced for gunnery school use only (Naval Service).

Repaired cases are stamped with the monogram of the repairer within a rectangle.

In Land Service, when a case is filled for the first time with a charge other than blank, the letter "F" or "R" indicating full or reduced charge as applicable is stamped on the base.

Each subsequent refilling is indicated by an additional "F" or "R" with the monogram of the factory in which the case was reformed stamped above it.

In the event of the filling being removed instead of being fired, the "F" or "R" corresponding to the filling is barred out.

## 23. Drill rounds and Q.F. cartridges.

(a) *Drill rounds*—The calibre and role of equipment, type of round, initials of manufacturer and year of manufacture, the word DRILL and model number will be stamped or engraved on the base. The word DRILL followed by the abbreviation indicating the type of round (as applicable) will be stamped or engraved on the side of the round. These markings will be filled in with white (*see Plate 16*).

(b) *Q.F. drill cartridges*—The calibre, type and mark or model number together with the word DRILL and the initials or recognized monogram of the manufacturer and year of manufacture will be stamped or engraved on the base of the cartridge (*see Plate 11*).

## 24. Size of stampings

The size of stampings used will be as follows:—

|                        |                                      |
|------------------------|--------------------------------------|
| 2 pr. and up to 40 mm. | $\frac{1}{8}$ to $\frac{3}{16}$ inch |
| 3 pr. and up to 6 pr.  | $\frac{3}{16}$ to $\frac{1}{4}$ inch |
| Above 6 pr.            | $\frac{1}{4}$ inch                   |

The word BLANK or DRILL (as applicable) should, where possible, be approximately twice as large as the remaining details.



## ADDITIONAL MEANS OF IDENTIFICATION

### 25. In Naval Service

- (a) A cartridge case the rim of which is milled around its entire circumference indicates it is assembled with a star shell.
- (b) A cartridge case the rim of which is milled for half its circumference indicates A.A. sub-calibre ammunition.
- (c) In depth charge thrower cartridges a knurled rim to the cartridge case indicates "driller".  
In squid projector cartridges a milled or knurled rim to the cartridge case indicates "practice".
- (d) Q.F. fixed ammunition which is assembled with a rubber ring in the cannellure at the base of the shell to achieve water-tightness will, until this sealing method becomes universal, be distinguished by the letter W in a circle marked in black on the base of the cartridge case.

### 26. Land Service

- (a) All Q.F. blank cartridges will have a red worsted cloth disc fitted in the mouth of the cartridge case. It will be shellacked to the outer surface of the retaining cup, if such is positioned in the mouth of the case or where the cup is positioned well down inside the case, the red disc will be affixed to the inside edge of the mouth of the case (see Plate 10).
- (b) Q.F. clearing cartridges will have a blue worsted cloth disc shellacked to the outer surface of the retaining cup positioned in the mouth of the cartridge case (see Plate 10).
- (c) Q.F. paper shot cartridges (for proof of mountings) will have a green paper disc shellacked to the outer surface of the retaining cup positioned in the mouth of the cartridge case, or alternatively the outer surface of the retaining cup may be painted light green (see Fig. 1 Plate 11).

In all cases the word BLANK, CLEARING or PAPER (as applicable) will be clearly marked on the disc.

## MORTAR CARTRIDGES

### 27. Mortar cartridges are identified by stamping, stencilling or printing.

#### (a) Primary cartridges (Plate 13)

##### (i) Printing on the side of the case:—

Calibre and nature of mortar.

Mark of cartridge.

Propellant identification letters, shape letter and size figure (see Appendix 1 of Section 1 "General Introduction").

Nominal charge weight.

Recognized mark or initials of the filler.

##### (ii) Printing on the closing disc:—

Lot number.

Date of filling (month and year).

##### (iii) The details under sub-paras. (i) and (ii) above will be printed on the side of the case and closing disc, in the following identification colours:—

|                                  |                 |
|----------------------------------|-----------------|
| 2 inch Mortar primary cartridges | Signal red      |
| 3 inch     "     "     "         | Black           |
| 4.2 inch   "     "     "         | Brilliant green |

(b) *Augmenting cartridges (Plate 13)*

These are usually contained in celluloid cases on which it is not possible to stencil or stamp, therefore labels are used and inserted into the transparent case. They are of white paper,  $1\frac{1}{8}$  inches by  $\frac{3}{4}$  inch with the following particulars printed in black:—

- Mark of filled cartridge.
- Propellant identification letters, shape letter and size figures.
- Identification letter and number of the label.
- Lot number of propellant.
- Nominal charge weight.
- Date of filling (month and year).
- Recognized mark or initials of the filler.

28. When cartridges are issued with fuzed bombs as complete rounds of mortar ammunition, the rounds are issued in batches as described in para. 13, except that the batches are based on the fuze lot and not the propellant lot. Sub-batches are based on the primary cartridge lot.

### MARKINGS OF MISCELLANEOUS CARTRIDGES

29. These follow the foregoing principles, in that the markings relating to the empty store are stamped on the base of the cartridge and those relating to the filled store are stencilled on the side. They are as follows:—

(a) Particulars of the empty case.

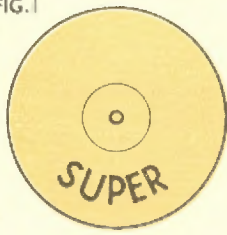
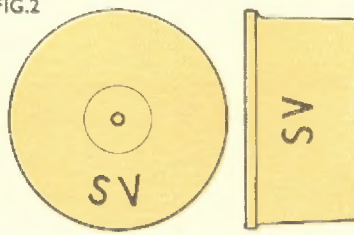
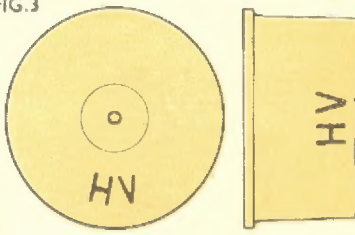

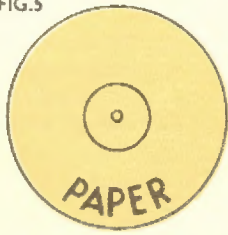
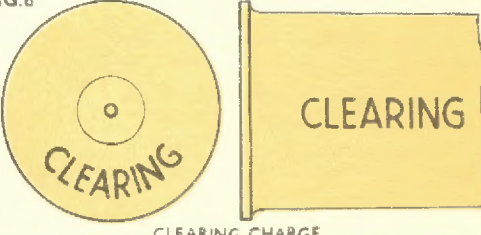


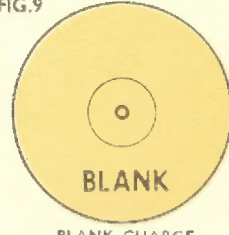
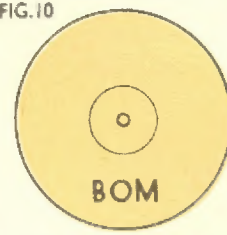
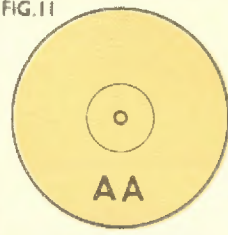
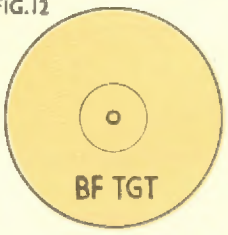
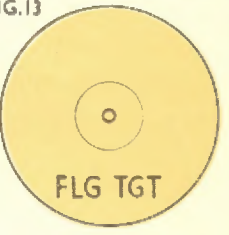
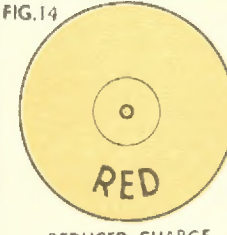
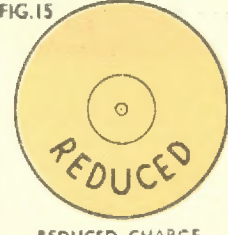

- Contractor's recognized mark or initials.
- Year of manufacture.

(b) Markings on the filled cartridge.

- Mark of cartridge.
- Lot number of propellant.
- Initials of filler.
- Date of filling (month and year).

RESTRICTED

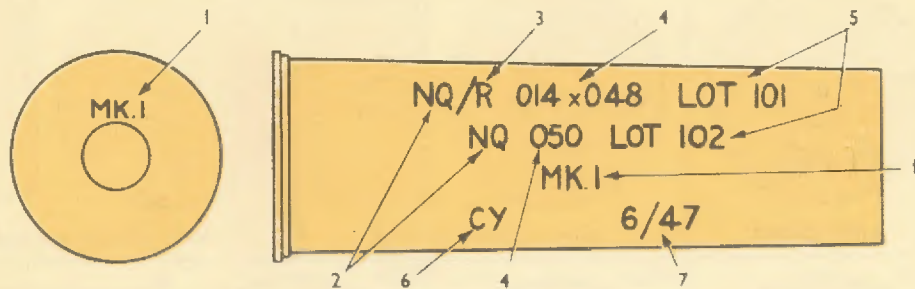
**Q.F. CARTRIDGES**  
FIXED AND SEPARATE LOADING  
STENCILLING TO INDICATE CHARGES DESIGNED FOR SPECIAL PURPOSES

|                                                                                                                                         |                                                                                                                                                   |                                                                                                                                   |                                                                                                                                                                            |
|-----------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>FIG.1</p>  <p>SUPER CHARGE</p>                      | <p>FIG.2</p>  <p>SUPER VELOCITY CHARGE</p>                       | <p>FIG.3</p>  <p>HIGH VELOCITY CHARGE</p>       |                                                                                                                                                                            |
| <p>FIG.4</p>  <p>BREAK-UP</p>                          | <p>FIG.5</p>  <p>PAPER</p>                                       | <p>FIG.6</p>  <p>CLEARING CHARGE<br/>(LAND)</p> |                                                                                                                                                                            |
| <p>FIG.7</p>  <p>CLEARING CHARGE<br/>(NAVAL)</p>      | <p>FIG.8</p>  <p>BLANK CHARGE<br/>(LAND)</p>                    | <p>FIG.9</p>  <p>BLANK CHARGE<br/>(NAVAL)</p>  |                                                                                                                                                                            |
| <p>FIG.10</p>  <p>BOMBARDMENT CHARGE<br/>(NAVAL)</p> | <p>FIG.11</p>  <p>SUITABLE FOR ANTI-AIRCRAFT PRACTICE FIRE</p> | <p>FIG.12</p>  <p>BACK FIRING TARGET SHELL</p> | <p>FIG.13</p>  <p>FALLING TARGET SHELL</p>                                             |
| <p>FIG.14</p>  <p>REDUCED CHARGE<br/>(LAND)</p>      | <p>FIG.15</p>  <p>REDUCED CHARGE<br/>(NAVAL)</p>               | <p>FIG.16</p>  <p>PRACTICE REDUCED CHARGE</p>  | <p>NOTE:-<br/>THE ABBREVIATIONS SHOWN ABOVE MAY BE STENCILLED IN A STRAIGHT LINE PROVIDED THEY ARE OF SUCH A SIZE AS TO CLEARLY IDENTIFY THE TYPE OF CHARGE AND ROUND.</p> |

Q.F. CARTRIDGES  
SEPARATE LOADING - LAND SERVICE

FIG. 1

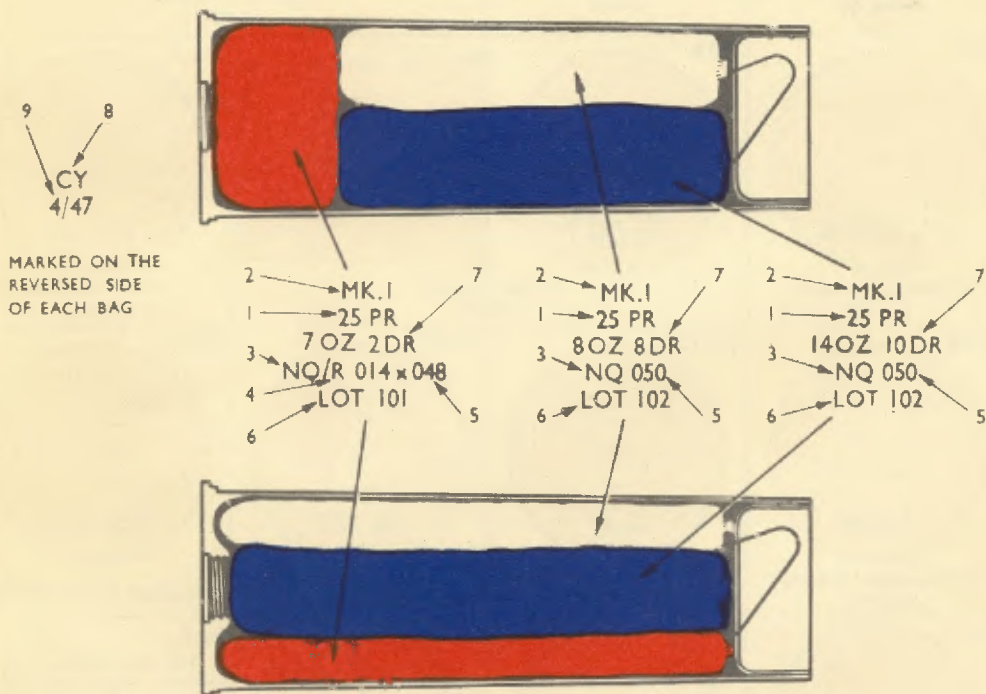
STENCILLING ON CARTRIDGE CASE



- |                                     |                                               |
|-------------------------------------|-----------------------------------------------|
| 1... MARK OF ASSEMBLED CARTRIDGE    | 5... PROPELLANT LOT NUMBERS                   |
| 2... PROPELLANT IDENTIFICATION CODE | 6... RECOGNIZED MARK OR INITIALS OF ASSEMBLER |
| 3... PROPELLANT SHAPE LETTER        | 7... DATE OF ASSEMBLY (MONTH & YEAR)          |
| 4... PROPELLANT SIZE                |                                               |

FIG. 2

STENCILLING ON COMPOSITE CHARGE BAGS



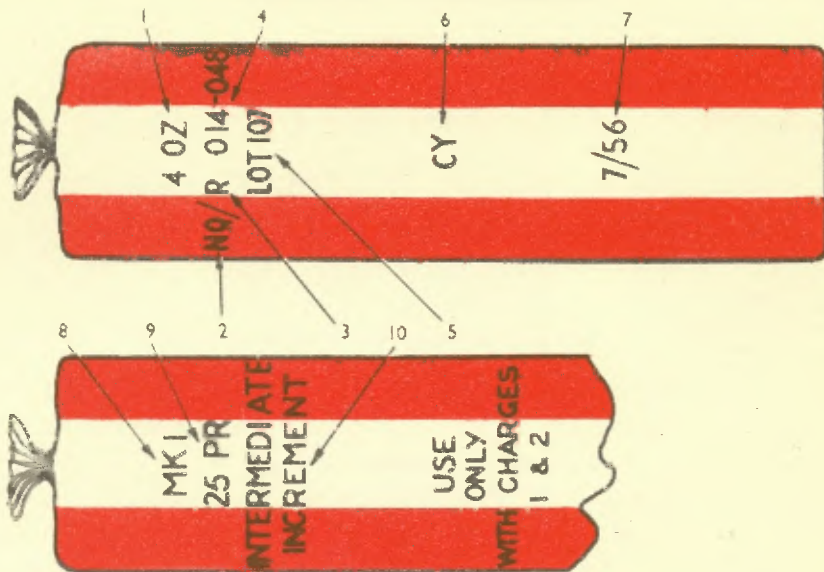
MARKED ON THE REVERSED SIDE OF EACH BAG

- |                                     |                                            |
|-------------------------------------|--------------------------------------------|
| 1... CALIBRE                        | 6... PROPELLANT LOT NUMBERS                |
| 2... MARK OF FILLED CARTRIDGE       | 7... NOMINAL CHARGE WEIGHT                 |
| 3... PROPELLANT IDENTIFICATION CODE | 8... RECOGNIZED MARK OR INITIALS OF FILLER |
| 4... PROPELLANT SHAPE LETTER        | 9... DATE OF FILLING (MONTH & YEAR)        |
| 5... PROPELLANT SIZE                |                                            |

Q.F. CARTRIDGES  
SEPARATE LOADING — LAND SERVICE

FIG. 1

INTERMEDIATE CHARGE INCREMENT



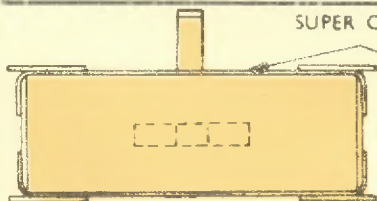
- 1... NOMINAL WEIGHT
- 2... PROPELLANT IDENTIFICATION CODE
- 3... PROPELLANT SHAPE LETTER
- 4... PROPELLANT SIZE
- 5... PROPELLANT LOT NUMBERS
- 6... RECOGNIZED MARK OR INITIALS OF FILLER

STENCILLED ON THE REVERSE  
SIDE OF BAG

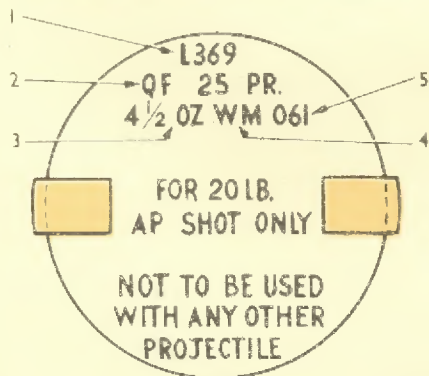
- 7... DATE OF FILLING (MONTH AND YEAR)
- 8... MARK OF FILLED CARTRIDGE
- 9... CALIBRE
- 10... NATURE OF CHARGE

FIG. 2

SUPER CHARGE INCREMENT



LABEL L369 INSERTED UNDER LID AND  
SECURED IN FOUR PLACES WITH APPROVED  
ADHESIVE

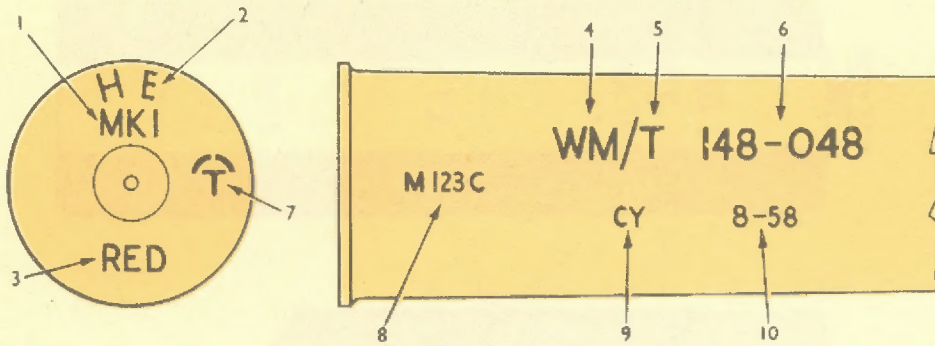


- 1... LABEL NUMBER
- 2... CALIBRE
- 3... NOMINAL WEIGHT
- 4... PROPELLANT IDENTIFICATION CODE
- 5... PROPELLANT SIZE

Q.F. CARTRIDGES  
FIXED — LAND SERVICE

FIG. 1

STENCILLING UNDER THE BATCHING SYSTEM



- 1... MARK OF ASSEMBLED CARTRIDGE
- 2... NATURE OF PROJECTILE
- 3... NATURE OF CHARGE
- 4... PROPELLANT IDENTIFICATION CODE
- 5... PROPELLANT SHAPE LETTER
- 6... PROPELLANT SIZE
- 7... TRACER SYMBOL
- 8... BATCH LETTER, NUMBER,  
AND SUB-BATCH LETTER
- 9... RECOGNIZED MARK OR INITIALS  
OF ASSEMBLER (COMPLETE ROUND)
- 10... DATE OF ASSEMBLY (MONTH & YEAR)

Q.F. CARTRIDGES  
FIXED — LAND SERVICE

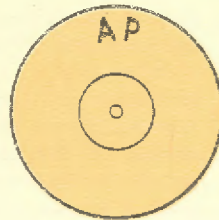
STENCILLING ON BASE OF CASE INDICATING NATURE OF PROJECTILE ASSEMBLED  
(TRACER SYMBOL TO AGREE WITH THAT MARKED ON PROJECTILE)

FIG.1



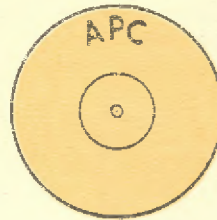
HIGH EXPLOSIVE

FIG.2



ARMOUR PIERCING SHOT

FIG.3



ARMOUR PIERCING  
CAPPED SHOT

FIG.4



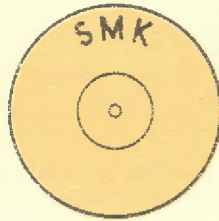
ARMOUR PIERCING CAPPED  
BALLISTIC CAP SHOT

FIG.5



ARMOUR PIERCING  
DISCARDING SABOT

FIG.6



SMOKE BURSTING  
SHELL

FIG.7



SMOKE  
BASE EJECTION SHELL

FIG.8



COLOURED SMOKE  
BASE EJECTION SHELL

FIG.9



SMOKE BOX IN SHELL

FIG.10



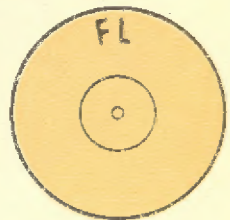
PRACTICE PROJECTILE

FIG.11



RADAR ECHO SHELL

FIG.12



FLASH PELLET IN SHELL

FIG.13



INERT SHELL

FIG.14



PRACTICE  
DISCARDING SABOT

FIG.15



FLARE B.E. GREEN

FIG.16



CANISTER

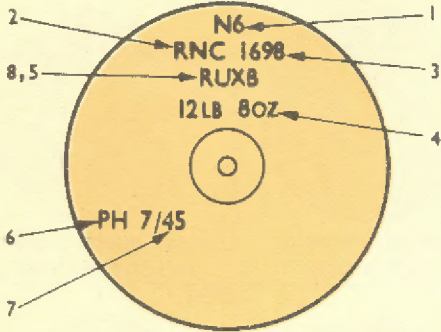
NOTE:-

THE ABBREVIATIONS SHOWN ABOVE MAY BE STENCILLED IN A STRAIGHT LINE PROVIDED  
THEY ARE OF SUCH A SIZE AS TO CLEARLY IDENTIFY THE TYPE OF CHARGE AND ROUND

**Q.F. CARTRIDGES  
NAVAL SERVICE**

**SEPARATE LOADING**

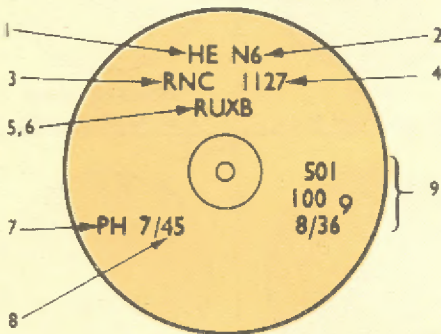
**FIG.1 STENCILLING AND IDENTIFICATION MARKINGS  
ON BASE OF CASE**



- 1.....MARK OF FILLED CARTRIDGE
- 2.....DISTINGUISHING LETTERS OF PROPELLANT MANUFACTURER
- 3.....PROPELLANT LOT NUMBER
- 4.....NOMINAL CHARGE WEIGHT
- 5.....XB, SUB LOT PARTICULARS OF PROPELLANT
- 6.....RECOGNIZED MONOGRAM OR INITIALS OF FILLER
- 7.....DATE OF FILLING (MONTH & YEAR)
- 8.....RU, INDICATING CARTRIDGES WHICH ARE, OR HAVE BEEN, STOWED IN READY USE LOCKERS

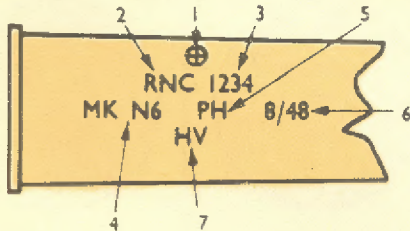
**FIXED  
NOT MARKED UNDER THE BATCHING SYSTEM**

**FIG.2 STENCILLING AND IDENTIFICATION MARKINGS  
ON BASE OF CASE**



- 1.....NATURE OF SHELL (AS APPLICABLE)
- 2.....MARK OF FILLED CARTRIDGE, I.E. COMPLETE ROUND
- 3.....DISTINGUISHING LETTERS OF PROPELLANT MANUFACTURER
- 4.....PROPELLANT LOT NUMBER
- 5.....RU, INDICATING CARTRIDGES WHICH ARE, OR HAVE BEEN, STOWED IN READY USE LOCKERS
- 6.....XB, SUB LOT PARTICULARS OF PROPELLANT
- 7.....RECOGNIZED MONOGRAM OR INITIALS OF FILLER
- 8.....DATE OF FILLING (MONTH & YEAR)
- 9.....PARTICULARS OF FUZE WHEN SHELL ARE FITTED WITH BASE FUZE

FOR CALIBRES UP TO 6 PR. THE STENCILLED DETAILS WILL BE FOUND ON THE BODY OF THE CASE AS SHOWN BELOW



- 1.....CROSS IN CIRCLE FOR ROUNDS FILLED CORDITE HSC/T ONLY
- 2.....DISTINGUISHING LETTERS OF PROPELLANT MANUFACTURER
- 3.....PROPELLANT LOT NUMBER
- 4.....MARK OF FILLED CARTRIDGE
- 5.....RECOGNIZED MONOGRAM OR INITIALS OF FILLER
- 6.....DATE OF FILLING (MONTH & YEAR)
- 7.....DENOTES HIGH VELOCITY AMMUNITION

Note: Special markings may also be applied at Naval Armament Depots to indicate work done on cartridge after original filling

Examples:

REMADE  
CRB  
9/56

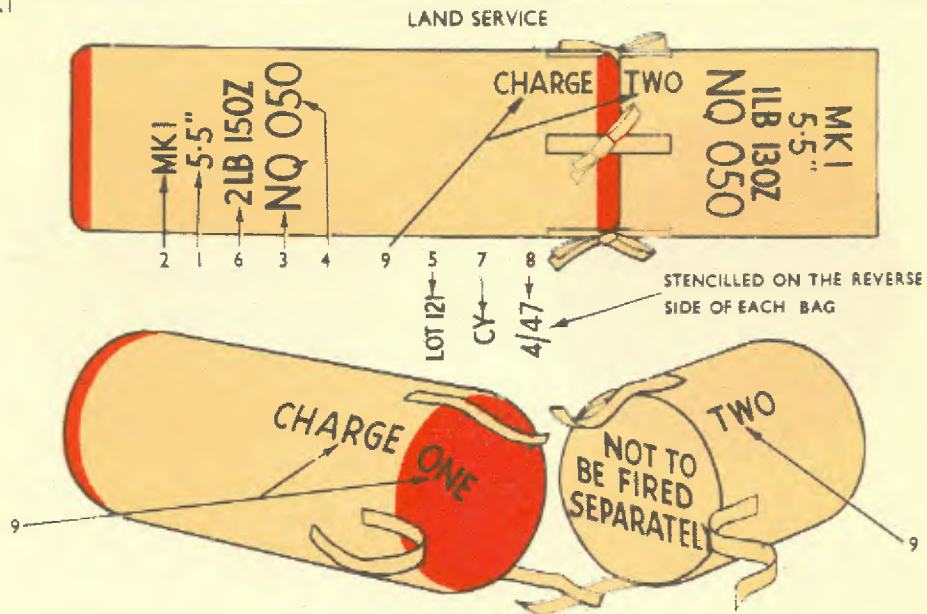
CONVTD  
HK  
7/54

Full lists of such special markings and their specific meanings are found in appropriate Naval Service Books of Reference



B.L. CARTRIDGES

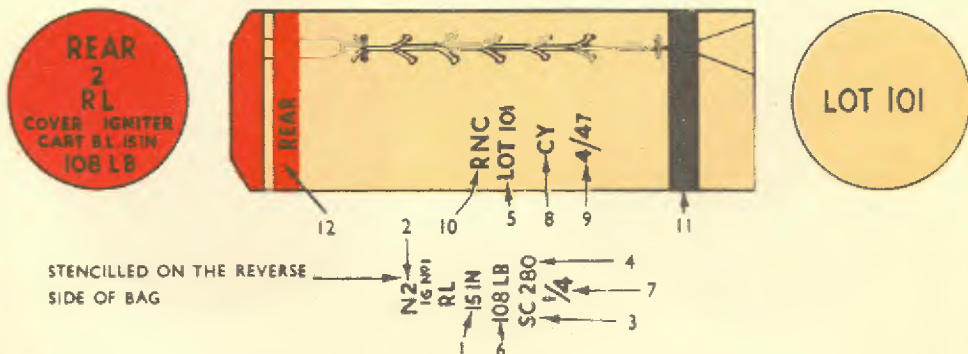
FIG. 1



- |                                                                                 |                                            |
|---------------------------------------------------------------------------------|--------------------------------------------|
| 1... CALIBRE (AND IF APPLICABLE) MARK OF GUN WITH WHICH CARTRIDGE IS TO BE USED | 5... PROPELLANT LOT NUMBER                 |
| 2... MARK OF FILLED CARTRIDGE AND DETAILS OF IGNITER WHERE APPLICABLE           | 6... NOMINAL CHARGE WEIGHT                 |
| 3... PROPELLANT IDENTIFICATION CODE                                             | 7... RECOGNIZED MARK OR INITIALS OF FILLER |
| 4... PROPELLANT SIZE                                                            | 8... DATE OF FILLING (MONTH & YEAR)        |
|                                                                                 | 9... NUMBER OF CHARGE                      |

FIG. 2

NAVAL SERVICE

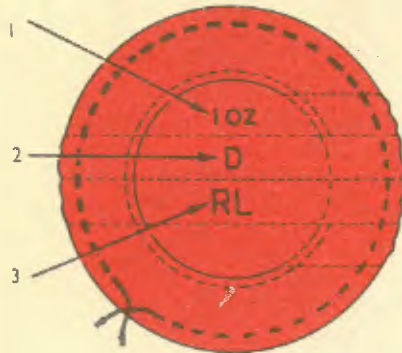


- |                                                                                 |                                                         |
|---------------------------------------------------------------------------------|---------------------------------------------------------|
| 1... CALIBRE (AND IF APPLICABLE) MARK OF GUN WITH WHICH CARTRIDGE IS TO BE USED | 8... RECOGNIZED MARK OR INITIALS OF FILLER              |
| 2... MARK OF FILLED CARTRIDGE AND DETAILS OF IGNITER WHERE APPLICABLE           | 9... DATE OF FILLING (MONTH & YEAR)                     |
| 3... PROPELLANT IDENTIFICATION CODE                                             | 10... DISTINGUISHING LETTERS OF PROPELLANT MANUFACTURER |
| 4... PROPELLANT SIZE                                                            | 11... BLACK BAND INDICATING POSITION OF TIN FOIL        |
| 5... PROPELLANT LOT NUMBER                                                      | 12... RED BAND INDICATING IGNITER END                   |
| 6... NOMINAL CHARGE WEIGHT                                                      |                                                         |
| 7... INDICATING FRACTION OF FULL CHARGE                                         |                                                         |

B.L. CARTRIDGES — IGNITERS

LAND SERVICE

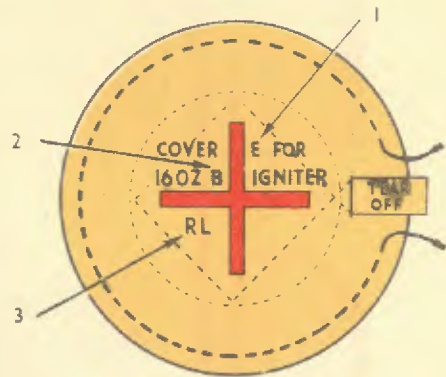
FIG.1



- 1... WEIGHT IN OUNCES OF GUNPOWDER
- 2... TYPE LETTER
- 3... RECOGNIZED MARK OR INITIALS OF FILLER

FIG.2

IGNITER COVER

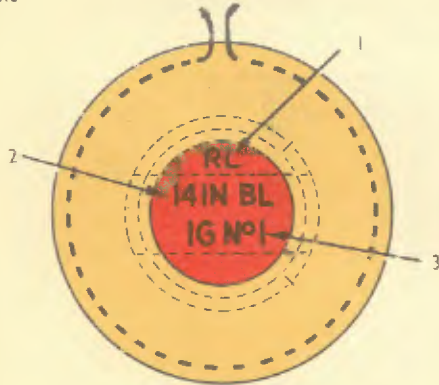


- 1... DISTINGUISHING LETTER OF COVER
- 2... TYPE LETTER
- 3... RECOGNIZED MARK OR INITIALS OF FILLER

NAVAL SERVICE

FIG.3

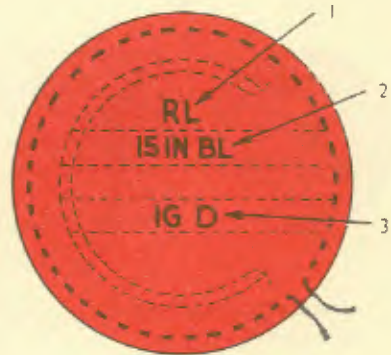
CONCENTRATED



- 1... RECOGNIZED MARK OR INITIALS OF FILLER
- 2... CALIBRE OF WEAPON
- 3... TYPE NUMBER

FIG.4

SPREAD

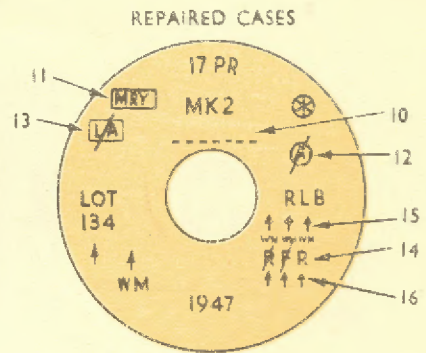
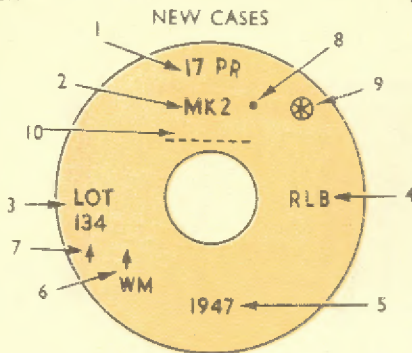


- 1... RECOGNIZED MARK OR INITIALS OF FILLER
- 2... CALIBRE OF WEAPON
- 3... TYPE LETTER

Q.F. CARTRIDGE CASES  
FIXED AND SEPARATE LOADING — STAMPINGS

FIG. 1

LAND SERVICE

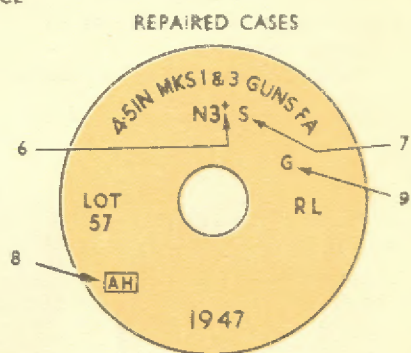
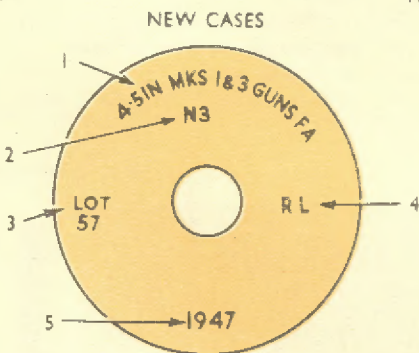


- 1... CALIBRE
- 2... MARK OF EMPTY CASE
- 3... LOT NUMBER OF EMPTY CASE
- 4... CONTRACTORS RECOGNIZED MARK OR INITIALS
- 5... YEAR OF MANUFACTURE
- 6... EXAMINERS WORK MARK
- 7... FINAL ACCEPTANCE MARK
- 8... CASES REJECTED FOR RECTIFIABLE DEFECTS
- 9... CASES FINALLY REJECTED
- 10... "BLANK" OR "CLEARING" WHEN CASES ARE SPECIFICALLY SENTENCED OR MANUFACTURED AS SUCH

- 11... RECOGNIZED MARK OR INITIALS OF REPAIRER (WITHIN RECTANGLE)
- 12... ANNEALING STAMP (FROM PREVIOUS REPAIR)
- 13... RECOGNIZED MARK OR INITIALS OF PREVIOUS REPAIRER
- 14... IDENTIFICATION OF LAST FILLING
- 15... EXAMINERS WORK MARK (AFTER REPAIR)
- 16... ACCEPTANCE STAMP (AFTER REPAIR)

FIG. 2

NAVAL SERVICE



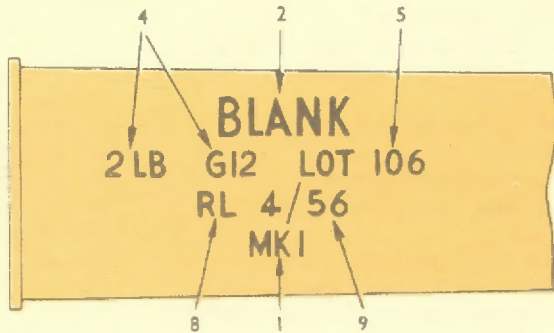
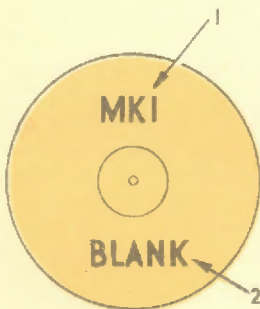
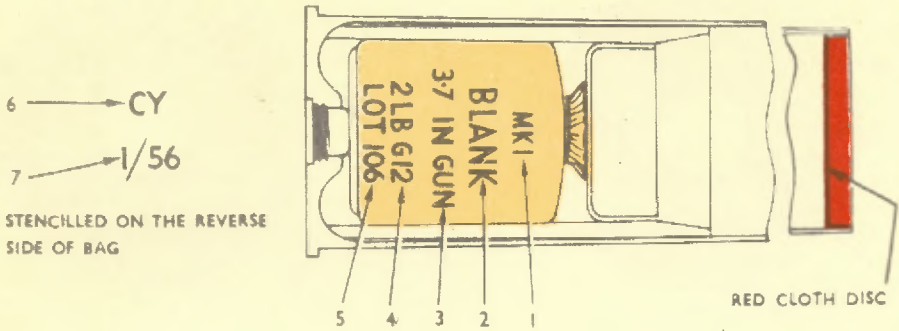
- 1... CALIBRE AND MARK OF GUN
- 2... MARK OF EMPTY CASE
- 3... LOT NUMBER OF EMPTY CASE
- 4... CONTRACTORS RECOGNIZED MARK OR INITIALS
- 5... YEAR OF MANUFACTURE

- 6... STAR DENOTES CONVERSION
- 7... S DENOTES PRIMER HOLE RE-BUSHED
- 8... RECOGNIZED MARK OR INITIALS OF REPAIRER (WITHIN RECTANGLE)
- 9... WHEN SENTENCED FOR GUNNERY SCHOOL USE ONLY

Q.F. CARTRIDGES

FIG.1

BLANK

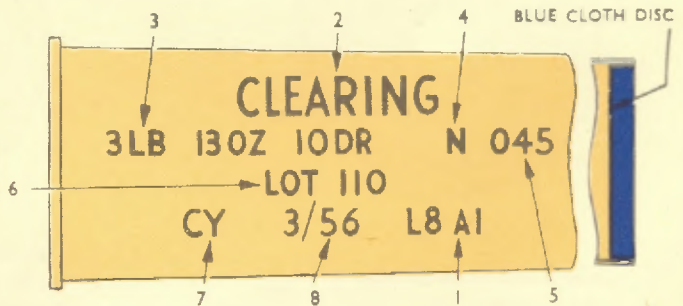
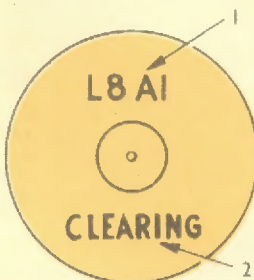


STENCILLING

- |                                                |                                               |
|------------------------------------------------|-----------------------------------------------|
| 1... MARK OF CHARGE/CARTRIDGE                  | 6... RECOGNIZED MARK OR INITIALS OF FILLER    |
| 2... TYPE OF CHARGE/CARTRIDGE                  | 7... DATE OF FILLING (MONTH AND YEAR)         |
| 3... NATURE OF EQUIPMENT(S) FOR WHICH APPROVED | 8... RECOGNIZED MARK OR INITIALS OF ASSEMBLER |
| 4... WEIGHT AND NATURE OF GUNPOWDER            | 9... DATE OF ASSEMBLY (MONTH & YEAR)          |
| 5... LOT NUMBER OF CHARGE                      |                                               |

FIG.2

CLEARING



STENCILLING

- |                                     |                                            |
|-------------------------------------|--------------------------------------------|
| 1... MODEL NUMBER                   | 6... PROPELLANT LOT NUMBER                 |
| 2... TYPE OF CARTRIDGE              | 7... RECOGNIZED MARK OR INITIALS OF FILLER |
| 3... WEIGHT OF CHARGE               | 8... DATE OF FILLING (MONTH AND YEAR)      |
| 4... PROPELLANT IDENTIFICATION CODE |                                            |
| 5... PROPELLANT SIZE                |                                            |

Q.F. CARTRIDGES

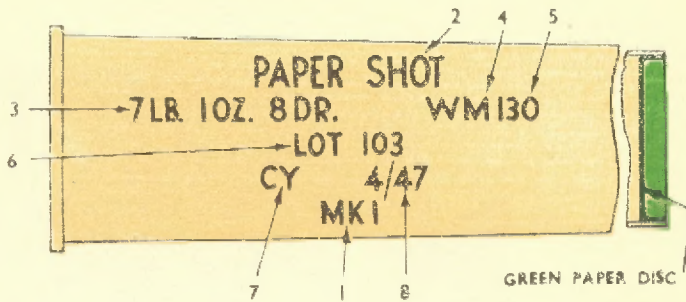
FIG. 1

PAPER SHOT



STENCILLING

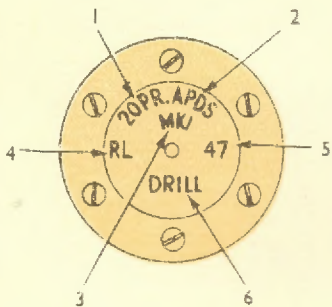
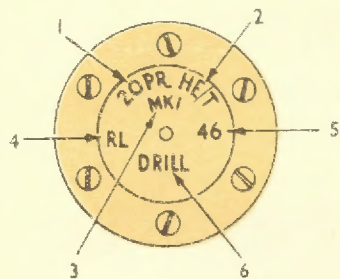
- 1... MARK OF CARTRIDGE
- 2... TYPE OF CARTRIDGE
- 3... NOMINAL CHARGE WEIGHT
- 4... PROPELLANT IDENTIFICATION CODE
- 5... PROPELLANT SIZE



- 6... PROPELLANT LOT NUMBER
- 7... RECOGNIZED MARK OR INITIALS OF FILLER
- 8... DATE OF FILLING (MONTH & YEAR)

FIG. 2

DRILL HE/T & DRILL APDS



STAMPING

- 1... CALIBRE
- 2... TYPE OF ROUND
- 3... MARK OF CARTRIDGE
- 4... RECOGNIZED MARK OR INITIALS OF CONTRACTOR

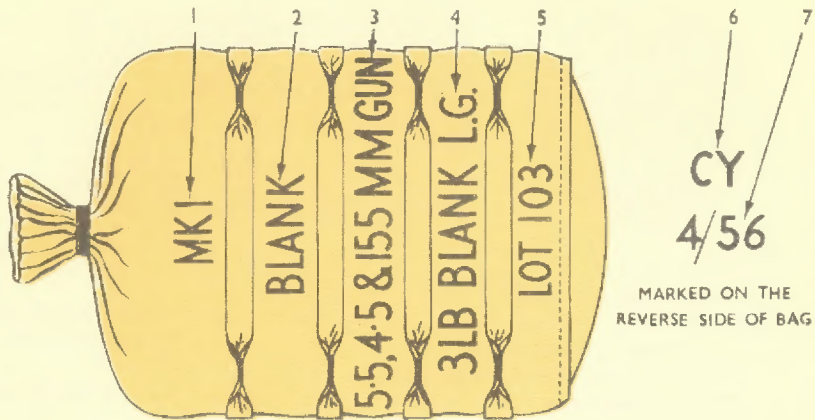
5... YEAR OF MANUFACTURE

- 6... "DRILL"
- 7... "DRILL"
- 8... TYPE OF ROUND

B.L. CARTRIDGES

FIG. 1

BLANK

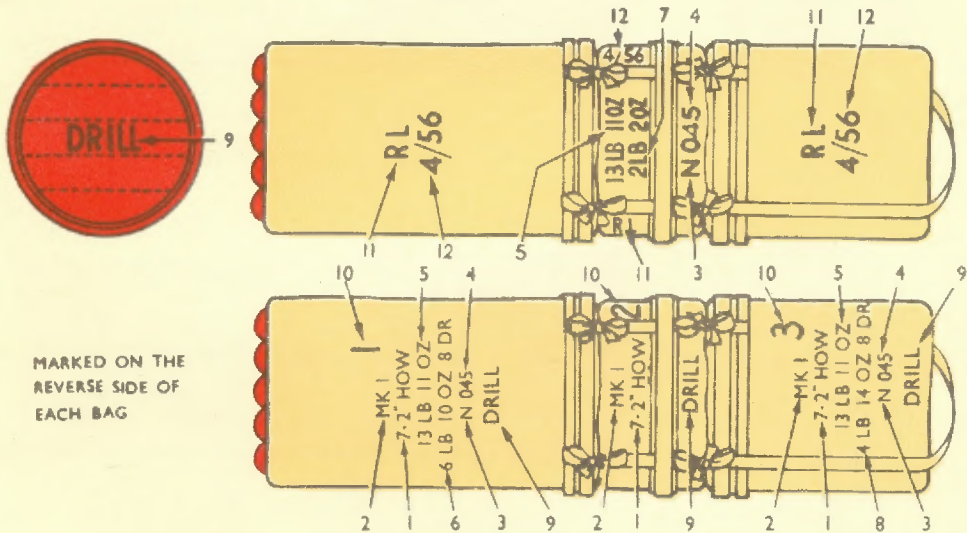


MARKED ON THE  
REVERSE SIDE OF BAG

- |                                                |                                            |
|------------------------------------------------|--------------------------------------------|
| 1... MARK OF CHARGE                            | 5... LOT NUMBER OF CHARGE                  |
| 2... TYPE OF CHARGE                            | 6... RECOGNIZED MARK OR INITIALS OF FILLER |
| 3... NATURE OF EQUIPMENT(S) FOR WHICH APPROVED | 7... DATE OF FILLING (MONTH AND YEAR)      |
| 4... WEIGHT AND NATURE OF GUNPOWDER            |                                            |

FIG. 2

DRILL



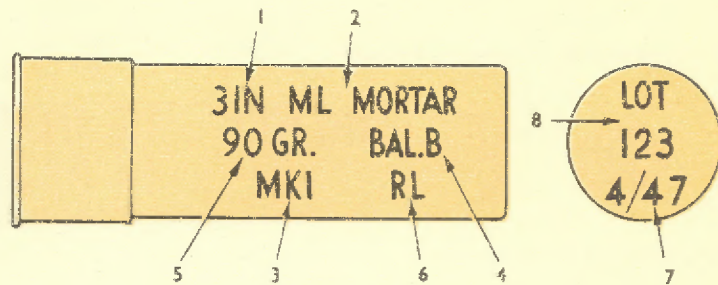
MARKED ON THE  
REVERSE SIDE OF  
EACH BAG

- |                                                                                 |                                                   |
|---------------------------------------------------------------------------------|---------------------------------------------------|
| 1... CALIBRE (AND IF APPLICABLE) MARK OF GUN WITH WHICH CARTRIDGE IS TO BE USED | 7... NOMINAL WEIGHT OF CHARGE TWO INCREMENT       |
| 2... MARK OF FILLED CARTRIDGE AND DETAILS OF IGNITER WHERE APPLICABLE           | 8... NOMINAL WEIGHT OF CHARGE THREE INCREMENT     |
| 3... PROPELLANT IDENTIFICATION CODE                                             | 9... NATURE OF CHARGE                             |
| 4... PROPELLANT SIZE                                                            | 10... CHARGE OR INCREMENT NUMBER                  |
| 5... NOMINAL WEIGHT OF FULL CHARGE                                              | 11... RECOGNIZED MARK OR INITIALS OF MANUFACTURER |
| 6... NOMINAL WEIGHT OF CHARGE ONE                                               | 12... DATE OF MANUFACTURE (MONTH AND YEAR)        |

MORTAR CARTRIDGES

FIG. 1

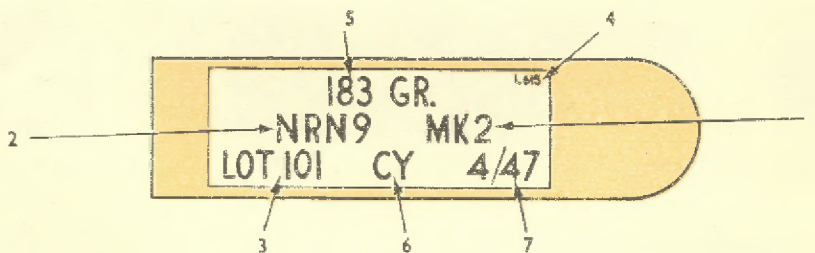
PRIMARY CARTRIDGES



- |                                     |                                            |
|-------------------------------------|--------------------------------------------|
| 1... CALIBRE                        | 6... RECOGNIZED MARK OR INITIALS OF FILLER |
| 2... NATURE OF MORTAR               | 7... DATE OF FILLING (MONTH & YEAR)        |
| 3... MARK OF CARTRIDGE              | 8... PROPELLANT LOT NUMBER                 |
| 4... PROPELLANT IDENTIFICATION CODE |                                            |
| 5... NOMINAL CHARGE WEIGHT          |                                            |

FIG. 2

LABEL FOR AUGMENTING CARTRIDGES

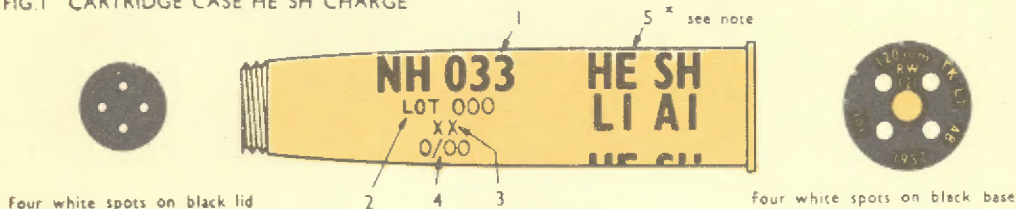


- |                                             |                                             |
|---------------------------------------------|---------------------------------------------|
| 1... MARK OF FILLED CARTRIDGE               | 5... NOMINAL CHARGE WEIGHT                  |
| 2... PROPELLANT IDENTIFICATION CODE         | 6... RECOGNIZED MARKS OR INITIALS OF FILLER |
| 3... PROPELLANT LOT NUMBER                  | 7... DATE OF FILLING (MONTH AND YEAR)       |
| 4... LABEL IDENTIFICATION LETTER AND NUMBER |                                             |

SPECIAL FEATURE IDENTIFICATION MARKINGS

CARTRIDGES, 120mm. TK, LI.

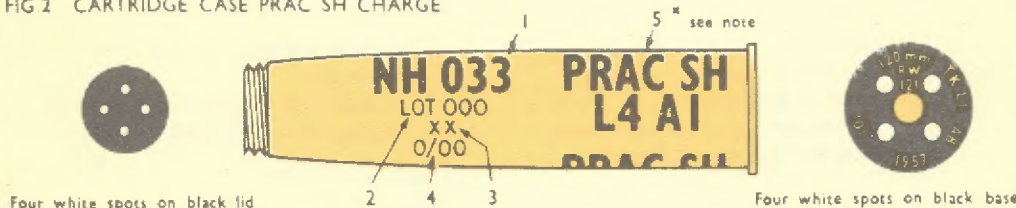
FIG.1 CARTRIDGE CASE HE SH CHARGE



Four white spots on black lid

Four white spots on black base

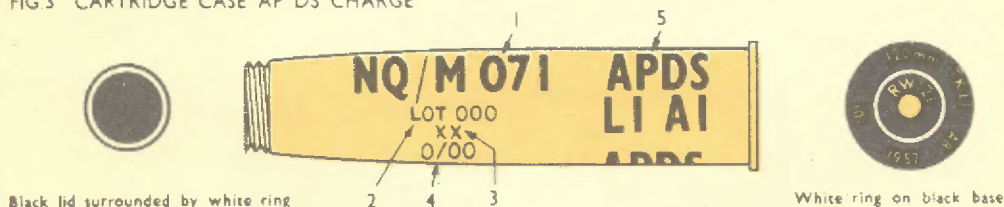
FIG.2 CARTRIDGE CASE PRAC SH CHARGE



Four white spots on black lid

Four white spots on black base

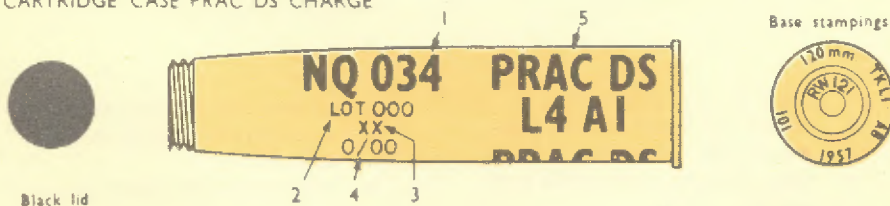
FIG.3 CARTRIDGE CASE AP DS CHARGE



Black lid surrounded by white ring

White ring on black base

FIG.4 CARTRIDGE CASE PRAC DS CHARGE



Black lid

Base stampings

In later designs the LID in the above figs. may be NATURAL COLOUR (Dark Brown) material

KEY TO STENCILLED MARKINGS

- 1.. PROPELLANT IDENTIFICATION LETTERS (WITH SHAPE LETTER, WHEN APPLICABLE) AND SIZE FIGURES
- 2.. PROPELLANT LOT NUMBER
- 3.. RECOGNIZED MONOGRAM OR INITIALS OF FILLER
- 4.. DATE OF FILLING (MONTH AND YEAR)
- 5.. ABBREVIATED NOMENCLATURE, WITH MODEL AND SERIAL NUMBERS (IN 3 PLACES) Note: IF APPROVED FOR USE WITH MORE THAN ONE TYPE OF PROJECTILE THE ABBREVIATIONS MAY BE COMBINED e.g. "HE SH & PRAC SH" (FIGS 1 & 2 ONLY)



SPECIAL FEATURE IDENTIFICATION MARKINGS  
CARTRIDGES

ROUND, 120 mm. BAT L2

FIG.1 CARTRIDGE CASE HE SH ROUND

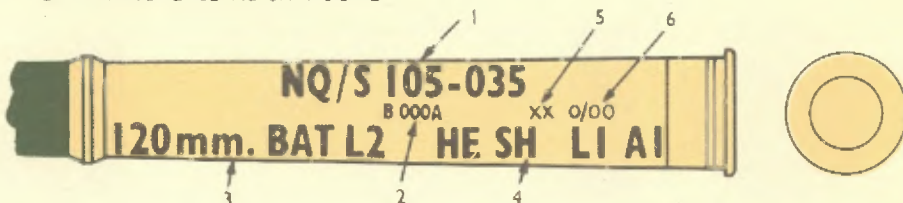
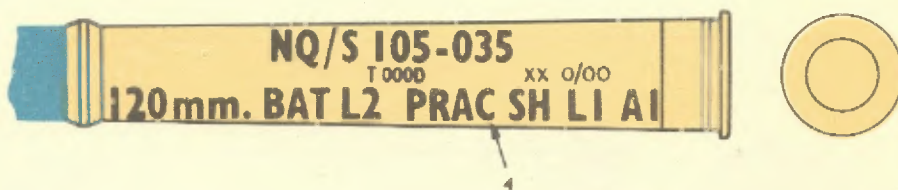
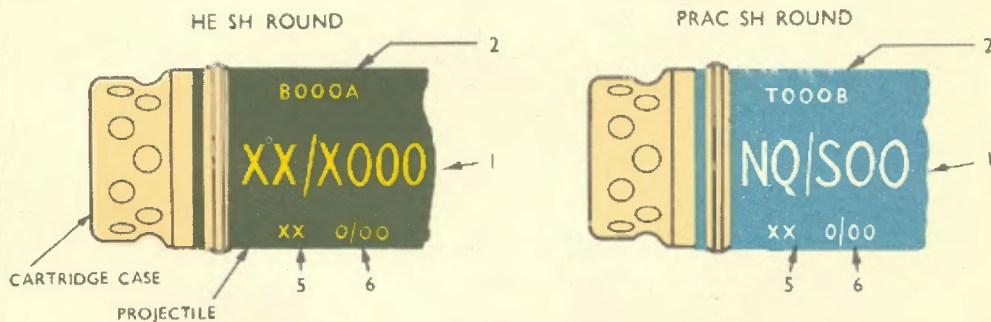


FIG.2 CARTRIDGE CASE PRAC SH ROUND



ROUND, 6.5in. AVRE

FIG.3



Note: As the CARTRIDGE CASE does not permit stenciling to be applied, the above particulars will be stenciled on the rear portion of the PROJECTILE

KEY TO STENCILLED MARKINGS

- 1... PROPELLANT IDENTIFICATION LETTERS (WITH SHAPE LETTER, WHEN APPLICABLE) AND SIZE FIGURES
- 2... BATCH NUMBER, WITH SUB-BATCH LETTER, OF ASSEMBLED ROUND
- 3... ABBREVIATED NOMENCLATURE AND MODEL NUMBER OF ORDNANCE
- 4... NATURE AND TYPE OF PROJECTILE (WITH MARK OR MODEL NUMBER)
- 5... RECOGNIZED MONOGRAM OR INITIALS OF ASSEMBLER
- 6... DATE OF ASSEMBLY (MONTH AND YEAR)

STAMPINGS ON DRILL ROUNDS

FIG.1

105 mm. TK, HESH



Base stamping  
 STAMPING FILLED  
 WHITE PAINT

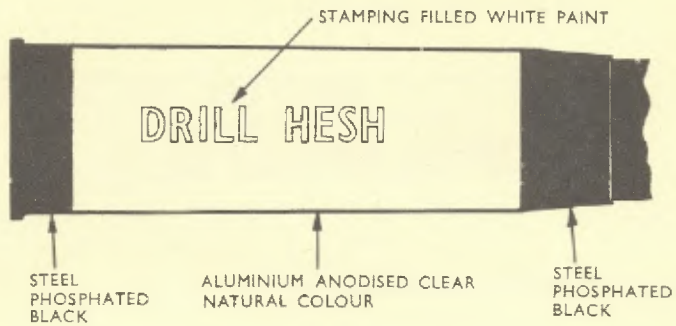


FIG.2

105 mm. TK, APDS



Base stamping  
 STAMPING FILLED  
 WHITE PAINT

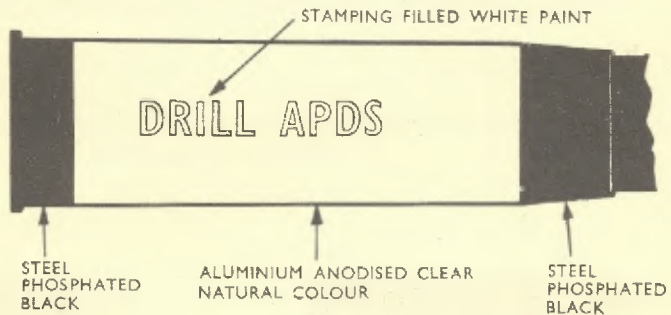
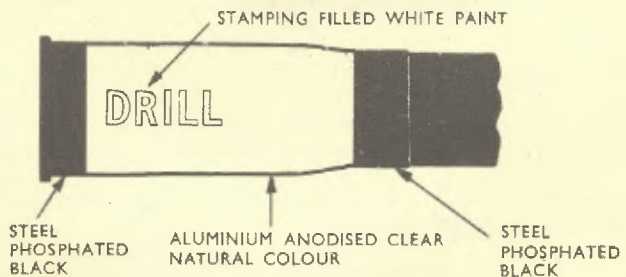


FIG.3

76 mm. ARMD., C.



Base stamping  
 STAMPING FILLED  
 WHITE PAINT



- 1... CALIBRE
- 2... TYPE OF PROJECTILE
- 3... NATURE AND MODEL NUMBER OF PROJECTILE
- 4... RECOGNIZED MONOGRAM OR INITIALS OF MANUFACTURER
- 5... YEAR OF MANUFACTURE

Declar 1  
Moore

Ministry of Defence DG-1001  
Admiralty No. BR. 1202 D  
War Office Code No. 1803  
Air Ministry A.P. 3095

57

Ammunition

5670

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**JOINT SERVICES  
AMMUNITION AND AMMUNITION  
PACKAGE MARKINGS HANDBOOK**

**Section 4**

**FUZING AND INITIATING COMPONENTS AND TRACERS FOR  
PROJECTILES, BOMBS AND OTHER AMMUNITION STORES  
(excluding Fuzes for 20 mm. and 30 mm. Ammunition and Land Service Mines)**

1961

(Supersedes Section 4, 1954 Edition)

*Promulgated by Command of their Lordships,*

*Promulgated by Command of the Army Council,*

*Promulgated by Command of the Air Council,*



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Examples

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## RESTRICTED

### INTRODUCTION

1. The general principles of colour identification and details of markings in this section follow those laid down in Section 1—"General Introduction", which should be read in conjunction with it. There are exceptions, and some of these are explained by examples. Reference is made in this section to the following:—  
STANAG No. 2315—N.A.T.O. Symbol of Interchangeability.  
STANAG No. 2320—N.A.T.O. Design Mark.
2. Details of markings for packages other than those dealt with in this section are given in the following Sections and Parts:—  
Section 5, Part 2—Packages for S.A.A., 20 mm. and 30 mm. Ammunition.  
Section 10, Part 2—Packages for guided missiles.  
Section 12, Part 2—Packages for ammunition with radioactive content.

### METHODS OF IDENTIFICATION—GENERAL

3. The following methods of identification or a combination of these methods may be used:—
  - (a) Branding, stamping, embossing, etc.
  - (b) Basic identification colours.
  - (c) Stencilling (including transfer or printing processes).
  - (d) Labels.
4. The distinctive colours of paints or other marking media used will be as follows:—

| <i>For basic colours</i> | <i>For stencilling, symbols, etc.</i> |
|--------------------------|---------------------------------------|
| Turquoise blue           | Black                                 |
| Service brown            | Azure blue                            |
| Olive drab               | Signal red                            |
| Deep bronze green        | White                                 |
| Light grey               | Golden yellow                         |
| Signal red               |                                       |

### MARKING OF EMPTY PACKAGES

#### BRANDING, STAMPING, EMBOSSING, ETC.

5. **Identification details.** Permanent identification details of the empty package, box, container or cylinder are required by stores personnel and provisioning authorities, and will be prominently marked in an approved position by branding, stamping, embossing or other approved process. The markings may be overpainted at a later stage by the basic colour or protective finish, where applicable. Details of the markings are as follows:—
  - (a) Identification letter(s) number and mark.
  - (b) Initials or recognized monogram of manufacturer.
  - (c) Year of manufacture.
  - (d) Stores reference number of inner containers, if required (Air Service only).

6. **Position.** Identification markings for the empty package should be so positioned that they are clear of areas allocated to contents markings and symbols which may subsequently be applied by stencilling or labelling. They should normally be positioned as follows:—
- (a) On rectangular and cylindrical metal containers, they will be embossed or engraved, usually on the base or end.
  - (b) On rectangular wooden boxes, they will be branded or stamped on the base or lower portion of the end.
  - (c) On containers manufactured from plastics, they may be engraved, moulded or applied by some other approved method on the body or base.

### BASIC IDENTIFICATION COLOURS

7. Packages may be finished in any one of a number of basic colours as listed in **para. 4** or may be left in the natural colour of the material from which they were made or they may have an approved protective finish, e.g. galvanized or anodized. Full details of colours and finishes, and exceptions where applicable, are given in **paras. 8 to 10**.
8. **Outer packages.** Wooden and steel outer packages will normally have a basic colour of service brown, except as follows:—
- (a) Packages containing chemical filled ammunition will have a basic colour of light grey (*see examples, Plates 10 and 15*).
  - (b) Packages for certain demolition stores, e.g. Box, Hose, Mine Clearing Charge, Filled, will be coloured olive drab to conform to the colour of the vehicle on which they are carried.
  - (c) Naval and Air Services galvanized steel packages will normally be left unpainted.
9. **Inner packages.** Removable inner containers, including tinsplate cylinders and boxes, will normally have a basic colour of service brown or may have a black protective finish. Tinsplate linings, which are not normally removed from the outer package, will also have a black protective finish. (In both these instances, the black colour has no identification significance.) Exceptions to the use of these basic colours are as follows:—
- (a) Inner containers for chemical filled stores will have a basic colour of light grey (*see example Plate 15*).
  - (b) Inner containers for detonators will have a basic colour of signal red, but *see para. 11 (a)* for exceptions.
  - (c) Inner containers (Cylinders No. 675) for "Rockets, 3.5-inch, H.E.A.T.," Practice and Drill (Land Service only) will have a basic colour of deep bronze green, turquoise blue and black respectively, to conform to current colour identification for the ammunition.
  - (d) The screwed caps of cylinders containing V.T. and other colour coded fuzes will be coloured the same as the fuze contained therein (*see Section 4, para. 6 (b) (ii)*).
10. **Exceptions.** Packages made from the following materials will not normally be painted but may have an approved protective finish, or such special identification as may be necessary—
- (a) Galvanized steel (Naval and Air Services only).
  - (b) Aluminium and its alloys.
  - (c) Fibre glass.
  - (d) Plastics.
11. **Coloured bands on packages.** Coloured bands on outer packages have no Joint Service significance in the identification marking of ammunition, but coloured adhesive tape banding may be used on inner containers made from plastics. The following are examples of current usage of this method of marking:—
- (a) A signal red band or bands will be affixed around the body of containers for detonators.

- (b) To facilitate type identification of certain projectiles, rounds or cartridges, coloured bands in the basic body colour of the projectile concerned will be affixed around the container. Two bands will normally be used, one near the top end and the other near the base (*see* example **Plate 6**).

## MARKING OF FILLED PACKAGES

### STENCILLING (including transfer or printing processes)

12. **General.** Stencilled details on packages, containers, cylinders, etc. are intended to provide users and stores personnel with sufficient information to readily and fully identify the contents, their filling, Government explosives classification group, and other details. Typical examples of stencilled markings, their colour and position, and other information are shown in **Plates 1 to 20**. Where packages and containers made from plastics are used, stencilling or similar methods of marking may be found impracticable. In such instances, marking details may be printed on labels which should be affixed to the container by means of transparent adhesive tape or approved adhesive, or the details may be printed directly on to adhesive tape which will be affixed to the container (*see* example **Plate 6**).

### DETAILS OF MARKINGS

13. All filled packages will, where applicable, normally be marked with the following information:—

- (a) *Quantity and nomenclature.* The quantity (stores reference number, Naval Service only) approved abbreviated nomenclature and mark or model number of contents.

**NOTE 1.** On B.L. and Q.F. separate loading cartridges, the nominal weight of charge will be shown if included in the approved nomenclature.

**NOTE 2.** Instances may arise where the nomenclature of an ammunition store is deemed inadequate to identify its role and use. To meet Services operational requirements, the Joint Ammunition Markings Sub-Committee may, in such instances, recommend additional markings to be applied to the package (*see* **Table 2**).

- (b) *Components.* Detailed information concerning components of the store. In **Naval Service** component details are shown only on contents labels, *see* **para 44 (b)**.
- (c) Propellant code and where necessary, the size, lot number or both, *see* Section 1—“General Introduction”, Appendix 1.
- (d) Abbreviation or code indicating nature of filling or charging of H.E., chemical or white phosphorus ammunition, *see* Section 1—“General Introduction”, Tables 1 and 2.
- (e) Method of filling code (Land Service Q.F. separate loading projectiles only and excepting those allocated model numbers).
- (f) The filled lot number, initials or monogram of filler and date of filling (month and last two figures of the year) will be marked on packages containing fuzes, primers, pyrotechnic stores, rocket motors, etc. and on Land Service packages containing separated or separate loading cartridges and plugged or fuzed separate loading projectiles.
- (g) The batch number, initials or monogram of the assembly factory and last two figures of the year of assembly will be marked on packages containing assembled Q.F. fixed rounds or cartridges, fuzed mortar bombs, assembled rockets, etc. (*see* Section 2, Part 2—“Mortar Bombs”; Section 3—“Cartridges” and Section 9—“Rockets”).
- (h) The following information, where applicable, will also be marked on the packages:—
- (i) Quantity of inner packages with details of type, identification number and mark. (Details of the identification number and mark are **NOT** required on Land Service packages.)

- (ii) *Land Service*. The approved abbreviated nomenclature, mark or model number, lot number, initials or monogram of filler and last two figures of the year of filing of components e.g. fuzes, primers, etc:—
- (A) FZ 117-19 = 123-CY-61
  - (B) PR 9-4 = 123-CY-61—on packages containing Q.F. separate loading cartridges.
- (iii) (A) Tracer symbol—as marked on projectile.
- (B) Smoke box or smoke pellet symbol—as marked on projectile.
  - (C) Flash producing pellet symbol—as marked on projectile.
  - (D) “DEC”—denoting special decoppering rounds.
  - (E) “HV”—denoting high velocity charges or rounds.
- (iv) Stores reference number, package serial number (if required) and gross weight in lb.

14. **Safety distance category (Land and Air Services only).** The safety distance category, comprising a one or two letter code, will be marked on the lid or top of the outer package in not less than  $\frac{1}{2}$ -inch letters and in the same colour as, and immediately above, the Government explosives classification group. For details of the code for specific ammunition stores, see the “Comprehensive Classified List of Government Explosives” prepared by the Explosives Storage and Transport Committee (E.S.T.C.) of the War Office.
15. **Government explosives classification group.** This will normally be applied by stencilling although, as an alternative, the use of a label is permissible (see para. 41). It is required to be applied, where applicable, to all outer packages and to some inner containers. Particulars of the Government explosives group under which the contents are classified may be obtained on application, from the Explosives Storage and Transport Committee, War Office. In addition, when Government explosives are conveyed by rail between any two or more countries in Europe, a RID explosives class label will also be required, see the “Comprehensive Classified List of Government Explosives, 1958”, para. 15.
16. **Operational abbreviations.** In the *Land Service*, additional markings known as “operational abbreviations” are used. These consist of boldly stencilled markings in white characters on outer packages which enable personnel in an operational area readily to identify the contents of each package. Operational abbreviations are **NOT** marked on packages containing practice, blank, drill, instructional or proof stores. A list of approved operational abbreviations is given in **Table 1**.
17. **Restrictive markings.** Where ammunition has been sentenced to a restricted use, all packages (inner and outer) containing this ammunition will be marked to show the nature of the restriction. The marking will normally be in signal red colour, and may be applied by labelling, see para. 45. It may be placed in any convenient position which does not obscure any other stencilling, stampings, or labels.
18. **Climatic and temperature limitations.** Where ammunition is restricted during transit, issue and storage to certain climatic and temperature conditions, the following information, as applicable, will be prominently marked in signal red colour on the lid or top, and on the left hand side or end, of all outer and inner packages containing the ammunition:—
- (a) “LIM”—indicating limited life in hot (or cold) climates. It is a cautionary warning that the contents should be frequently inspected, tested or both to confirm their continued serviceability.
  - (b) “TEMP”—indicating that transit, issue and storage is limited to temperate climates only.
  - (c) Instances may arise where ammunition is restricted in transit and storage to a specified temperature limit or limits. In those circumstances, the marking “LIM” or “TEMP” will be replaced by a marking consisting of the abbreviation “TSL” (transit and storage temperature limitation) followed by “NOT ABOVE” or “NOT BELOW” (as applicable) and a rectangle enclosing the critical temperature figure.

Examples:— TSL NOT ABOVE 120°F or TSL NOT BELOW -25°F

(d) Where minimum and maximum temperature limits are specified the words "NOT ABOVE" and "NOT BELOW" will be omitted and the remaining markings combined as follows:—

TSL -25°F 120°F or TSL -25°F  
120°F

**Important note.** The above are examples only and the actual temperature(s) specified should be inserted in the rectangle.

19. **Firing temperature limitations.** Where ammunition is restricted to firing within certain temperature limits, the marking on the ammunition will be prominently reproduced on the outer package. It will normally be marked in signal red colour on the front or side of the package on which details of the contents appear.

Example:—



20. **Restricted Service life.** Where ammunition has been given a restricted Service life with a date of expiry, the marking on the ammunition will be reproduced in signal red colour on the outer package thus "SL" (Service life) followed by the date of expiry (month and year). It will normally be prominently marked on the front or side of the package on which details of the contents appear.

Example:—SL 8/61

21. **Universal cavity.** The letter "U" will be marked in golden yellow colour after and in line with the mark or model number on packages containing shell with a "universal exploder cavity", that is, a cavity suitable for both standard and V.T. fuzes. It will be in the same size of character as used for the mark or model number.

22. **Q.F. fixed rounds of ammunition for Naval Service.** Q.F. fixed rounds of ammunition assembled with a rubber ring in the cannellure at the base of the shell as a watertight seal will, until this method of sealing becomes general practice, be distinguished by the letter "W" in a circle, stencilled in golden yellow colour on the side or end of the package.

23. **Rockets and rocket motors.** Inner and outer packages containing assembled rockets and rocket motors which are self propulsive will have the information "HEADS THIS END" prominently marked in golden yellow on the appropriate end of the package. This is in conformity with revised marking requirements of the Ministry of Transport for the stowage of these items in freight ships.

24. **Special handling precautions.** Packages containing cordite filled rocket motors will be prominently marked in signal red with the following cautionary warning:—

**"HANDLE CAREFULLY BELOW 35°F"**

This marking will normally be on the front or side of the package on which details of the contents appear.

25. **Not to be air dropped (Land Service only).** Packages containing ammunition which is unsuitable for air dropping will be marked on the lid or top, and on one end, with a red equilateral triangle the base of which should be approximately  $1\frac{1}{4}$ -inches.

26. **Part packages.** Packages containing less than the full approved quantity of stores will have the word FRACTION, or abbreviation FRAC, stencilled boldly in the colour and position as follows:—


- (a) **Naval Service.** In yellow on each side of the package which is marked with the quantity of items packed.
- (b) **Land and Air Services.** In red on the side on which details of the contents are marked, and on the right hand end.

**NOTE.** The "quantity of items packed", where stencilled on the package, may require to be amended.

27. **Special ammunition stowage in freight ships.** Service ammunition in this category includes Group 11 stores charged FM or CSAM, Group 12 phosphide or white phosphorus stores and Group 13 chemical stores. Packages containing ammunition in this category will be marked with the abbreviation "SAS", in not less than  $\frac{1}{8}$ -inch letters, in the same colour and immediately below the Government explosives classification group marking (or label). Full details of ammunition coming within these special conditions of stowage may be found by reference to column 7 of the table in the "Comprehensive Classified List of Government Explosives 1958" prepared by the E.S.T.C.
- NOTE.** The letters "D" and "R" which appear with the abbreviation "SAS" in column 7 of the List, are **NOT** required to be marked on packages.
28. **Dangerous goods.** Certain ammunition not classified for storage and transport in a Government explosives group, may, by the nature of its filling or charging, be classed as "dangerous goods" and thus subject to statutory regulations when transported by rail or in ships, *see para. 42*. In addition to statutory requirements, all packages containing ammunition classed as "dangerous goods" will be prominently marked as follows:—
- (a) Nature of contents, e.g. titanium tetrachloride.
- (b) Type of risk, e.g. corrosive, poisonous, inflammable.
- (c) Flash point classification of inflammable goods, *see instructions, Plate 25*.
- NOTE.** For additional markings for dangerous goods, *see para. 42*.
29. **N.A.T.O. Design Mark (Stanag 2320).** The N.A.T.O. Design Mark, comprising a cross inside a circle has been adopted for use by N.A.T.O. armed forces to denote ammunition that has been manufactured to a design which satisfies a N.A.T.O. Standardization Agreement.
- (a) *Position.* It will be marked, where applicable, on filled inner, intermediate and outer packages adjacent to the main designation of contents (type, calibre or both).
- (b) *Dimensions and colour.* The size of the N.A.T.O. Design Mark will not be less than that of the largest character used in the normal identification or designation marking, nor will it be larger than twice that size. The colour will be the same as used for the main identification markings (*see Fig. 1, Plate 24* for full details).
30. **N.A.T.O. Symbol of Interchangeability (Stanag 2315).** The symbol, a four-leafed clover has been adopted for use by N.A.T.O. armed forces to denote ammunition that is operationally interchangeable. When stencilled on outer packages, the symbol indicates that the ammunition conforms in overall dimensions, performance and serviceability to a model approved under the provisions of a N.A.T.O. Standardization Agreement brought up-to-date as necessary. The ammunition will therefore be operationally interchangeable with ammunition of the same designation, type and calibre which bears the same symbol on the package, in all weapons and equipments for which such ammunition is normally used.
- (a) *Position.* It will be marked, where applicable, in an approved position on the outer package. When selecting the position and method of applying the symbol, consideration should be given to the possibility of removing or obliterating it should the contents of the package at any time cease to fulfil the conditions implied by the presence of the symbol.
- (b) *Dimensions and colour.* Dimensions and colour will be as for the N.A.T.O. Design Mark, *see para. 29* (and *see Fig. 2, Plate 24* for full details).

31. **Tripartite symbol marking.** Packages containing ammunition conforming to a design which has been accepted as a Tripartite (America/Britain/Canada) Standard will be marked with the symbol.

ABC

This symbol marking may eventually supersede the marking  which was adopted to indicate ammunition conforming to a standard approved for the armed forces of the United Kingdom and United States.

- (a) *Position.* The symbol will be marked in an approved and prominent position on the package adjacent to the main designation of contents.
- (b) *Dimensions and colour.* Dimensions and colour will be as for the N.A.T.O. Design Mark, see para. 29.
32. **Miscellaneous markings.** Additional markings are sometimes required by individual Services for special reasons. Two examples are:—
- (a) Wooden ammunition boxes likely to be carried in H.M. Ships are treated with fire retardant/preservative salts, and boxes so treated will be marked with the letters "FP" branded or stamped adjacent to the box number and mark.
- (b) The marking on an outer package to denote the number of keys included for opening inner containers.

#### COLOURS FOR MARKINGS

33. Colours for main stencilled markings will normally be as follows:—
- (a) *Golden yellow (on unpainted packages, black may be used to give a better contrast) for—*
- Quantity (stores reference number, Naval Service only), nomenclature and mark or model number.
  - Component details.
  - Abbreviation or code indicating nature of filling.
  - Propellant code and lot number (where applicable).
- (b) *White on a dark coloured background or signal red on a light coloured background for—*
- Government explosives classification group.
  - Safety distance category (Land and Air Services only).
  - Abbreviation "SAS" (where applicable, see para. 27).
- (c) *White for—*Operational abbreviations.
- (d) *Signal red, see paras. 17, 18 and 24 for—*
- Restrictive sentences.
  - Climatic and temperature limitations.
  - Special handling precautions.

#### SIZE OF MARKINGS

34. The size will necessarily vary according to the dimensions of the package and the space available for markings; on small packages, where space is limited, they may be reduced in approximately the same relative proportions. The following sizes should be taken as a guide:—
- Quantity, nomenclature, and mark or model number—1 inch.
  - Component details— $\frac{1}{2}$  inch.
  - Abbreviation or code indicating nature of filling— $1\frac{1}{2}$  inches.
  - Propellant code— $1\frac{1}{2}$  inches.



- (e) Operational abbreviations—normally 2-inches but never less than  $\frac{1}{2}$ -inch.
- (f) Government explosives classification group—layout and sizes as for labels (*see Plate 23*).

**NOTE.** The largest size of Government explosives group marking or label should be used wherever possible to ensure that it can clearly be seen during handling, transit and storage.

### POSITION AND SEQUENCE OF MARKINGS

35. *General.* The positions of markings on outer packages and inner containers depend upon a number of factors, including:—

- (a) Operational, user and store-holder requirements.
- (b) Explosives storage and transport requirements.
- (c) Design, size and shape of package or container.
- (d) Method of stowage or stacking.
- (e) Requirements for special markings or symbols.
- (f) N.A.T.O. marking requirements, where applicable.

**It is the responsibility of individual Services to satisfy their own special requirements within the framework of Joint Services standardization.** To avoid stencilling, or labels being accidentally defaced or removed during handling, transit and storage, the markings should, where possible, be positioned in recessed panels, in recesses between raised panels or fluting of steel packages and containers, and between battens of wooden packages.

36. The **sequence** of marking details shall be strictly adhered to, and the positions and **relative size** of the markings will be maintained wherever possible. More detailed markings, and their sequence, are given in **paras. 38 and 39**, but the following general rules will normally be observed:—

- (a) Quantity, abbreviated nomenclature and mark or model number, batch or lot number, initials or recognized monogram of filler or assembler, date of filling, nature of filling code or propellant code, followed by details of components (in smaller type, *see para. 34*) will be stencilled on one side when the shape of the package permits, leaving the opposite side clear for consignment markings, etc. Typical examples are shown in the illustrated plates.
- (b) The Government explosives classification group marking or label, the safety distance category and the abbreviation "SAS" (where applicable) will be applied once on the lid or top of the outer package, adjacent to and, if possible, to the left of but clear of the operational abbreviations (if applied). If there is insufficient space available on the lid or top, these markings will be positioned on the left hand side or end of the package and may be in the handle recess, if more convenient. The explosives group marking or label will also be applied to some removable inner containers, *see para. 39 (a)*.
- (c) Operational abbreviations, where applicable, will be stencilled on the lid or top of rectangular packages, and on the side of cylindrical packages opposite to the position used for the markings in (a) above.
- (d) Climatic and temperature limitations, will be marked once on the lid or top of rectangular packages, adjacent to but clear of the operational abbreviation (if applied), and once on the left hand side or end (*see para. 18*). On cylindrical packages they will be positioned adjacent to but clear of the operational abbreviation.

### APPLICATION OF MARKINGS

37. Unless otherwise authorized, the information detailed in **paras. 38 and 39** will, where applicable, normally be stencilled on outer and inner packages in the sequence and positions as shown.

## 38. Outer packages

### (a) On lid or top

- (i) Safety distance category (Land and Air Services only).
- (ii) Government explosives classification group marking or label.
- (iii) Abbreviation "SAS".
- (iv) Operational abbreviation (Land Service only).
- (v) Climatic and temperature limitations, *see para. 18.*

### (b) On side or front (Land and Air Services)

- (i) Quantity of items packed.
- (ii) Approved abbreviated nomenclature and mark or model number of complete store.
- (iii) Quantity of inner packages with details of type, identification number and mark. (Details of identification number and mark are **NOT** required on Land Service packages).
- (iv) Lot number or batch number, *see sub-paras. 13 (f) and 13 (g).*
- (v) Propellant code, size and lot number (if not batched i.e. separate loading ammunition).
- (vi) Abbreviations or code indicating nature of filling or charging of H.E., chemical or white phosphorus ammunition.
- (vii) Method of filling code (Land Service Q.F. separate loading shell only).
- (viii) Filled series number of projectile (on packages containing plugged or fuze separate loading projectiles for Land Service).
- (ix) Initials or recognized monogram of filler or assembler, and date of filling (month and year) or year of assembly (last two figures), *see sub-paras. 13 (f) and 13 (g).*
- (x) Code indicating nature of propellant (Land Service Q.F. fixed batched ammunition).
- (xi) Restrictive markings, climatic and temperature limitations, *see paras. 17 and 18.*
- (xii) Approved abbreviated nomenclature, mark or model number, lot number, initials or recognized monogram of filler and year of filling of components, e.g.:—
  - (A) FZ 117-19 = 123-CY-60
  - (B) PR 9-3 = 123-CY-60—on packages containing Q.F. separate loading cartridges.
- (xiii) The following information, where applicable, will also be marked on the packages:—
  - (A) Tracer symbol—as marked on projectile.
  - (B) Smoke box or pellet symbol—as marked on projectile.
  - (C) Flash producing pellet symbol—as marked on projectile.
  - (D) "DEC"—denoting special decoppering rounds.
  - (E) "HV"—denoting high velocity charges or rounds.

### (c) On side or front (Naval Service)

- (i) Quantity of items packed.
- (ii) Stores reference number.
- (iii) Abbreviated nomenclature.

**NOTE.** Remaining details are applied by labelling, *see para. 44.*

- (d) *On right hand end (Land and Air Services)*
- (i) Stores reference number (Air Service only).
  - (ii) Package serial number. *IS REQUIRED.*
  - (iii) Propellant code and lot number (separated and separate loading cartridges).
  - (iv) Batch number, initials or recognized monogram of assembler, and year of assembly, or lot number, initials or recognized monogram of filler, and date of filling (month and year).
  - (v) Gross weight (lb.).
- (e) *On left hand end (Land and Air Services)*
- (i) Safety distance category
  - (ii) Government explosives classification group
  - (iii) Abbreviation "SAS"
  - (iv) Climatic and temperature limitations, *see para. 18.*
- (f) *On one end (Naval Service)*
- (i) Contents label, *see para. 44.*
  - (ii) Propellant code and lot number.
  - (iii) V.T. fuze lot number and colour.

} Alternative to marking  
 } on lid or top, *see*  
 } **para. 36 (b).**

**NOTE.** Where V.T. fuzes are packed, either separately or assembled to other stores, e.g. shell or Q.F. fixed ammunition, a bar of colour matching the colour code of the fuze will be marked on the package.

**NOTE.** For details of additional markings and symbols for outer packages, *see paras. 19 to 26 and 28 to 32.*

**39. Inner packages.** Where ammunition or components are packed in closed inner containers which may be removed from the outer package, each inner container will normally be stencilled or (for the Naval Service) labelled with the following particulars:—

- (a) Where the contents are classified within one of the Government explosives groups, the word "EXPLOSIVE" will be prominently marked in signal red, except for cylinders containing detonators where it will be black (but *see paras. 11 and 12* for marking of containers made from plastics). The marking "EXPLOSIVE" is **NOT** required on inner containers holding safety cartridges, primers Q.F. cartridge, tubes or small containers of similar stores. Where the removable inner container is sufficiently large, the Government explosives group marking or label may be applied in an approved position, normally on the side, in place of the word "EXPLOSIVE".
- (b) Quantity, abbreviated nomenclature and mark or model number, propellant code, batch or lot (or serial) number, initials or recognized monogram of filler or assembler, date of filling (month and year) or year of assembly (last two figures), primer details for separate loading cartridges, and the stores reference number (Naval and Air Services only). This stencilling or labelling will be in a colour and size of the characters best suited to the particular inner container concerned. For tin-plate and similar metal inner containers, tin printing or transfers may be used in lieu of stencilling or labels. For the marking of inner containers made from plastics where stencilling may be impracticable, *see para. 12.*

### CRATES AND TRANSIT CONTAINERS

**40.** Where a number of outer packages are assembled into a special crate or transit container which does not obscure the main identification details of the ammunition as marked on the outer packages, it will be sufficient for the crate or container to be marked with the safety distance category, Government explosives classification group, operational abbreviation, total quantity of rounds, abbreviated nomenclature, serial number of the filled crate or container and its gross weight (lb.) together with such other minimum markings as may be

considered necessary. Where, however, markings sufficient to identify all the afore-mentioned details are clearly visible, the application to the crates and transit containers of these details may be dispensed with.

## LABELS

41. **Government explosives classification group label.** Packages containing stores classified for transport and storage in a Government explosives group may bear a group label in place of the stencilled marking, *see* para. 15. The group label, printed in red on a white background, denotes by means of a group number the transport and storage conditions for the package contents. For further details, *see* the "Comprehensive Classified List of Government Explosives" prepared by the E.S.T.C.

(a) *Position and size.* The label will normally be applied on the top or lid of outer packages and on the side of some inner containers. For examples of approved large and small sizes of group labels *see* Plate 23, but the use of intermediate sizes where appropriate may be authorized by the approving authority, *see* para. 34 (f).

(b) *Initials of Service or Department.* The labels will bear the initials of the Service or Department concerned, as follows:—

N = Naval Service.

W † D = Land Service.

RAF = Air Service.

MOA\* = Ministry of Aviation.

\*Some labels bearing the initials M.O.S. (Ministry of Supply) may still be found on ammunition packages.

(c) *Composite groups.* In Naval Service, where certain ammunition stores may be allocated to different groups ashore and afloat, a composite label is used which indicates the ashore group in the numerator and the afloat group in the denominator.

42. **"Dangerous goods" labels.** Ammunition classified as "dangerous goods" is required to be marked with special labels or stencilled replicas of the labels on their outer packages, *see* Plates 25 and 26, in addition to any stencilled markings called for in para. 28. In the Naval Service, where items classified as "dangerous goods" may, for convenience of stowage, be allocated to an explosives group on board H.M. ships, a label N.1189 will be used to indicate the appropriate group. This label will be additional to other markings, as applicable, called for in this Section.

(a) *Transport by sea.* Information concerning the labels to be used for transport by sea, and other details, are not included in this Handbook as they are similar in many respects to those for transport by rail. Full information when required will be found in the Ministry of Transport publication quoted in sub-para. (c) below.

(b) *Transport by rail.* Details, including dimensions and colours, of the labels to be used when these classes are transported by British Railways are given in Plates 25 and 26. The use of "traffic letters" A, B, C, etc. should be noted; information concerning the substances to which they refer and their conditions of acceptance will be found in the appropriate Railway Clearing House document quoted in sub-para. (c) below.

(c) *Related documents.* The Ministers of the Services, although empowered to legislate for the conveyance and storage conditions for explosives are not similarly empowered in respect of "dangerous goods". There are, therefore, no Services labels for dangerous goods corresponding to the Government explosives group labels. Classified lists of dangerous goods, together with the conditions of acceptance and conveyance, and details of labels, may be found in the following publications:—

(i) *Ministry of Transport*—"The Carriage of Dangerous Goods and Explosives in Ships".

- (ii) *British Transport Commission—Railway Clearing House—RCH 60006—*“Instructions as to conveyance of Explosives, Inflammable Liquids, Corrosives or Poisonous Chemicals, Compressed or Liquefied Gases and other Dangerous Goods by Rail, Road or Water on behalf of Her Majesty’s Government”.
- (iii) *BR 22426—*“Dangerous Goods by Merchandise Trains—List of Dangerous Goods and Conditions of Acceptance.”

**NOTE.** For the conveyance of dangerous goods not listed in the above documents, instructions should be obtained from the Explosives Storage and Transport Committee of the War Office.

43. **Packers label** (*see Plate 22*). On every occasion of closing or reclosing any package containing explosives before sealing or resealing, a packers label is to be inserted loose in the bottom of packages containing cartridges or affixed on the inside of the lid of other packages.

This label will bear the initials or other mark of the operative who carried out the packing, together with the station or factory monogram and date of packing. It may also bear the initials and workmark of the examiner responsible for inspection. The label will be removed when the package is emptied of its contents.

**NOTE.** During Services maintenance or inspection involving repacking of explosives, the packers label may be substituted by an approved marking on the outer package.

44. **Contents and batch labels.** Contents labels usually show some of the information given under **para. 13**, and may give other details, as required. They are sometimes used in place of stencilled markings. Batch labels include details of components of assembled ammunition, such as Q.F. fixed cartridges, mortar bombs, rockets, etc.. These labels will normally be applied as follows:—

(a) *Land and Air Services.* Contents or batch labels, (*see Plate 22*) where used, are normally affixed in some convenient position inside the outer package and may also be affixed to the outside of inner packages.

(b) *Naval Service.* The detailed identification of contents of outer and inner packages is by contents labels in preference to stencilling (*see Plate 21*). The labels will be so positioned as to be visible when the packages are stacked and this will usually mean affixing the label to one end of the package. Where possible, the label should be in a recess or in the lee of a handle, for protection against damage.

(c) Contents labels which are affixed to the outside of inner packages or linings containing explosives will be overprinted with the word “**EXPLOSIVE**” in signal red colour, *see para. 39*.

45. **Restricted use labels.** These labels indicate briefly the nature of the restriction and may be used in place of stencilling, *see para. 17*. Details will normally be printed in signal red colour on a white background and the labels should be affixed in any convenient position which does not obscure stencilling, stamping or other labels.

46. **Special identification, instructional or warning labels.** These special labels are sometimes required on packages and, where used, will usually be affixed to the exterior of the package in any convenient position which does not obscure stencilling, stamping or other labels. Instructional labels are occasionally required to be positioned under the lid.

47. **Inks for paper labels.** Information inserted on paper labels used for packages containing explosives shall be done by printing or by indelible stamp as far as practicable. Where it may be necessary to insert details in manuscript, only an approved waterproof black drawing ink or blue black record ink will be used. Details will invariably be inserted in block capitals and arabic numerals.

#### METAL TAGS

48. Metal tags for identification, warning or instructional purposes will not normally be used on packages owing to the danger of loss in transit.

## SEALING OF FILLED AND EMPTY PACKAGES

49. **Sealing of filled packages.** Every package containing explosives will be sealed during transit and storage, in such a manner that the package cannot be opened without breaking the seal.
50. **Methods.** The following methods of sealing may be used:—
- (a) *Metal seals.* A metal seal is used in conjunction with a wire or cord becket, and after being secured as indicated in the package drawing, it will be impressed with the mark of the inspectorate or authority concerned. This seal is intended to signify that, at the time of sealing, the package and its contents were acceptable to the inspectorate or other authority and in good condition for despatch to the consignee. Two seals are normally used on rectangular and one on cylindrical metal packages.
  - (b) *Inspection sealing labels (see Plates 21 and 22).* Alternatively, an inspection sealing label, having the same significance as the metal seals described in (a) above, may be used. This sealing label, comprising a strip of white muslin, linen or similar material, is marked with the initials or monogram of the inspection authority. One label is normally used in conjunction with the station sealing label, *see sub-para. (c) below.*
  - (c) *Station sealing labels (see Plates 21 and 22).* In addition to (a) or (b) above there is a statutory obligation on the consignor to affix to each package a station sealing label. This label is similar to the inspection sealing label, except that it is marked with the initials or monogram of the unit or establishment. It indicates the authority responsible for ensuring that the explosive is properly packed in an approved manner.
51. **Position of application.** The sealing labels described in para. 50 (b) and (c) will be affixed to packages by means of an approved adhesive and will be positioned as follows:—
- (a) When metal seal(s) are used, the station sealing label will be affixed over the junction of lid and body.
  - (b) When metal seal(s) are **not** used, both an inspection and a station sealing label will be used. These will be affixed over the junction of lid and body; near to the corners and diagonally opposite on rectangular packages with removable lids, obliquely under each fastening device on packages with hinged lids, and in a suitable position on cylindrical packages.
52. **Sealing of empty packages.** When packages containing explosives are emptied of their contents for return, and where it has not been possible to obliterate or remove the markings appertaining to those contents, a special label will be affixed to the empty package after it has been examined and certified as empty. The label will bear the marking “EMPTY (FREE FROM EXPLOSIVE)” in black characters on a white background (*see Fig. 4, Plate 24*). The monogram of the station and date of certification will be inserted and it will be signed by the person responsible for examining the package. The label will be affixed to the package in such a position that the package cannot be opened without tearing or defacing it, and it will be completely removed before the package is again used.

TABLE 1

## LIST OF OPERATIONAL ABBREVIATIONS

1. To facilitate identification of contents by all concerned in operational areas, the following operational abbreviations will be stencilled in "WHITE" in an approved position, usually on top or lid, of the outer package. The stencilling will be in bold characters as large as possible consistent with the size and shape of the package, normally 2-inches but never less than  $\frac{1}{2}$ -inch. Operational abbreviations will NOT be used on packages containing blank, drill, practice, instructional or proof stores.

(a) In the case of B.L. and Q.F. separate loading cartridges, to avoid frequent amendments to this table, the propellant code identification letters shown in the operational abbreviations (column 2) will be changed, as necessary, to agree with the nature of the propellant shown in the main descriptive nomenclature of the particular cartridge packed.

(b) Differences in nomenclature (column 1) due to changes in nominal charge weights and natures of propellant will be shown in the main descriptive nomenclature of the particular cartridge concerned which is stencilled on the side of the package (see para. 13 (a) of text).

| Nature of ammunition<br>(1)                                 | Operational abbreviations<br>(2)  |
|-------------------------------------------------------------|-----------------------------------|
| <b>A. ARTILLERY AMMUNITION</b>                              |                                   |
| <i>(a) Anti-Aircraft Ammunition</i>                         |                                   |
| Carts., Q.F., 40 mm., H.E., Fuzed, with No. 14 Tracer       | 40 MM HE FZD* 12 SEC              |
| Carts., Q.F., 40 mm., H.E., Fuzed, with No. 11 or 12 Tracer | 40 MM HE FZD* 7 SEC               |
| Carts., Q.F., 40 mm., Clearing Round, 40/70, H.E./T., L22A1 | 40 MM CLEARING<br>40/70 HE/T FZD* |
| <i>(b) Coast Artillery Ammunition</i>                       |                                   |
| Carts., B.L. 9-2 inch, $\frac{1}{2}$ charge                 | 9-2 GUN CART, $\frac{1}{2}$       |
| " " " " $\frac{1}{2}$ "                                     | 9-2 GUN CART $\frac{1}{2}$        |
| <i>(c) Field Branch Artillery Ammunition</i>                |                                   |
| Carts., Q.F., 25 pr., 2 lb. 1 oz., 12 dr., FNH              | 25 PR CART FNH                    |
| " " " 2 lb. 1 oz., 4 dr., NH                                | 25 PR CART NH                     |
| " " " 1 lb. 14 oz., 4 dr., NQ                               | 25 PR CART NQ                     |
| " " " 1 lb. 11 oz., 4 dr., WM                               | 25 PR CART WM                     |
| " " " 2 lb. 8 oz., 0 dr., WM                                | 25 PR SUP WM                      |
| " " " 2 lb. 9 oz., 14 dr., SC/T                             | 25 PR SUP SC                      |
| " " " 2 lb. 13 oz., 8 dr., NQ/S                             | 25 PR SUP NQ                      |
| " " " Supercharge increment                                 | 25 PR SUP INC                     |
| " " " Normal increment                                      | 25 PR INTER INC                   |
| Shell., Q.F., 25 pr., H.E., Fuzed                           | 25 PR HE FZD*                     |
| " " " H.E. plugged, for V.T. Fuze                           | 25 PR HE PLGD U                   |
| " " " H.E.S.H., Fuzed                                       | 25 PR HESH FZD*                   |
| " " " B.E. Smoke, Fuzed                                     | 25 PR BE SMK FZD*                 |
| " " " " Plugged                                             | 25 PR BE SMK PLGD                 |
| " " " Coloured Smoke, Fuzed                                 | 25 PR SMK † FZD*                  |
| " " " " Plugged                                             | 25 PR SMK † PLGD                  |
| " " " " Flare, Fuzed                                        | 25 PR FLAR † FZD*                 |
| " " " " Plugged                                             | 25 PR FLAR † PLGD                 |
| " " " " Bursting, Fuzed                                     | 25 PR BURST † FZD*                |
| " " " " Plugged                                             | 25 PR BURST † PLGD                |
| " " " Illuminating, Fuzed                                   | 25 PR ILL FZD*                    |
| " " " " Plugged                                             | 25 PR ILL PLGD                    |
| " " " Incendiary, Fuzed                                     | 25 PR INCDY FZD*                  |
| " " " " Plugged                                             | 25 PR INCDY PLGD                  |
| Shot, Q.F., 25 pr., A.P.                                    | 25 PR AP*                         |

Table 1—continued

| Nature of ammunition<br>(1)                                                                                                                                                                                                                                                                                                                                                                      | Operational abbreviations<br>(2)                                                                                                                                                                                                                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>(c) Field Branch Artillery Ammunition—continued</i>                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                          |
| Carts., B.L., 5.5 inch, 10 lb. 14 oz., 8 dr., NH<br>" " " " 10 lb. 14 oz., 0 dr., FNH/P<br>" " " " 9 lb. 13 oz., 0 dr., NQ/S<br>" " " " 9 lb. 2 oz., 0 dr., WM<br>" " " " 5 lb. 5 oz., 0 dr., FNH<br>" " " " 5 lb. 0 oz., 0 dr., NH<br>" " " " 4 lb. 4 oz., 0 dr., WM<br>" " " " 4 lb. 12 oz., 0 dr., NQ<br>" " " " 12 lb. 9 oz., 0 dr.<br>(for 80 lb. shell)<br>" " " " 11 lb. 8 oz., 0 dr., WM | 5.5 CART 4TH NH<br>5.5 CART 4TH FNH<br>5.5 CART 4TH NQ<br>5.5 CART 4TH WM<br>5.5 CART 2ND FNH<br>5.5 CART 2ND NH<br>5.5 CART 2ND WM<br>5.5 CART 2ND NQ<br>5.5 CART SUP NQ/S<br>5.5 CART SUP WM                                                           |
| Carts., B.L., 7.2 inch, 7 lb. 0 oz., 0 dr., N/S<br>" " " " 25 lb. 0 oz., 0 dr., FNH<br>" " " " 24 lb. 0 oz., 0 dr., N/S<br>" " " " 16 lb. 3 oz., 8 dr., FNH<br>" " " " 13 lb. 11 oz., 0 dr., N                                                                                                                                                                                                   | 7.2 CART 5TH N/S<br>7.2 CART 4TH FNH<br>7.2 CART 4TH N/S<br>7.2 CART 3RD FNH<br>7.2 CART 3RD N                                                                                                                                                           |
| Round, 105 mm., How., H.E., L41A1<br>" " " " Smoke, L42A1                                                                                                                                                                                                                                                                                                                                        | 105 MM HOW L10<br>HE FZD PD M51A5<br>105 MM HOW L10<br>SMK WP FZD PD M51A5                                                                                                                                                                               |
| <i>(d) Tank and Anti-tank Ammunition</i>                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                          |
| Carts., Q.F., 2 pr., H.V.H.E., Fuzed<br>Clearing<br>Carts., Q.F., 20 pr., H.E., Fuzed<br>" " " " B.E., Smoke, Fuzed<br>" " " " A.P.C., B.C.<br>" " " " A.P.D.S.<br>" " " " Canister<br>" " " " Clearing                                                                                                                                                                                          | 2 PR HVHE FZD*<br>2 PR CLEARING<br>20 PR HE FZD*<br>20 PR BE SMK FZD*<br>20 PR APCBC<br>20 PR APDS<br>20 PR CNSTER<br>20 PR CLEARING                                                                                                                     |
| Carts., 120 mm., Tk., L9A2<br>" " " " L9A3<br>" " " " L16A5<br>" " " " L22A1<br>" " " " L22A2<br>" " " " L23A1<br>" " " " L25A1<br>" " " " L26A1<br>" " " " L30A1                                                                                                                                                                                                                                | CART 120 MM TK L1 APDS<br>CART 120 MM TK L1 APDS<br>CART 120 MM TK L1 HESH<br>CART 120 MM TK L1 HESH<br>CART 120 MM TK L1 HESH AND<br>PRAC SH<br>CART 120 MM TK L1 APDS<br>CART 120 MM TK L11 APDS<br>CART 120 MM TK L11 HESH<br>CART 120 MM TK L11 HESH |
| Shell, 120 mm., Tk., L2A2<br>" " " " L2A3<br>" " " " L18A1<br>" " " " L18A2<br>" " " " L18A3<br>" " " " H.E.S.H., L20A1<br>" " " " " L31A1                                                                                                                                                                                                                                                       | } 120 MM TK L1 HESH FZD*<br>} 120 MM TK L11 HESH FZD*                                                                                                                                                                                                    |
| Shot, 120 mm., Tk., A.P.D.S., L1A1<br>" " " " " L15A1                                                                                                                                                                                                                                                                                                                                            | 120 MM TK L1 APDS<br>120 MM TK L11 APDS                                                                                                                                                                                                                  |
| Round, 76 mm., Armd. C. H.E.T., L24A1<br>" " " " " L24A2<br>" " " " " L24A3                                                                                                                                                                                                                                                                                                                      | } 76 MM ARMD C HE/T FZD*                                                                                                                                                                                                                                 |
| Round, 76 mm., Armd. C. H.E.S.H. L29A1<br>" " " " " L29A2<br>" " " " " L29A3<br>" " " " " Screening Smoke Shell,<br>L32A1                                                                                                                                                                                                                                                                        | } 76 MM ARMD C HESH FZD*<br>} 76 MM ARMD C BE SMK FZD*                                                                                                                                                                                                   |



Table 1—continued

| Nature of ammunition<br>(1)                          | Operational abbreviations<br>(2) |
|------------------------------------------------------|----------------------------------|
| <i>(d) Tank and Anti-tank Ammunition—continued</i>   |                                  |
| Round, 105 mm., Tk., A.P.D.S., L28A1                 | } 105 MM TK L7 APDS              |
| " " " " " " L36A1                                    |                                  |
| " " " " " " H.E.S.H. L35A1                           | } 105 MM TK L7 HESH FZD*         |
| " " " " " " L35A2                                    |                                  |
| " " " " " " L37A1                                    | } 105 MM TK L7 BE SMK FZD*       |
| " " " " " " B.E. Screening Smoke, L39A1              |                                  |
| Round, 120 mm., B.A.T., H.E.S.H. L19A3               | } 120 MM BAT HESH FZD*           |
| Round, 6.5 inch, A.V.R.E., H.E.S.H.                  | } 6.5 IN AVRE HESH FZD*          |
| Round, 165 mm., H.E.S.H., L33A1                      | } 165 MM HESH FZD*               |
| <b>B. MORTAR AMMUNITION</b>                          |                                  |
| Bomb, M.L., 2 inch, Mortar, H.E., Fuzed              | } 2 MOR HE FZD*                  |
| " " " " " " Smoke                                    | } 2 MOR SMK                      |
| " " " " " " Illuminating with Parachute              | } 2 MOR ILL                      |
| Cartridge, M.L., 2 inch, Mortar, 55 grain ballistite | } CART 2 MOR 55 GR               |
| " " " " " " Smokeless 50gr. ballistite               | } CART 2 MOR 50 GR               |
| Bomb, M.L., 3 inch, Mortar, H.E., Fuzed              | } 3 MOR HE FZD*                  |
| " " " " " " Smoke, B.E., Fuzed                       | } 3 MOR BE SMK FZD*              |
| " " " " " " Smoke, Coloured, Fuzed                   | } 3 MOR SMK † FZD*               |
| " " " " " " Smoke, B.E., Coloured Skytrail           | } 3 MOR SKY † FZD*               |
| Cartridge, M.L., 3 inch, Mortar, 90 grain ballistite | } CART 3 MOR 90 GR               |
| " " " " " " Augmenting, 280gr., NRN9                 | } CART 3 MOR 280 GR              |
| " " " " " " Augmenting, 183gr., NRN9                 | } CART 3 MOR 183 GR              |
| Bomb, M.L., 4.2 inch, Mortar, H.E., Fuzed            | } 4.2 MOR HE FZD 162             |
| Bomb, H.E., Fuzed, L1, Mk. 1                         |                                  |
| Bomb, H.E., Fuzed, L1, Mk. 2                         |                                  |
| Cartridge, M.L., 4.2 inch, Mortar, 140 grain         | } CART 4.2 MOR 140 GR            |
| " " " " " " Augmenting 450gr.                        | } CART 4.2 MOR 450 GR            |
| Bomb, 81 mm., Mortar, H.E., Cartridged, L10A1        | } 81 MM MOR HE PLGD              |
|                                                      | } or                             |
|                                                      | } 81 MM MOR HE FZD*              |
| Fuzes, Percussion, D.A.                              |                                  |
| No. 162 Mks. 1/2, 1/3, 4, 4/1 and 8                  | } FUZ 162 MK ‡                   |
|                                                      | } FOR 3 MOR                      |
| No. 162 Mks. 3, 3/1, 3/2, 3/3, 5, 5/1 and 7          | } FUZ 162 MK ‡                   |
|                                                      | } FOR 4.2 MOR                    |
| Fuzes, Time, No. 390, Mks. 2 and 2A                  | } FUZ 390 MK ‡                   |
|                                                      | } FOR 3 MOR                      |
| <b>C. DEMOLITION STORES</b>                          |                                  |
| Charge, Demolition, No. 1, 6 lb., Mk. †              | } B HIVE 6 LB †                  |
| " " " " " " No. 14, 11 lb.                           | } HAYRICK 11 LB                  |
| " " " " " " Line, Mine Clearing, No. 1               | } BABY VIPER                     |
| " " " " " " " " " " " " No. 2                        | } GIANT VIPER                    |
| Charge, Line, Mine, Clearing, No. 1 (Baby Viper)—    |                                  |
| Box accessories filled                               | } BABY VIPER—BOX ACCESS          |
| Hose (100-ft. lengths)                               | } BABY VIPER—HOSE                |
| Equipment, Mine Clearing (Giant Viper), L1—          |                                  |
| Crate, accessories filled                            | } GIANT VIPER—CRATE ACCESS       |

Table 1—continued

| Nature of ammunition<br>(1)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Operational abbreviations<br>(2)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>C. DEMOLITION STORES—continued</b></p> <p>Kit, boxed, Blow-out hook<br/>Box, accessories filed<br/>Initiators</p> <p>Box, Hose (750-ft. length)</p> <p>Cordtex<br/>Detonator, No. *<br/>Detonator, electric, No. *<br/>Detonator, Multiple, No. 93<br/>Fuze, Instantaneous<br/>Fuze, Safety<br/>Fuze, Electric, No. 14<br/>Fuze, Electric, No. F103<br/>Igniter, Percussion<br/>    " Safety Fuze, Electric<br/>    " " " Friction<br/>Nobeis, 808, Plastic, (Carts. 1½, 2, 2½ or 3 inch diameter)<br/>Nobeis, 808 (Carts, 1½, 2, 2½ or 3 inch diameter)<br/>Nobeis, 851, Carts.<br/>Nobeis, 852, Carts.<br/>Nobeis, 808, Charges, 4 oz.<br/>    " " " 8 oz.<br/>Plastic Explosives, 3A, Charges, 4 oz.<br/>    " " " " 8 oz.<br/>P.E.<br/>P.E. 2, Charge 8 oz.<br/>Primer, Demolition, 1 oz. C.E.<br/>    " Guncotton, field, 1 oz.<br/>    " T.N.T., 1 CM<br/>Slab, Demolition, CE/TNT<br/>Nose caps for Bangalore torpedoes<br/>Matches, Fuzee<br/>Initiators, L1A1</p> | <p>GIANT VIPER—KIT BLOW-OUT HOOK<br/>GIANT VIPER—BOX ACCESS<br/>INIT GIANT VIPER (see below—last item under "C")<br/>GIANT VIPER-HOSE</p> <p>CORDTEX<br/>*DET<br/>*DET ELECT<br/>93 DET MULTI<br/>FUS INST<br/>FUS SAFE<br/>FUZ 14 ELECT<br/>FUZ F103 ELECT<br/>IGN PERC<br/>IGN SF ELECT<br/>IGN SF FRIC</p> <p>808 PLAS CART §   <br/>808 CARTS §   <br/>851 §   <br/>852 §   <br/>808 CHGS   <br/>808 CHGS   <br/>PE 3A CHGS   <br/>PE 3A CHGS   <br/>PE<br/>PE 2 CHGS   <br/>PRIM CE<br/>PRIM GC<br/>PRIM TNT<br/>SLAB CE/TNT<br/>NOSE BANG TORP<br/>FUS MATCH<br/>INIT GIANT VIPER</p> |
| <p><b>D. FUZES</b></p> <p>Fuze, No. *<br/>Fuze, No. * Mk. ‡<br/>Fuze, No. *, with exploders<br/>Fuze, Time and D.A., L1<br/>Fuze, Perc., Base, Medium, No. *<br/>Fuze, Mine, Anti-Personnel, No. *<br/>Fuze, Mine, Anti-Tank, No. *<br/>Fuze, Percussion, D.A.<br/>    No. 162, Mks. 1/2, 1/3, 4, 4/1 and 8<br/>    No. 162, Mks. 3, 3/1, 3/2, 3/3, 5, 5/1 and 7</p> <p>Fuzes, time, No. 390, Mk. 1</p> <p>    " " No. 390, Mks. 2 and 2A</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <p>FUZ *<br/>FUZ * ‡<br/>FUZ * W EXPR<br/>FUZ L1<br/>FUZ BASE MED *<br/>FUZ MIN APERS *<br/>FUZ MIN A TK *<br/>{ FUZ 162 MK ‡<br/>{ FOR 3 MOR<br/>{ FUZ 162 MK ‡<br/>{ FOR 4-2 MOR<br/>{ FUZ 390 MK. 1<br/>{ FOR SMK SHELL<br/>{ FUZ 390 MK ‡<br/>{ FOR 3 MOR</p>                                                                                                                                                                                                                                                                                                                           |
| <p><b>E. GRENADES</b></p> <p>Accessories for Anti-Personnel Grenade L2<br/>Grenade, Hand, Anti-riot, Irritant<br/>Grenade, No. 36M, Hand<br/>Grenade, No. 36M, Rifle<br/>    " No. 80, White phosphorus<br/>    " No. 83, Coloured Smoke</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <p>ACCESS FOR GREN APERS L2<br/>GREN HAND A/RIOT IRRIT<br/>36 GREN HAND<br/>36 GREN RIFLE<br/>80 GREN WP<br/>83 GREN †</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

Table 1--continued

| Nature of ammunition<br>(1)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Operational abbreviations<br>(2)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>E. GRENADES-- continued</b><br>Grenade, No. 91, Lachrymatory<br>" No. 94, Anti-tank (Energa)<br>Fuze L9 and Detonator 107 for Grenade No. 94 (Energa)<br>Tails and cartridges for Grenade No. 94 (Energa)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 91 GREN<br>94 GREN<br>FUZ L9 AND DET 107<br>94 GREN TAIL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>F. MINES</b><br>Mine, Anti-personnel, No. *<br>" Anti-tank, No. *<br>Fuze, Mine, Anti-personnel, No. *<br>" " Anti-tank, No. *                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | MINE * APERS<br>MINE * A TK<br>FUZ MINE APERS *<br>FUZ MINE A TK *                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>G. PRIMERS</b><br>Primers, percussion, Q.F. cartridges No. *<br>" electric " " No. *                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | PRIM PERC *<br>PRIM ELEC *                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>H. PYROTECHNICS</b><br>Carts., 1½ inch, Anti-riot, Irritant ‡<br>" Illuminating, 1 inch<br>" " 1½ inch<br>Carts., Signal, 1 inch †<br>" " 1½ inch †<br>" " Brown, Puff Smoke, 1½ inch<br>" " Double star, 1½ inch, Green/Green<br>" " " " " " Green/Red<br>" " " " " " Green/Yellow<br>" " " " " " Red/Red<br>" " " " " " Yellow/Red<br>" " " " " " Yellow/Yellow<br>" " 1½ inch, G.R., Type 16<br>" " " " " " 21<br>" " " " " " 26<br>" " " " " " 29<br>Flare, ground, indicating, yellow No. * Mk. †<br>Flare, ground, warning, red, Mk. †<br>Flare, trip wire, Mk. †<br>Igniter, Electric, No 84<br>" " No. 88<br>" Flame Thrower, No. 1, Mk. 1<br>" Gunflash, Simulator, Safety fuze, No. 90<br>Relay, Igniter<br>Signal, Ten stars<br>Signal, Rallying, Ten Star, L5A1<br>" " " " L6A1<br>" " " " L7A1<br>" " " " L8A1<br>" " " " L9A1<br>" " " " L10A1<br>Simulator, Gunfire, L2A1<br>" " L3A1<br>" " L4A1<br>" " L5A1<br>" " L6A1<br>" " L7A1<br>" " L8A1<br>" " L9A1<br>" " L14A1 | CART 1½ IN A/RIOT IRRIT ‡<br>CART ILL 1 IN<br>CART ILL 1½ IN<br>CART SIG † 1 IN<br>CART SIG † 1½ IN<br>CART SIG SMK BROWN 1½ IN<br>CART SIG DBL GREEN 1½ IN<br>CART SIG DBL GREEN RED<br>1½ IN<br>CART SIG DBL GREEN YELLOW<br>1½ IN<br>CART SIG DBL RED 1½ IN<br>CART SIG DBL YELLOW RED 1½ IN<br>CART SIG DBL YELLOW 1½ IN<br>CART SIG 16 GR 1½ IN<br>CART SIG 21 GR 1½ IN<br>CART SIG 26 GR 1½ IN<br>CART SIG 29 GR 1½ IN<br>FLAR GRD INDCG YELLOW<br>FLAR GRD WARNING RED<br>FLARE TRIP †<br>IGN ELECT 84<br>IGN ELECT 88<br>IGN FT 5<br>IGN FUS 90<br>IGN RELAY<br>SIG 10 STAR †<br>SIG RALLY RED/GREEN<br>SIG RALLY RED/YELLOW<br>SIG RALLY RED/RED<br>SIG RALLY GREEN/YELLOW<br>SIG RALLY GREEN/GREEN<br>SIG RALLY YELLOW/YELLOW<br>SIM GF 25 PR CHG ONE<br>SIM GF 25 PR CHG TWO & 40 MM<br>SIM GF 25 PR CHG THREE<br>SIM GF 5-5 IN CHG ONE AND 25 PR<br>SUP CHG<br>SIM GF 5-5 IN CHG TWO & 3-7 IN MKS<br>1 to 3 GUNS<br>SIM GF 5-5 IN CHG THREE<br>SIM GF 5-5 IN CHG FOUR<br>SIM GF 5-5 IN SUP CHG<br>SIM GF 120 MM BAT |

Table 1—continued

| Nature of ammunition<br>(1)                                                                                                                                                                                                                                                                                                                                | Operational abbreviations<br>(2)                                                                                                                                                                                                                                                                                          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>H. PYROTECHNICS—continued</b><br>Simulator, Gunflash, No. *, Mk. †<br>„ Machine Gun, Field, No. *, Mk. †<br>„ „ „ A/B, No. *, Mk. †<br>„ Mortarfire, A/B, No. * Mk. †<br>„ „ L10A1<br>„ „ L11A1<br>„ „ L12A1<br>„ „ L13A1<br>„ Rifle fire, A/B, No. *, Mk. †<br>„ 25 pr., H.E., shellburst, L1A1<br>Thunderflashes<br><i>SIMULATOR, SIGNAL A/B, L †</i> | SIM GF NO* MK †<br>SIM MG FD NO * MK †<br>SIM MG AB NO * MK † <i>DELAY.</i><br>SIM MF AB NO * MK † <i>DELAY.</i><br>SIM MF 3 IN CHG ONE<br>SIM MF 3 IN CHG TWO<br>SIM MF 4-2 IN CHG ONE<br>SIM MF 4-2 IN CHG TWO<br>SIM RF AB NO * MK † <i>DELAY.</i><br>SIM 25 PR SHELLBURST<br>THUNFLASH<br><i>SIM SIG AB L † DELAY</i> |
| <b>J. ROCKETS (other than Pyrotechnics)</b><br>Motor, Rocket, 5 inch, No. 3<br>„ „ „ No. 9<br>„ „ 3 inch, No. 13<br>„ „ „ No. 14<br>Rocket, 3-5 inch, H.E., A.Tk., UK M28                                                                                                                                                                                  | MTR RKT 5 IN NO 3<br>MTR RKT 5 IN NO 9<br>RKT RESCUE<br>RKT 3 IN HARP<br>RKT 3-5 HEAT                                                                                                                                                                                                                                     |
| <b>K. SMOKE GENERATORS</b><br>Generator, Smoke, No. *, Mk. †<br>Matches, Fuzee, for Generator, smoke                                                                                                                                                                                                                                                       | GEN SMK †<br>MATCH 24 GEN                                                                                                                                                                                                                                                                                                 |
| <b>L. SPECIAL DEVICES</b><br>Caps, Percussion, for Switches<br>Switch, No. 4, E.S., 6 Pull<br>„ No. 5, Pressure<br>„ No. 6, Release<br>„ No. 9, L/Delay<br>„ No. 10, Time Pencil<br>„ No. 12, Anti-lift<br>„ No. 16, Time Pencil                                                                                                                           | SNOUTS<br>SWT 4 PULL<br>SWT 5 PRESS<br>SWT 6 RELEASE<br><del>SWT 9 DELAY</del><br>SWT 10 PENCIL <i>DELAY.</i><br>SWT 12 ANTI LIFT<br>SWT 16 PENCIL <i>DELAY.</i>                                                                                                                                                          |
| <b>M. TUBES</b><br>Tube, Percussion, S.A., Cartridge<br>Tube, Vent, Electric, .4 inch<br>„ „ Percussion, .4 inch<br>„ „ Electric, .625 inch                                                                                                                                                                                                                | TUB PSA<br>TUB ELECT .4 IN<br>TUB PERC. .4 IN<br>TUB ELECT .625 IN                                                                                                                                                                                                                                                        |

## SYMBOLS USED

- \* Indicates number as applicable
- † Indicates colour as applicable
- ‡ Indicates mark or model number as applicable
- § Indicates diameter in inches
- || Indicates weight in ounces

TABLE 2

LIST OF AMPLIFIED NOMENCLATURES

1. The details shown in column 2 will be marked on outer packages (and removable inner packages, where applicable) in the position on which main details of the contents are normally applied. These details amplify the Service designation (abbreviated nomenclature and mark or model number) of the store to facilitate ready and complete identification by the user.

| Service designation of store<br>(1)                                                                                                                                                                                                                                      | Markings, including additional<br>details, to be applied<br>(2)                                                                                                                                                                                                                                                                                                                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Bomb, 3 inch, Mortar, Coloured Smoke, B.E.,<br>Mks. 2, 3 or 4                                                                                                                                                                                                            | BOMBS 3 IN MOR COL SMK BE RED MK. *<br>" " " " " " YELLOW MK. *<br>" " " " " " GREEN MK. *<br>" " " " " " BLUE MK. *                                                                                                                                                                                                                                                           |
| Bomb, H.E., fuzed, L1, Mk. 1<br>Bomb, H.E., fuzed, L1, Mk. 2<br>Bomb, 81 mm., Mortar, H.E., Cartridged, L10A1                                                                                                                                                            | (* Mark as applicable)<br>BOMBS 4-2 IN MOR HE L1 MK. 1 FZD<br>BOMBS 4-2 IN MOR HE L1 MK. 2 FZD<br>BOMBS 81 MM MOR—<br>HE PLGD AND CARTGD L10A1 or<br>HE FZD AND CARTGD L10A1                                                                                                                                                                                                   |
| Cartridge, 120 mm., Tk., L9A2<br>" " " L9A3<br>" " " L16A5<br>" " " L16A6<br>" " " L19A1<br>" " " L19A2<br>" " " L19A3<br>" " " L22A1<br>" " " L22A2<br>" " " L23A1<br>" " " L25A1<br>" " " L26A1<br>" " " L30A1                                                         | CART 120 MM TK L1 APDS L9A2<br>" " " TK L1 " L9A3<br>" " " TK L1 HESH L16A5<br>" " " TK L1 PRAC SH L16A6<br>" " " TK L1 PRAC DS/T L19A1<br>" " " TK L1 PRAC DS/T L19A2<br>" " " TK L1 " L19A3<br>" " " TK L1 HESH L22A1<br>" " " TK L1 HESH AND PRAC SH L22A2<br>" " " TK L1 APDS L23A1<br>" " " TK L1 APDS L25A1<br>" " " TK L1 HESH L26A1<br>" " " TK L1 HESH L30A1          |
| Fuze, Percussion, D.A., No. 162<br>Mks. 1/2, 1/3, 4, 4/1 and 8<br>Mks. 3, 3/1, 3/2, 3/3, 5, 5/1 and 7<br>Fuze, Time, No. 390, Mk. 1<br>" " " Mks. 2 and 2A                                                                                                               | FUZ 162 MK ... FOR 3 IN MOR BOMBS<br>FUZ 162 MK ... FOR 4-2 & 81 MM MOR BOMBS<br>FUZ 390 MK 1 FOR SMK SHELL<br>FUZ 390 MK ... FOR 3 IN MOR BOMBS                                                                                                                                                                                                                               |
| Initiator, L1A1                                                                                                                                                                                                                                                          | INITIATOR L1A1 FOR GIANT VIPER                                                                                                                                                                                                                                                                                                                                                 |
| Shell, Q.F., 25 pr., Flare, T.R.B.E., Mk. 1                                                                                                                                                                                                                              | SHELL 25 PR FLARE TR BE RED MK 1<br>" " " " " GREEN "<br>" " " " " YELLOW "                                                                                                                                                                                                                                                                                                    |
| Shell, Drill, L4, Mk. 1                                                                                                                                                                                                                                                  | SHELL 5-5 IN APPAR. PRAC LOADING MK 1 GUN<br>DRILL L4 MK. 1                                                                                                                                                                                                                                                                                                                    |
| Shell, 120 mm., Tk., H.E.S.H., L2A2<br>" " " " L2A3<br>" " " " L18A1<br>" " " " L18A2<br>" " " " L18A3<br>" " " " L20A1<br>" " " " L31A1<br>" " " S.H., Practice, L1A1<br>" " " " L1A2<br>" " " " L1A3<br>" " " " L1A4<br>" " " " L1A5<br>" " " " L12A1<br>" " " " L30A1 | SHELL 120 MM TK L1 HESH L2A2 FZD<br>" " " " " L2A3 "<br>" " " " " L18A1 "<br>" " " " " L18A2 "<br>" " " " " L18A3 "<br>" " " " " L20A1 "<br>" " " " " L31A1 "<br>" " " " TK L11 " L20A1 "<br>" " " " TK L11 " L31A1 "<br>" " " " TK L1 PRAC SH. L1A1<br>" " " " " L1A2 "<br>" " " " " L1A3 "<br>" " " " " L1A4 "<br>" " " " " L1A5 "<br>" " " " " L12A1 "<br>" " " " " L30A1 " |

Table 2—continued

| Service designation of store<br>(1)                                                                                                                                                                                                                                                                              | Markings, including additional<br>details, to be applied<br>(2)                                                                                                                                                                                                                                                                                               |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Shot, 120 mm., Tk., A.P.D.S., L1A1<br>" " " " L15A1<br>" " " " D.S./T, Practice, L3A1<br>" " " " " " L14A1<br>Shot, paper, L8A1<br>Shot, proof, L5, Mk. 1                                                                                                                                                        | SHOT 120 MM TK L1 APDS L1A1<br>" " " " TK L1 APDS L15A1<br>" " " " TK L1 PRAC DS/T L3A1<br>" " " " TK L1 " " L14A1<br>" " " " TK L1 PAPER L8A1<br>" " " " TK L1 PROOF L5 MK. 1                                                                                                                                                                                |
| Shot, 105 mm., Tk., Paper, L15A1                                                                                                                                                                                                                                                                                 | SHOT 105 MM TK L7 PAPER L15A1                                                                                                                                                                                                                                                                                                                                 |
| Signals, Rallying, L5A1<br>" " " " L6A1<br>" " " " L7A1<br>" " " " L8A1<br>" " " " L9A1<br>" " " " L10A1                                                                                                                                                                                                         | SIGNALS RALLYING L5A1 10 STAR RED/GREEN<br>" " " " L6A1 " " RED/YELLOW<br>" " " " L7A1 " " RED/RED<br>" " " " L8A1 " " GREEN/YELLOW<br>" " " " L9A1 " " GREEN/GREEN<br>" " " " L10A1 " " YELLOW/YELLOW                                                                                                                                                        |
| Simulator, Gunfire, L2A1<br>" " " " L3A1<br>" " " " L4A1<br>" " " " L5A1<br>" " " " L6A1<br>" " " " L7A1<br>" " " " L8A1<br>" " " " L9A1<br>" " " " L14A1                                                                                                                                                        | SIM GF 25 PR CHG ONE L2A1<br>SIM GF 25 PR CHG TWO AND 40 MM L3A1<br>SIM GF 25 PR CHG THREE L4A1<br>SIM GF 5-5 IN GUN CHG ONE AND 25 PR SUP CHG<br>L5A1<br>SIM GF 5-5 IN GUN CHG TWO AND 3-7 IN MKS 1 TO<br>3 GUNS L6A1<br>SIM GF 5-5 IN GUN CHG THREE L7A1<br>SIM GF 5-5 IN GUN CHG FOUR L8A1<br>SIM GF 5-5 IN GUN SUP CHG L9A1<br>SIM GF 120 MM L2 BAT L14A1 |
| Simulator, Mortarfire, L10A1<br>" " " " L11A1<br>" " " " L12A1<br>" " " " L13A1                                                                                                                                                                                                                                  | SIM MF 3 IN MOR CHG ONE L10A1<br>SIM MF 3 IN MOR CHG TWO L11A1<br>SIM MF 4-2 IN MOR CHG ONE L12A1<br>SIM MF 4-2 IN MOR CHG TWO L13A1                                                                                                                                                                                                                          |
| Round, 40/70, HE/T, L22A1<br>Round, 76 mm., Armd. C.HE/T, L24A1<br>" " " " " " L24A2<br>" " " " " " L24A3<br>" " " " " " H.E.S.H. L29A1<br>" " " " " " " L29A2<br>" " " " " " " L29A3<br>" " " " " " B.E., Screening<br>Smoke, L3A1<br>" " " " " " Practice, L25A1<br>" " " " " " " L25A2<br>" " " " " " " L25A3 | RD 40/70 HE/T L22A1 FZD<br>RD 76 MM ARMD C HE/T L24A1 FZD<br>" " " " " " " L24A2 " "<br>" " " " " " " L24A3 " "<br>" " " " " " HESH L29A1 " "<br>" " " " " " " L29A2 " "<br>" " " " " " " L29A3 " "<br>" " " " " " BE SMK L32A1 FZD<br>" " " " " " PRAC L25A1<br>" " " " " " " L25A2<br>" " " " " " " L25A3                                                   |
| Round, 105 m.m., How., H.E., L41A1<br>" " " " " " Smoke, L42A1                                                                                                                                                                                                                                                   | RD 105 MM HOW L10 HE L41A1 FZD PD M51A5<br>RD 105 MM HOW L10 SMK WP. L42A1 FZD PD<br>M51A5                                                                                                                                                                                                                                                                    |
| Round 105 mm., Tk., A.P.D.S., L28A1<br>" " " " " " L36A1<br>" " " " " " H.E.S.H., L35A1<br>" " " " " " " L35A2<br>" " " " " " " L37A1<br>" " " " " " B.E., Screening<br>Smoke, L39A1<br>" " " " " " S.H. Practice, L40A1                                                                                         | RD 105 MM TK L7 APDS L28A1<br>" " " " " " L36A1<br>" " " " " " HESH L35A1 FZD<br>" " " " " " " L35A2 " "<br>" " " " " " " L37A1 " "<br>" " " " " " BE SMK L39A1 FZD<br>" " " " " " PRAC SH L40A1                                                                                                                                                              |

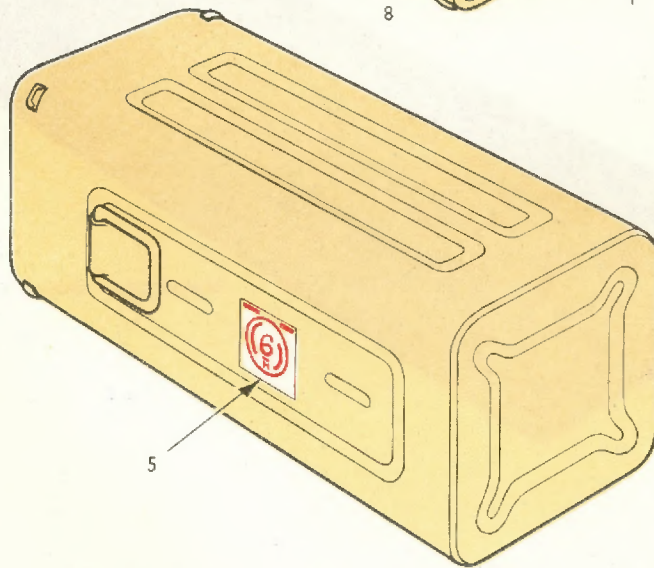
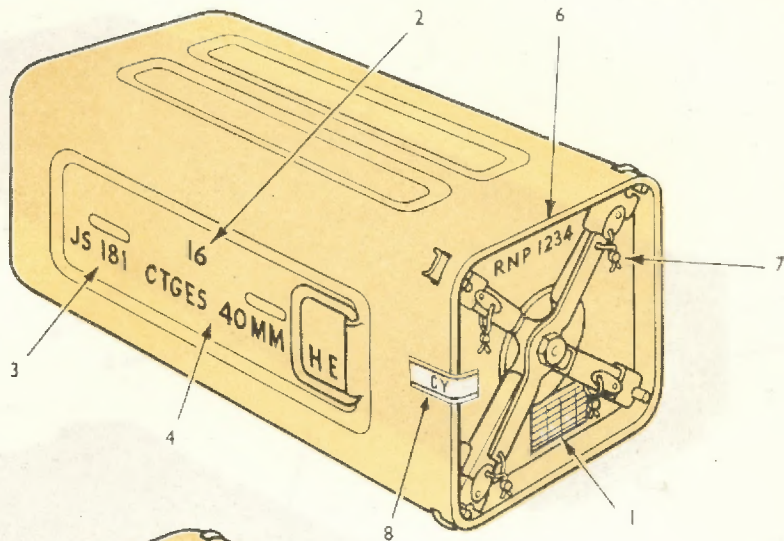
Table 2—continued

| Service designation of store<br>(1)                                                                                                         | Markings, including additional<br>details, to be applied<br>(2)                                                                                             |
|---------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Round, 120 mm., B.A.T., H.E.S.H., L19A3<br>" " " " S.H. Practice, L18A1<br>" " " " L18A2<br>" " " " L18A3<br>" " " " L18A4<br>" " " " L18A5 | RD 120 MM BAT HESH L19A3 FZD<br>" " BAT L2 PRAC SH L18A1<br>" " BAT L2 PRAC SH L18A2<br>" " BAT PRAC SH L18A3<br>" " " PRAC SH L18A4<br>" " " PRAC SH L18A5 |
| Round, 165 mm., H.E.S.H. L33A1<br>" " S.H. Practice, L34A1                                                                                  | RD 165 MM HESH L33A1 FZD<br>" " PRAC SH L34A1 PLGD                                                                                                          |
| Round, proof, L4, Mk. 1                                                                                                                     | RD 6.5 IN AVRE MK 1 PROOF L4 MK 1                                                                                                                           |
| Simulator, Machine Gun, A/B, No. 1 Mk. 1/1                                                                                                  | SIM MACHINE GUN AIRBORNE No. 1 MK 1/1<br>10 MINS DELAY                                                                                                      |
| " " " " No. 1 Mk. 2/1                                                                                                                       | SIM MACHINE GUN AIRBORNE No. 1 MK 2/1<br>$\frac{1}{2}$ HR DELAY                                                                                             |
| " " " " No. 1 Mk. 3/1                                                                                                                       | SIM MACHINE GUN AIRBORNE No. 1 MK 3/1<br>2 HRS DELAY                                                                                                        |
| Simulator, Mortarfire, A/B, No. 1 Mk. 1/1                                                                                                   | SIM MORTARFIRE AIRBORNE No. 1 MK 1/1<br>10 MINS DELAY                                                                                                       |
| " " " " No. 1 Mk. 2/1                                                                                                                       | SIM MORTARFIRE AIRBORNE No. 1 MK 2/1<br>$\frac{1}{2}$ HR DELAY                                                                                              |
| " " " " No. 1 Mk. 3/1                                                                                                                       | SIM MORTARFIRE AIRBORNE No. 1 MK 3/1<br>2 HRS DELAY                                                                                                         |
| Simulator, Riflefire, A/B, No. 1 Mk. 1/1                                                                                                    | SIM RIFLEFIRE AIRBORNE No. 1 MK 1/1<br>10 MINS DELAY                                                                                                        |
| " " " " No. 1 Mk. 2/1                                                                                                                       | SIM RIFLEFIRE AIRBORNE No. 1 MK 2/1<br>$\frac{1}{2}$ HR DELAY                                                                                               |
| " " " " No. 1 Mk. 3/1                                                                                                                       | SIM RIFLEFIRE AIRBORNE No. 1 MK 3/1<br>2 HRS DELAY                                                                                                          |
| Simulator, Signal, A/B, L1A1                                                                                                                | SIM SIGNAL AIRBORNE L1A1 10 MINS DELAY                                                                                                                      |
| " " " " L2A1                                                                                                                                | " " " " L2A1 $\frac{1}{2}$ HR DELAY                                                                                                                         |
| " " " " L3A1                                                                                                                                | " " " " L3A1 2 HRS DELAY                                                                                                                                    |
| Switch No. 10, Time Pencil Mk. 2/1                                                                                                          | SWITCH No. 10 TIME PENCIL MK 2/1 10 MINS DELAY                                                                                                              |
| " " " " " " " "                                                                                                                             | " " " " " " " " MK 2/1 $\frac{1}{2}$ HR DELAY                                                                                                               |
| " " " " " " " "                                                                                                                             | " " " " " " " " MK 2/1 2 HRS DELAY                                                                                                                          |
| " " " " " " " "                                                                                                                             | " " " " " " " " MK 2/1 5 HRS DELAY                                                                                                                          |
| " " " " " " " "                                                                                                                             | " " " " " " " " MK 2/1 12/14 HRS DELAY                                                                                                                      |
| " " " " " " " "                                                                                                                             | " " " " " " " " MK 2/1 25/30 HRS DELAY                                                                                                                      |
| Switch No. 16, Time Pencil Mk. 1/1                                                                                                          | SWITCH No. 16 TIME PENCIL MK 1/1 10 MINS DELAY                                                                                                              |
| " " " " " " " "                                                                                                                             | " " " " " " " " MK 1/1 $\frac{1}{2}$ HR DELAY                                                                                                               |
| " " " " " " " "                                                                                                                             | " " " " " " " " MK 1/1 2 HRS DELAY                                                                                                                          |

RESTRICTED

FOR FIXED AMMUNITION (NAVAL SERVICE)

EXAMPLE - 40mm. H.E ROUNDS IN ALLOY BOXES

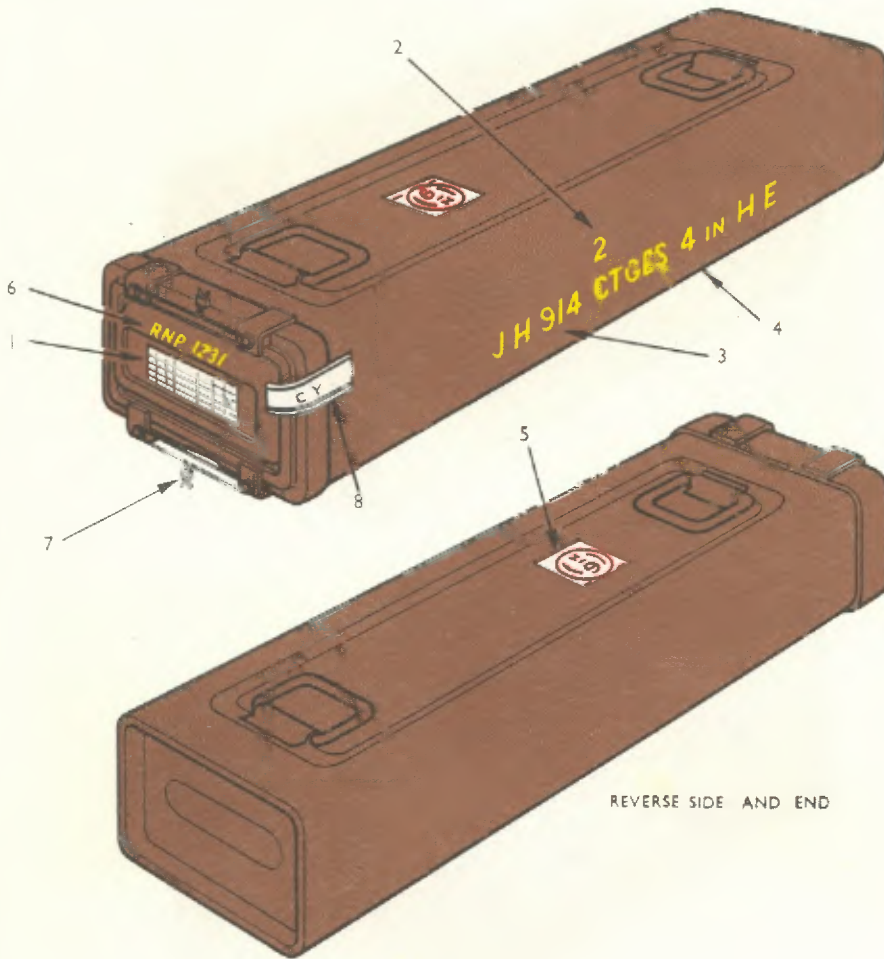


REVERSE SIDE  
AND END

1. CONTENTS LABEL WITH FULL DETAILS OF STORE, INCLUDING PROPELLANT, MAIN COMPONENTS AND FILLING DATES
2. QUANTITY OF ITEMS PACKED
3. STORE REFERENCE NUMBER
4. ABBREVIATED NOMENCLATURE
5. GOVERNMENT EXPLOSIVE GROUP LABEL
6. PROPELLANT LOT NUMBER
7. INSPECTION /STATION LEAD SEAL
8. STATION SEALING LABEL



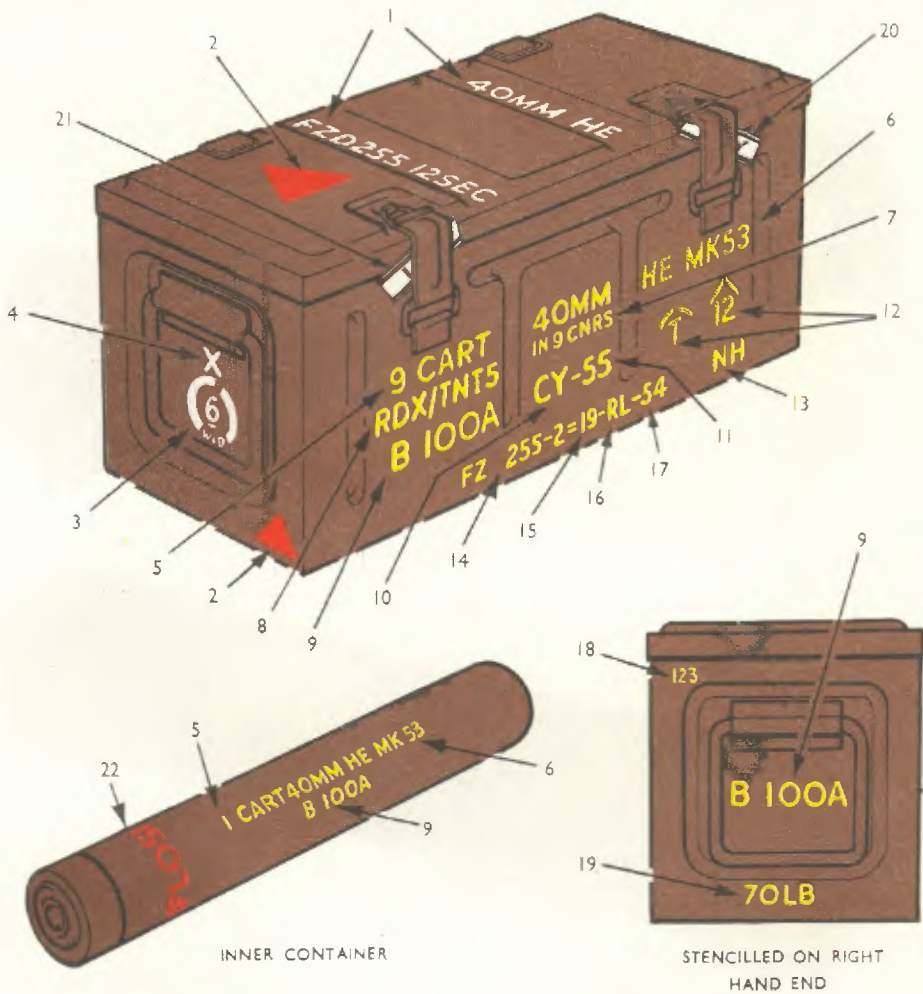
FOR FIXED AMMUNITION (NAVAL SERVICE)  
EXAMPLE - 4 INCH H E ROUNDS IN STEEL BOXES



REVERSE SIDE AND END

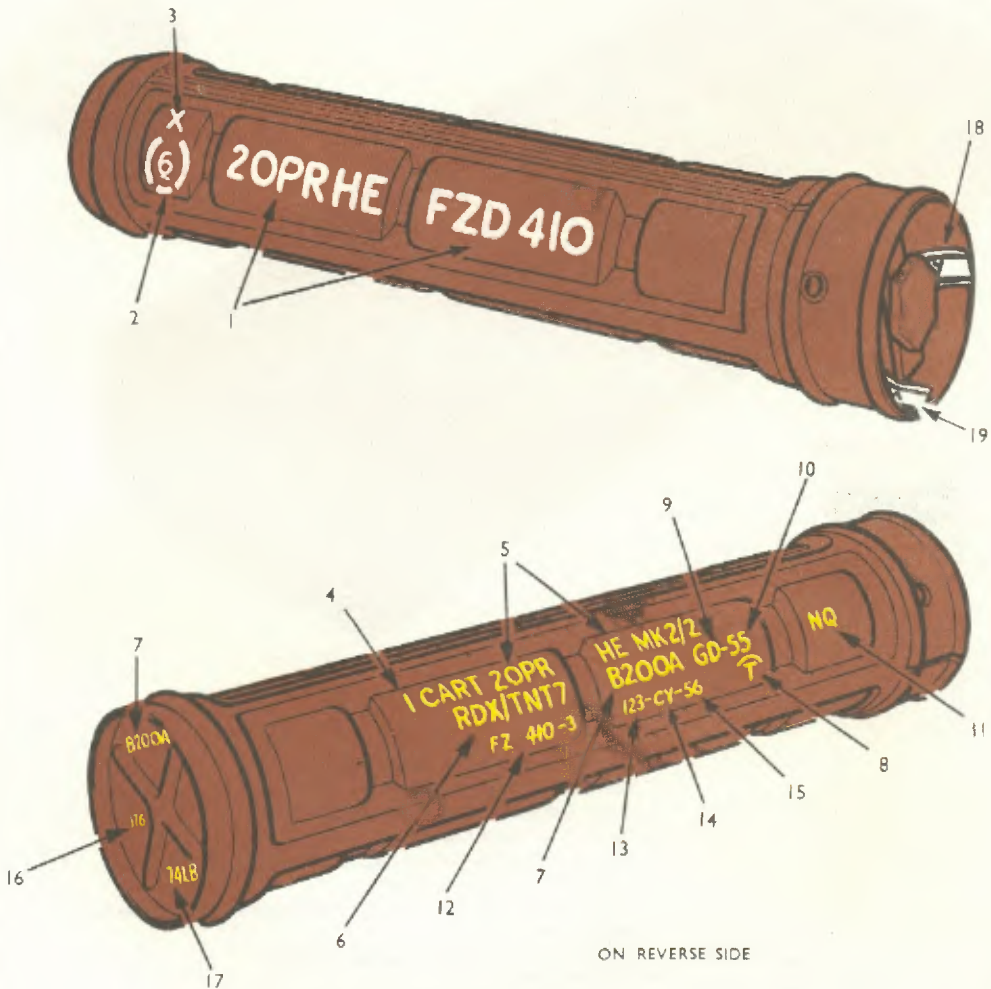
1. CONTENTS LABEL WITH FULL DETAILS OF STORE, INCLUDING PROPELLANT, MAIN COMPONENTS AND FILLING DATES
2. QUANTITY OF ITEMS PACKED
3. STORE REFERENCE NUMBER
4. ABBREVIATED NOMENCLATURE
5. GOVERNMENT EXPLOSIVE GROUP LABEL
6. PROPELLANT LOT NUMBER
7. INSPECTION /STATION LEAD SEAL
8. STATION SEALING LABEL

FOR FIXED BATCHED AMMUNITION (LAND SERVICE)  
EXAMPLE - 40mm H E ROUNDS IN STEEL BOXES AND CONTAINERS



- |                                                                 |                                                            |
|-----------------------------------------------------------------|------------------------------------------------------------|
| 1... APPROVED OPERATIONAL ABBREVIATION                          | 11... YEAR OF ASSEMBLY                                     |
| 2... ▲ INDICATING UNSUITABLE FOR AIR-DROPPING (WHEN APPLICABLE) | 12... TRACER AND/OR IGNITER SYMBOL AS MARKED ON PROJECTILE |
| 3... GOVERNMENT EXPLOSIVE GROUP (AS APPLICABLE)                 | 13... PROPELLANT IDENTIFICATION CODE                       |
| 4... SAFETY DISTANCE CATEGORY (AS APPLICABLE)                   | 14... NUMBER AND MARK OF FUZE                              |
| 5... QUANTITY OF ITEMS PACKED                                   | 15... LOT NUMBER OF FUZE                                   |
| 6... ABBREVIATED NOMENCLATURE AND MARK OF COMPLETE STORE        | 16... RECOGNIZED MARK OR INITIALS OF FILLER OF FUZE        |
| 7... QUANTITY OF INNER CONTAINERS (WHEN APPLICABLE)             | 17... YEAR OF FILLING OF FUZE                              |
| 8... CODE INDICATING NATURE OF H.E. FILLING (AS APPLICABLE)     | 18... PACKAGE SERIAL NUMBER                                |
| 9... BATCH NUMBER                                               | 19... WEIGHT OF FILLED PACKAGE (IN LB)                     |
| 10... RECOGNIZED MARK OR INITIALS OF ASSEMBLER                  | 20... STATION SEALING LABEL                                |
|                                                                 | 21... INSPECTION SEALING LABEL                             |
|                                                                 | 22... CAUTIONARY WARNING                                   |

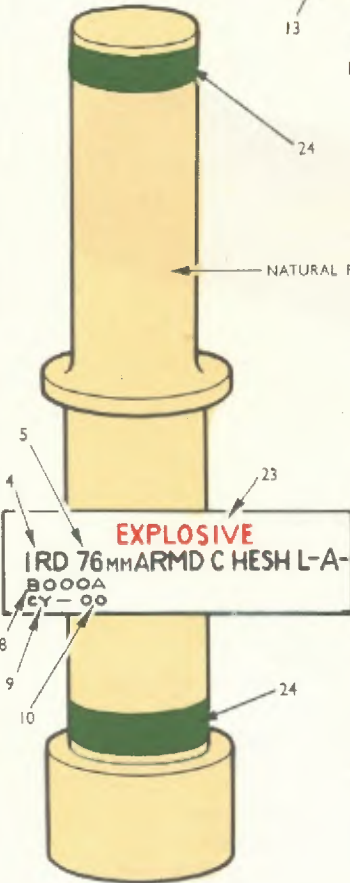
FOR FIXED BATCHED AMMUNITION (LAND SERVICE)  
EXAMPLE - 20 PR. H.E. ROUNDS IN SINGLE-ROUND STEEL CONTAINERS



ON REVERSE SIDE

- |                                                                |                                                        |
|----------------------------------------------------------------|--------------------------------------------------------|
| 1... APPROVED OPERATIONAL ABBREVIATION                         | 10... YEAR OF ASSEMBLY                                 |
| 2... GOVERNMENT EXPLOSIVE GROUP<br>(AS APPLICABLE)             | 11... PROPELLANT IDENTIFICATION CODE                   |
| 3... SAFETY DISTANCE CATEGORY (AS APPLICABLE)                  | 12... NUMBER AND MARK OF FUZE                          |
| 4... QUANTITY OF ITEMS PACKED                                  | 13... LOT NUMBER OF FUZE                               |
| 5... ABBREVIATED NOMENCLATURE AND MARK<br>OF COMPLETE STORE    | 14... RECOGNIZED MARK OR INITIALS OF<br>FILLER OF FUZE |
| 6... CODE INDICATING NATURE OF H.E. FILLING<br>(AS APPLICABLE) | 15... YEAR OF FILLING OF FUZE                          |
| 7... BATCH NUMBER                                              | 16... PACKAGE SERIAL NUMBER                            |
| 8... TRACER SYMBOL AS MARKED ON PROJECTILE                     | 17... WEIGHT OF FILLED PACKAGE (IN LB)                 |
| 9... RECOGNIZED MARK OR INITIALS OF ASSEMBLER                  | 18... STATION SEALING LABEL                            |
|                                                                | 19... INSPECTION SEALING LABEL                         |

FOR FIXED AMMUNITION (LAND SERVICE)  
 EXAMPLE - 76 mm, ARMD C HESH ROUNDS IN STEEL CONTAINERS

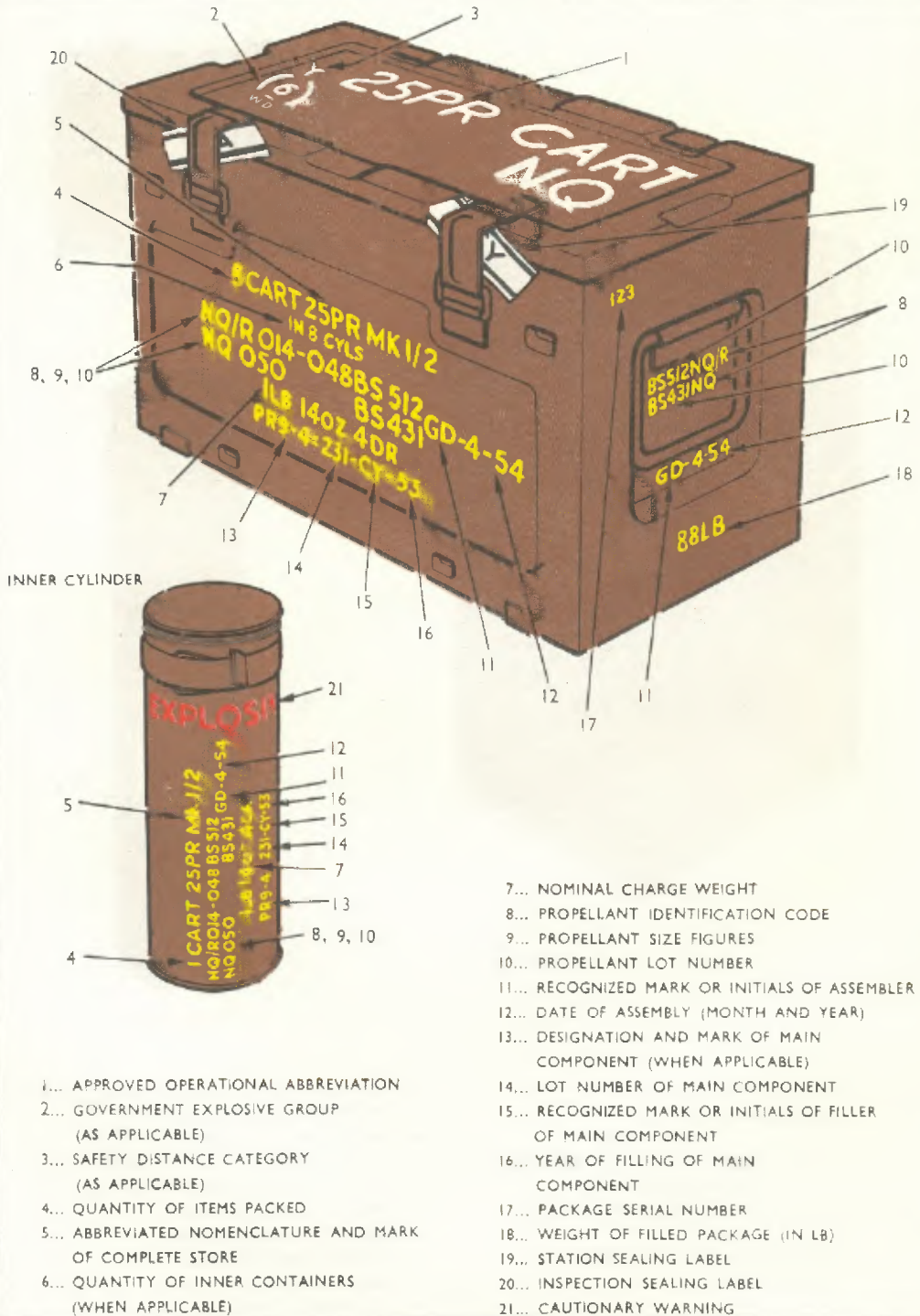


NATURAL FINISH MATERIAL (BLACK)

1. APPROVED OPERATIONAL ABBREVIATION
2. GOVERNMENT EXPLOSIVE GROUP (AS APPLICABLE)
3. SAFETY DISTANCE CATEGORY (AS APPLICABLE)
4. QUANTITY OF ITEMS PACKED
5. ABBREVIATED NOMENCLATURE AND MODEL NUMBER (AS APPLICABLE)
6. QUANTITY OF INNER CONTAINERS
7. CODE INDICATING NATURE OF H.E. FILLING (AS APPLICABLE)
8. BATCH OR LOT NUMBER
9. INITIALS OR MONOGRAM OF ASSEMBLY STATION
10. YEAR OF ASSEMBLY
11. TRACER SYMBOL AS MARKED ON PROJECTILE
12. PROPELLANT IDENTIFICATION CODE (AS APPLICABLE)
13. NUMBER AND MARK OR MODEL NUMBER OF FUZE
14. LOT NUMBER OF FUZE
15. RECOGNIZED MARK OR INITIALS OF FILLER OF FUZE
16. YEAR OF FILLING OF FUZE
17. PACKAGE SERIAL NUMBER
18. WEIGHT OF FILLED PACKAGE (IN LB.)
19. BATCH LABEL
20. STATION SEALING LABEL
21. INSPECTION SEALING LABEL
22. PACKERS LABEL
23. CAUTIONARY WARNING
24. TAPE STRIPS COLOURED { DEEP BRONZE GREEN FOR HESH,  
 TURQUOISE BLUE FOR PRAC.  
 SEA GREEN FOR SMOKE } RDS (AS APPLICABLE)

FOR SEPARATE LOADING CARTRIDGES (LAND SERVICE)

EXAMPLE - 25 PR. IN STEEL BOXES AND CYLINDERS

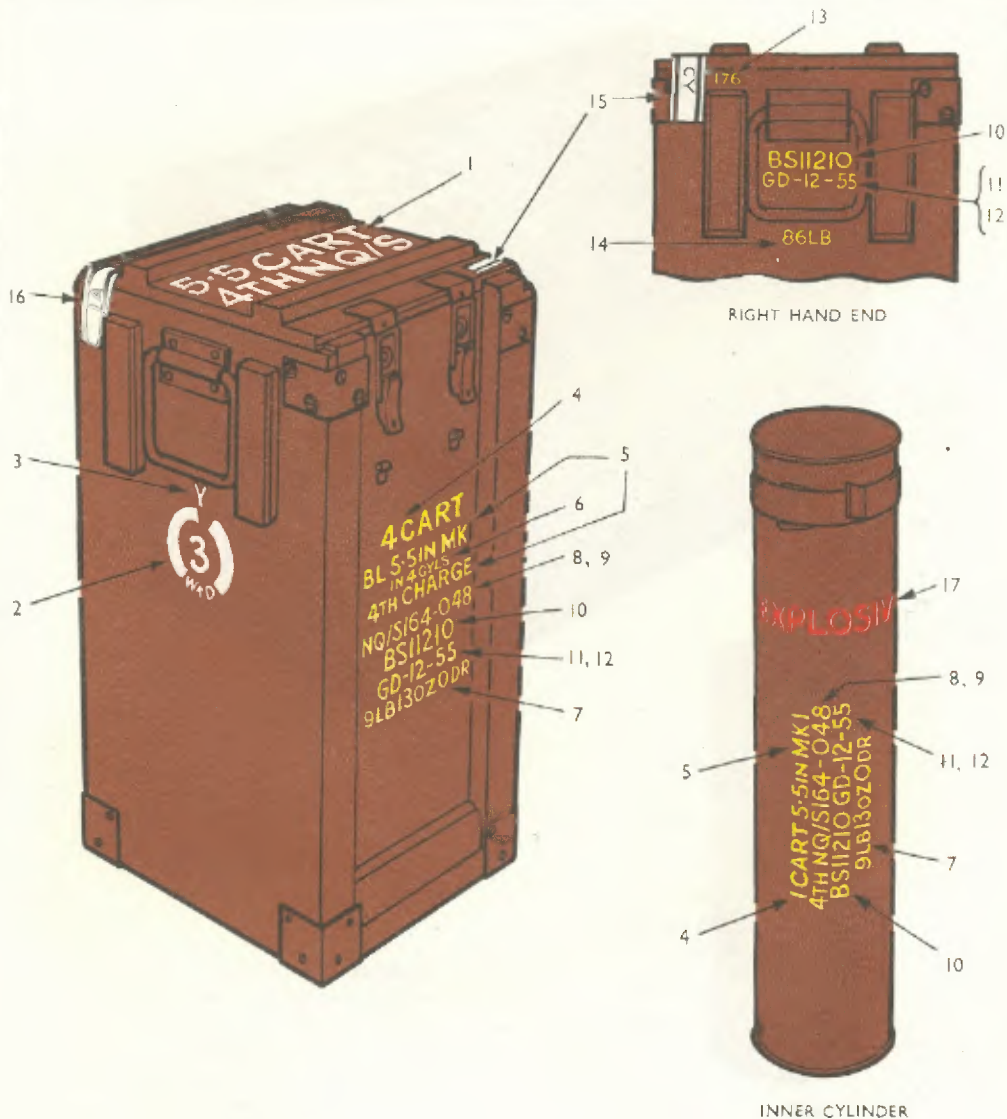


INNER CYLINDER

- 1... APPROVED OPERATIONAL ABBREVIATION
- 2... GOVERNMENT EXPLOSIVE GROUP (AS APPLICABLE)
- 3... SAFETY DISTANCE CATEGORY (AS APPLICABLE)
- 4... QUANTITY OF ITEMS PACKED
- 5... ABBREVIATED NOMENCLATURE AND MARK OF COMPLETE STORE
- 6... QUANTITY OF INNER CONTAINERS (WHEN APPLICABLE)

- 7... NOMINAL CHARGE WEIGHT
- 8... PROPELLANT IDENTIFICATION CODE
- 9... PROPELLANT SIZE FIGURES
- 10... PROPELLANT LOT NUMBER
- 11... RECOGNIZED MARK OR INITIALS OF ASSEMBLER
- 12... DATE OF ASSEMBLY (MONTH AND YEAR)
- 13... DESIGNATION AND MARK OF MAIN COMPONENT (WHEN APPLICABLE)
- 14... LOT NUMBER OF MAIN COMPONENT
- 15... RECOGNIZED MARK OR INITIALS OF FILLER OF MAIN COMPONENT
- 16... YEAR OF FILLING OF MAIN COMPONENT
- 17... PACKAGE SERIAL NUMBER
- 18... WEIGHT OF FILLED PACKAGE (IN LB)
- 19... STATION SEALING LABEL
- 20... INSPECTION SEALING LABEL
- 21... CAUTIONARY WARNING

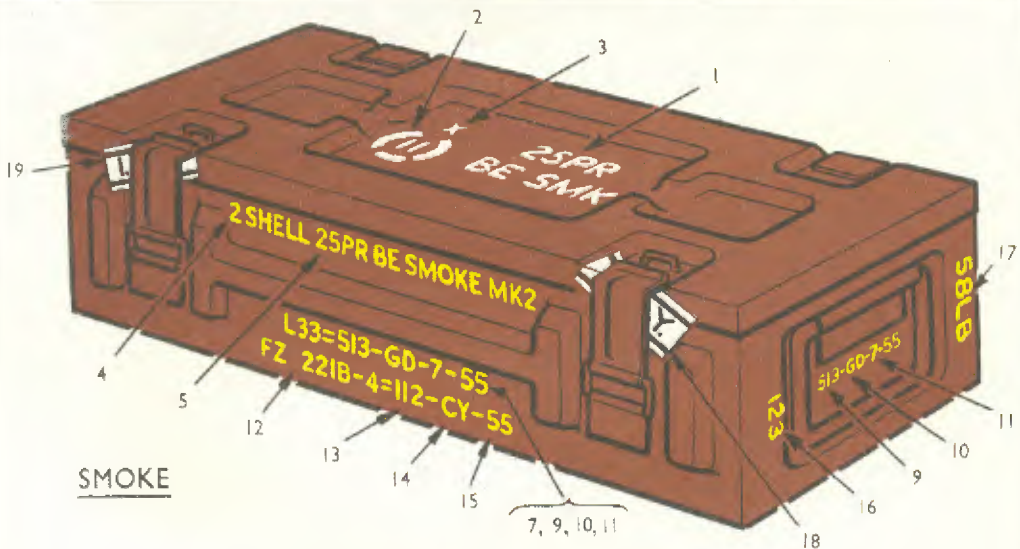
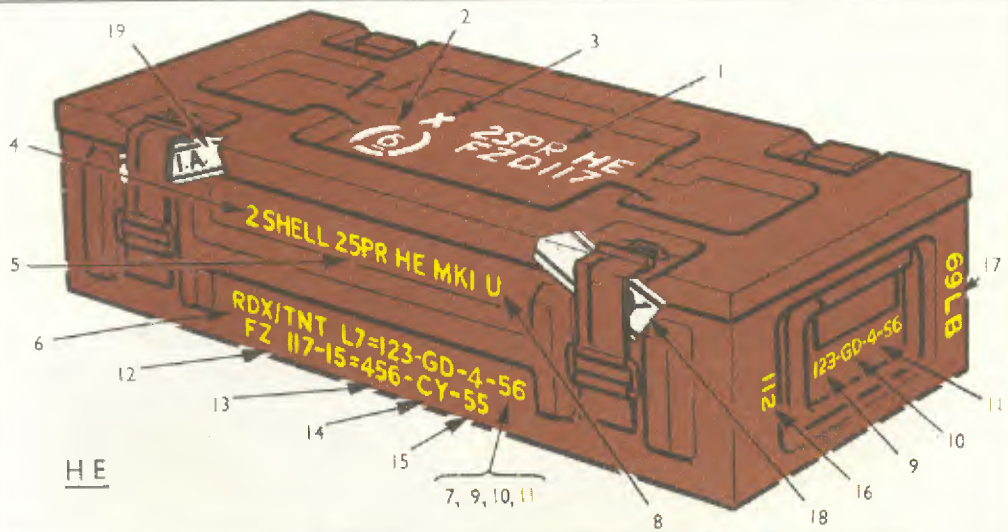
FOR SEPARATE LOADING CARTRIDGES (LAND SERVICE)  
 EXAMPLE 5.5 INCH IN WOODEN BOXES AND CYLINDERS



- 1... APPROVED OPERATIONAL ABBREVIATION
- 2... GOVERNMENT EXPLOSIVE GROUP  
(AS APPLICABLE)
- 3... SAFETY DISTANCE CATEGORY (AS APPLICABLE)
- 4... QUANTITY OF ITEMS PACKED
- 5... ABBREVIATED NOMENCLATURE AND MARK  
OF COMPLETE STORE
- 6... QUANTITY OF INNER CONTAINERS
- 7... NOMINAL CHARGE WEIGHT

- 8... PROPELLANT IDENTIFICATION CODE
- 9... PROPELLANT SIZE FIGURES
- 10... PROPELLANT LOT NUMBER
- 11... RECOGNIZED MARK OR INITIALS OF FILLER
- 12... DATE OF FILLING (MONTH AND YEAR)
- 13... PACKAGE SERIAL NUMBER
- 14... WEIGHT OF FILLED PACKAGE
- 15... STATION SEALING LABEL
- 16... INSPECTION SEALING LABEL
- 17... CAUTIONARY WARNING

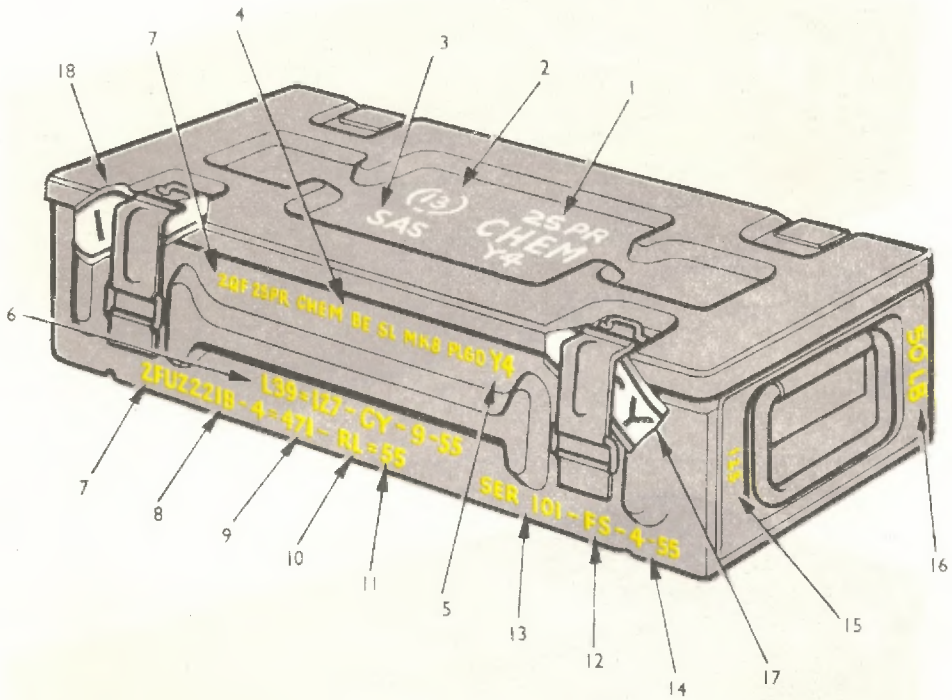
FOR SEPARATE LOADING SHELL (LAND SERVICE)  
 EXAMPLE - 25PR, H E FUZED AND B E SMOKE IN STEEL BOXES



- |                                                                         |                                                         |
|-------------------------------------------------------------------------|---------------------------------------------------------|
| 1... APPROVED OPERATIONAL ABBREVIATION                                  | 9... FILLED SERIES NUMBER OF SHELL                      |
| 2... GOVERNMENT EXPLOSIVE GROUP<br>(AS APPLICABLE)                      | 10... RECOGNIZED MARK OR INITIALS OF FILLER<br>OF SHELL |
| 3... SAFETY DISTANCE CATEGORY (AS APPLICABLE)                           | 11... DATE OF FILLING OF SHELL (MONTH AND YEAR)         |
| 4... QUANTITY OF ITEMS PACKED                                           | 12... NUMBER AND MARK OF FUZE                           |
| 5... ABBREVIATED NOMENCLATURE AND MARK<br>OF COMPLETE STORE             | 13... LOT NUMBER OF FUZE                                |
| 6... CODE INDICATING NATURE OF H.E. FILLING                             | 14... RECOGNIZED MARK OR INITIALS OF FILLER OF FUZE     |
| 7... ONE LINE CODE - METHOD OF FILLING<br>(AS MARKED ON THE PROJECTILE) | 15... YEAR OF FILLING OF FUZE                           |
| 8... "U" DENOTING UNIVERSAL CAVITY<br>(WHEN APPLICABLE)                 | 16... PACKAGE SERIAL NUMBER                             |
|                                                                         | 17... WEIGHT OF FILLED PACKAGE (IN LB)                  |
|                                                                         | 18... STATION SEALING LABEL                             |
|                                                                         | 19... INSPECTION SEALING LABEL                          |

FOR SEPARATE LOADING SHELL (LAND SERVICE)

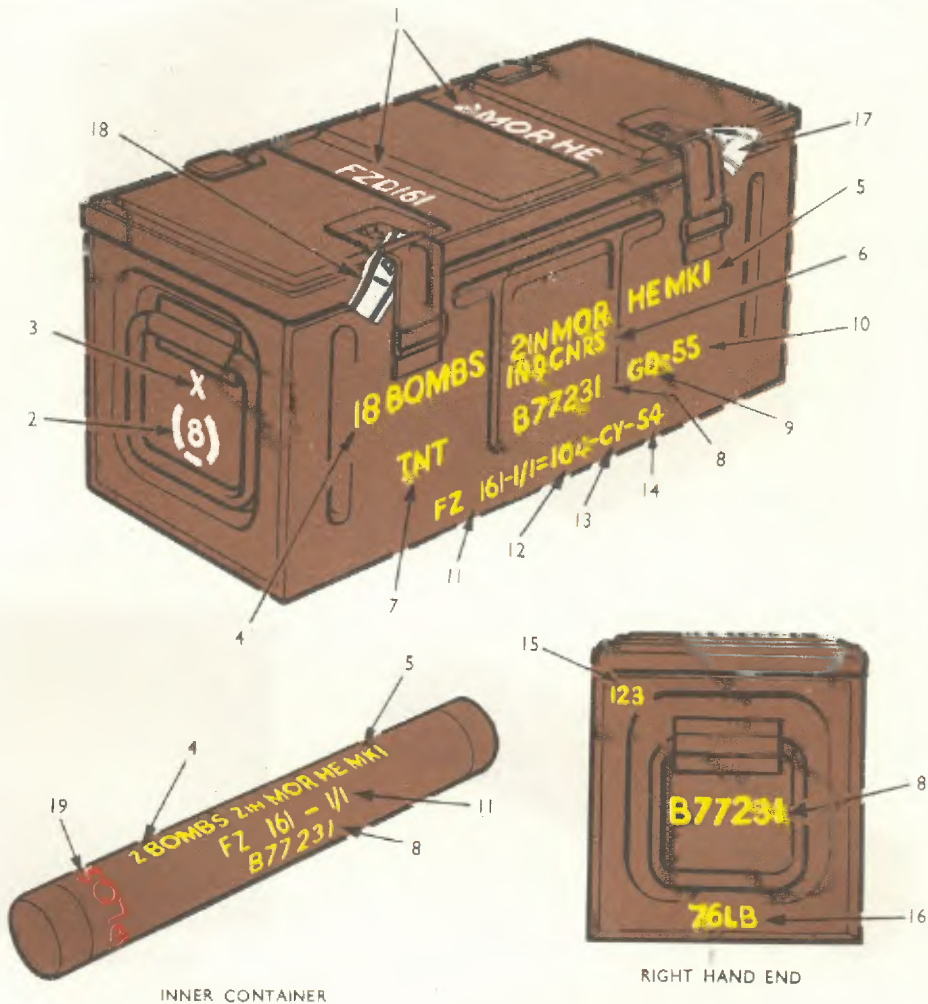
EXAMPLE - 25 PR. CHEMICAL FUZED IN STEEL BOXES



- |                                                          |                                                            |
|----------------------------------------------------------|------------------------------------------------------------|
| 1... APPROVED OPERATIONAL ABBREVIATION                   | 10... RECOGNIZED MARK OR INITIALS OF FILLER OF FUZE        |
| 2... GOVERNMENT EXPLOSIVE GROUP (AS APPLICABLE)          | 11... YEAR OF FILLING OF FUZE                              |
| 3... "S.A.S." SPECIAL AMMUNITION STOWAGE                 | 12... RECOGNIZED MARK OR INITIALS OF BODY CHARGING STATION |
| 4... ABBREVIATED NOMENCLATURE AND MARK OF COMPLETE STORE | 13... BODY CHARGING LOT NUMBER                             |
| 5... CODE INDICATING NATURE OF CHARGING                  | 14... DATE OF BODY CHARGING (MONTH AND YEAR)               |
| 6... ONE LINE CODE IDENTIFYING HEAD FILLING              | 15... PACKAGE SERIAL NUMBER                                |
| 7... QUANTITY OF ITEMS PACKED                            | 16... WEIGHT OF FILLED PACKAGE (IN LB)                     |
| 8... NUMBER AND MARK OF FUZE                             | 17... STATION SEALING LABEL                                |
| 9... LOT NUMBER OF FUZE                                  | 18... INSPECTION SEALING LABEL                             |



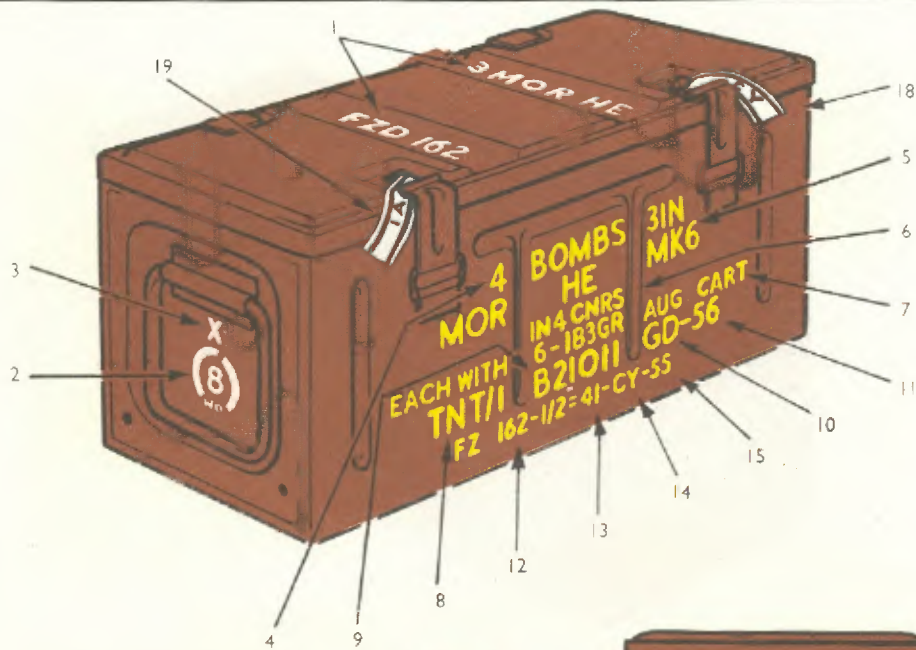
FOR MORTAR AMMUNITION (LAND SERVICE)  
 EXAMPLE - 2 INCH H E BOMBS FUZED IN STEEL BOXES AND CONTAINERS



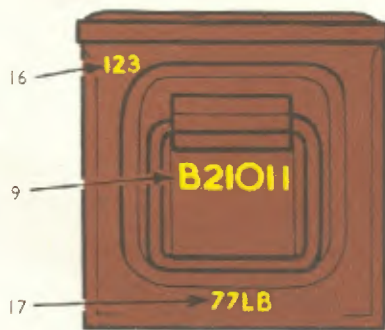
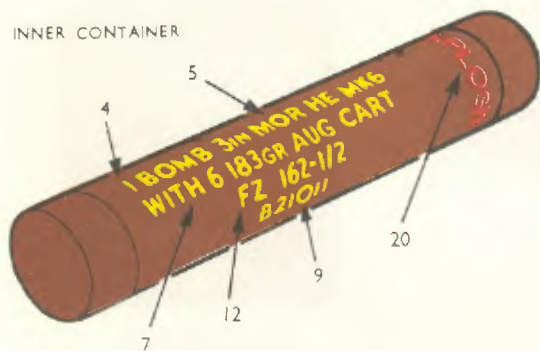
- |                                                             |                                                        |
|-------------------------------------------------------------|--------------------------------------------------------|
| 1... APPROVED OPERATIONAL ABBREVIATION                      | 10... YEAR OF ASSEMBLY                                 |
| 2... GOVERNMENT EXPLOSIVE GROUP<br>(AS APPLICABLE)          | 11... DESIGNATION AND MARK OF FUZE                     |
| 3... SAFETY DISTANCE CATEGORY (AS APPLICABLE)               | 12... LOT NUMBER OF FUZE                               |
| 4... QUANTITY OF ITEMS PACKED                               | 13... RECOGNIZED MARK OR INITIALS OF<br>FILLER OF FUZE |
| 5... ABBREVIATED NOMENCLATURE AND MARK<br>OF COMPLETE STORE | 14... YEAR OF FILLING OF FUZE                          |
| 6... QUANTITY OF INNER CONTAINERS                           | 15... PACKAGE SERIAL NUMBER                            |
| 7... CODE INDICATING NATURE OF H E FILLING<br>OF BOMB       | 16... WEIGHT OF FILLED PACKAGE (IN LB)                 |
| 8... BATCH NUMBER                                           | 17... STATION SEALING LABEL                            |
| 9... RECOGNIZED MARK OR INITIALS OF<br>ASSEMBLER OF BOMB    | 18... INSPECTION SEALING LABEL                         |
|                                                             | 19... CAUTIONARY WARNING                               |

FOR MORTAR AMMUNITION (LAND SERVICE)

EXAMPLE - 3 INCH HE BOMBS FUZED IN STEEL BOXES AND CONTAINERS



INNER CONTAINER

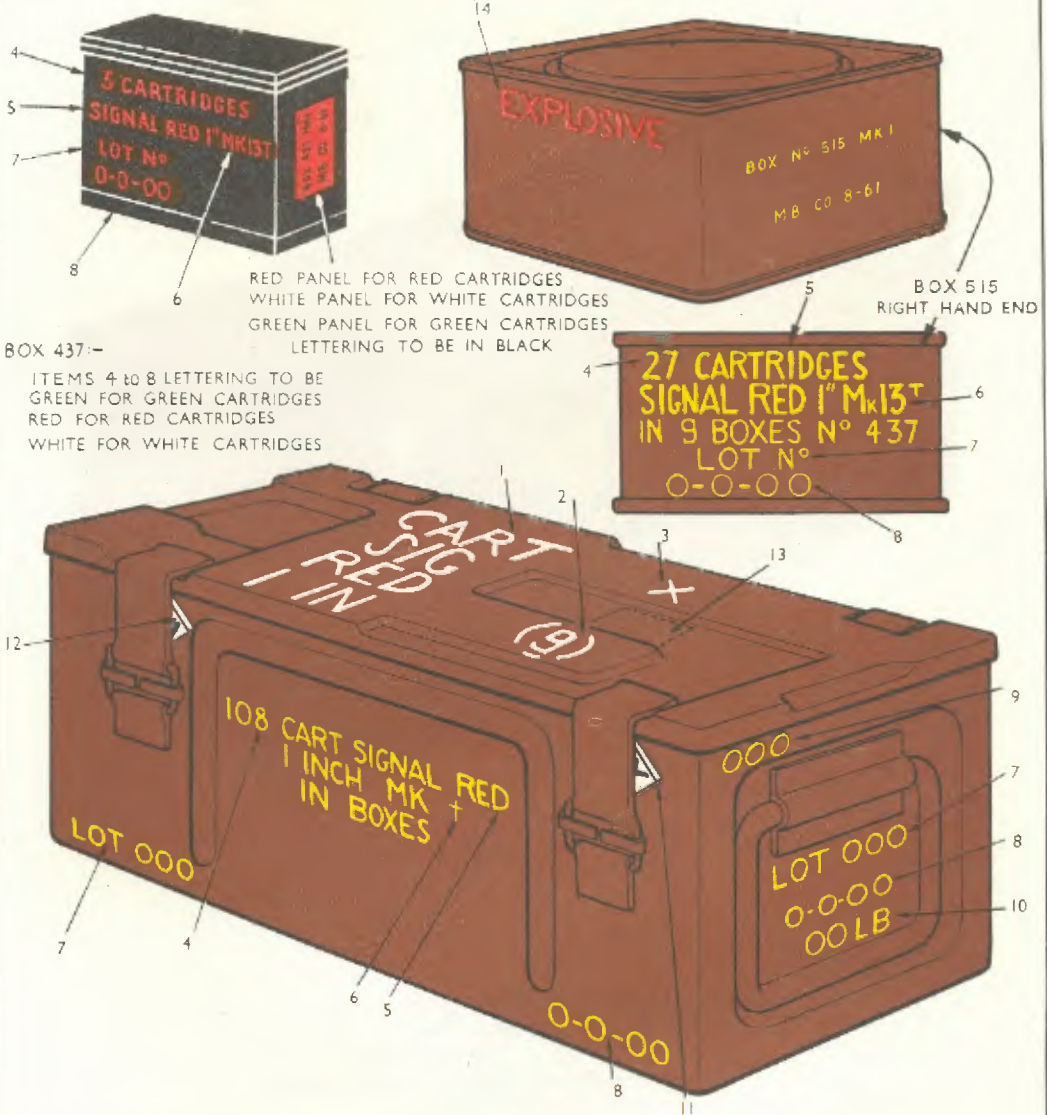


RIGHT HAND END

- |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>1... APPROVED OPERATIONAL ABBREVIATION</p> <p>2... GOVERNMENT EXPLOSIVE GROUP<br/>(AS APPLICABLE)</p> <p>3... SAFETY DISTANCE CATEGORY (AS APPLICABLE)</p> <p>4... QUANTITY OF ITEMS PACKED</p> <p>5... ABBREVIATED NOMENCLATURE AND MARK OF COMPLETE STORE</p> <p>6... QUANTITY OF INNER CONTAINERS</p> <p>7... NUMBER AND WEIGHT (AS APPLICABLE) OF AUGMENTING CARTRIDGES</p> <p>8... CODE INDICATING NATURE OF HE FILLING</p> <p>9... BATCH NUMBER</p> <p>10... RECOGNIZED MARK OR INITIALS OF ASSEMBLER OF BOMB</p> | <p>11... YEAR OF ASSEMBLY</p> <p>12... DESIGNATION AND MARK OF FUZE</p> <p>13... LOT NUMBER OF FUZE</p> <p>14... RECOGNIZED MARK OR INITIALS OF FILLER OF FUZE</p> <p>15... YEAR OF FILLING OF FUZE</p> <p>16... PACKAGE SERIAL NUMBER</p> <p>17... WEIGHT OF FILLED PACKAGE (IN LB)</p> <p>18... STATION SEALING LABEL</p> <p>19... INSPECTION SEALING LABEL</p> <p>20... CAUTIONARY WARNING</p> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

MISCELLANEOUS TYPES OF AMMUNITION (LAND SERVICE)

EXAMPLE - CARTRIDGE SIGNAL 1 INCH, GREEN, RED OR WHITE IN STEEL BOXES



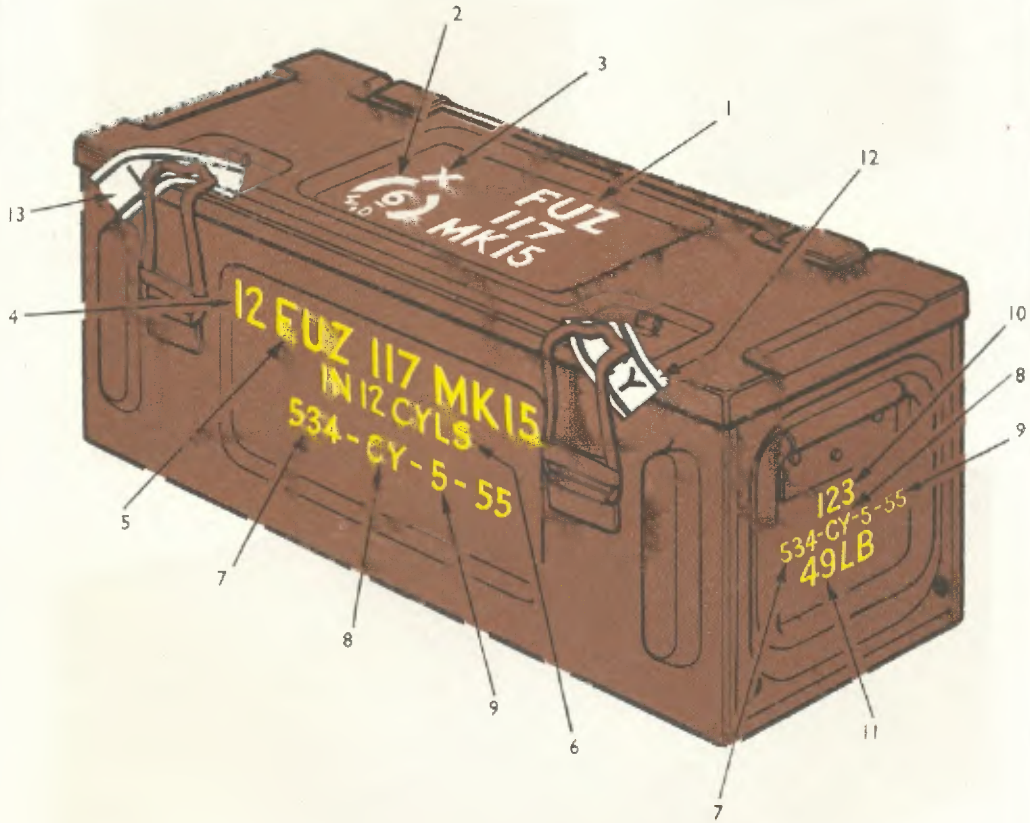
BOX 437:-  
 ITEMS 4 to 8 LETTERING TO BE  
 GREEN FOR GREEN CARTRIDGES  
 RED FOR RED CARTRIDGES  
 WHITE FOR WHITE CARTRIDGES

RED PANEL FOR RED CARTRIDGES  
 WHITE PANEL FOR WHITE CARTRIDGES  
 GREEN PANEL FOR GREEN CARTRIDGES  
 LETTERING TO BE IN BLACK

- |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>1. APPROVED OPERATIONAL ABBREVIATION<br/>             {<br/>             CART SIG GREEN 1IN.<br/>             CART SIG RED 1IN.<br/>             CART SIG WHITE 1IN.<br/>             } (AS APPLICABLE)</p> <p>2. GOVERNMENT EXPLOSIVE GROUP (AS APPLICABLE)</p> <p>3. SAFETY DISTANCE CATEGORY</p> <p>4. QUANTITY OF ITEMS PACKED</p> <p>5. ABBREVIATED NOMENCLATURE AND COLOUR<br/>             (GREEN, RED OR WHITE) (AS APPLICABLE)</p> <p>6. MARK OR MODEL NUMBER (AS APPLICABLE)</p> <p>7. LOT NUMBER</p> | <p>8. INITIALS OR MONOGRAM OF FILLING FACTORY<br/>             AND DATE OF FILLING (MONTH &amp; YEAR)</p> <p>9. PACKAGE SERIAL NUMBER</p> <p>10. WEIGHT OF FILLED PACKAGE (IN LB)</p> <p>11. STATION SEALING LABEL</p> <p>12. INSPECTION SEALING LABEL</p> <p>13. PACKERS LABEL</p> <p>14. CAUTIONARY WARNING</p> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

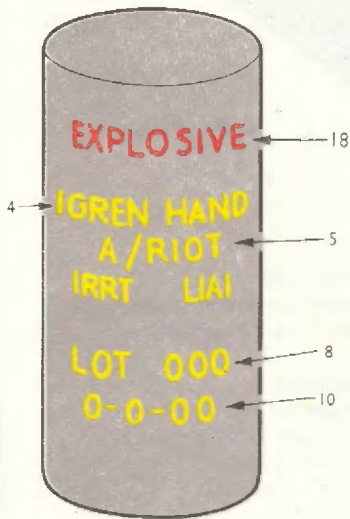
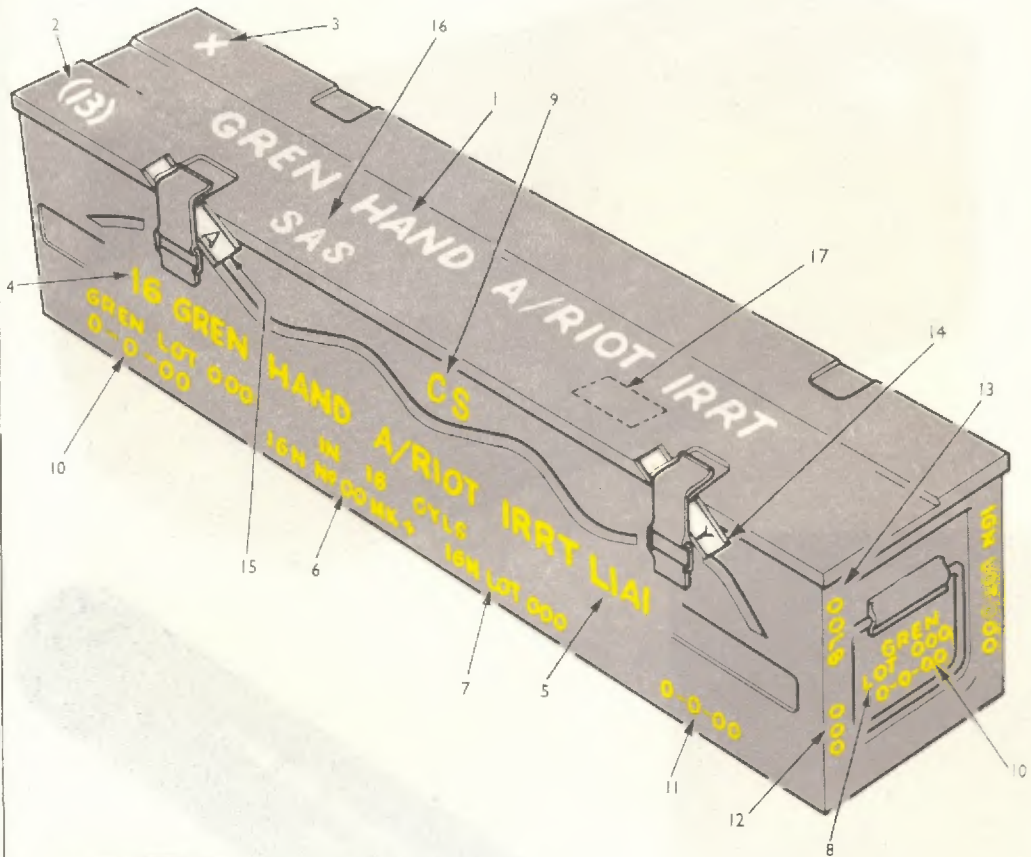
MISCELLANEOUS TYPES OF AMMUNITION (LAND SERVICE)

EXAMPLE - FUZES PACKED IN BULK IN STEEL BOXES



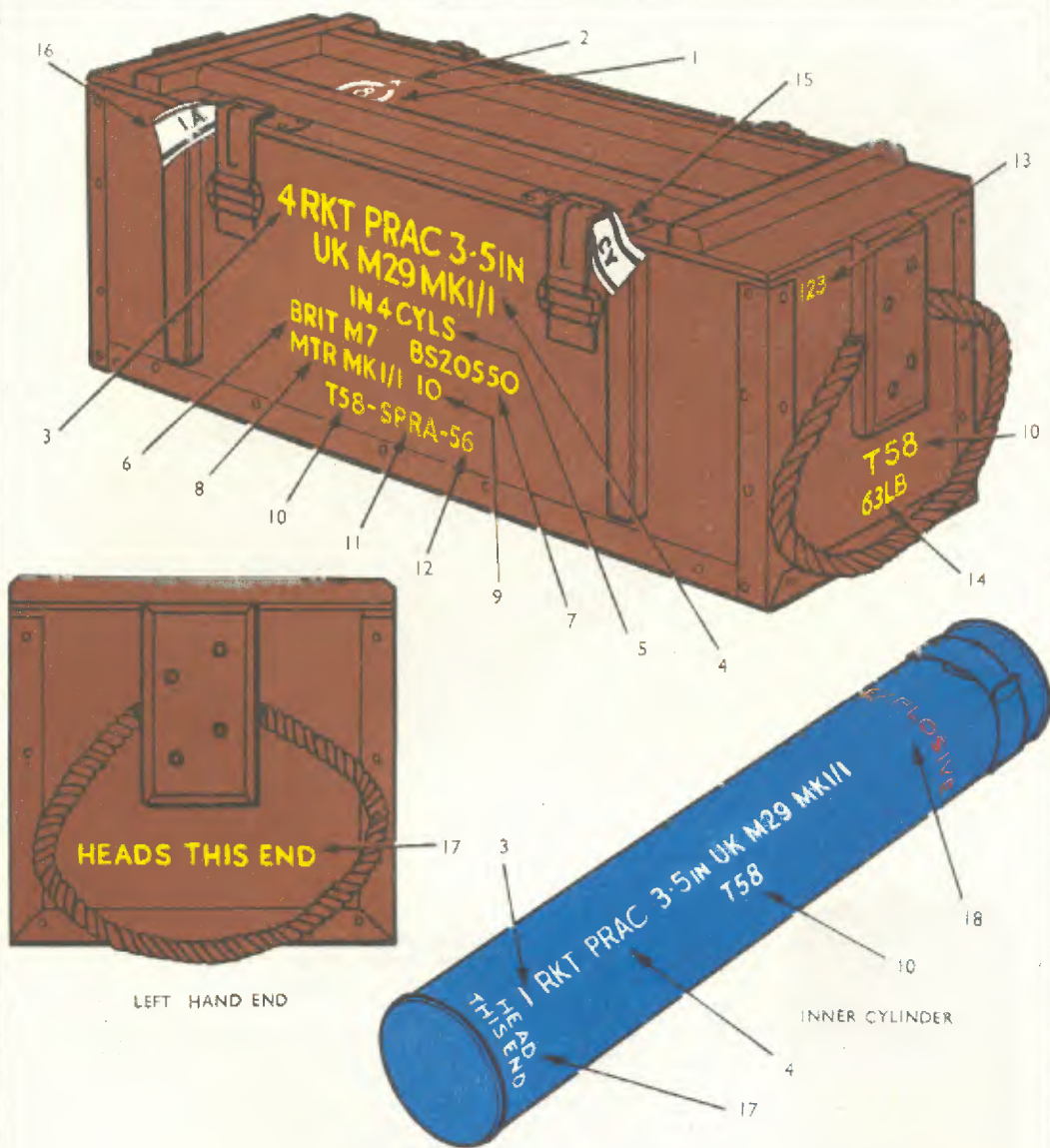
- 1... APPROVED OPERATIONAL ABBREVIATION
- 2... GOVERNMENT EXPLOSIVE GROUP  
(AS APPLICABLE)
- 3... SAFETY DISTANCE CATEGORY (AS APPLICABLE)
- 4... QUANTITY OF ITEMS PACKED
- 5... ABBREVIATED NOMENCLATURE AND MARK  
OF COMPLETE STORE
- 6... QUANTITY OF INNER CONTAINERS
- 7... FILLED LOT NUMBER
- 8... RECOGNIZED MARK OR INITIALS OF FILLER
- 9... DATE OF FILLING (MONTH AND YEAR)
- 10... PACKAGE SERIAL NUMBER
- 11... WEIGHT OF FILLED PACKAGE (IN LB)
- 12... STATION SEALING LABEL
- 13... INSPECTION SEALING LABEL

MISCELLANEOUS TYPES OF AMMUNITION (LAND SERVICE)  
EXAMPLE - GRENADES, HAND A/RIOT IRRITANT IN STEEL BOXES AND CYLINDERS



1. APPROVED OPERATIONAL ABBREVIATION
2. GOVERNMENT EXPLOSIVE GROUP (AS APPLICABLE)
3. SAFETY DISTANCE CATEGORY (AS APPLICABLE)
4. QUANTITY OF ITEMS PACKED
5. ABBREVIATED NOMENCLATURE AND MODEL NUMBER OF COMPLETE STORE
6. NUMBER AND MARK OF IGNITER (AS APPLICABLE)
7. LOT NUMBER OF IGNITER (AS APPLICABLE)
8. LOT NUMBER OF FILLED GRENADE (AS APPLICABLE)
9. CODE INDICATING NATURE OF CHARGING
10. INITIALS OR MONOGRAM OF GRENADE FILLING FACTORY,  
DATE OF FILLING (MONTH & YEAR)
11. INITIALS OR MONOGRAM OF IGNITER FILLING FACTORY,  
DATE OF FILLING (MONTH & YEAR)
12. PACKAGE SERIAL NUMBER
13. WEIGHT OF FILLED PACKAGE (IN LB.)
14. STATION SEALING LABEL
15. INSPECTION SEALING LABEL
16. "SAS" - SPECIAL AMMUNITION STOWAGE
17. PACKERS LABEL
18. CAUTIONARY WARNING

MISCELLANEOUS TYPES OF AMMUNITION (LAND SERVICE)  
 EXAMPLE - ROCKET PRACTICE 3.5 INCH. IN <sup>WOODEN</sup> STEEL BOXES AND CYLINDERS

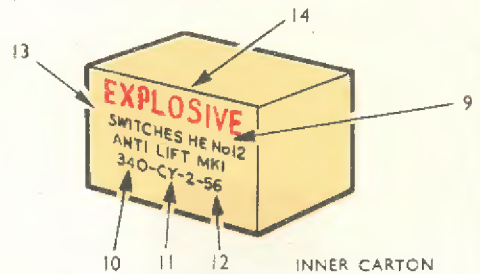
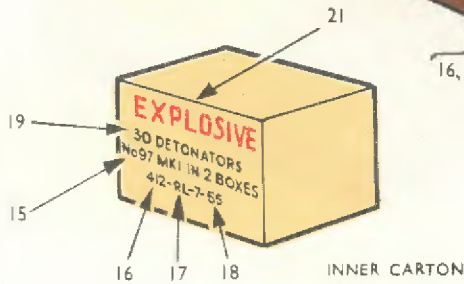
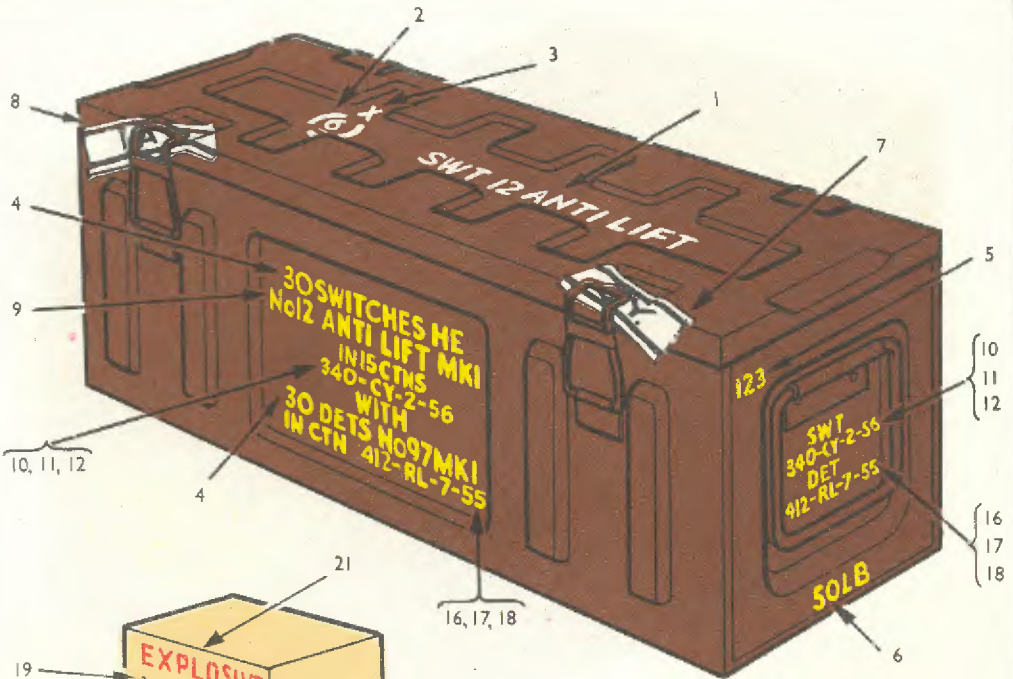


- 1... GOVERNMENT EXPLOSIVE GROUP (AS APPLICABLE)
- 2... SAFETY DISTANCE CATEGORY (AS APPLICABLE)
- 3... QUANTITY OF ITEMS PACKED
- 4... ABBREVIATED NOMENCLATURE AND MARK OF COMPLETE STORE
- 5... QUANTITY OF INNER CONTAINERS
- 6... PROPELLANT IDENTIFICATION CODE
- 7... PROPELLANT LOT NUMBER
- 8... DESIGNATION AND MARK OF MOTOR

- 9... LOT NUMBER OF MOTOR
- 10... BATCH NUMBER OF ASSEMBLED ROCKET
- 11... RECOGNIZED MARK OR INITIALS OF ASSEMBLER
- 12... YEAR OF ASSEMBLY
- 13... SERIAL NUMBER OF PACKAGE
- 14... WEIGHT OF FILLED PACKAGE (IN LB)
- 15... STATION SEALING LABEL
- 16... INSPECTION SEALING LABEL
- 17... PACKING NOTICE
- 18... CAUTIONARY WARNING

MISCELLANEOUS TYPES OF AMMUNITION (LAND SERVICE)

EXAMPLE - SWITCHES H.E. No. 12 ANTI-LIFT IN STEEL BOXES



- 1... APPROVED OPERATIONAL ABBREVIATION
- 2... GOVERNMENT EXPLOSIVE GROUP (AS APPLICABLE)
- 3... SAFETY DISTANCE CATEGORY (AS APPLICABLE)
- 4... QUANTITY OF ITEMS PACKED
- 5... PACKAGE SERIAL NUMBER
- 6... WEIGHT OF FILLED PACKAGE (IN LB)
- 7... STATION SEALING LABEL
- 8... INSPECTION SEALING LABEL

SWITCHES

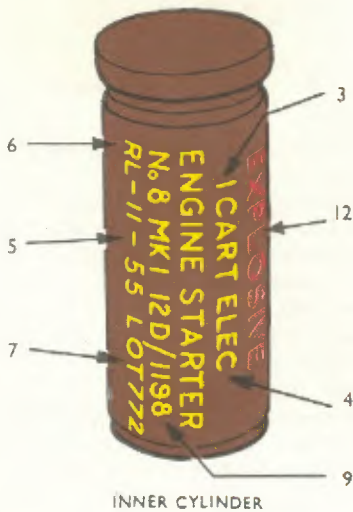
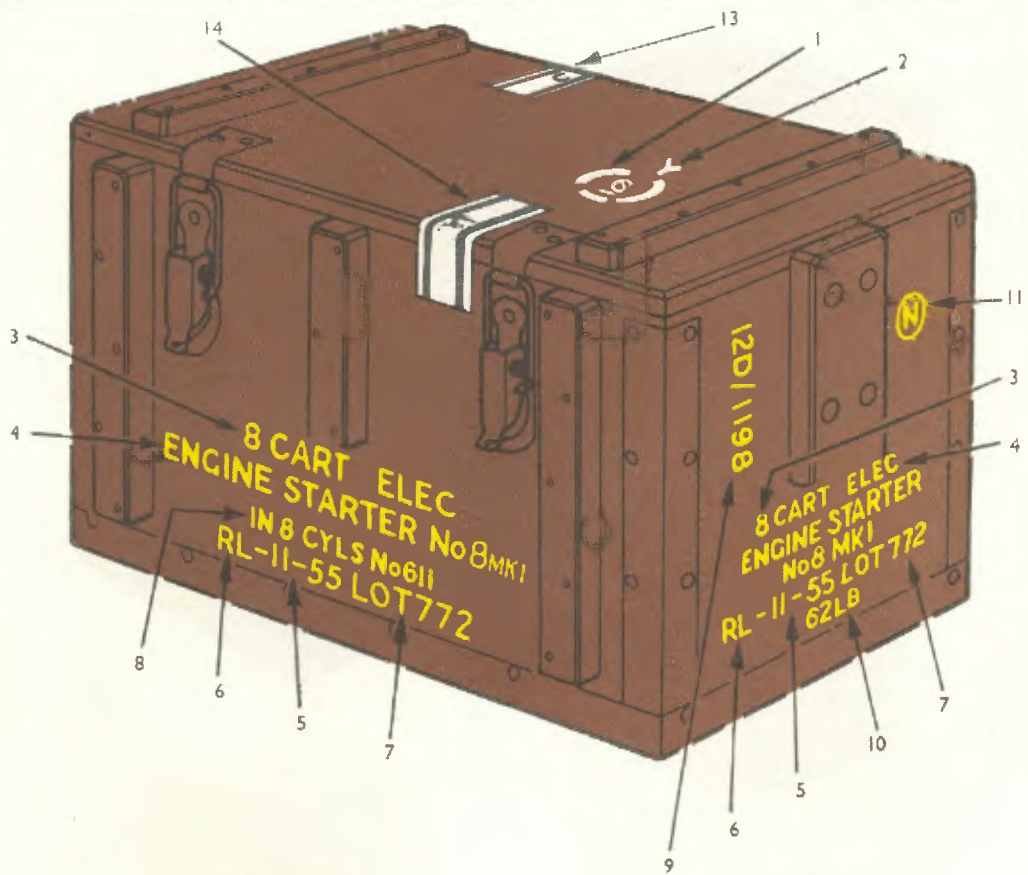
- 9... NOMENCLATURE AND MARK OF STORE
- 10... FILLED LOT NUMBER
- 11... RECOGNIZED MARK OR INITIALS OF FILLER
- 12... DATE OF FILLING (MONTH AND YEAR)
- 13... QUANTITY OF ITEMS IN CARTON
- 14... CAUTIONARY WARNING

DETONATORS

- 15... ABBREVIATED NOMENCLATURE AND MARK OF COMPONENT STORE
- 16... FILLED LOT NUMBER
- 17... RECOGNIZED MARK OR INITIALS OF FILLER
- 18... DATE OF FILLING (MONTH AND YEAR)
- 19... QUANTITY OF ITEMS IN CARTON
- 20... QUANTITY OF ITEMS IN INNER BOX
- 21... CAUTIONARY WARNING

MISCELLANEOUS TYPES OF AMMUNITION (AIR SERVICE)

EXAMPLE - CARTS ELECTRIC ENGINE STARTER No.8 IN STEEL BOXES AND CYLINDERS



- 1... GOVERNMENT EXPLOSIVE GROUP (AS APPLICABLE)
- 2... SAFETY DISTANCE CATEGORY (AS APPLICABLE)
- 3... QUANTITY OF ITEMS PACKED
- 4... ABBREVIATED NOMENCLATURE AND MARK OF STORE
- 5... DATE OF FILLING (MONTH AND YEAR)
- 6... RECOGNIZED MARK OR INITIALS OF FILLER
- 7... LOT NUMBER
- 8... QUANTITY OF INNER CONTAINERS
- 9... STORES REFERENCE NUMBER
- 10... WEIGHT OF FILLED PACKAGE (IN LB)
- 11... SYMBOL WHEN INSPECTED BY C.I.N.O.
- 12... CAUTIONARY WARNING
- 13... STATION SEALING LABEL
- 14... INSPECTION SEALING LABEL



MISCELLANEOUS TYPES OF AMMUNITION (AIR SERVICE)

EXAMPLE - CHARGES HE EMERGENCY ELEVATOR CONTROL SEVERING IN CYLINDRICAL BOXES



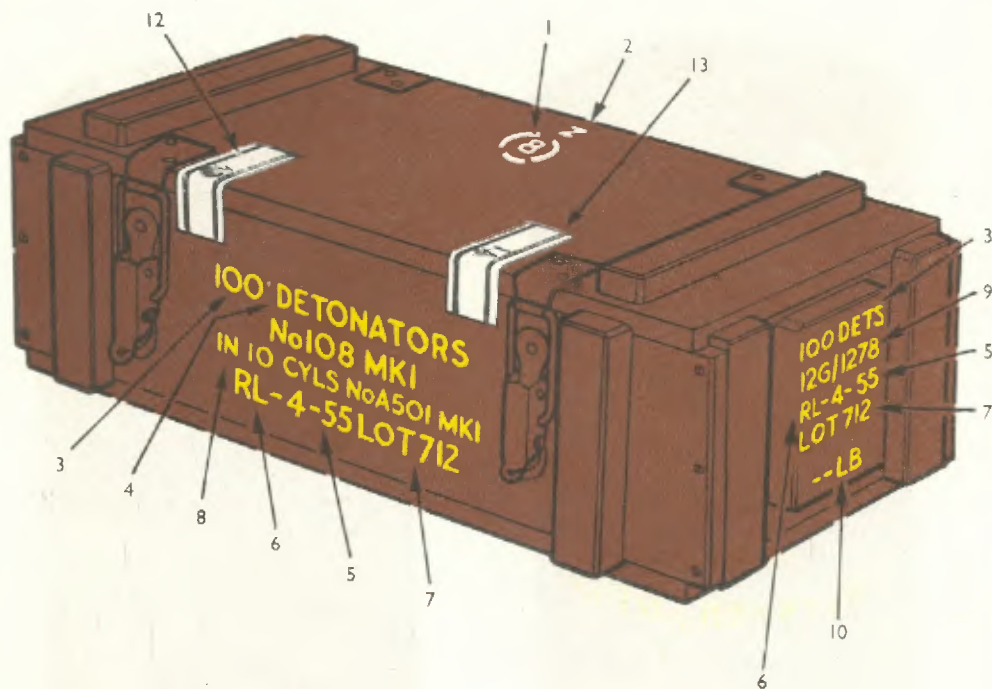
ON REVERSE SIDE

- 1... GOVERNMENT EXPLOSIVE GROUP  
(AS APPLICABLE)
- 2... SAFETY DISTANCE CATEGORY (AS APPLICABLE)
- 3... QUANTITY OF ITEMS PACKED
- 4... NOMENCLATURE AND MARK OF STORE
- 5... STORES REFERENCE NUMBER
- 6... RECOGNIZED MARK OR INITIALS OF FILLER
- 7... DATE OF FILLING (MONTH AND YEAR)
- 8... LOT NUMBER
- 9... WEIGHT OF FILLED PACKAGE (IN LB)
- 10... LEAD INSPECTION SEALS (2)
- 11... STATION SEALING LABEL

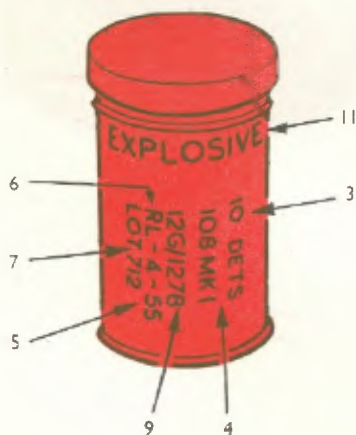
MISCELLANEOUS TYPES OF AMMUNITION

(AIR SERVICE)

EXAMPLE - DETONATORS No.108 IN WOODEN BOXES AND CYLINDERS



INNER CYLINDER



- 1... GOVERNMENT EXPLOSIVE GROUP  
(AS APPLICABLE)
- 2... SAFETY DISTANCE CATEGORY (AS APPLICABLE)
- 3... QUANTITY OF ITEMS PACKED
- 4... NOMENCLATURE AND MARK OF STORE
- 5... DATE OF FILLING (MONTH AND YEAR)
- 6... RECOGNIZED MARK OR INITIALS OF FILLER
- 7... LOT NUMBER
- 8... QUANTITY OF INNER CONTAINERS
- 9... STORES REFERENCE NUMBER
- 10... WEIGHT OF FILLED PACKAGE (IN LB)
- 11... CAUTIONARY WARNING
- 12... STATION SEALING LABEL
- 13... INSPECTION SEALING LABEL

TYPICAL CONTENTS AND SEALING LABELS (NAVAL SERVICE)

Serial No. JY  
**1 FUZE, N.81 Mk**  
**WITH GAINES, N Mk** Code  
 UNIVERSAL CAVITY FUZING COMPONENTS

**1 FUZE N81 Mk**  
 LOT \_\_\_\_\_ DATE \_\_\_\_\_  
 MKS \_\_\_\_\_  
 FLD \_\_\_\_\_

**1 GAINES N81 Mk**  
 (ASSEMBLED TO FUZE)  
 LOT \_\_\_\_\_ DATE \_\_\_\_\_  
 MKS \_\_\_\_\_

**1 EXPLODER M.E. SHELL**  
 C.E. 72 oz. Mk. N  
**1 WASHER G. & A.**  
 2 3/4" Mk. N2

**EXPLOSIVE**

CONTENTS LABEL  
(INNER CONTAINER)

M 304

**D. P.**

SEALING LABEL

CINRG 60

**I.N.O.**

SEALING LABEL

**JY** .....

**12 FUZES, N81 Mk WITH GAINES, N Mk** .....

**CODE** .....

(UNIVERSAL CAVITY FUZING COMPONENTS, IN 12 CVLS. No. 546)

|        | FUZES | GAINES<br>(Assembled to Fuzes) | Exploder, M.E. Shell,<br>C.E., 72 oz. |
|--------|-------|--------------------------------|---------------------------------------|
| No.    | N81   |                                |                                       |
| MARK   |       |                                |                                       |
| LOT    |       |                                |                                       |
| MAKER  |       |                                |                                       |
| DATE   |       |                                |                                       |
| FILLED |       |                                |                                       |
| DATE   |       |                                |                                       |

12 WASHERS, G. & A., 2 3/4" Mk. N2. N. 1100  
5/37

CONTENTS LABEL (OUTER PACKAGE)

**16 Cartridges, Q.F. 40m.m. H.E.**  
**Mk** .....

**PROPLINT** ..... **LOT** .....

**BATCH No.** ..... **FILLED** ..... **DATE** .....

|        | GASES | PRIMER<br>FUSE | SHELL OF<br>R.M.F. | PRIMER &<br>TRIGGER | FUZES |
|--------|-------|----------------|--------------------|---------------------|-------|
| No.    |       |                |                    |                     |       |
| MARK   |       |                |                    |                     |       |
| FILLED |       |                |                    |                     |       |
| DATE   |       |                |                    |                     |       |
| LOT    |       |                |                    |                     |       |
| MAKER  |       |                |                    |                     |       |
| DATE   |       |                |                    |                     |       |

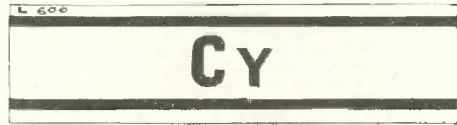
N. 1100  
2/37

CONTENTS LABEL (OUTER PACKAGE)

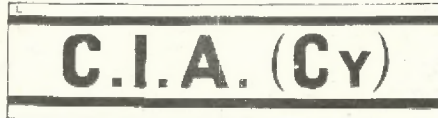
TYPICAL CONTENTS SEALING AND BATCH LABELS (LAND AND AIR SERVICES)



INSPECTION LABEL.



STATION LABEL.



COMPOSITE INSPECTION AND  
STATION LABEL.

L 566. B.

Filled at \_\_\_\_\_ / /

Packed by \_\_\_\_\_

Soldered by \_\_\_\_\_

Examined & } \_\_\_\_\_ / /

Re-packed at }

Packed by \_\_\_\_\_

Soldered by \_\_\_\_\_

PACKERS LABEL.

L 490 B

..... **CART, Q.F. 40M.M. H.E./T SHELL, MK.** .....

**BATCH B** ..... FILLER ..... DATE .....

PROPELLANT ..... LOT ..... WT ..... LB ..... OZ ..... DR

PRIMER No. .... MK. .... FILLER ..... DATE ..... LOT .....

SHELL ..... MK. .... FILLER ..... DATE ..... SERIES .....

FUZE No. .... MK. .... FILLER ..... DATE ..... LOT .....

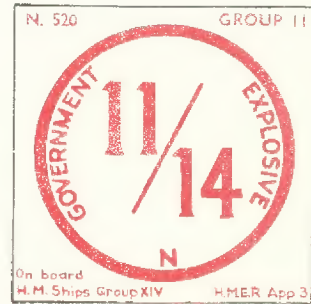
TRACER No. .... MK. .... FILLER ..... DATE ..... LOT .....

BATCH LABEL (LAND SERVICE ONLY).

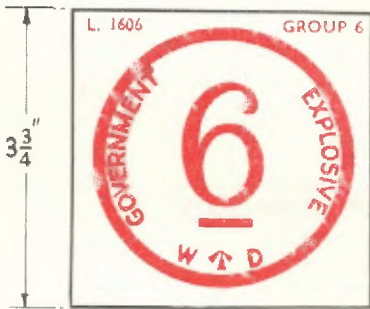
TYPICAL GOVERNMENT EXPLOSIVE GROUP LABELS



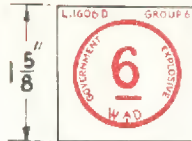
NAVAL SERVICE (LARGE)



NAVAL SERVICE - COMPOSITE (LARGE)



LAND SERVICE (LARGE)



LAND SERVICE (SMALL)



LAND SERVICE - SAFETY CLASS (LARGE)



AIR SERVICE (LARGE)



MINISTRY OF AVIATION (LARGE)

SPECIAL SYMBOLS AND "EMPTY" PACKAGE LABEL

FIG.1 NATO DESIGN MARK (STANAG 2320)

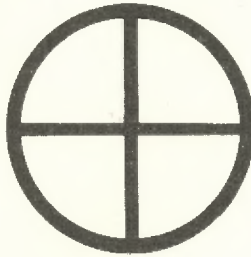


FIG.2 NATO SYMBOL OF INTERCHANGEABILITY (STANAG 2315)



FIG.3 U.S./U.K. SYMBOL DENOTING STANDARDIZED DESIGN



"RETURN" PACKAGE LABELS

FIG.4

|                                        |            |
|----------------------------------------|------------|
| <b>EMPTY</b><br>(FREE FROM EXPLOSIVE)  |            |
| SIGNATURE OF EXAMINATION OFFICER ..... |            |
| MONOGRAM OF STATION .....              | DATE ..... |

SPECIAL LABELS FOR PACKAGES CONTAINING DANGEROUS SUBSTANCES

The label must be in such a position that it is normally readily visible, preferably at the top. It must be affixed in such a manner that it will remain adherent throughout the transit. Alternatively, an exact replica of the label may be stencilled on the package.

INSTRUCTIONS RELATING TO THE CARRIAGE BY SEA OF  
SUBSTANCES GIVING OFF INFLAMMABLE VAPOURS

The Ministry of Transport and Civil Aviation do not distinguish between substances giving off inflammable vapours which are completely soluble in water, and such substances which are not completely soluble. In view of this, all packages containing substances giving off inflammable vapours which have closed flash points below 73°F are required to bear the "A1" label.

The words "Flash Point .....°F" must also be shown on the label beneath "Highly Inflammable", and the figure to be inserted should be either the actual flash point, or whichever of the following ranges is appropriate:-

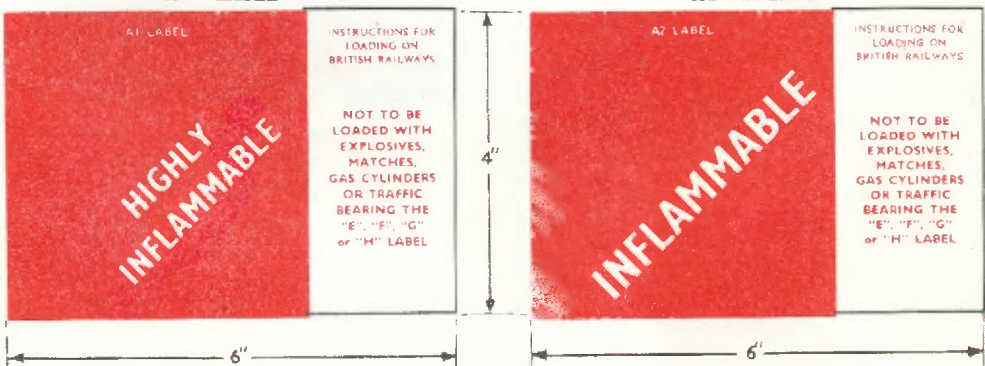
- 60°F - 72°F
- 40°F - 59°F
- 20°F - 39°F
- 0°F - 19°F
- Under 0°F

Similarly, inflammable substances having closed flash points not below 73°F, but below 150°F, whether or not completely soluble in water, require the "A2" label with the words "Flash Point 73°F - 150°F shown thereon beneath the word "Inflammable". This label is not required, however, in the case of such substances completely soluble in water, when passing to the Continent in railway wagons conveyed by the Train Ferry Services.

(Substances completely soluble in water with closed flash points not below 73°F are regarded by British Railways as non-dangerous, unless possessing other hazards.)

INFLAMMABLE LIQUIDS  
GROUP (A1) and (A3) -  
"A1" LABEL

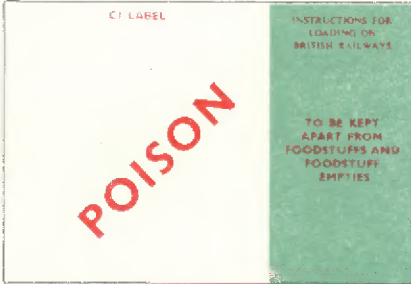
INFLAMMABLE LIQUIDS  
GROUP (A2) AND (B) -  
"A2" LABEL



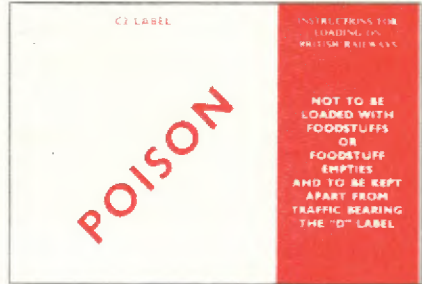
SPECIAL LABELS FOR PACKAGES CONTAINING DANGEROUS SUBSTANCES

The label must be in such a position that it is normally readily visible, preferably at the top. It must be affixed in such a manner that it will remain adherent throughout the transit. Alternatively, an exact replica of the label may be stencilled on the package

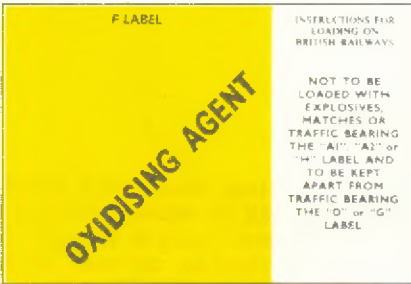
POISONOUS SUBSTANCES - "C1" LABEL



POISONOUS SUBSTANCES - "C2" LABEL



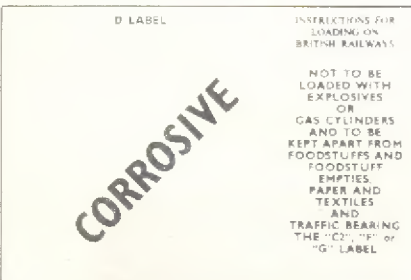
STRONG SUPPORTERS OF COMBUSTION - "F" LABEL



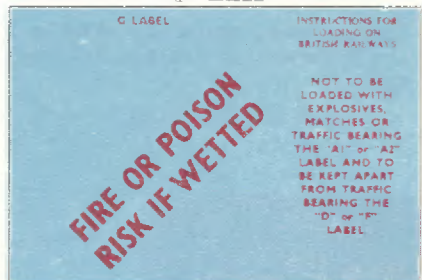
READILY COMBUSTIBLE SUBSTANCES - "E" LABEL



CORROSIVE SUBSTANCES - "D" LABEL



SUBSTANCES WHICH REACT WITH WATER - "G" LABEL



SPONTANEOUSLY COMBUSTIBLE SUBSTANCES - "H" LABEL



ALL THE LABELS SHOWN HERE ARE SIZE 6" x 4", EXCEPT THE ONE BELOW, WHICH IS 5" x 2"

SUPPLEMENTARY LABEL - "K" LABEL





1200 B202E

Ministry of Defence DG-1001

57

Ammunition

Admiralty No. BR 1202E (1)  
War Office Code No. 1803  
Air Ministry AP 3095

5701

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**JOINT SERVICES  
AMMUNITION AND AMMUNITION  
PACKAGE MARKINGS HANDBOOK**

**Section 5, Part 1**

**PACKAGES FOR CONVENTIONAL AMMUNITION  
(other than Guided Missiles and Ammunition of 30 mm. calibre  
and below)**

**1962**

*(Supersedes Section 5, Part 1, 1957 edition)*

*Promulgated by Command of their Lordships,*

*Promulgated by Command of the Army Council,*

*Promulgated by Command of the Air Council,*



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### INTRODUCTION

1. The general principles of colour identification and details of markings in this Section follow those laid down in Section I—General Introduction, which should be read in conjunction with it. There are exceptions, and some of these are explained by examples.

### METHODS OF IDENTIFICATION—GENERAL

2. The following methods of identification or a combination of these methods may be used:—
  - Colour markings.
  - Stencilling (including transfer and printing processes).
  - Stampings, engraving, embossing, etc.
  - Labels and tags.
3. The distinctive colour of paints or other marking media used will be as follows:—

|                |                              |               |
|----------------|------------------------------|---------------|
| Azure blue     | Black                        | Dark violet   |
| French blue    | White                        | Golden yellow |
| Turquoise blue | Brilliant green              | Signal red    |
| Middle brown   | Deep-bronze green            |               |
|                | <i>LIGHT BRUNSWICK GREEN</i> |               |

### COLOUR MARKINGS

4. **Basic body identification colours.**—Colour markings are not generally used on bodies or covers for identification purposes, except as follows:—
  - (a) Certain marks of No. 162 percussion fuzes approved and restricted for use in M.L. 4.2-inch mortar bombs will be distinguished as described in sub-para. 6 (b) (i).
  - (b) Certain families of C.V.T. fuzes will be distinguished as described in sub-para. 6 (b) (ii).
  - (c) Drill fuzes, primers and tubes will be coloured black and marked as described in paras. 17 and 19 to 21.
  - (d) The stem portion of aircraft bomb drill detonators will be coloured black. Other markings will be as described in para. 18.
5. **Non-significant colours.**—Certain stores are finished in a colour which has no identification significance. This may be due to the nature of the material used or to the application of a corrosion resistant finish. Such natural or special finish colours are depicted in champagne colour in the illustrations. Examples are:—
  - (a) Anodized aluminium components which may have a green or blue tint.
  - (b) Plastic fuze components which may be in various colours.
  - (c) Bases and sometimes the closure discs of certain items which may be treated with a red coloured cement.
  - (d) Certain lots of steel-bodied tracers, which may have a crimson coloured corrosion resistant finish, e.g. Tracer, Shell, No. 37.

6. **Colour Codes**—The red filling ring, as found for example on filled projectiles and bombs, is not marked on stores governed by this Section.

(a) *Coloured rings*—

(i) Coloured rings have been used to identify different fuzes of the same external appearance which are used in the same type of shell in a given equipment, when the use of the wrong fuze could result in an accident, a failure or a degradation of operational performance. These markings were intended to be readily discernible by those supervising the loading of the weapon, but the fuzes concerned are now mostly obsolete with, perhaps, two exceptions, the No. 119B, and No. 303.

*Size and position.*—The rings will be marked around the body of the fuze in such a position as the design permits. The width of the ring may vary according to the size of the fuze,  $\frac{3}{8}$ -inch usually being the maximum width.

(ii) A coloured ring or rings will be applied around the heads of aircraft bomb detonators to indicate their delay. Current examples, with size and colour of ring(s), and delay, are as follows:—

| <i>Detonator</i> | <i>Size and colour of ring(s)</i>                      | <i>Delay</i>        |
|------------------|--------------------------------------------------------|---------------------|
| No. 50           | $\frac{3}{8}$ -in. Middle brown ring                   | 0.10 to 0.18-secs.  |
| 51               | $\frac{3}{8}$ -in. Black ring                          | 0.01 to 0.03-secs.  |
| 52               | $\frac{3}{8}$ -in. White ring                          | Instantaneous       |
| 55*              | $\frac{3}{8}$ -in. Azure blue ring                     | 12 to 15-sec.       |
| 56               | $\frac{3}{16}$ -in. White and signal red rings         | 0.04 to 0.06-sec.   |
| 57               | $\frac{3}{16}$ -in. Azure blue and golden yellow rings | 25 to 30 secs.      |
| 60               | $\frac{3}{16}$ -in. White and middle brown rings       | 0.06 to 0.08-sec.   |
| 64               | $\frac{3}{8}$ -in. Brilliant green ring                | 0.075 to 0.125 sec. |

\* now obsolete

(b) *Other colour codes or markings* :—

(i) To distinguish readily certain Marks of the No. 162 percussion fuze which may only be used in M.L. 4.2-inch mortar bombs, from other Marks of the same fuze approved for use in M.L. 3-inch mortar bombs, the former will be identified by the whole exterior of the safety cap being coloured azure blue, with the fuze nomenclature on the top of the cap filled in with red. In addition, the walls of the brass cover will also be coloured azure blue.

(ii) For new families of C.V.T. fuzes, where variants of the same basic fuze are required to be intermixed operationally, colour coding will be used to distinguish between variants in order to facilitate proportionate mixing. In addition to natural (uncoloured) finish, the following colours, as appropriate, will be applied to the protective cover and fuze housing:—

French blue, B.S. Colour No. 166

Dark violet, B.S. Colour No. 796

Light bronze with black, B.S. Colour No. 225, signal red, B.S. Colour No. 537.

NOTE. Where a coloured anodized finish is used, the colour may not be the exact tint of the B.S. colour quoted.

(iii) Red coloured paint, wax or other approved composition may be used to fill in details of the fuze number, and mark or model number, when such details are stamped or engraved on the body.

(c) For colour identification of drill stores, see paras. 17 to 21.



## STENCILLING (including transfer or printing processes)

7. Stencilling is used where the store is not considered sufficiently robust to be stamped, engraved, embossed, etc., e.g. barometric fuzes and fuze covers.
8. Details of the delay time and height setting of barometric fuzes are invariably stencilled in bold characters and in contrasting colours.
9. For exploders and C.E. exploder pellets used in aircraft bombs, details of weight, mark, nature of filling and the word "PELLET", where applicable, are usually printed on the paper wrapping, paper label or metal case. The filled series lot number, initials or recognized monogram of filler and date of filling (month and year) may be printed on the bottom disc or paper label which is affixed in an approved position on the metal case, see Fig. 5 of Plate 6.

## STAMPINGS, ENGRAVING, EMBOSSING, ETC.

10. Most of the stores dealt with in this section are marked by stamping, engraving, embossing or similar processes. In most instances these methods of marking are the only ones practicable. For some stores, these markings may be augmented by colour markings and codes, see para. 6 (b), but the precise identification of the stores remains mainly dependent upon stamped details, see Plates 1 to 6. Details of the information required to be marked on operational stores at the empty and filled stages are given in paras. 11 and 12. For markings on drill stores see paras. 17 to 21.
11. Empty details

(a) The following details will normally be marked on all stores, except where otherwise stated:—

- (i) Store number and mark (or model number, Land Service only). Tubes will not be marked with the store number.
- (ii) Initials or recognized monogram of manufacturer.
- (iii) Last two figures of year of manufacture.
- (iv) Three small contiguous circles i.e. "000" indicating that the store is manufactured with an unified screw thread (if applicable).

NOTE. For marking of detonators aircraft bomb, see paras 11 (d) and 16.

(b) In Land Service the following additional details will also be marked:—

- (i) Fuzes (except mechanical fuzes which are dealt with in sub-para. (ii) below); Igniters, Cartridge (metal); Primers, Percussion and Electric; Tracers; Tracer and Igniters Shell; Tubes, Vent, Electric and Percussion; Tubes, Percussion, S.A. Cartridge; and similar stores will be allotted a two-letter code (which excludes the letter I) to indicate the sequence of manufacture. The first letter represents a series of 25 lots (approx. 62,500 fuzes or primers or 10,000 tubes, etc.), the second letter representing the actual lots, as follows:—

|    |                                      |         |
|----|--------------------------------------|---------|
| AA | = The first series of 25 lots        | Lot 1   |
| AZ | = The first series of 25 lots        | Lot 25  |
| BA | = The second series of 25 lots       | Lot 26  |
| BW | = The second series of 25 lots       | Lot 47  |
| ZA | = The twenty-fifth series of 25 lots | Lot 601 |
| ZZ | = The twenty-fifth series of 25 lots | Lot 625 |

A typical example would be "SM 47 BF", in which "SM 47" is the manufacturer's initials or monogram with the last two figures of the year of manufacture, and "BF" is the two letter combination indicating Lot 31 in the sequence of manufacture.

- (ii) For mechanical fuzes, the sequence will be indicated by a series lot number e.g. 1, 2, 3, et seq.

The following additional details will also be stamped on the body of mechanical fuzes:—

The serial number of the mechanism, preceded by the mechanism maker's initials or monogram and year of manufacture if the mechanism is not made by the fuze manufacturer.

- (c) *In Naval Service* the sequence of production from any one manufacturer will be indicated by a series lot number, the first series being from 1 to 999 and the second and subsequent series having a suffix letter allotted in alphabetical order, e.g. the second series would be from 1A to 999A. The empty series lot number also serves as the filled series lot number, but the word "LOT" is **not** stamped on the store.
- (d) *In Air Service* only the markings detailed in **para. 11 (a)** will be applied, except for detonators aircraft bomb which will be stamped on the underside of the head with the initials or monogram of the manufacturer and the month and year of manufacture.

## 12. Filled details

Markings for filled details will be as follows:—

(a) *In Land Service*

- (i) A filled series lot number from 1 to 999, restarting at 1A to 999A, 1B to 999B, etc. The word "LOT" is **not** stamped on the store.
- (ii) Initials or recognized monogram of filler.
- (iii) Date of filling (month and year) e.g. 5/60.

NOTE. Filled details are not stamped on Tubes, <sup>NOR ON ENCAPSULATED TRACERS -</sup> but will be found only on inner and outer containers for these stores. <sup>FOR TUBES THEY</sup>

(b) *In Naval Service*—see **sub-para. 11 (c)**.

(c) *In Air service*

- (i) A filled series lot number. These commence from 1 in January of each year and continue serially until the end of December. The word "LOT" is stamped before the number.
- (ii) Initials or recognized monogram of filler.
- (iii) Date of filling (month and year) e.g. 5/60.

NOTE. Filled details are not stamped on detonators aircraft bomb, see **para. 16 and Plate 6**.

## 13. Position of stampings

- (a) *Position of store number and mark or model number*.—Wherever possible, these identification details will be so positioned that they will not be obscured when the item is assembled to the parent store.
- (b) *Nose fuzes*.—The position of the stampings will be around the body but certain fuzes made of die-cast metal may have their number and mark or model number, maker's initials or monogram, etc., embossed around the top of the safety cap, in addition to stampings around the body. The empty stampings will normally be positioned diametrically opposite or below the filled stampings.
- (c) *Base fuzes, primers, tubes and tracers*.—The markings will normally be stamped around the base, but on tracers some markings may be stamped around the body, see **Fig. 6 of Plate 4**.
- (d) *Other stores*.—Markings will generally be stamped on the head or base in a single line as near to the periphery as possible. The store number and mark or model number will separate the empty and filled details, the empty stampings being on the left hand side and the filled stampings on the right hand side, with the intervals between the three groups being as large as the space available will permit. Advantage will be taken of key slots or other features to separate these groups.

14. **Size of stampings.**—Stampings will normally be in the following sizes:—

- (a) The store number will, where practicable, be in  $\frac{1}{2}$ -inch characters and the mark or model number should be the same size or may be smaller. On small stores, where space limitations will not allow the use of  $\frac{1}{2}$ -inch characters, they should be as large as possible.
- (b) Empty and filled details will be in  $\frac{1}{8}$ -inch or  $\frac{1}{10}$ -inch characters.

### SPECIAL IDENTIFICATION MARKINGS

15. Special identification markings have been introduced from time to time which are peculiar to specific stores. Examples of these markings are as follows:—

- (a) Fuzes fitted with time rings may be found with a single letter code stamped on the body, time rings and nose cap. These markings are to facilitate re-assembly of components from the same manufacturer after separation at filling factories. They have no identification significance to the user.
- (b) Primers fitted with percussion caps filled with Q.F. composition will be stamped with the letter "Q" after the filled stamping.
- (c) Percussion vent tubes will have four V-shaped indents in the rim to distinguish them from electric vent tubes. *See Fig. 3 of Plate 4.*
- (d) Knurlings may be used for night identification between two fuzes of similar shape but with differing operational use. *See Fig. 2 of Plate 2.*
- (e) Certain safety caps and/or covers of percussion fuzes may bear instructions to the user embossed on the top of the cap and/or cover.
- (f) Certain tracers after filling will have the closing plugs in the periphery, and the sealing disc over the emission hole in the centre of the base, coloured signal red to denote the presence of an explosive composition, *see Fig. 7 of Plate 4.* When certain filled tracers are assembled in the shell or projectile, the closing disc or plug will also be coloured signal red, e.g. Tracer, Shell, L7A1.

### LABELS AND TAGS

16. Labels and tags are normally used on ammunition stores to convey warnings or instructions to users, but on certain items they may also be used for descriptive and other information.

Aircraft bomb detonators will generally be marked by means of a label affixed to the top of the detonator head, bearing the following details, where applicable:—

Store number and mark.

Initials or recognized monogram of filler.

Lot number.

Date of filling (month and year)

Delay, e.g. INST (instantaneous), 0·10 to 0·18-SEC., etc.

For illustrations of markings on aircraft bomb detonators, *see Plate 6.*

### IDENTIFICATION OF DRILL STORES

17. **Drill fuzes**

(a) *Basic body colour and other identification features*

Drill fuzes will be coloured black all over with the exception of the graduated portion and setting index of time fuzes, which will be left plain. Percussion fuzes, will, where practicable, be bored right through from nose to base and horizontally through the body.

Time and percussion fuzes will be bored horizontally through the cap and vertically from the base to the horizontal boring, where practicable.

- (b) *Stampings*  
Fuze number and mark, or model number.  
The word "DRILL" will normally be stamped in a prominent position on the fuze body.  
NOTE. Fuze number and mark, or model number, and the word "DRILL", will be filled in with white paint.
- (c) *Stencilling*  
Will usually be in white, especially where used in lieu of stamping.

**18. Drill detonators, aircraft bomb**

The stems of aircraft bomb drill detonators will be coloured black and bored right through horizontally in two places. Other markings will be in accordance with paras. 6 (a), 11 (d) and 16, with the word "DRILL" added in a prominent position to the details marked on the labels, see Fig. 1. of Plate 6.

**19. Drill primers**

- (a) *Basic body colour*  
The body of drill primers will be blackened all over. They may be specially made drill primers or may be made from converted fired primers.
- (b) *Stampings*  
The word "DRILL" in a prominent position  
Number and mark, or model number.  
Manufacturer's initials or monogram  
Date of manufacture (month and year) } Stamped on base

**20. Drill tubes, percussion, S.A. Cartridge**

- (a) *Basic body colour and other identification features*  
Three elongated indents equally spaced will be formed around the case and filled in with red paint, the remainder of the case being blackened all over. The anvil will be removed from the cap chamber.
- (b) *Stampings*  
Mark or model number  
Manufacturer's initials or monogram  
Date of manufacture (month and year) } Stamped on base

**21. Drill tubes vent, percussion**

- (a) *Basic body colour and other identification features*  
Four longitudinal flutes equally spaced, will be formed around the case, the body being blackened all over. The rim of the head is milled and has four equally spaced V-shaped indents.
- (b) *Stampings*  
Mark or model number  
Manufacturer's initials or monogram  
Date of manufacture (month and year) } Stamped on base

**22. Plugs representing fuzes**

All plugs representing fuzes, whether for assembly in base or nose fuzed shell, will be identified by having the word "PLUG" prominently stamped or engraved in the positions indicated below:—

- (a) *Plugs for base fuzed shell*—On the head, around the magazine portion and across the inner end.
- (b) *Plugs for nose fuzed shell*—On the body and also across the base cap when such is present.

In addition, the following details will also be stamped in approved positions:—

- Store number and mark or model number.
- Manufacturer's initials or monogram.
- Year of manufacture.

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TYPICAL IDENTIFICATION MARKINGS - NAVAL SERVICE

FIG.1 PERCUSSION FUZES. Example -FUZE, PERCUSSION, D.A. No. 230

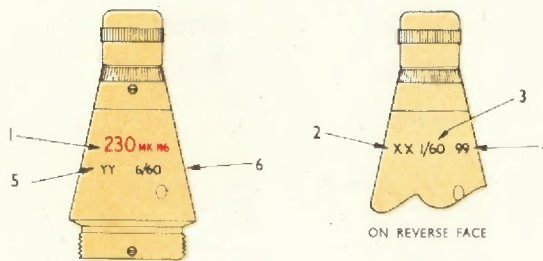


FIG.2 TIME FUZES. Example -FUZE, TIME No 207

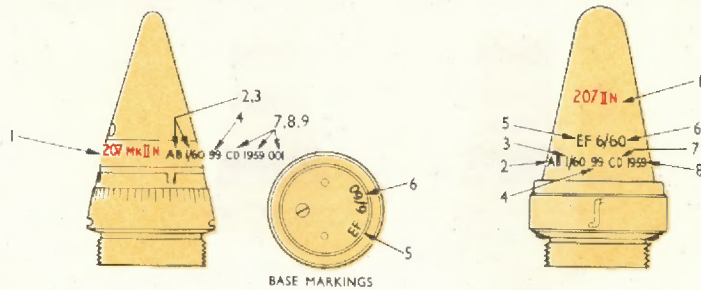
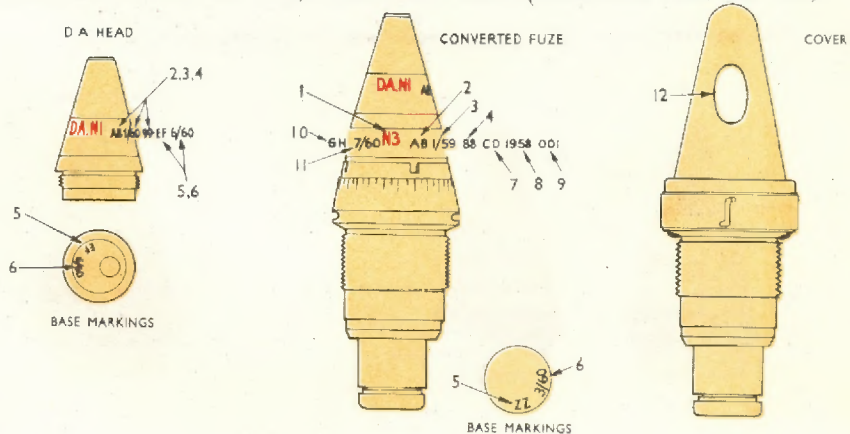


FIG.3 TIME AND DIRECT ACTION FUZES Example -FUZE, TIME and D.A. N3(CONVERTED FUZE, TIME No211)



- |                                                   |                                                          |
|---------------------------------------------------|----------------------------------------------------------|
| 1 STORE NUMBER AND MARK (OR MODEL NUMBER)         | 7 INITIALS OR RECOGNIZED MONOGRAM OF CLOCK MANUFACTURER  |
| 2 INITIALS OR RECOGNIZED MONOGRAM OF MANUFACTURER | 8 YEAR OF MANUFACTURE OF CLOCK                           |
| 3 DATE OF MANUFACTURE (MONTH & YEAR)              | 9 CLOCK MECHANISM SERIAL NUMBER                          |
| 4 EMPTY LOT NUMBER                                | 10 INITIALS OR RECOGNIZED MONOGRAM OF CONVERTING STATION |
| 5 INITIALS OR RECOGNIZED MONOGRAM OF FILLER       | 11 DATE OF CONVERSION (MONTH & YEAR)                     |
| 6 DATE OF FILLING (MONTH & YEAR)                  | 12 LABEL "N1318"                                         |

TYPICAL IDENTIFICATION MARKINGS - LAND SERVICE

FIG. 1 DIRECT ACTION PERCUSSION FUZES.

Example - FUZE, PERCUSSION, D.A. No.117

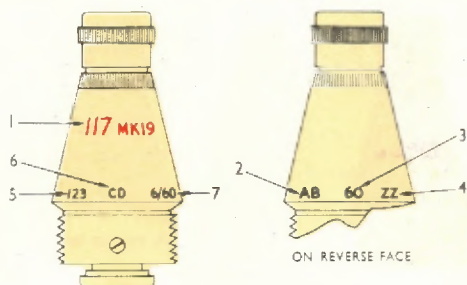


FIG. 2 DIRECT ACTION AND GRAZE PERCUSSION FUZES

Example - FUZE, PERCUSSION, D.A. and GRAZE, No.119B

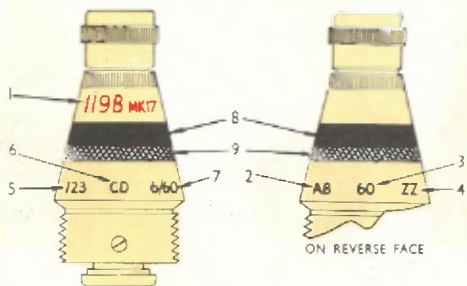
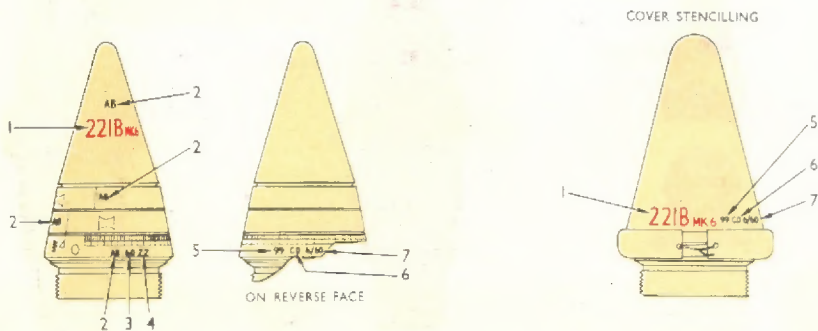


FIG. 3 TIME AND PERCUSSION FUZES.

Example - FUZE, TIME and PERCUSSION, No.221B



- |                                                      |                                             |
|------------------------------------------------------|---------------------------------------------|
| 1 STORE NUMBER AND MARK (OR MODEL NUMBER)            | 5 FILLED LOT NUMBER                         |
| 2 INITIALS OR RECOGNIZED MONOGRAM OF MANUFACTURER    | 6 INITIALS OR RECOGNIZED MONOGRAM OF FILLER |
| 3 YEAR OF MANUFACTURE (LAST TWO FIGURES)             | 7 DATE OF FILLING (MONTH & YEAR)            |
| 4 TWO LETTER COMBINATION INDICATING EMPTY SERIES LOT | 8 BLACK RING (IDENTIFICATION RING)          |
|                                                      | 9 KNURLING (NIGHT IDENTIFICATION)           |

TYPICAL IDENTIFICATION MARKINGS - LAND SERVICE

FIG. 1 TIME AND DIRECT ACTION FUZES

Example - FUZE, TIME and D.A. LI

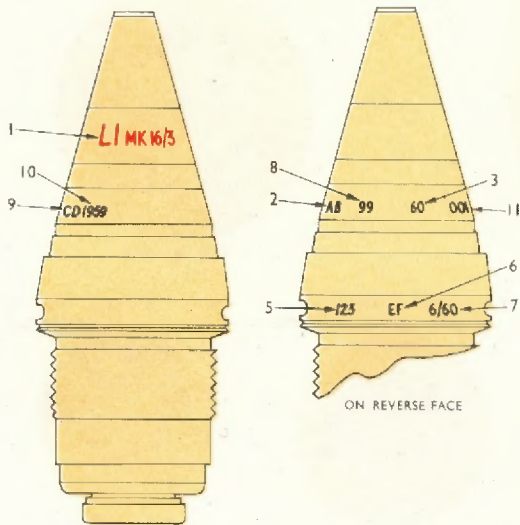


FIG. 2 BASE PERCUSSION FUZES.

Example - FUZE, PERCUSSION, BASE, MEDIUM, LI9

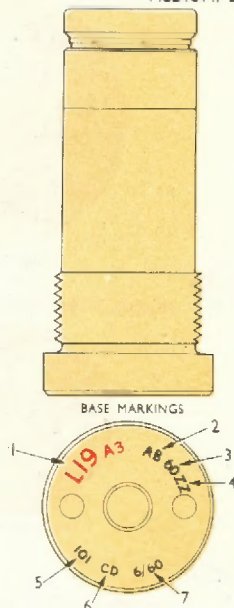


FIG. 3 CARTRIDGE IGNITERS

(ELECTRICALLY ACTUATED) Example - IGNITER, RCL CARTRIDGE, LI

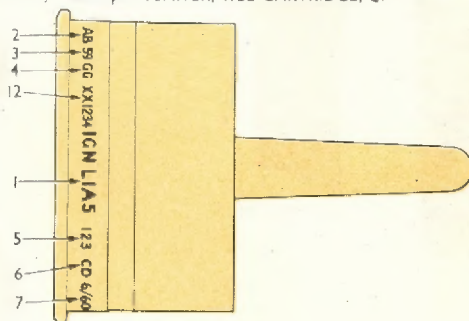
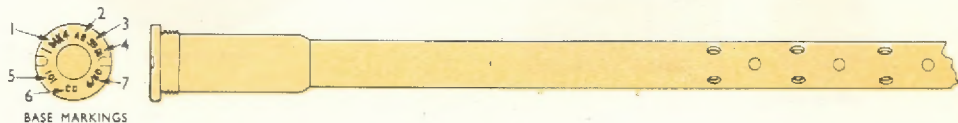


FIG. 4 CARTRIDGE IGNITERS (PRIMER ACTUATED)

Example - IGNITER, CARTRIDGE, No. 1



- |                                                      |                                                         |
|------------------------------------------------------|---------------------------------------------------------|
| 1 STORE NUMBER AND MARK (OR MODEL NUMBER)            | 7 DATE OF FILLING (MONTH & YEAR)                        |
| 2 INITIALS OR RECOGNIZED MONOGRAM OF MANUFACTURER    | 8 EMPTY LOT NUMBER                                      |
| 3 YEAR OF MANUFACTURE (LAST TWO FIGURES)             | 9 INITIALS OR RECOGNIZED MONOGRAM OF CLOCK MANUFACTURER |
| 4 TWO LETTER COMBINATION INDICATING EMPTY SERIES LOT | 10 YEAR OF MANUFACTURE OF CLOCK                         |
| 5 FILLED LOT NUMBER                                  | 11 CLOCK MECHANISM SERIAL NUMBER                        |
| 6 INITIALS OR RECOGNIZED MONOGRAM OF FILLER          | 12 DRAWING, SPECIFICATION, OR PART NUMBER               |

TYPICAL IDENTIFICATION MARKINGS - LAND SERVICE

PRIMERS

FIG. 1 Example - PRIMER, PERCUSSION, Q.F. CARTRIDGES, No.12

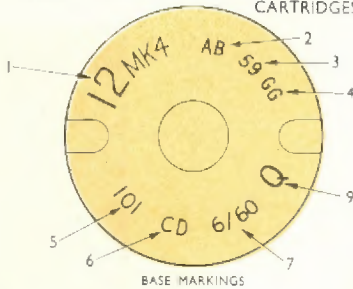
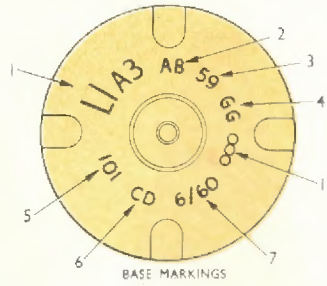


FIG. 2 Example - PRIMER ELECTRIC, L1



TUBES

FIG. 3 Example - TUBE, VENT. PERCUSSION, .4 INCH

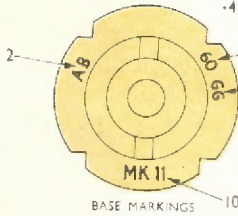


FIG. 4 Example - TUBE, VENT. ELECTRIC, .4 INCH

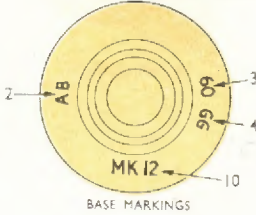
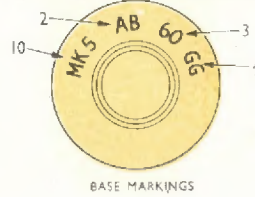


FIG. 5 Example - TUBE, PERCUSSION, .5A CARTRIDGE



TRACERS

FIG. 6 Example - TRACER, SHELL, No.30

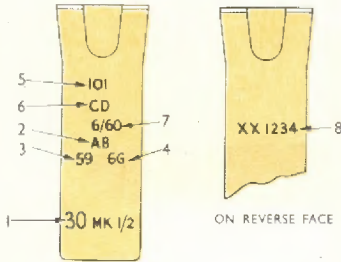


FIG. 7 Example - TRACER, SHELL, No.36

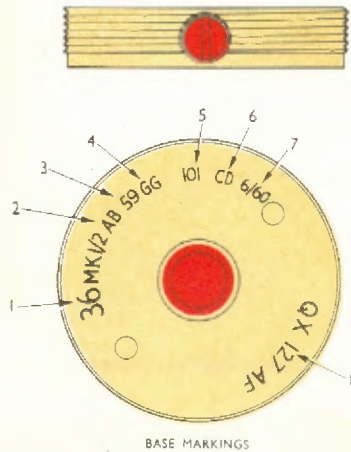
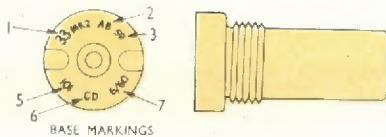


FIG. 8 Example - TRACER, SHELL, No.33



- |                                                      |                                                               |
|------------------------------------------------------|---------------------------------------------------------------|
| 1 STORE NUMBER AND MARK (OR MODEL NUMBER)            | 8 DRAWING, SPECIFICATION, OR PART NUMBER                      |
| 2 INITIALS OR RECOGNIZED MONOGRAM OF MANUFACTURER    | 9 "Q" WHEN FITTED WITH Q.F. COMPOSITION FILLED PERCUSSION CAP |
| 3 YEAR OF MANUFACTURE (LAST TWO FIGURES)             | 10 MARK OF STORE                                              |
| 4 TWO LETTER COMBINATION INDICATING EMPTY SERIES LOT | 11 SYMBOL DENOTING UNIFIED SCREW-THREAD                       |
| 5 FILLED LOT NUMBER                                  |                                                               |
| 6 INITIALS OR RECOGNIZED MONOGRAM OF FILLER          |                                                               |
| 7 DATE OF FILLING (MONTH & YEAR)                     |                                                               |



TYPICAL IDENTIFICATION MARKINGS – AIR SERVICE

FUZES

FIG. 1 TYPICAL EXAMPLE OF FUZE SUITABLE FOR MARKING BY STAMPING

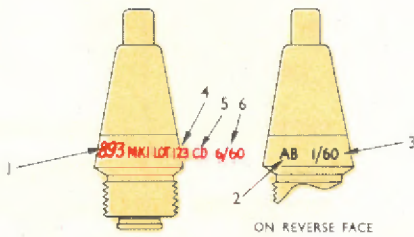


FIG. 2 TYPICAL EXAMPLE OF FUZE SUITABLE FOR STENCILLING (UNSUITABLE FOR STAMPING)

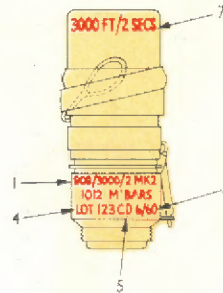
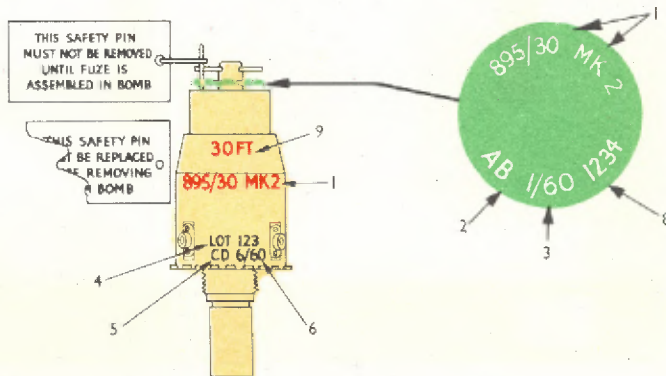


FIG. 3 TYPICAL EXAMPLE OF MARKING FUZES OF LIGHT CONSTRUCTION (UNSUITABLE FOR STAMPING LARGE TYPE MARKING)



- 1 STORE NUMBER AND MARK (OR MODEL NUMBER)
- 2 INITIALS OR RECOGNIZED MONOGRAM OF MANUFACTURER
- 3 DATE OF MANUFACTURE (MONTH & YEAR)
- 4 FILLED LOT NUMBER
- 5 INITIALS OR RECOGNIZED MONOGRAM OF FILLER

- 6 DATE OF FILLING (MONTH & YEAR)
- 7 DETAILS OF DELAY TIME AND HEIGHT SETTING
- 8 SERIAL NUMBER
- 9 DETAILS OF DEPTH SETTING

TYPICAL IDENTIFICATION MARKINGS-- AIR SERVICE

DETONATORS, DETONATOR - BURSTERS, AND EXPLODERS FOR AIRCRAFT BOMBS

FIG.1 DRILL DETONATOR



FIG.2 DETONATOR - BURSTER

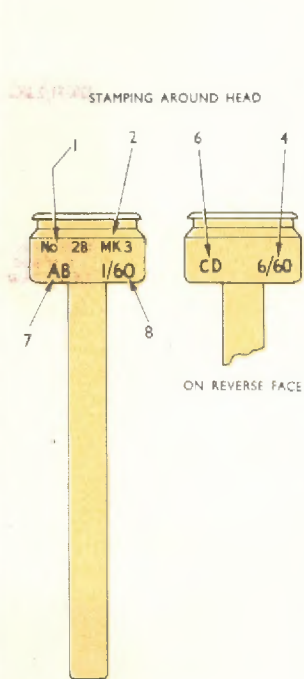


FIG.3 INSTANTANEOUS DETONATOR (ONE COLOUR RING)

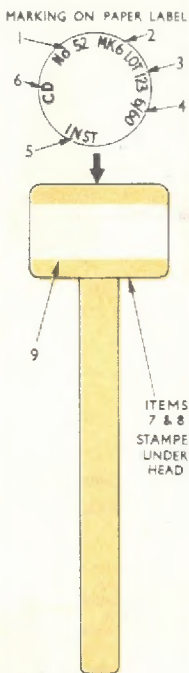


FIG.4 DELAY DETONATOR (TWO COLOUR RINGS)

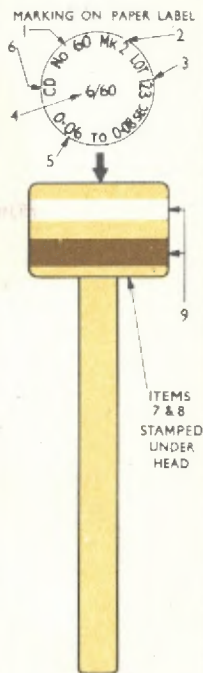


FIG.5 EXPLODER FOR AIRCRAFT BOMBS



- |                                             |                                                   |
|---------------------------------------------|---------------------------------------------------|
| 1 STORE NUMBER                              | 7 INITIALS OR RECOGNIZED MONOGRAM OF MANUFACTURER |
| 2 MARK OF STORE                             | 8 DATE OF MANUFACTURE (MONTH & YEAR)              |
| 3 FILLED LOT NUMBER                         | 9 COLOURED RINGS INDICATING DELAY                 |
| 4 DATE OF FILLING (MONTH & YEAR)            | 10 NOMINAL WEIGHT OF FILLING                      |
| 5 DELAY TIME                                | 11 NATURE OF FILLING                              |
| 6 INITIALS OR RECOGNIZED MONOGRAM OF FILLER |                                                   |

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DECEMBER 1

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**JOINT SERVICES  
AMMUNITION AND AMMUNITION  
PACKAGE MARKINGS HANDBOOK**

**Section 5, Part 2**

**PACKAGES—S.A.A., 20 MM. AND 30 MM. AMMUNITION**

**1962**

(Supersedes Section 5, Part 2, 1953 edition)

*Promulgated by Command of their Lordships,*

*Promulgated by Command of the Army Council,*

*Promulgated by Command of the Air Council,*



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| for 7.62 mm. ammunition—                                                        |              |
| 7.62 mm. ball rounds in chargers and bandoliers<br>(metal boxes) ... ..         | 3            |
| 7.62 mm. tracer rounds in cartons (metal boxes) ...                             | 4            |
| 7.62 mm. rifle grenade cartridges in cartons (wooden<br>package) ... ..         | 5            |
| for 7.92 mm. ammunition—                                                        |              |
| 7.92 mm. mixed ball and tracer cartridges in belts<br>(wooden package) ... ..   | 6            |
| for 20 mm. ammunition<br>(Naval Service)—                                       |              |
| 20 mm. Oerlikon practice in bulk (wooden package)                               | 7            |
| 20 mm. Hispano H.E./Incdy. and S.A.P./Incdy. in<br>links (metal package) ... .. | 8            |

**LIST OF PLATES—continued**

|                                                                |  |                                                                                  |           |
|----------------------------------------------------------------|--|----------------------------------------------------------------------------------|-----------|
| for .50 ammunition<br>(Air Service)—                           |  | .50 Browning ball in links (wooden package) ...                                  | 9         |
|                                                                |  | .50 Browning A.P./Incdy. in links (metal package) ...                            | 10        |
| for 20 mm. ammunition<br>(Air Service)—                        |  | 20 mm. Hispano H.E./Incdy. and S.A.P./Incdy. in<br>links (wooden package) ... .. | 11        |
|                                                                |  | (metal package) ... ..                                                           | 12        |
|                                                                |  | 20 mm. Hispano H.E./Incdy. in bulk (metal package)                               | 13        |
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I

|                                     |     |     |     |     |     |     |     |     |     |           |
|-------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------|
| Identification colours for packages | ... | ... | ... | ... | ... | ... | ... | ... | ... | 10 and 11 |
| Inks for paper labels               | ... | ... | ... | ... | ... | ... | ... | ... | ... | 45        |
| Inner packages—basic colour of      | ... | ... | ... | ... | ... | ... | ... | ... | ... | 10        |
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| Introduction—general                | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1 to 5    |

L

Labels—

|                                                  |     |     |     |     |     |     |     |     |     |        |
|--------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|
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| Government explosives classification group       | ... | ... | ... | ... | ... | ... | ... | ... | ... | 41     |
| Inks for ...                                     | ... | ... | ... | ... | ... | ... | ... | ... | ... | 45     |
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| Restricted use                                   | ... | ... | ... | ... | ... | ... | ... | ... | ... | 42     |
| Special identification, instructional or warning | ... | ... | ... | ... | ... | ... | ... | ... | ... | 44     |
| Station sealing labels                           | ... | ... | ... | ... | ... | ... | ... | ... | ... | 48 (c) |

M

Marking of—

|                               |     |     |     |     |     |     |     |     |     |          |
|-------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------|
| crates and transit containers | ... | ... | ... | ... | ... | ... | ... | ... | ... | 40       |
| empty packages                | ... | ... | ... | ... | ... | ... | ... | ... | ... | 8 and 9  |
| filled packages               | ... | ... | ... | ... | ... | ... | ... | ... | ... | 13 to 39 |

Markings—

|             |     |     |     |     |     |     |     |     |     |             |
|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------------|
| colour of   | ... | ... | ... | ... | ... | ... | ... | ... | ... | 32          |
| position of | ... | ... | ... | ... | ... | ... | ... | ... | ... | 9, 37 to 39 |
| size of     | ... | ... | ... | ... | ... | ... | ... | ... | ... | 33          |

Markings to meet—

|                                          |     |     |     |     |     |     |     |     |     |               |
|------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------------|
| N.A.T.O. requirements                    | ... | ... | ... | ... | ... | ... | ... | ... | ... | 14 (c) and 15 |
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N

|                                       |     |     |     |     |     |     |     |     |     |               |
|---------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------------|
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| N.A.T.O. Symbol of Interchangeability | ... | ... | ... | ... | ... | ... | ... | ... | ... | 14 (g) and 16 |
| Naval Service packages—marking of     | ... | ... | ... | ... | ... | ... | ... | ... | ... | 3             |
| Nature of bullet symbols              | ... | ... | ... | ... | ... | ... | ... | ... | ... | 14 (d)        |
| Nature of pack symbols                | ... | ... | ... | ... | ... | ... | ... | ... | ... | 14 (e)        |
| Nomenclature—size of—on packages      | ... | ... | ... | ... | ... | ... | ... | ... | ... | 14 (b)        |
| —definition of cartridges and rounds  | ... | ... | ... | ... | ... | ... | ... | ... | ... | 4             |
| Not to be air dropped symbol          | ... | ... | ... | ... | ... | ... | ... | ... | ... | 29            |

O

|                                |     |     |     |     |     |     |     |     |     |                |
|--------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------------|
| Operational abbreviations      | ... | ... | ... | ... | ... | ... | ... | ... | ... | 21 and Table 1 |
| Outer packages—basic colour of | ... | ... | ... | ... | ... | ... | ... | ... | ... | 10             |



|                                                      |          |          |
|------------------------------------------------------|----------|----------|
|                                                      | <b>P</b> |          |
| Packages—definition of ... ..                        |          | 5        |
| “Part” package markings ... ..                       |          | 30       |
| Position of markings on—<br>empty packages ... ..    |          | 9        |
| filled packages ... ..                               |          | 37 to 39 |
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|                                                      | <b>R</b> |          |
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| Restricted use markings ... ..                       |          | 22       |
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| Sequence of markings ... ..                          |          | 34 to 39 |
| Size of markings ... ..                              |          | 33       |
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| Stamping of details of empty packages ... ..         |          | 8 and 9  |
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| Type of pack—symbols ... ..                          |          | 14 (e)   |
|                                                      | <b>U</b> |          |
| The United Kingdom national markings ... ..          |          | 18 to 31 |
| Unsuitable for air dropping symbol ... ..            |          | 29       |
| U.S./U.K. symbol denoting standardized design ... .. |          | 26       |
|                                                      | <b>W</b> |          |
| Wrappers for bundled ammunition ... ..               |          | 46       |

## INTRODUCTION

1. The general principles of colour identification and details of markings in this section follow those laid down in Section 1—"General Introduction", which should be read in conjunction with this section. There are exceptions, some of which are explained by examples. This section also includes details of markings required by STANAG 2316 "Marking of Ammunition (and its packaging) of a calibre below 20 mm."
2. Details of markings for packages other than those dealt with in this section are given in the following Sections and Parts:—

Section 5, Part 1—"Packages for conventional ammunition" (other than guided missiles and ammunition of 30 mm. calibre and below).

Section 10, Part 2—"Packages for guided missiles".

Section 12, Part 2—"Packages for ammunition with radioactive content".

3. In Naval Service packages containing small arms ammunition below 20 mm. calibre will have the basic colour, and be stencilled and labelled, as for Land Service S.A.A. packages. Packages containing ammunition of 20 mm. calibre and above will, however, be stencilled and labelled in accordance with the code approved for the Naval Service as described in Section 5, Part 1. Examples of packages so marked are depicted in **Plates 7 and 8**.
4. In new designs of Land Service small arms ammunition the word "ROUND" (abbreviation "RD") will be used in nomenclature and markings on packages to describe ammunition with bullets, while the word "CARTRIDGE" (abbreviation "CART") will be restricted to ammunition without bullets assembled. A model number e.g. "L2A1" will also be included in the nomenclature; this replaces the Mark previously used to identify such stores.

For many years to come, therefore, there will exist in the Services earlier stocks of ammunition designated "Cartridges" which are in fact identical with (bulleted) rounds. Special care must be taken, therefore, in provisioning and in the preferment of demands either by signal or indent, etc. to avoid the possibility of confusion in identity which may result in incorrect issues.

Naval and Air Services will, except where the ammunition is manufactured to a common design for which the Land Service is the parent authority, continue to use the customary description of "CARTRIDGE" and "MARK" in nomenclature and markings on packages for both types of ammunition.

5. **Definition of packages.** Under the terms of STANAG No. 2316, packages shall be defined as follows:—
  - (a) *The inner package*, except bandoliers, is that which directly contains the ammunition.
  - (b) *The outer package* is the normal package used for transit and storage.
  - (c) Any package between the *inner package* and the *outer package* shall be designated as *intermediate package*.

## METHOD OF IDENTIFICATION—GENERAL

6. The following methods of identification or a combination of these methods may be used:—
  - (a) Branding, stamping, embossing, etc.
  - (b) Basic identification colours.
  - (c) Stencilling (including transfer or printing processes).
  - (d) Labels.
  - (e) Strip bands and bundle wrappers.

7. The distinctive colours of paints or other marking media used will be as follows:—

*For basic colours*

Black  
Service brown

*For stencilling, symbols, etc.*

Azure blue  
Golden yellow  
Signal red  
White

## MARKING OF EMPTY PACKAGES

### BRANDING, STAMPING, EMBOSSING, ETC.

8. **Identification details.** Permanent identification details of the empty package (box, liner or container) are required by stores personnel and provisioning authorities, and will be prominently marked in an approved position by branding, stamping, embossing or other approved process. The markings may be overpainted at a later stage by the basic colour or protective finish, where applicable. Details of the markings are as follows:—
- (a) Identification letter, number and mark.
  - (b) Initials or recognized monogram of manufacturer.
  - (c) Year of manufacture.
9. **Position.** Identification markings for the empty package should be so positioned that they are clear of areas allocated to contents markings and symbols which may subsequently be applied by stencilling or labelling. They should normally be positioned as follows:—
- (a) On rectangular metal packages, they will be embossed or engraved, usually on the base or end.
  - (b) On rectangular wooden boxes, they will be branded or stamped on the base or lower portion of the end.
  - (c) On packages manufactured from plastics, they may be engraved, moulded or applied by some other approved method on the body or end.

### BASIC IDENTIFICATION COLOURS

10. Packages, with the exception of those described in para. 11, will have a distinctive basic colour as follows:—
- (a) *Outer packages.* Wooden and steel outer packages will have a basic colour of Service brown, except Naval and Air Services galvanized steel packages which will normally be left unpainted.
  - (b) *Inner packages.* Removable inner packages including tinplate cylinders and boxes, will normally have a basic colour of Service brown or may have a black protective finish. Tin-plate liners or linings, which are not normally removed from the outer or intermediate package, will also have a black protective finish (in both these instances, the black colour has no identification significance).
  - (c) *Intermediate packages.* Wooden intermediate packages will have a basic colour of Service brown.
11. **Exceptions.** Packages made from the following materials will not normally be painted but may have an approved protective finish or such special identification as may be necessary:—
- (a) Galvanized steel (Naval and Air Services only).
  - (b) Aluminium and its alloys.
  - (c) Fibre glass.
  - (d) Plastics.

12. **Coloured bands on packages.** Colour bands on packages normally have no Joint Service significance and are usually reserved for special purposes or for international use, if necessary. One exception to this rule, however, and one example of special use of colour bands is as follows:—

- (a) Packages containing bulleted blank rounds will, for safety reasons, have a two inch golden yellow band painted horizontally around the centre of the box, to readily distinguish them.
- (b) A diagonal blue band is marked on Air Service packages containing stores intended for overseas shipment.

## MARKING OF FILLED PACKAGES

### STENCILLING (INCLUDING TRANSFER OR PRINTING PROCESSES)

13. **General.** Stencilled markings on packages, (including boxes, liners, etc.) are intended to provide users and stores personnel with sufficient information to readily and fully identify the contents, their filling, Government explosives classification group and other details. Typical examples of stencilled markings, their colour, position, relative sizes and other details are shown in Plates 1 to 14. Where packages made from plastics are used, stencilling or similar methods of marking may be found impracticable. In such instances, marking details may be printed on labels affixed to the package by means of transparent adhesive tape or approved adhesive, or the details may be printed directly on to adhesive tape affixed to the package.

### MARKINGS TO MEET N.A.T.O. REQUIREMENTS

14. **Packages containing S.A.A. (excluding rifle grenade cartridges).**

To conform to the requirements of STANAG No. 2316, the following details, which are mandatory, will be stencilled or otherwise marked on packages:—

- (a) *Quantity of rounds or cartridges.* This shall be indicated by arabic numerals on *all* packages.
- (b) *Nomenclature* (including calibre and mark or model number). This shall be indicated by latin letters and arabic numerals on *all* packages in distinct characters, as large or larger than *all* other details.
- (c) *N.A.T.O. Design Mark.* (STANAG No. 2320, *see para. 15*). This shall be marked on *all* packages which contain ammunition manufactured to a design which satisfies a N.A.T.O. Standardization Agreement. It will normally be applied in line with and to the right of the nomenclature (*see sub para. (b) above*).
- (d) *Nature of bullet.* The nature of the bullets (including blank cartridges) contained in *all* packages shall be indicated by the appropriate symbols (*see Plate 15*). When the pack contains bullets of different natures, the symbols preceded by the number in arabic numerals will show their arrangement, i.e. sequence (*see example, Plate 6*). The size of the symbol specified must be strictly adhered to.
- (e) *Type of pack.* (For example, bulk, charger, clip, belt, link or bandolier). The type of pack shall be indicated by symbols on *all* packages (*see Plate 16*). The mark or model number of the charger, clip, belt, link, or bandolier shall also be indicated (if applicable). The size of symbol specified must be strictly adhered to.
- (f) *Initials or recognized monogram of manufacturer, lot number and last two digits of year or date of work, i.e. manufacture, (day, month and last two digits of year).*

These details shall be marked on *all* packages, in arabic figures and latin letters smaller than those used for the nomenclature (*see sub-para. (b) above*). In *mixed packs* e.g. belts or links with a composite sequence of natures of bullets, abbreviated markings sufficient to identify the contents with the various dates of work (i.e. manufacture) will be shown).

- (g) *N.A.T.O. Symbol of Interchangeability (STANAG No. 2315, see para. 16)*. This symbol shall be placed on the *outer* package only and will denote interchangeability of the round or cartridge only. The model number of links, clips, chargers, etc. included with the ammunition will determine their extent of interchangeability.
15. **N.A.T.O. Design Mark (STANAG No. 2320)**. The N.A.T.O. Design Mark, comprising a cross inside a circle, has been adopted for use by N.A.T.O. armed forces to denote ammunition that has been manufactured to a design which satisfies a N.A.T.O. Standardization Agreement.
- (a) *Position*. It will be marked, where applicable, on filled inner, intermediate and outer packages adjacent to the main designation of contents (type, calibre or both).
- (b) *Dimensions and colour*. The size of the N.A.T.O. Design Mark will not be less than that of the largest character used in the normal identification or designation marking, nor will it be larger than twice that size. The colour will be the same as that used for the main identification markings (see Fig. 1, Plate 17 for details).
16. **N.A.T.O. Symbol of Interchangeability (STANAG No. 2315)**. The symbol, a four leaved clover, has been adopted for use by N.A.T.O. armed forces to denote ammunition that is operationally interchangeable. When stencilled on outer packages, the symbol indicates that the ammunition conforms in overall dimensions, performance and serviceability to a model approved under the provisions of a N.A.T.O. Standardization Agreement, brought up-to-date as necessary. The ammunition will, therefore, be operationally interchangeable with ammunition of the same designation, type and calibre which bears the same symbol on the package, in all weapons and equipments for which such ammunition is normally used.
- (a) *Position*. It will be marked, where applicable, in an approved position on the outer package. When selecting the position and method of applying the symbol, consideration should be given to the possibility of removing or obliterating it should the contents of the package at any time cease to fulfil the conditions implied by the presence of the symbol.
- (b) *Dimensions and colour*. Dimensions and colour will be as for the N.A.T.O. Design Mark, see para. 15. See Fig. 2, Plate 17 for details.
17. Additional markings or details to meet the United Kingdom national requirements will also be applied but these shall not be of a size greater than that used to indicate the nomenclature (see para. 14 (b)). Particulars of such additional details are given in paras. 18 to 31.

#### MARKINGS TO MEET THE UNITED KINGDOM NATIONAL REQUIREMENTS

18. The following details, where applicable, are required to be marked on packages containing S.A.A. (including rifle grenade cartridges) 20 mm. and 30 mm. ammunition.
19. **Safety distance category (Land and Air Services only)**. The safety distance category, comprising a one or two letter code, will be marked on the lid or top of the outer package in not less than  $\frac{1}{2}$  inch characters and in the same colour as, and immediately above, the Government explosives classification group. For details of the code for specific ammunition stores, see the "Comprehensive Classified List of Government Explosives" prepared by the Explosives Storage and Transport Committee (E.S.T.C.) of the War Office.
20. **Government explosives classification group**. This will normally be applied by stencilling although, as an alternative, the use of a label is permissible (see para. 41). It is required to be applied to all outer packages and to some removable intermediate packages. Particulars of the specific Government explosives group under which the contents are classified may be obtained, on application, from the Explosives Storage and Transport Committee, War Office. In addition, when Government explosives are conveyed by rail between any two or more countries in Europe, a RID explosives class label or stencilled marking will also be required, see the "Comprehensive Classified List of Government Explosives, 1958", para. 15.

21. **Operational abbreviations.** In the Land Service, additional markings known as "operational abbreviations" are used. These consist of boldly stencilled markings in white characters on outer and on some intermediate packages which enable personnel in an operational area readily to identify the contents of each package. Operational abbreviations are **NOT** marked on packages containing practice, blank, drill, instructional or proof stores.

A list of approved operational abbreviations is given in **Table 1**.

22. **Restrictive markings.** Where ammunition has been sentenced to a restricted use, all packages (inner and outer) containing this ammunition will be marked to show the nature of the restriction. The marking will normally be in signal red colour, and may be applied by labelling, *see para. 42*. It may be placed in any convenient position which does not obscure any other stencilling, stampings or labels.

23. **Climatic and temperature limitations.** Where ammunition is restricted during transit, issue and storage to certain climatic and temperature conditions, the following information, as applicable will be prominently marked in signal red colour on the lid or top, and on the left hand side or end, of all outer and inner packages containing the ammunition.

- (a) "*LIM*", indicating limited life in hot (or cold) climates. It is a cautionary warning that the contents should be frequently inspected, tested or both to confirm their continued serviceability.
- (b) "*TEMP*", indicating that transit, issue and storage is limited to temperate climates only.
- (c) Instances may arise where ammunition is restricted in transit and storage to a specified temperature limit or limits. In these circumstances, the marking "*LIM*" or "*TEMP*" will be replaced by a marking consisting of the abbreviation "*TSL*" (Transit and storage temperature limitation) followed by "*NOT ABOVE*" or "*NOT BELOW*" (as applicable) and a rectangle enclosing the critical temperature figure. Examples—

**TSL NOT ABOVE** 120°F or **TSL NOT BELOW** -25°F

- (d) Where minimum and maximum temperature limits are specified the words "*NOT ABOVE*" and "*NOT BELOW*" will be omitted and the remaining markings combined as follows:—

**TSL** -25°F 120°F or **TSL** -25°F  
120°F

*Important note.* The above are examples only and the actual temperature(s) *specified* should be inserted in the rectangle.

24. **Firing temperature limitations.** Where ammunition is restricted to firing within certain temperature limits, this will normally be marked in signal red colour on the front or side of the package on which details of the contents appear.

Example—



25. **Restricted service life.** Where ammunition has been given a restricted service life with a date of expiry, this will normally be prominently marked in signal red colour on the front or side of the package on which details of the contents appear.

Example— SL 8/61

26. **U.S./U.K. symbol denoting standardized design.** A symbol S  
K has been approved to identify packages containing ammunition that has been manufactured to a standard design approved for weapons which are equipment for both the United Kingdom and United States armed forces.

- (a) *Position.* It will be marked, where applicable, in an approved and prominent position on the package adjacent to the main designation of contents.
- (b) *Dimensions and colour.* Dimensions and colour will be as for the N.A.T.O. Design Mark, see para. 15. See Fig. 3, Plate 17 for full details.
27. **Stores reference number** (Naval and Air Services only). This will be stencilled in golden yellow on the right hand end of the package or in such other position as may be approved.
28. **Grade "A" ammunition** (Air Service only). Packages containing ammunition which is suitable for all air firing purposes, will have a letter "A" stencilled on one end in white in two inch bold type or in slighter smaller type if necessary.
29. **Not to be air dropped** (Land Service only). Packages containing ammunition which is unsuitable for air dropping will be marked on the lid or top, and on one end, with a red equilateral triangle the base of which should be approximately 1½ inches.
30. **Part packages.** Packages containing less than the full approved quantity of stores will have the word **FRACTION**, or abbreviation **FRAC**, stencilled prominently in the colour and position as follows:—
- (a) *Naval Service.* In yellow on each side of the package which is marked with the quantity of items packed.
- (b) *Land and Air Services.* In red on the side on which details of the contents are marked, and on the right hand end.
- Note.* The "quantity of items packed", where stencilled on the package, may require to be amended.
31. **Miscellaneous markings.** Additional markings, usually of a self explanatory nature, are sometimes applied by individual Services for special purposes. For example, packages containing ammunition stores marked with symbol  $\begin{matrix} \text{S} \\ \text{U} \\ \text{K} \end{matrix}$  may be expected to carry additional or different detail markings to meet U.S. as well as the United Kingdom user requirements.

### COLOURS FOR MARKINGS

32. Colours for main stencilled details, symbols, etc. will normally be as follows:—
- (a) *Golden yellow for—*
- (i) Quantity.
  - (ii) Nomenclature.
  - (iii) N.A.T.O. Design Mark.
  - (iv) Symbols indicating nature of bullet.
  - (v) Type of pack, symbols and mark or model number.
  - (vi) Initials or recognized monogram of manufacturer.
  - (vii) Lot or date of work (i.e. manufacture).
  - (viii) N.A.T.O. Symbol of Interchangeability.
  - (ix) Serial number of filled package.
  - (x) Stores reference number (Naval and Air Services only).
  - (xi) Weight of filled package (lb.).
- (b) *White on a dark coloured background; signal red on a light coloured background for—*
- (i) Government explosives classification group.
  - (ii) Safety distance category (Land and Air Services only).
- (c) *White for—*
- (i) Operational abbreviations (Land Service only).
- (d) *As stated in paras. 22 to 26, 28 to 31 for—*
- (i) Special feature and other markings.

## SIZE OF MARKINGS

33. The size will necessarily vary according to the dimensions of the package and the space available for markings; on small packages, where space is limited, they may be reduced in approximately the same relative proportions. The following sizes should be taken as a guide:—

- (a) Quantity, nomenclature, and mark or model number and, where applicable, the symbols indicating type of bullet (see para. 14(d))—1 inch.
- (b) Other details— $\frac{1}{2}$  inch.
- (c) Operational abbreviations—As large as possible but not exceeding 2 inches and not less than  $\frac{1}{2}$  inch.
- (d) Government explosives classification group—Layout and sizes as for labels (see Plate 19).

Note. The largest size of Government explosives group marking or label should be used wherever possible to ensure that it can be clearly seen during handling, transit and storage.

## POSITION AND SEQUENCE OF MARKINGS

34. **General.** The positions of markings on outer packages and inner containers depend upon a number of factors, such as:—

- (a) operational, user and store-holder requirements;
- (b) explosives storage and transport requirements;
- (c) design, size and shape of package or container;
- (d) method of stowage or stacking;
- (e) additional or special markings and symbols;
- (f) N.A.T.O. requirements, where applicable;

and it is the responsibility of individual Services to satisfy their own special requirements within the framework of Joint Services standardization. To avoid stencilling and labels being accidentally defaced or removed during handling, transit and storage, the markings should, where possible, be positioned in recessed panels, in recesses between raised panels or fluting of steel packages and containers and between battens of wooden packages.

35. The sequence of marking details shall be strictly adhered to, and the relative size and positions of markings should be maintained wherever possible. More detailed markings, and their sequence, are given in paras. 36 to 39, but the following general rules will normally be observed:—

- (a) Quantity, abbreviated nomenclature and mark or model number, followed by details in smaller type, see para. 33, will be stencilled on one side when the shape of the package permits, leaving the opposite side clear for consignment markings, etc. Typical examples are shown in the illustrated plates.
- (b) The Government explosives classification group marking or label, and the safety distance category will be applied once on the lid or top of the outer package, adjacent to and, if possible, to the left of but clear of the operational abbreviations (if applied). If there is insufficient space available on the lid or top, these markings will be positioned on the left hand side or end of the package and may be in the handle recess, if more convenient. The explosives group marking or label will also be applied on the side of some removable inner containers. see para. 37 (b).
- (c) Operational abbreviations, where applicable, will be stencilled on the lid or top of packages.
- (d) Climatic and temperature limitations will be marked once on the lid or top, adjacent to but clear of the operational abbreviation (if applied) and once on the left hand side or end. See para. 23 for details of these markings.



## APPLICATION OF MARKINGS

36. Unless otherwise authorized, the following information will, where applicable, normally be stencilled on packages in the positions and sequence as shown. The position of markings, which comply with the requirements of N.A.T.O. STANAG No. 2316 (*see paras. 14 to 16*) is mandatory and must strictly conform to the layout depicted in **Plates 1 to 4, 6, 9 and 10**. Additional special markings to meet the United Kingdom national requirements, will, where applicable, be applied in the positions, sizes and colours as indicated in **paras. 22 to 26, 28 to 30**.

37. **Packages containing S.A.A.**

(a) *Outer packages*

(i) *On lid or top*

- (A) Safety distance category (Land and Air Services only).
- (B) Government explosives classification group.
- (C) Operational abbreviation (Land Service only).

(ii) *On side or front*

- (A) Quantity of rounds or cartridges.
- (B) Nomenclature (including calibre and mark or model number).
- (C) N.A.T.O. Design Mark (on right hand side).
- (D) Nature of bullet(s)—shown by abbreviations and symbols.
- (E) Type of pack—shown by symbols and model number.
- (F) Initials or recognized monogram of manufacturer.
- (G) Lot number and last two digits of year or date (day, month and last two digits of year) of work (i.e. manufacture).
- (H) Where more than one type of ammunition is packed, abbreviated markings sufficient to identify the contents with the various dates of work will also be shown, e.g.—

|       |    |        |                         |
|-------|----|--------|-------------------------|
| BALL* | RL | 0-0-00 | } *Mark or model number |
| A.P.* | RL | 0-0-00 |                         |
| TRA*  | RL | 0-0-00 |                         |

- (I) N.A.T.O. Symbol of Interchangeability (on right hand side).

(iii) *On right hand end*

- (A) Serial number of filled package (Land and Air Services only).
- (B) Stores reference number (Naval and Air Service only).
- (C) Initials or recognized monogram of manufacturer.
- (D) Lot number and last two digits of year or date (day, month and last two digits of year) of work (i.e. manufacture).
- (E) Where more than one type of ammunition is packed, abbreviated markings sufficient to identify the contents with the various dates of work will also be shown (*see* (ii) above).
- (F) Weight of filled package (lb.).

(b) *Removable intermediate packages*

- (i) *On lid or top*. Operational abbreviation (Land Service only).

(ii) *On side or front*

- (A) Safety distance category (Land and Air Services only)—on left hand side.
- (B) Government explosive classification group—on left hand side.
- (C) Other details as shown in para. 37 (a) (ii) but excluding the N.A.T.O. Symbol of Interchangeability.

(c) *Inner packages.* Details as shown in para. 37 (a) (ii) but excluding the N.A.T.O. Symbol of Interchangeability.

38. **Packages containing rifle grenade cartridges packed in bulk** (see Plate 5). When rifle grenade cartridges are issued packed in bulk, the type of grenade associated with such cartridges should, where possible, be shown on the package (inner, intermediate and outer). The colour and dimensions will be the same as that of the other main identification details (see paras. 32 and 33) marked on the same part of the package.

(a) *Outer packages*

(i) *On lid or top*

- (A) Safety distance category (Land and Air Services only).
- (B) Government explosives classification group.
- (C) Operational abbreviation (Land Service only).

(ii) *On side or front*

- (A) Quantity of cartridges.
- (B) Nomenclature (including calibre and mark or model number).
- (C) N.A.T.O. Design Mark (on right hand side).
- (D) Reference to type of grenade associated with cartridge.
- (E) Method of packing.
- (F) Initials or recognized monogram of manufacturer.
- (G) Date of manufacture (day, month and last two digits of year).

(iii) *On right hand end*

- (A) Serial number of filled package (Land and Air Services only).
- (B) Stores reference number (Naval and Air Services only).
- (C) Initials or recognized monogram of manufacturer.
- (D) Date of work (i.e. manufacture) (day, month and last two digits of year).
- (E) Weight of filled package (lb.).

39. **Packages containing 20 mm. and 30 mm. ammunition.** Owing to the different designs of packages used for these types and natures of ammunition it is not possible to indicate precisely the positions and sequence of markings in this text. Details of approved abbreviations to be used in the marking of packages will be found in Table 2.

(a) *Naval Service.* Packages containing 20 mm. and 30 mm. ammunition will be stencilled and labelled in accordance with the code approved for the Naval Service as described in Section 5, Part 1. Examples of packages so marked are depicted in Plates 7 and 8. The details required to be applied are:—

- (i) Quantity of items packed and stores reference number.
- (ii) Government explosives classification group label.
- (iii) Contents label (see para. 43).

(b) *Air Service.* The following details, as applicable, will be marked on the packages (examples of packages so marked are depicted in Plates 11 to 14):—

- (i) Quantity, nature and mark of rounds.
- (ii) Method of packing and mark of links.
- (iii) Sequence of rounds in links.
- (iv) "L.H. Feed" or "R.H. Feed".
- (v) "A" denoting Grade A ammunition.
- (vi) Nature, lot number, initials or recognized monogram of filler and date of filling (month and year).

- (vii) Initials or recognized monogram of belting unit task number and year (last two figures).
- (viii) Initials or recognized monogram of manufacturer and batch number of links.
- (ix) Government explosives classification group.
- (x) Stores reference number.
- (xii) Temperature label.

### CRATES AND TRANSIT CONTAINERS

40. Where a number of outer packages are assembled into a special crate or transit container which does not obscure the main identification details of the ammunition as marked on the outer packages, it will be sufficient for the crate or container to be marked with the safety distance category, Government explosives classification group, operational abbreviation, total quantity of rounds, abbreviated nomenclature, serial number of the filled crate or container and its gross weight (lb.) together with such other minimum markings as may be considered necessary. Where, however, markings sufficient to identify all the aforementioned details are clearly visible, the application to the crates and transit containers of these details may be dispensed with.

### LABELS

41. **Government explosives classification group labels.** Packages containing stores classified for transport and storage in a Government explosives group may bear a group label in place of the stencilled marking, *see para. 20*. The group label, printed in red on a white background, denotes by means of a group number the transport and storage conditions for the package contents. For further details, *see* the "Comprehensive Classified List of Government Explosives" prepared by the E.S.T.C.

(a) *Position and size.* The label will normally be applied on the top or lid of outer packages and on the side of some inner containers. For examples of approved large and small sizes of group labels *see Plate 19*, but the use of intermediate sizes where appropriate (*see para. 33 (d) footnote*), may be authorized by the approving authority.

(b) *Initials of Service or Department.* The labels will bear the initials of the Service or Department concerned, as follows:—

- (i) N = Naval Service.
- (ii) W † D = Land Service.
- (iii) RAF = Air Service.
- (iv) MOA\* = Ministry of Aviation.

\*Some labels bearing the initials M.O.S. (Ministry of Supply) may still be found on ammunition packages.

(c) *Composite groups.* In Naval Service, where certain ammunition stores may be allocated to different groups ashore and afloat, a composite label is used which indicates the ashore group in the numerator and the afloat group in the denominator.

42. **Restricted use labels.** These labels indicate briefly the nature of the restriction and may be used in place of stencilling, *see para. 22*. Details will normally be printed in signal red colour on a white background and the labels should be affixed in any convenient position which does not obscure stencilling, stamping or other labels.

43. **Contents labels.** In the Naval Service the detailed identification of contents of outer packages containing 20 mm. and 30 mm. ammunition is by contents labels in preference to stencilling. The labels will be so positioned as to be visible when the packages are stacked and this will usually mean affixing the label to one end of the package. Where possible, the label should be in a recess or in the lee of a handle, for protection against damage.

44. **Special identification, instructional or warning labels.** These special labels are sometimes required on packages and, where used, will usually be fixed to the exterior of the package in any convenient position which does not obscure stencilling, stamping or other labels. Instructional labels are occasionally required to be positioned under the lid.
45. **Inks for paper labels.** Information inserted on paper labels used for packages containing explosives shall be done by printing or by indelible stamp as far as practicable. Where it may be necessary to insert details in manuscript only an approved waterproof black drawing ink or blue black record ink will be used. Details will invariably be inserted in block capitals and arabic numerals.

#### STRIP BANDS AND BUNDLE WRAPPERS

46. The following details will be printed on carton strip bands and bundle wrappers:—
- (a) number of rounds;
  - (b) nomenclature and mark;
  - (c) N.A.T.O. Design Mark (if applicable);
- and stamped with the maker's recognized mark (or initials) and date of work (filling assembly).

#### SEALING OF FILLED AND EMPTY PACKAGES

47. **Sealing of filled packages.** Every package containing explosives will be sealed during transit and storage, in such a manner that the package cannot be opened without breaking the seal.
48. **Methods.** The following methods of sealing may be used:—
- (a) *Metal seals.* A metal seal is used in conjunction with a wire or cord becket, and after being secured as indicated in the package drawing, it will be impressed with the mark of the inspectorate or authority concerned. This seal is intended to signify that, at the time of sealing, the package and its contents were acceptable to the inspectorate or other authority and in good condition for despatch to the consignee. Two seals are normally used on rectangular and one on cylindrical metal packages.
  - (b) *Inspection sealing labels.* Alternatively, an inspection sealing label (see Fig. 2, Plate 18), having the same significance as the metal seals described in (a) above, may be used. This sealing label, comprising a strip of white muslin, linen or similar material, is marked with the initials or monogram of the inspection authority. One label is normally used in conjunction with the station sealing label, see (c) below.
  - (c) *Station sealing labels.* In addition to (a) or (b) above there is a statutory obligation on the consignor to affix to each package a station sealing label. (see Fig. 3, Plate 18). This label is similar to the inspection sealing label except that it is marked with the initials or monogram of the unit or establishment. It indicates the authority responsible for ensuring that the explosive is properly packed in an approved manner.
49. **Position of application.** The sealing labels described in (b) and (c) above will be affixed to packages by means of an approved adhesive and will be positioned as follows:—
- (a) When metal seal(s) are used, the station sealing label will be affixed over the junction of lid and body.
  - (b) When metal seal(s) are *not* used, both an inspection and a station sealing label will be used. These will be affixed over the junction of lid and body; near to the corners and diagonally on rectangular packages with removable lids, obliquely under each fastening device on packages with hinged lids and in a suitable position on cylindrical packages.

50. **Sealing of empty packages.** When packages containing explosives are emptied of their contents for return, and where it has not been possible to obliterate or remove the markings appertaining to those contents, a special label will be affixed to the empty package after it has been examined and certified as empty. The label will bear the marking "EMPTY (FREE FROM EXPLOSIVE)" in black characters on a white background, see Fig. 1 of Plate 18. The monogram of the station and date of certification will be inserted and it will be signed by the person responsible for examining the package. The label will be affixed to the package in such a position that the package cannot be opened without tearing or defacing it, and it will be completely removed before the package is again used.

Section 5, Part 2

**TABLE 1**  
**LIST OF OPERATIONAL ABBREVIATIONS**

To facilitate identification of the package contents in operational areas, the following approved operational abbreviations will be stencilled in **WHITE** on the top or lid of the outer and, if removable, the intermediate package.

The stencilling will be in bold characters as large as possible consistent with the size and shape of the package, normally 2 inches, but never less than  $\frac{1}{2}$  inch

Operational abbreviations will **NOT** be used on packages containing practice, blank, drill, inspection or proof ammunition.

| Calibre and nature of ammunition                 | Abbreviation          |
|--------------------------------------------------|-----------------------|
| <b>Cartridges, S.A.:</b> —                       |                       |
| .30 in. Ball in belts ... ..                     | 30 BALL BLT           |
| "  " in cartons ... ..                           | 30 BALL CTN           |
| "  Tracer in cartons ... ..                      | 30 TRA CTN            |
| "  Ball and Tracer in belts ... ..               | 30 BALL/TRA BLT       |
| .303 in. Mark*, in bandoliers ... ..             | 303 BALL* BDR         |
| "  " in cartons ... ..                           | 303 BALL* CTN         |
| "  " in stripless belts ... ..                   | 303 BALL* BLT         |
| "  Tracer, Mark*, in cartons ... ..              | 303 TRA* CTN          |
| "  Ball and Tracer in stripless belts ... ..     | 303 BALL/TRA BLT      |
| "  Rifle Grenade, Mark* ... ..                   | 303 RFL GREN*         |
| .380 in. Revolver, Ball ... ..                   | 380 REV BALL          |
| 9 mm. Ball ... ..                                | 9 MM BALL             |
| .50 in. Browning Ball in cartons ... ..          | 50 BROWN BALL CTN     |
| "  " Tracer in cartons ... ..                    | 50 BROWN TRA CTN      |
| .50 in. Browning Ball and Tracer in links ... .. | 50 BROWN BALL/TRA LNK |
| 7.92 mm. Ball in belts ... ..                    | 792 BALL BLT          |
| "  Tracer in cartons ... ..                      | 792 TRA CTN           |
| "  Ball and Tracer in belts ... ..               | 792 BALL/TRA BLT      |
| 7.62 mm. Rifle Grenade* in cartons ... ..        | 762 RFLE GREN*        |
| <b>Round, S.A.:</b> —                            |                       |
| 7.62 mm. Ball* in bandoliers or chargers* ... .. | 762 BALL* BDR/CHR*    |
| "  " in cartons and chargers ... ..              | 762 BALL* CTN/CHR*    |
| "  Ball* in cartons ... ..                       | 762 BALL* CTN         |
| "  Ball in links* ... ..                         | 762 BALL* LNK*        |
| "  Tracer in cartons ... ..                      | 762 TRA* CTN          |

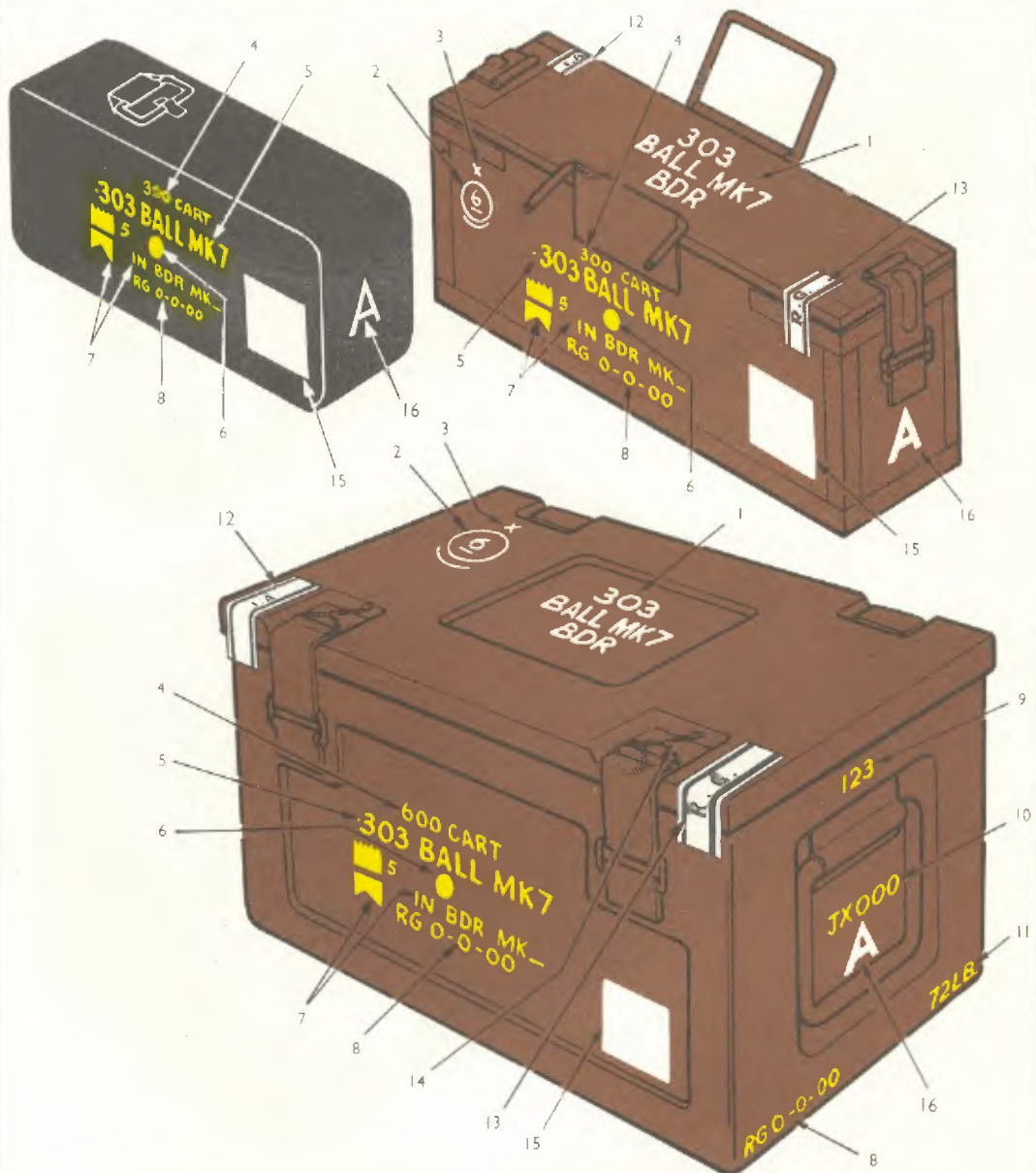
\*Mark or Model No. as applicable

**TABLE 2**  
**Abbreviated markings approved for packages containing**  
**20 mm. and 30 mm. Ammunition**

| Calibre and nature of ammunition            | Abbreviations        |
|---------------------------------------------|----------------------|
| Cartridges 20 mm. Hispano                   | CART 20 MM HISPANO   |
| Armour Piercing ... ..                      | AP                   |
| Ball/Practice ... ..                        | BALL/PRAC            |
| H.E./Incendiary ... ..                      | HE/INCDY             |
| S.A.P./Incendiary ... ..                    | SAP/INCDY            |
| S.A.P./Incendiary Rep. ... ..               | SAP/INCDY REP.       |
| H.E./Incendiary and S.A.P./Incendiary... .. | HE/INCDY & SAP/INCDY |
| Cartridges 20 mm. Oerlikon                  | CART 20 MM OERLIKON  |
| H.E. ... ..                                 | HE                   |
| H.E./Incendiary ... ..                      | HE/INCDY             |
| H.E./Tracer ... ..                          | HE/TRA               |
| H.E./Incendiary/Tracer ... ..               | HE/INCDY/TRA         |
| Practice ... ..                             | PRAC                 |
| Practice Tracer ... ..                      | PRAC TRA             |
| S A.P./H.E./Incendiary ... ..               | SAP/HE/INCDY         |
| Cartridges 30 mm. Aden                      | CART 30 MM ADEN      |
| H.E. ... ..                                 | HE                   |
| Practice ... ..                             | PRAC                 |

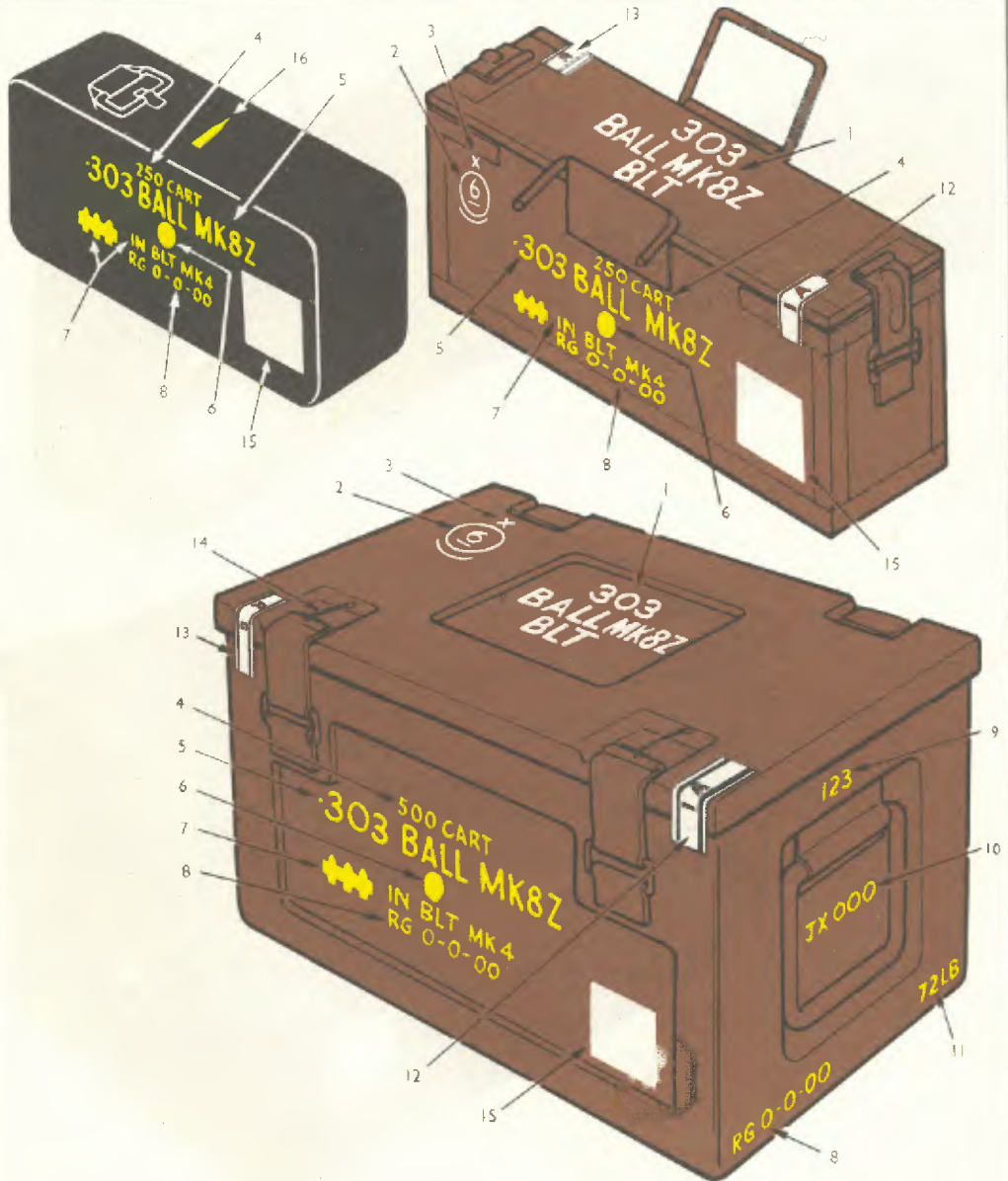
**RESTRICTED**

FOR .303 INCH AMMUNITION  
 EXAMPLE - .303 INCH BALL CARTRIDGES IN BANDOLIERS (METAL BOXES)



- |                                                                             |                                                                |
|-----------------------------------------------------------------------------|----------------------------------------------------------------|
| 1. OPERATIONAL ABBREVIATION (LAND SERVICE ONLY)                             | 9. PACKAGE SERIAL NUMBER                                       |
| 2. GOVERNMENT EXPLOSIVES GROUP (AS APPLICABLE)                              | 10. STORES REFERENCE NUMBER (NAVAL AND AIR SERVICE ONLY)       |
| 3. SAFETY DISTANCE CATEGORY (AS APPLICABLE)                                 | 11. WEIGHT OF FILLED PACKAGE (IN LB.)                          |
| 4. NUMBER OF CARTRIDGES PACKED                                              | 12. INSPECTION SEALING LABEL                                   |
| 5. ABBREVIATED NOMENCLATURE AND MARK (AS APPLICABLE)                        | 13. STATION SEALING LABEL                                      |
| 6. SYMBOL INDICATING NATURE OF CARTRIDGE                                    | 14. SEALSFAST                                                  |
| 7. SYMBOL AND ABBREVIATION INDICATING METHOD OF PACK AND MARK OF BANDOLIER  | 15. RESTRICTIVE SENTENCE LABEL (WHERE APPLICABLE)              |
| 8. INITIALS OR MONOGRAM OF MANUFACTURER, DATE OF WORK (DAY, MONTH AND YEAR) | 16. "A" WHEN GRADE "A" AMMUNITION IS PACKED (AIR SERVICE ONLY) |

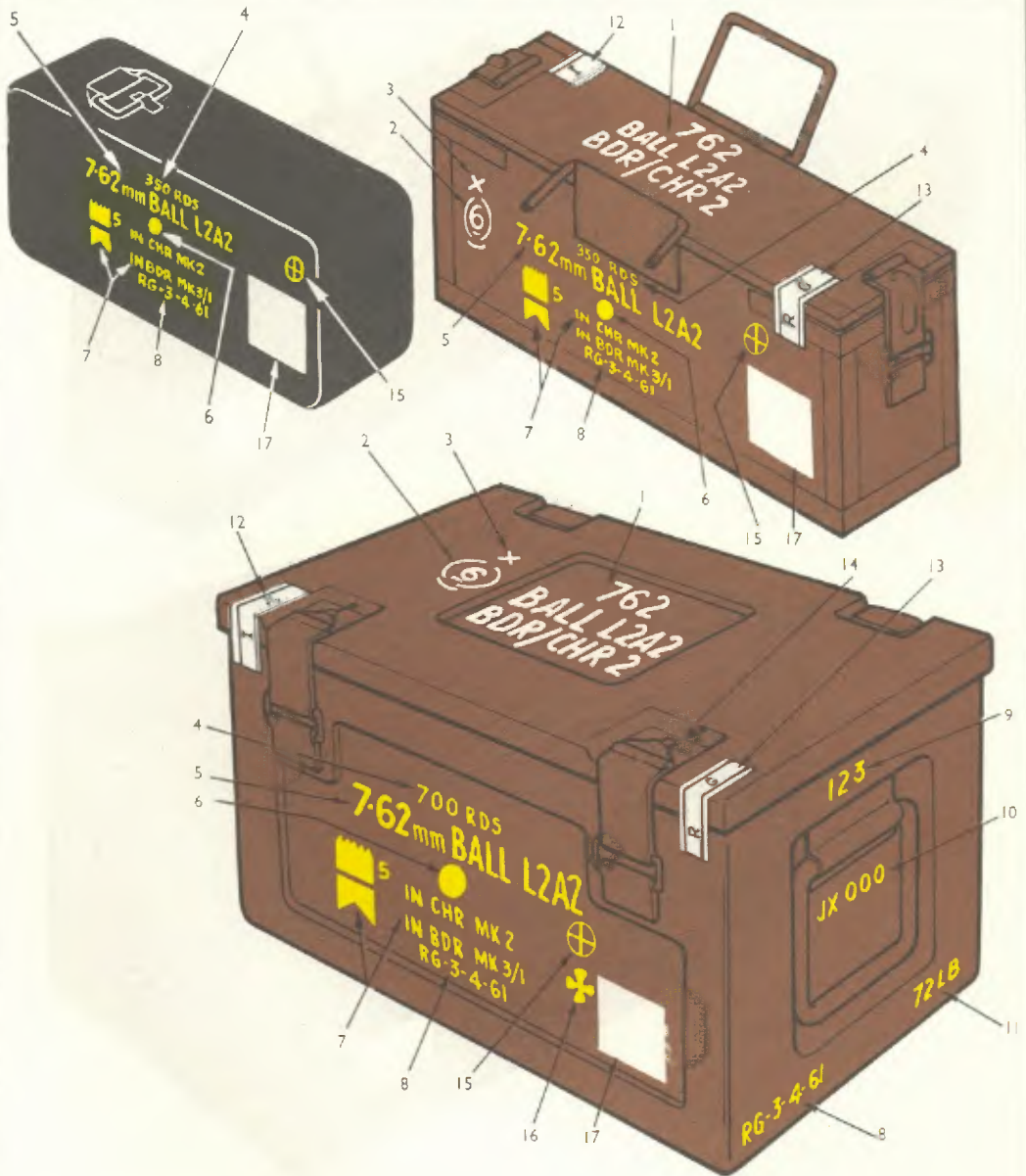
FOR .303 INCH AMMUNITION  
EXAMPLE - .303 INCH BALL CARTRIDGES IN BELTS (METAL BOXES)



- |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ol style="list-style-type: none"> <li>1. OPERATIONAL ABBREVIATION (LAND SERVICE ONLY)</li> <li>2. GOVERNMENT EXPLOSIVES GROUP (AS APPLICABLE)</li> <li>3. SAFETY DISTANCE CATEGORY (AS APPLICABLE)</li> <li>4. NUMBER OF CARTRIDGES PACKED</li> <li>5. ABBREVIATED NOMENCLATURE AND MARK (AS APPLICABLE)</li> <li>6. SYMBOL INDICATING NATURE OF CARTRIDGE</li> <li>7. SYMBOL AND ABBREVIATION INDICATING METHOD OF PACK AND MARK OF BELT</li> <li>8. INITIALS OR MONOGRAM OF MANUFACTURER, DATE OF WORK (DAY, MONTH AND YEAR)</li> </ol> | <ol style="list-style-type: none"> <li>9. PACKAGE SERIAL NUMBER</li> <li>10. STORES REFERENCE NUMBER (NAVAL AND AIR SERVICE ONLY)</li> <li>11. WEIGHT OF FILLED PACKAGE (IN LB.)</li> <li>12. INSPECTION SEALING LABEL</li> <li>13. STATION SEALING LABEL</li> <li>14. SEALFAST</li> <li>15. RESTRICTIVE SENTENCE LABEL (WHERE APPLICABLE)</li> <li>16. CARTRIDGE SYMBOL INDICATING DIRECTION OF BELT FEED</li> </ol> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|



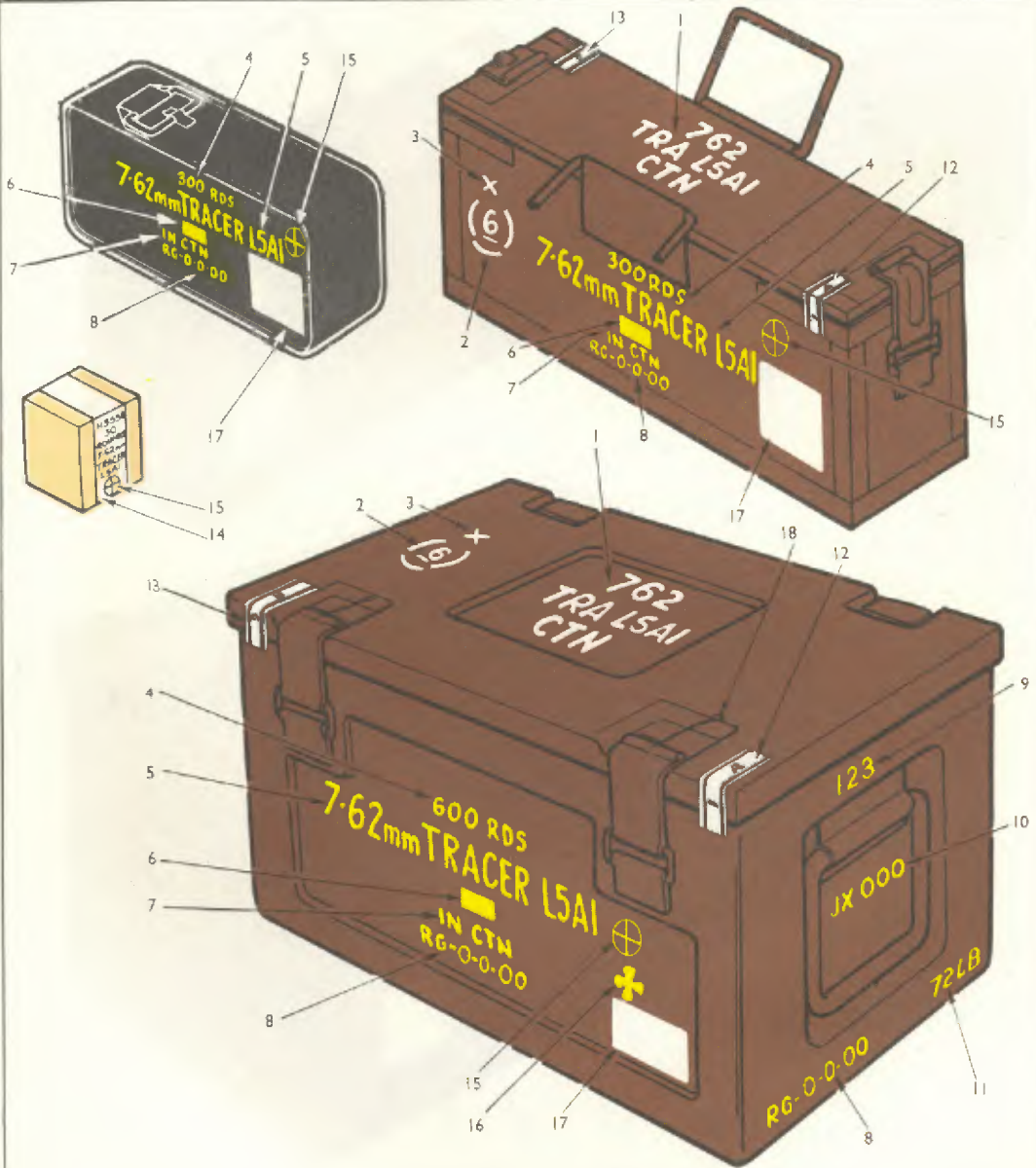
FOR 7.62mm. AMMUNITION  
EXAMPLE 7.62mm. BALL ROUNDS IN CHARGERS AND BANDOLIERS (METAL BOXES)



- |                                                                             |                                                          |
|-----------------------------------------------------------------------------|----------------------------------------------------------|
| 1. OPERATIONAL ABBREVIATION (LAND SERVICE ONLY)                             | 9. PACKAGE SERIAL NUMBER                                 |
| 2. GOVERNMENT EXPLOSIVES GROUP NUMBER (AS APPLICABLE)                       | 10. STORES REFERENCE NUMBER (NAVAL AND AIR SERVICE ONLY) |
| 3. SAFETY DISTANCE CATEGORY (AS APPLICABLE)                                 | 11. WEIGHT OF FILLED PACKAGE (IN LB.)                    |
| 4. NUMBER OF ROUNDS PACKED                                                  | 12. INSPECTION SEALING LABEL                             |
| 5. ABBREVIATED NOMENCLATURE AND MODEL NUMBER<br>(AS APPLICABLE)             | 13. STATION SEALING LABEL                                |
| 6. SYMBOL INDICATING NATURE OF ROUNDS                                       | 14. SEALFAST                                             |
| 7. SYMBOL AND ABBREVIATION INDICATING METHOD AND<br>MARK OF PACK            | 15. NATO DESIGN MARK (IF APPLICABLE)                     |
| 8. INITIALS OR MONOGRAM OF MANUFACTURER, DATE OF WORK (DAY, MONTH AND YEAR) | 16. NATO SYMBOL OF INTERCHANGEABILITY (IF APPLICABLE)    |
|                                                                             | 17. RESTRICTIVE SENTENCE LABEL (WHERE APPLICABLE)        |

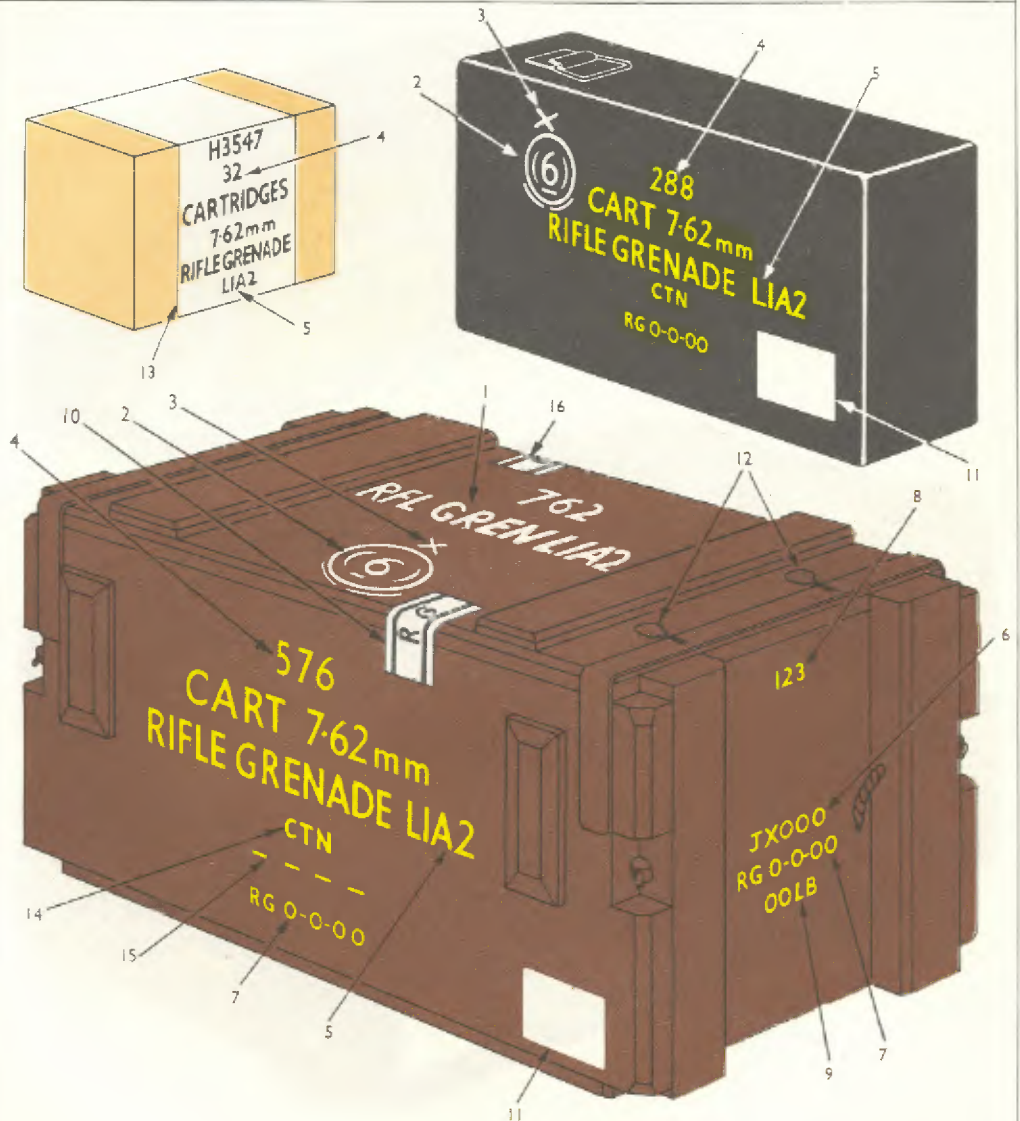
FOR 7.62mm. AMMUNITION

EXAMPLE - 7.62mm. TRACER ROUNDS IN CARTONS (METAL BOXES)



- |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ol style="list-style-type: none"> <li>1. OPERATIONAL ABBREVIATION (LAND SERVICE ONLY)</li> <li>2. GOVERNMENT EXPLOSIVES GROUP (AS APPLICABLE)</li> <li>3. SAFETY DISTANCE CATEGORY (AS APPLICABLE)</li> <li>4. NUMBER OF ROUNDS PACKED</li> <li>5. ABBREVIATED NOMENCLATURE AND MODEL NUMBER (AS APPLICABLE)</li> <li>6. SYMBOL INDICATING NATURE OF ROUNDS</li> <li>7. METHOD OF PACK</li> <li>8. INITIALS OR MONOGRAM OF MANUFACTURER, DATE OF WORK (DAY, MONTH AND YEAR)</li> </ol> | <ol style="list-style-type: none"> <li>9. PACKAGE SERIAL NUMBER</li> <li>10. STORES REFERENCE NUMBER (NAVAL AND AIR SERVICE ONLY)</li> <li>11. WEIGHT OF FILLED PACKAGE (IN LB.)</li> <li>12. INSPECTION SEALING LABEL</li> <li>13. STATION SEALING LABEL</li> <li>14. STRIP BAND (CONTENTS LABEL)</li> <li>15. NATO DESIGN MARK (IF APPLICABLE)</li> <li>16. NATO SYMBOL OF INTERCHANGEABILITY (IF APPLICABLE)</li> <li>17. RESTRICTIVE SENTENCE LABEL (WHERE APPLICABLE)</li> <li>18. SEALFAST</li> </ol> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

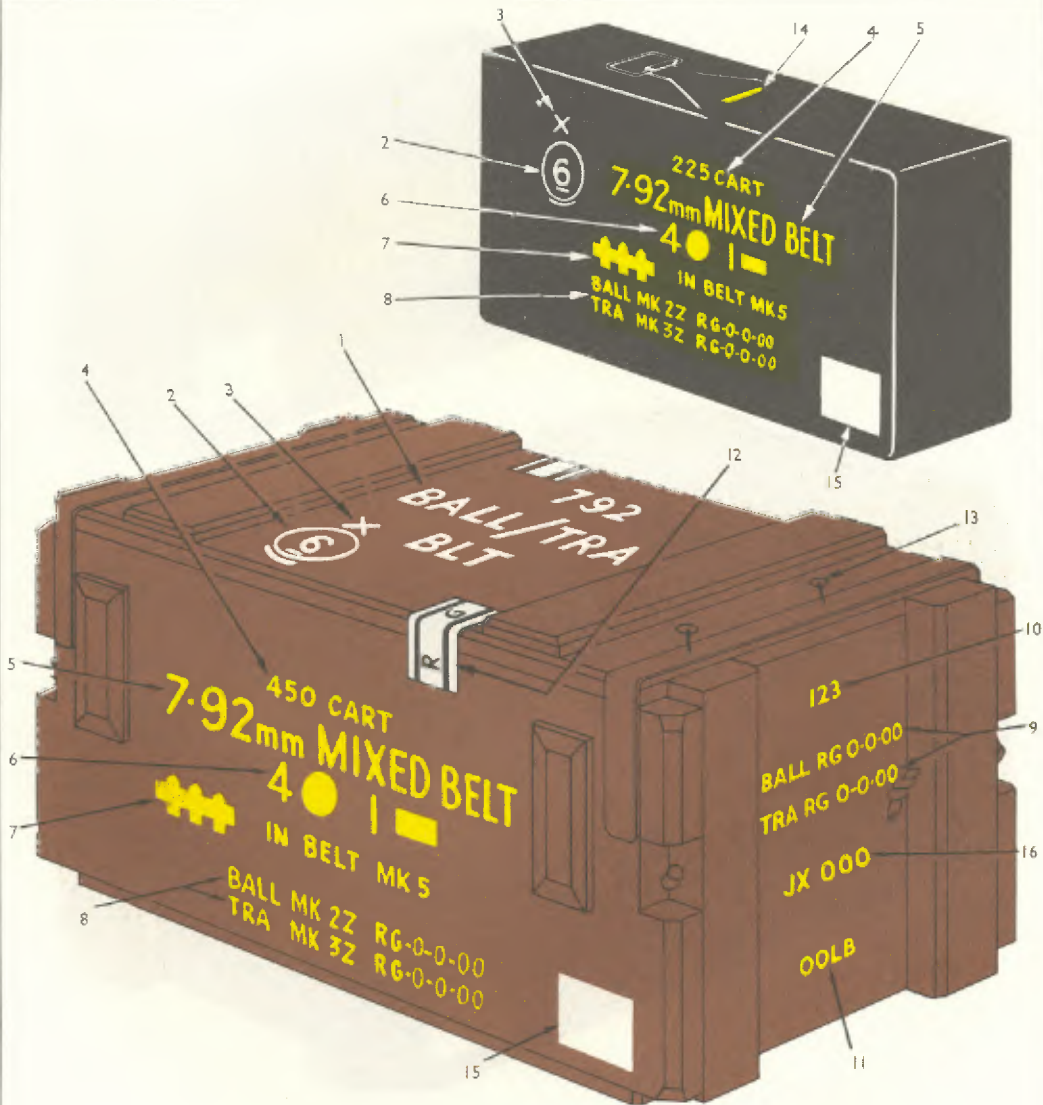
FOR 7.62mm. AMMUNITION  
 EXAMPLE.- RIFLE GRENADE CARTRIDGES IN CARTONS (WOODEN PACKAGE)



- |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                               |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ol style="list-style-type: none"> <li>1. OPERATIONAL ABBREVIATION (LAND SERVICE ONLY)</li> <li>2. GOVERNMENT EXPLOSIVE GROUP<br/>(AS APPLICABLE)</li> <li>3. SAFETY DISTANCE CATEGORY (AS APPLICABLE)</li> <li>4. NUMBER OF CARTRIDGES PACKED</li> <li>5. ABBREVIATED NOMENCLATURE AND MODEL NUMBER<br/>(AS APPLICABLE)</li> <li>6. STORES REFERENCE NUMBER (NAVAL &amp; AIR SERVICE ONLY)</li> <li>7. INITIALS OR MONOGRAM OF MANUFACTURER,<br/>DATE OF WORK (DAY, MONTH &amp; YEAR)</li> </ol> | <ol style="list-style-type: none"> <li>8. PACKAGE SERIAL NUMBER</li> <li>9. WEIGHT OF FILLED PACKAGE (IN LB.)</li> <li>10. STATION SEALING LABEL</li> <li>11. RESTRICTIVE SENTENCE LABEL (WHERE APPLICABLE)</li> <li>12. SEALSFAST</li> <li>13. STRIP BAND (CONTENTS LABEL)</li> <li>14. METHOD OF PACK</li> <li>15. TYPE OF GRENADE(S) WITH WHICH USED<br/>(WHERE POSSIBLE)</li> <li>16. INSPECTION SEALING LABEL</li> </ol> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

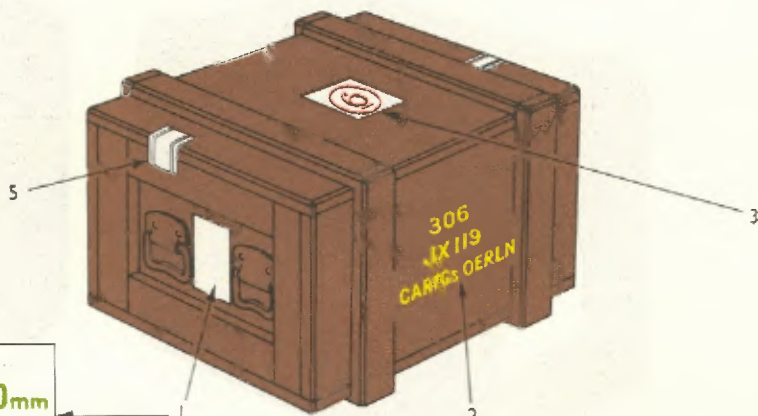
## FOR 7.92mm. AMMUNITION

EXAMPLE - 7.92mm. MIXED BALL AND TRACER CARTRIDGES IN BELTS (WOODEN PACKAGE)



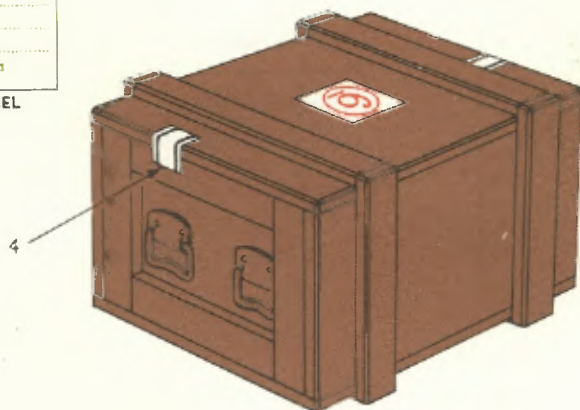
1. OPERATIONAL ABBREVIATION (LAND SERVICE ONLY)
2. GOVERNMENT EXPLOSIVES GROUP (AS APPLICABLE)
3. SAFETY DISTANCE CATEGORY (AS APPLICABLE)
4. NUMBER OF CARTRIDGES PACKED
5. ABBREVIATED NOMENCLATURE (AS APPLICABLE)
6. NUMBER AND SYMBOLS INDICATING QUANTITY AND SEQUENCE OF CARTRIDGES IN BELT
7. SYMBOL AND ABBREVIATION INDICATING METHOD OF PACK AND MARK OF BELT
8. NATURE OF AMMUNITION AND MARK, INITIALS OR MONOGRAM OF MANUFACTURER, DATE OF WORK (DAY, MONTH AND YEAR)
9. NATURE, INITIALS OR MONOGRAM OF MANUFACTURER, AND DATE OF WORK (DAY, MONTH AND YEAR)
10. PACKAGE SERIAL NUMBER
11. WEIGHT OF FILLED PACKAGE (IN LB.)
12. STATION SEALING LABEL
13. SEALFAST
14. CARTRIDGE SYMBOL INDICATING DIRECTION OF BELT FEED
15. RESTRICTIVE SENTENCE LABEL (WHERE APPLICABLE)
16. STORES REFERENCE NUMBER (NAVAL AND AIR SERVICE ONLY)

FOR 20mm. AMMUNITION (NAVAL SERVICE)  
EXAMPLE - 20mm. OERLIKON PRACTICE IN BULK (WOODEN PACKAGE)



|              |       |
|--------------|-------|
| 1X           |       |
| CARTRGS 20mm |       |
| OERLIKON     |       |
| PRACTICE Mk  |       |
| FILLER       | ..... |
| DATE         | ..... |
| LOT          | ..... |
| BAGGED       | ..... |
| DATE         | ..... |
| N 571        |       |

CONTENTS LABEL  
(N 571)

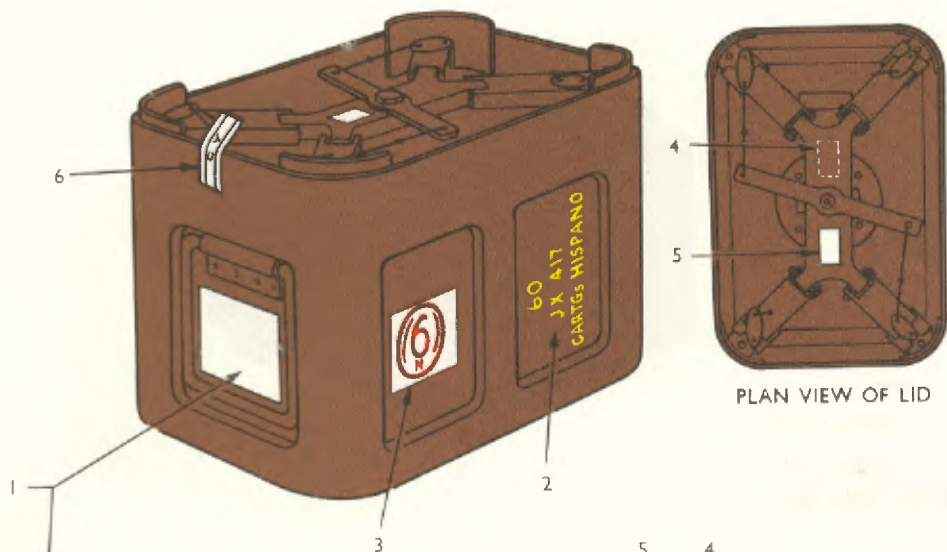


REVERSE SIDE AND END

- 1...CONTENTS LABEL (N. 571 )
- 2...QUANTITY OF ITEMS PACKED AND STORES REFERENCE
- 3...GOVERNMENT EXPLOSIVE GROUP (AS APPLICABLE)
- 4...STATION SEALING LABEL
- 5...INSPECTION SEALING LABEL

FOR 20mm. AMMUNITION (NAVAL SERVICE)

EXAMPLE - 20mm. HISPANO HE/INCDY & SAP/INCDY IN LINKS (METAL PACKAGE)



PLAN VIEW OF LID

LABEL (N. 1304)

JX .....  
 60 CARTRIDGES  
 20 mm. HISPANO  
 H.E.I. MK. & S.A.P.I. MK .....  
 LINKED ALTERNATELY

**L.H. FEED**

|                    | FILLED | DATE             | LOT |
|--------------------|--------|------------------|-----|
| H.E.I.             |        |                  |     |
| S.A.P.I.           |        |                  |     |
| PACKER.....        |        | DATE.....        |     |
| BELTER.....        |        | DATE.....        |     |
| LINKS } MAKER..... |        | END LINK MK..... |     |
| } MARK.....        |        |                  |     |

N. 1304 1177

OR R.H. AS APPLICABLE

LABEL No. 1196

JX .....  
 60 CARTGS 20mm HISPANO  
 H.E.I. MK. & S.A.P.I. MK .....  
 LINKED ALTERNATELY  
**L.H. FEED**

OR R.H. AS APPLICABLE

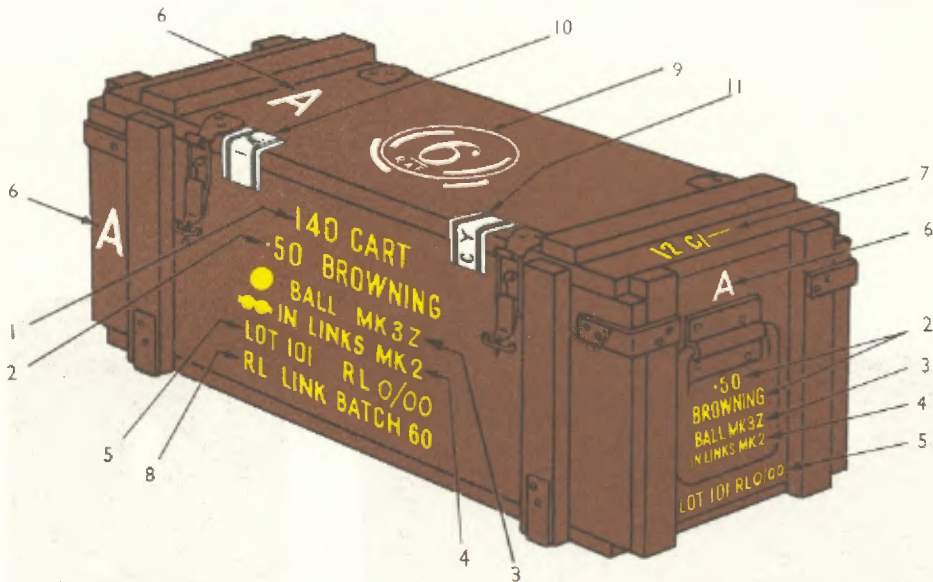
LABEL No. 1198

H.E.I. FILLED.....  
 LOT..... //  
 S.A.P.I. FILLED.....  
 LOT..... //  
 LINKS MK. END LINK MK.....  
 N. 1198-1176

- 1.. CONTENTS LABEL (N. 1304)
- 2.. QUANTITY OF ITEMS PACKED AND STORES REFERENCE
- 3.. GOVERNMENT EXPLOSIVE GROUP (AS APPLICABLE)
- 4.. LABEL No. 1198
- 5.. LABEL No. 1196
- 6.. STATION SEALING LABEL

## FOR .50 INCH AMMUNITION (AIR SERVICE)

EXAMPLE - .50 INCH BROWNING BALL IN LINKS (WOODEN PACKAGE)



- |                                                                                              |                                                                           |
|----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| 1.... NUMBER OF ROUNDS                                                                       | 7.... STORES REFERENCE NUMBER                                             |
| 2.... CALIBRE                                                                                | 8.... MANUFACTURERS RECOGNIZED MARK OR INITIALS AND BATCH NUMBER OF LINKS |
| 3.... NATURE AND MARK OF ROUNDS                                                              | 9.... GOVERNMENT EXPLOSIVE GROUP (LABEL OR STENCIL)                       |
| 4.... METHOD OF PACKING AND MARK OF LINKS                                                    | 10... INSPECTION SEALING LABEL                                            |
| 5.... LOT NUMBER, RECOGNIZED MARK OR INITIALS OF FILLER AND DATE OF FILLING (MONTH AND YEAR) | 11.... STATION SEALING LABEL                                              |
| 6.... 'A' DENOTING GRADE A AMMUNITION                                                        |                                                                           |



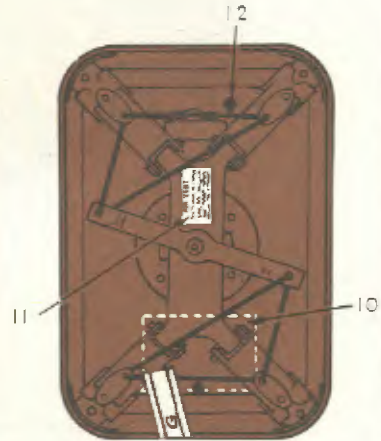
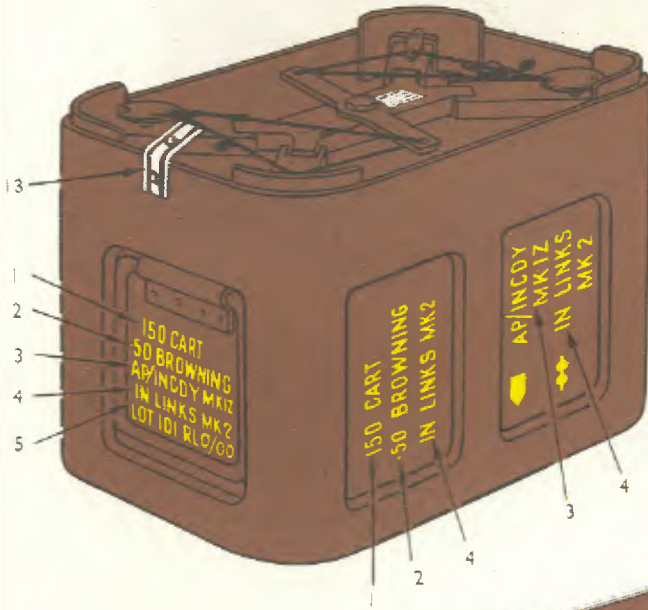
SYMBOL INDICATING NATURE OF BULLET

SYMBOL INDICATING TYPE OF PACK



FOR .50 INCH AMMUNITION (AIR SERVICE)

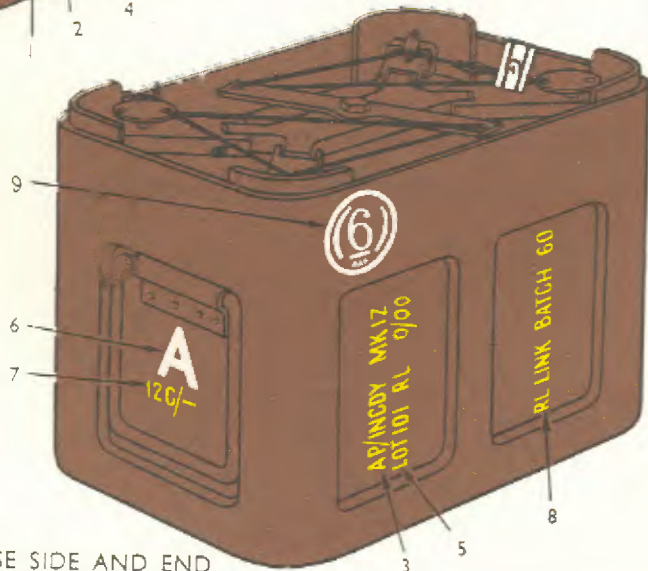
EXAMPLE - .50 INCH BROWNING AP/INCDY IN LINKS (METAL PACKAGE)

- |                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>1.... NUMBER OF ROUNDS<br/>                 2.... CALIBRE<br/>                 3.... NATURE OF ROUNDS<br/>                 4.... METHOD OF PACKING AND MARK OF LINKS<br/>                 5.... LOT NUMBER, RECOGNIZED MARK OR INITIALS OF FILLER AND DATE OF FILLING (MONTH AND YEAR)<br/>                 6.... 'A' DENOTING GRADE A AMMUNITION<br/>                 7.... STORES REFERENCE NUMBER</p> | <p>8.... MANUFACTURERS RECOGNIZED MARK OR INITIALS AND BATCH NUMBER OF LINKS<br/>                 9.... GOVERNMENT EXPLOSIVE GROUP (AS APPLICABLE - LABEL OR STENCIL)<br/>                 10.... PACKERS LABEL (No. L 566A or B) (UNDER LID)<br/>                 11.... INSTRUCTIONAL LABEL (IF AIR VENT PRESENT)<br/>                 12.... LEAD INSPECTION SEALS (2)<br/>                 13.... STATION SEALING LABEL</p> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|



PLAN VIEW OF LID

-  SYMBOL INDICATING NATURE OF BULLET
-  SYMBOL INDICATING TYPE OF PACK

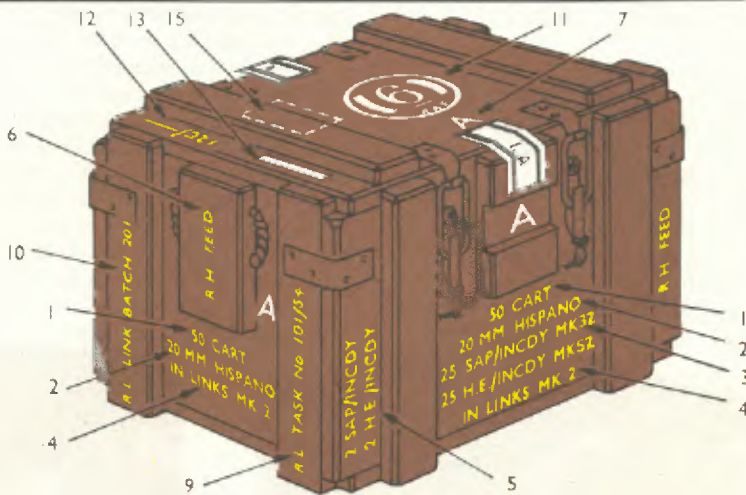


REVERSE SIDE AND END

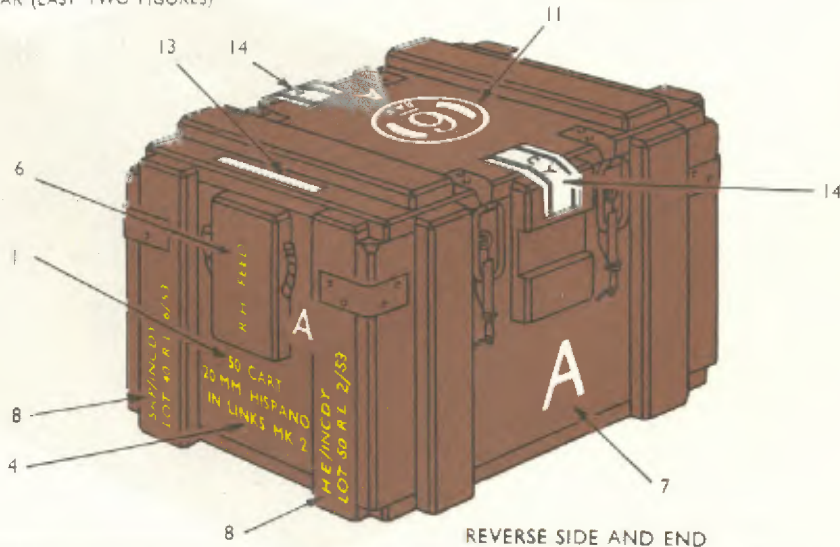


FOR 20mm. AMMUNITION (AIR SERVICE)

EXAMPLE — 20mm. HISPANO HE/INCNDY & SAP/INCNDY IN LINKS (WOODEN PACKAGE)



- |                                                                                                      |                                                                            |
|------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|
| 1.... NUMBER OF ROUNDS                                                                               | 10.... MANUFACTURERS RECOGNIZED MARK OR INITIALS AND BATCH NUMBER OF LINKS |
| 2.... CALIBRE                                                                                        | 11.... GOVERNMENT EXPLOSIVE GROUP (LABEL OR STENCIL)                       |
| 3.... QUANTITY, NATURE AND MARK OF ROUNDS                                                            | 12.... STORES REFERENCE NUMBER                                             |
| 4.... METHOD OF PACKING AND MARK OF LINKS                                                            | 13.... TEMPERATURE LABEL (H 2271 A)                                        |
| 5.... SEQUENCE, OF ROUNDS IN BELT                                                                    | 14.... INSPECTION SEALING LABELS (2)                                       |
| 6.... L.H. OR R.H. (AS APPLICABLE)                                                                   | 15.... PACKERS LABEL (L 566 A or B) (UNDER LID)                            |
| 7.... 'A' DENOTING GRADE A AMMUNITION                                                                |                                                                            |
| 8.... NATURE, LOT NUMBER, RECOGNIZED MARK OR INITIALS OF FILLER AND DATE OF FILLING (MONTH AND YEAR) |                                                                            |
| 9.... RECOGNIZED MARK OR INITIALS OF BELTING UNIT, TASK NUMBER AND YEAR (LAST TWO FIGURES)           |                                                                            |

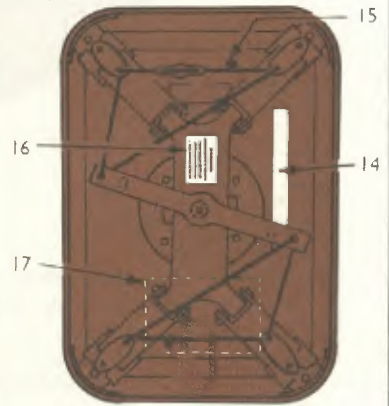
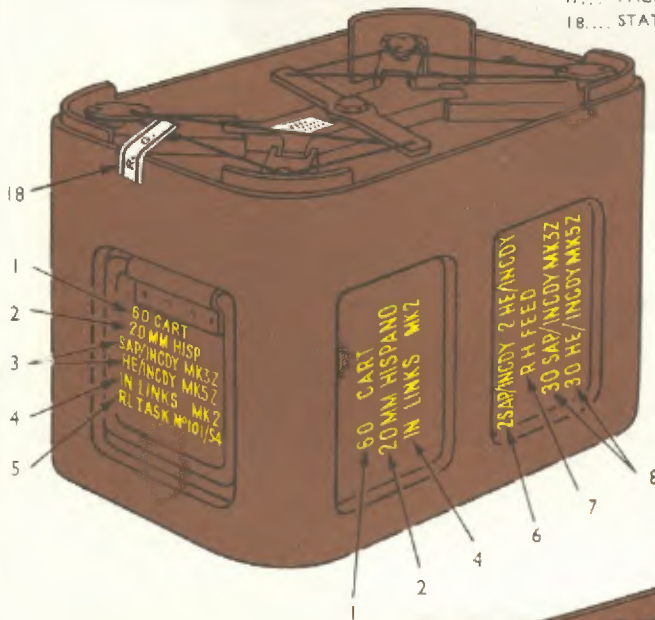


REVERSE SIDE AND END

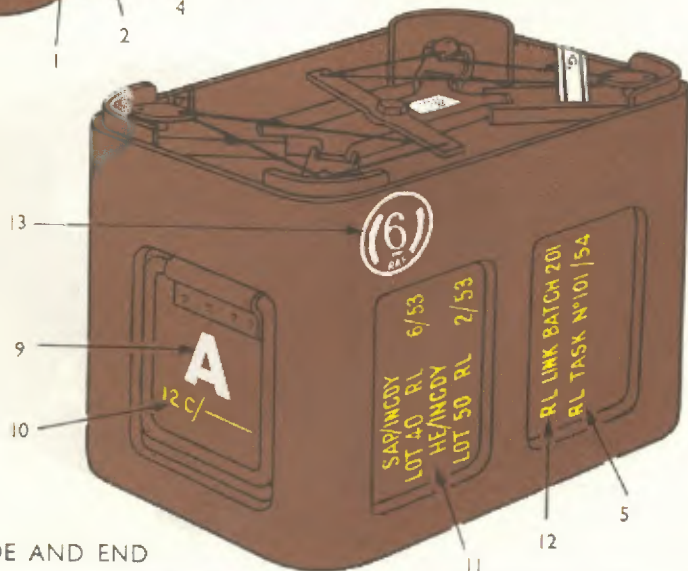
FOR 20mm. AMMUNITION (AIR SERVICE)

EXAMPLE - 20mm. HISPANO HE/INCDY & SAP/INCDY IN LINKS (METAL PACKAGE)

- |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ol style="list-style-type: none"> <li>1... NUMBER OF ROUNDS</li> <li>2... CALIBRE</li> <li>3... NATURE OF ROUNDS</li> <li>4... METHOD OF PACKING AND MARK OF LINKS</li> <li>5... RECOGNIZED MARK OR INITIALS OF BELTING UNIT, TASK NUMBER AND YEAR (LAST TWO FIGURES)</li> <li>6... SEQUENCE OF ROUNDS IN BELT</li> <li>7... LH or RH (AS APPLICABLE)</li> <li>8... QUANTITY, NATURE AND MARK OF ROUNDS IN BELT</li> <li>9... 'A' DENOTING GRADE A AMMUNITION</li> </ol> | <ol style="list-style-type: none"> <li>10... STORES REFERENCE NUMBER</li> <li>11... NATURE, LOT NUMBER, RECOGNIZED MARK OR INITIALS OF FILLER AND DATE OF FILLING (MONTH AND YEAR)</li> <li>12... MANUFACTURERS RECOGNIZED MARK OR INITIALS AND BATCH NUMBER OF LINKS</li> <li>13... GOVERNMENT EXPLOSIVE GROUP (AS APPLICABLE - LABEL OR STENCIL)</li> <li>14... TEMPERATURE LABEL (H 2271 A)</li> <li>15... LEAD INSPECTION SEALS (2)</li> <li>16... INSTRUCTIONAL LABEL (IF AIR VENT PRESENT)</li> <li>17... PACKERS LABEL (L 566 A or B) (UNDER LID)</li> <li>18... STATION SEALING LABEL</li> </ol> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|



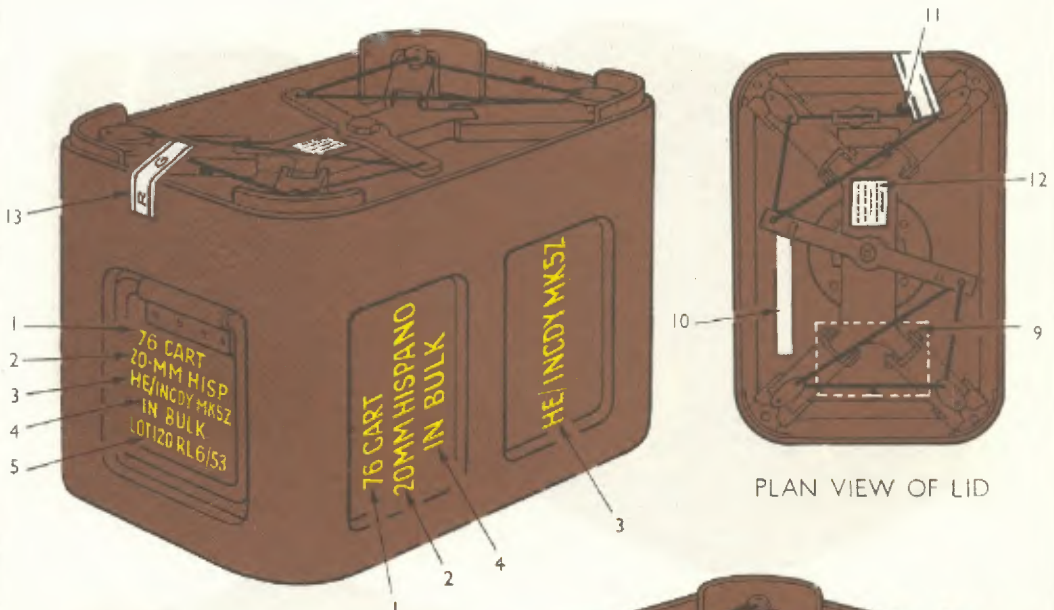
PLAN VIEW OF LID



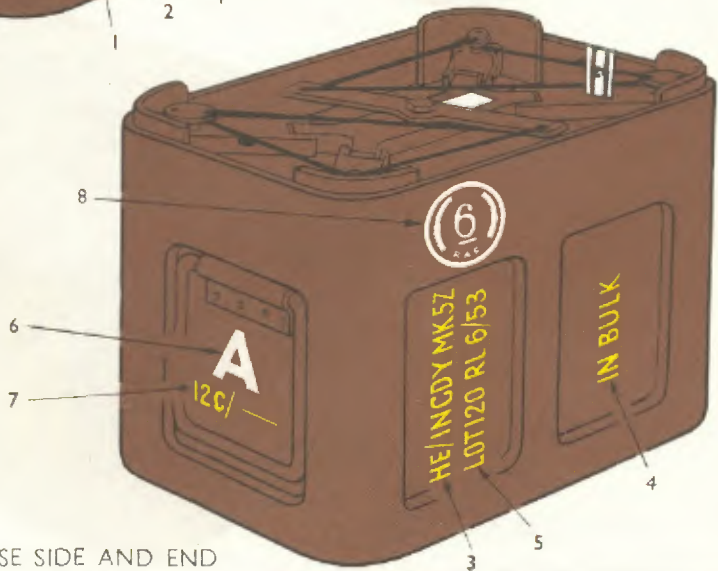
REVERSE SIDE AND END

FOR 20mm. AMMUNITION (AIR SERVICE)  
 EXAMPLE -20mm. HISPANO HE/INCDY IN BULK (METAL PACKAGE)

- |                                                                                             |                                                                    |
|---------------------------------------------------------------------------------------------|--------------------------------------------------------------------|
| 1... NUMBER OF ROUNDS                                                                       | 7... STORES REFERENCE NUMBER                                       |
| 2... CALIBRE                                                                                | 8... GOVERNMENT EXPLOSIVE GROUP (AS APPLICABLE - LABEL OR STENCIL) |
| 3... NATURE OF ROUNDS                                                                       | 9... PACKERS LABEL (No. L566A or B)                                |
| 4... METHOD OF PACKING                                                                      | 10... TEMPERATURE LABEL (H 2271 A)                                 |
| 5... LOT NUMBER, RECOGNIZED MARK OR INITIALS OF FILLER AND DATE OF FILLING (MONTH AND YEAR) | 11... LEAD INSPECTION SEALS (2)                                    |
| 6... 'A' DENOTING GRADE A AMMUNITION                                                        | 12... INSTRUCTIONAL LABEL (IF AIR VENT PRESENT)                    |
|                                                                                             | 13... STATION SEALING LABEL                                        |



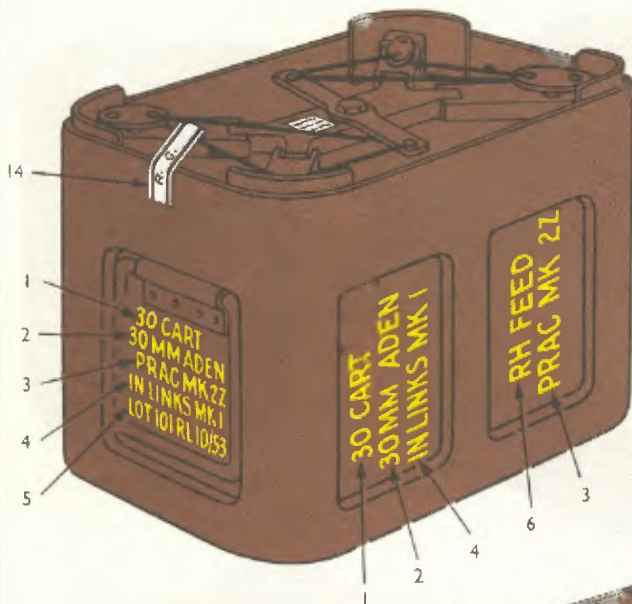
PLAN VIEW OF LID



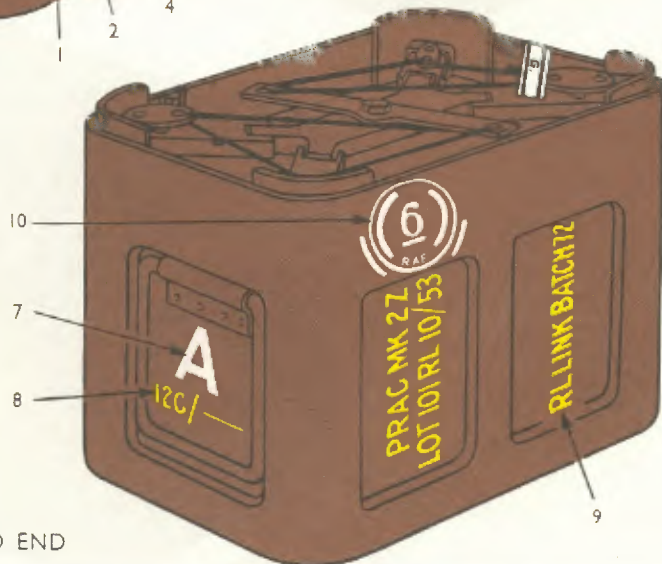
REVERSE SIDE AND END

FOR 30mm. AMMUNITION (AIR SERVICE)  
 EXAMPLE - 30mm. ADEN PRACTICE IN LINKS (METAL PACKAGE)

- |                                                                                                   |                                                                             |
|---------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1... NUMBER OF ROUNDS                                                                             | 8... STORES REFERENCE NUMBER                                                |
| 2... CALIBRE                                                                                      | 9... MANUFACTURERS RECOGNIZED MARK<br>OR INITIALS AND BATCH NUMBER OF LINKS |
| 3... NATURE OF ROUNDS                                                                             | 10... GOVERNMENT EXPLOSIVE GROUP (AS<br>APPLICABLE - LABEL OR STENCIL)      |
| 4... METHOD OF PACKING AND MARK OF LINKS                                                          | 11... PACKERS LABEL (No. L566A or B)                                        |
| 5... LOT NUMBER, RECOGNIZED MARK OR<br>INITIALS OF FILLER AND DATE OF FILLING<br>(MONTH AND YEAR) | 12... LEAD INSPECTION SEALS (2)                                             |
| 6... LH or RH (AS APPLICABLE)                                                                     | 13... INSTRUCTIONAL LABEL (IF AIR VENT PRESENT)                             |
| 7... 'A' DENOTING GRADE A AMMUNITION                                                              | 14... STATION SEALING LABEL                                                 |



PLAN VIEW OF LID



REVERSE SIDE AND END

SPECIAL SYMBOLS  
NATO SYMBOLS TO DENOTE NATURE OF BULLETS (STANAG 2316)

I. BASIC SYMBOLS

FIG.1 BALL



FIG.2 TRACER

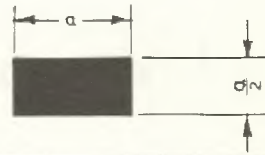


FIG.3 ARMOUR PIERCING

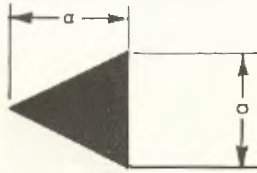


FIG.4 INCENDIARY

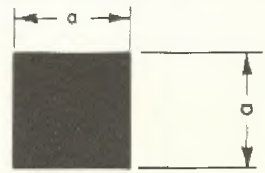


FIG.5 OBSERVING

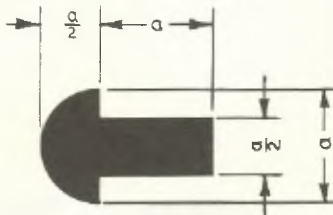
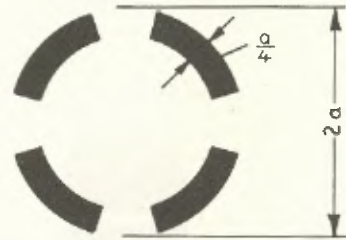


FIG.6 BLANK



II. COMBINED SYMBOLS

More than one of the above natures shall be indicated by a combination of the appropriate symbols

FIG.7 ARMOUR PIERCING INCENDIARY

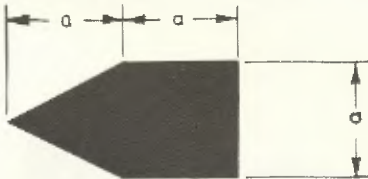


FIG.8 ARMOUR PIERCING TRACER

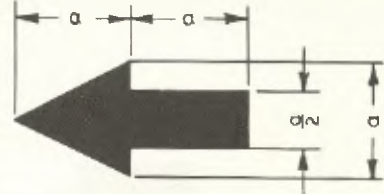


FIG.9 ARMOUR PIERCING INCENDIARY TRACER

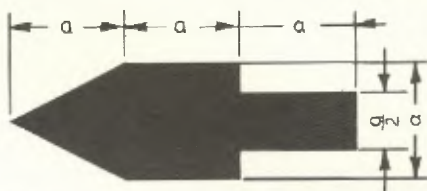
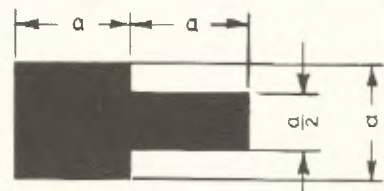


FIG.10 INCENDIARY TRACER



Note:-  $a$  = height of the letters used for nomenclature and calibre

SPECIAL SYMBOLS  
 NATO SYMBOLS TO DENOTE TYPE OF PACK (STANAG 2316)

FIG.1 LINKED

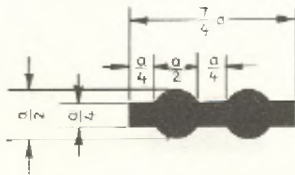


FIG.2 BELTED

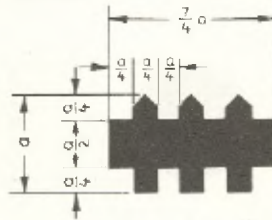


FIG.3 CLIP OR CHARGER

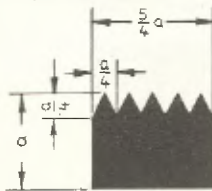


FIG.4 BANDOLIER

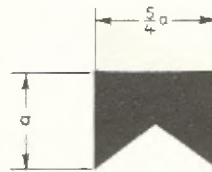


FIG.5 BANDOLIER CONTAINING CLIPS OR CHARGERS

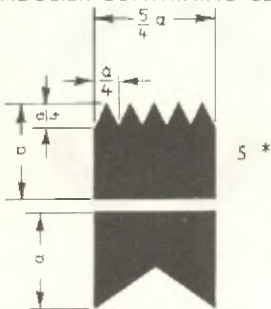


FIG.6 BANDOLIER CONTAINING LINKED ROUNDS

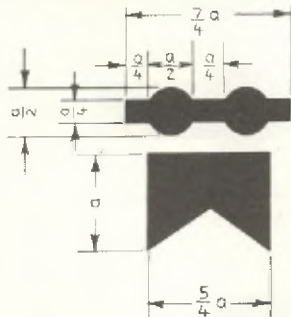


FIG.7 BULK/CARTON

No Symbol

Notes:- 1. a = height of the letters for nomenclature and calibre  
 2. \* = A figure placed near the symbol represents the number of rounds in the clip or charger

SPECIAL SYMBOLS

FIG.1 NATO DESIGN MARK (STANAG 2320)

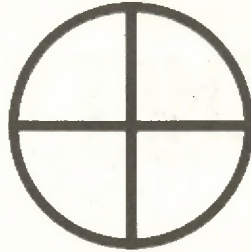


FIG.2 NATO SYMBOL OF INTERCHANGEABILITY (STANAG 2315)



FIG.3 U.S./U.K. SYMBOL DENOTING STANDARDIZED DESIGN



LABELS FOR AMMUNITION PACKAGES

FIG.1 "RETURN" PACKAGE LABEL

**EMPTY**  
(FREE FROM EXPLOSIVE)

SIGNATURE OF EXAMINATION  
OFFICER .....

MONOGRAM .....  
OF STATION

DATE .....

BLACK LETTERING  
ON WHITE LABEL

FIG.2 INSPECTION LABELS

LAND AND AIR SERVICES

**I. A.**

NAVAL SERVICE

C.I.N.O. 166

**I. N. O.**

FIG.3 STATION LABELS

LAND AND AIR SERVICES

L 606

**R. G.**

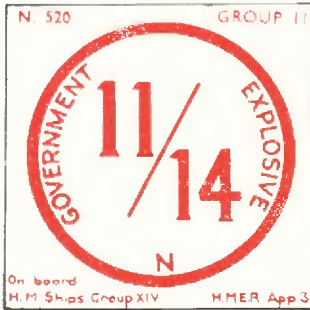
NAVAL SERVICE

N 304

**D. P.**



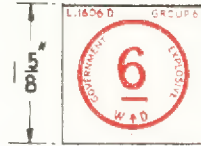
TYPICAL GOVERNMENT EXPLOSIVE GROUP LABELS



NAVAL SERVICE COMPOSITE  
(LARGE)



NAVAL SERVICE (LARGE)



LAND SERVICE  
(SMALL)



LAND SERVICE (LARGE)



LAND SERVICE - SAFETY CLASS  
(LARGE)



AIR SERVICE (LARGE)

RESTRICTED

The information given in this document is not to be communicated, either directly or indirectly, to the Press or to any person not authorized to receive it.

JOINT SERVICES  
 AMMUNITION AND AMMUNITION  
 PACKAGE MARKINGS HANDBOOK

Section 6, Part 1

SMALL ARMS AMMUNITION

(EXCLUDING 20 MM. AND 30 MM.)

1961

*(Supersedes Section 6 Part 1 1952 edition)*

*Promulgated by Command of Their Lordships*

*J. G. Lang*

*Promulgated by Command of The Army Council*

*R. G. W. Day*

*Promulgated by Command of The Air Council*

*H. J. Bean*



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C—continued

|                                                                  | Para.        |
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## RESTRICTED

## INTRODUCTION

1. The general principles of colour identification, and details of markings in this Section follow those laid down in Section 1, "General Introduction" which should be read in conjunction with it. There are exceptions, and some of these are explained by examples.

Reference is made in this section to the following:—

STANAG No. 2316—Marking of ammunition (and its packaging) of a calibre below 20 mm.

STANAG No. 2320—N.A.T.O. Design Mark.

2. Small Arms Ammunition (S.A.A.) referred to in this Section has been taken to include ammunition used in Service weapons of calibre less than 1-inch. For this reason shotgun ammunition, used in sporting guns, has not been included.
3. A round of S.A.A. consists of a case, ignition system, propellant and bullet, and the practice has been to call such an association of components "a cartridge". In the Land Service however, new designs are being introduced into the Service as "Rounds", the term "Cartridge" being restricted to unbulleted S.A.A. e.g., blank (unbulleted), and rifle grenade ammunition, and to bulleted ammunition obtained from trade sources.
4. The cap and anvil ignition system is most widely used in Service ammunition although a rim-fire design is employed in .22 inch cartridges. British design of the cap and anvil method has the anvil integral with the case and two fire-holes leading through to the propellant charge. A few American designs employ a single fire-hole placed centrally beneath a separate anvil. In the rim-fire design, a rim-fire composition is run round the hollow case rim. It is ignited when the rim is crushed by the striker against the face of the breech.

## METHODS OF IDENTIFICATION—GENERAL

5. The following methods of identification or a combination of these methods may be used:—

Stampings on base

Colour of cartridge case

Colour of annulus

Colour of bullet and/or bullet tip

For typical examples of the above *see* Plates 1 to 5.

6. The distinctive colours of paints, varnishes or lacquers used will be as follows:—

White

Black

Silver

Azure blue

Signal red

Brilliant green

Golden yellow

Brown (approximating to B.S. Colour No. 448)

Purple

## STAMPINGS

7. The following details will be stamped on the base of the cartridge case:—

\*Manufacturer's initials or recognized monogram (may be omitted from base of .22 inch calibre cartridges of trade supply)

Mark or model number (except .22 inch calibre cartridges of trade supply and .30 inch Browning)

Last two figures of year of manufacture (may be omitted from base of .22 inch calibre cartridges of trade supply)

\*Note.—These consist of one or more letters indicating the manufacturer or filling factory. In the case of R.O.Fs. a broad arrow symbol may be inserted between the letters.

### 8. Calibres

The calibres will also be stamped on the base of the cartridge case of all natures of the following S.A.A.:—

.30 inch carbine and Browning

.310 inch horse-killer

.380 inch revolver

.50 inch Browning

7.62 mm. (ball L2A1, rifle grenade L1A1 and L1A2, drill L1A1 and L1A2, and proof L4A1 rounds only)

9 mm.

### 9. Markings to indicate nature of round or cartridge

(a) All natures, except ball, of .303 inch, .380 inch, .50 inch Browning, 7.92 mm. and 9 mm. S.A.A. will bear a code letter or letters stamped before the mark on the base of the cartridge case to indicate the nature of the round or cartridge. Details of these code letters are given in Table 1.

(b) S.A.A. introduced for new designs of weapons, for example 7.62 mm. ammunition, is allocated a model number which is included in the designation of the ammunition and is stamped on the base of the cartridge case. This model number indicates the nature (i.e. ball, tracer, rifle grenade, blank, etc.) as well as the pattern (formerly the mark) of the round or cartridge.

(c) For other markings to indicate nature of round or cartridges, *see para. 15.*

### 10. Code letter indicating nature of propellant

Where a propellant other than cordite is used, a code suffix letter will be added to the base markings stamped on the cartridge case after the mark or model number. The code letters used are T indicating black powder and Z indicating any propellant other than cordite or black powder, e.g. ballistite, neonite.

A code letter indicating nature of propellant is **not** marked on the base of 7.62 mm. S.A.A.

### 11. N.A.T.O. design mark (Stanag No. 2320)

The N.A.T.O. design mark, comprising a cross inside a circle, will be stamped, when applicable, on the base of the cartridge case to denote for the benefit of N.A.T.O. armed forces that the ammunition has been manufactured to a design which satisfies a N.A.T.O. Standardization Agreement.

### COLOUR OF CARTRIDGE CASE

12. This will normally be in the natural finish of the metal employed, i.e. brass, except in respect of the following:—
- (a) *Proof rounds or cartridges.* These have the whole of the cartridge case copper-plated (red-dened) to render them instantly distinguishable. **This ammunition, which is intended solely for the high pressure testing of weapons, will not, in any circumstances, be used by the Services.** Although Proof ammunition will not normally be encountered the information concerning its identification markings is included to enable it to be readily recognized if found.
  - (b) *Drill rounds or cartridges.* These will be identified as follows:—
    - (i) The whole of the cartridge case will be chromium plated.
    - (ii) Three elongated flutes or indents (usually painted red) will be formed around the sides of the cartridge case.
    - (iii) The cap chamber (with anvil removed) will be left empty and may be coloured red.
  - (c) *Inspection rounds or cartridges.* The cartridge cases will be chromium plated and the cap chamber (with anvil removed) will be left empty. Certain rounds have the bullet also chromium plated.  
 .50 inch inspection rounds will, in addition, have three equidistant spaced holes, .25 inch diameter, drilled in the wall of the case  $1\frac{1}{2}$  inches from the base.  
 7.92 mm. mark 2 inspection rounds will have three elongated flutes spaced equidistant around the side of the cartridge case.
  - (d) *Cartridges for discharging grenades or smoke generators or for line throwing.* These will be unbulleted. They will normally have the whole or part of the length of the cartridge case blackened. The mouth of the case may be sealed by crimping or by turning over the lip on to a closing cup secured in the mouth of the case by shellac.
    - (i) The .303 inch H mark 1Z cartridge is identifiable by the mouth being closed by a cup of approved board and by half of the case length from the mouth being coloured black. This is used for .303 inch rifles fitted with a grenade discharger cup, *see Fig. 1 Plate 2.*
    - (ii) The .303 inch H mark 7Z cartridge is identifiable by the mouth being closed by crimping and by half of the case length from the base being coloured black *see Fig. 1 Plate 2.* The 7.62 mm. rifle grenade cartridges, models L1A1 and L1A2 are also similarly identified, *see Fig. 2 Plate 3.* These cartridges are for use with grenade, Rifle, No. 94.
- Note.**—Unbulleted blank may appear very similar to the above cartridges but the cartridge cases will be left entirely in their natural colour. The mouth is closed by crimping.

### COLOUR OF ANNULUS

13. The annulus (i.e. the joint where the percussion cap fits into the base of the cartridge case) of all S.A.A. will be sealed with approved varnish or lacquer to prevent the ingress of moisture. The colours of the varnish or lacquer will also serve to identify the nature of round or cartridge and will be as shown in **Table 1** and **Plate 4.**

### COLOUR OF BULLET AND/OR BULLET TIPS

14. In general, all bullets are left in the natural colour of the material from which manufactured. An exception, however, occurs with bulleted blank, where the whole of the bullet is coloured blue. (**Note.** Some old pattern .303 inch bulleted blank have the bullet coloured yellow.)



15. Bullet tips—identification colours

(a) Certain natures, except ball, of S.A.A. including .22 inch R.F. tracer ammunition, are identifiable by the tip of the bullet bearing a distinctive colour (for details of these, see Table 2 and Plates 3 and 5). When tips of bullets are coloured, the code letter indicating the nature (see para. 9 (a) and Table 1) will not normally be included in the details stamped on the base of the cartridge case.

(b) All S.A.A. manufactured in the United Kingdom after the date of implementation of STANAG No. 2316 will primarily be identified by bullet tip colours where appropriate, as follows:—

|                            |     |     |     |     |     |     |     |     |            |
|----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|------------|
| Ball                       | ... | ... | ... | ... | ... | ... | ... | ... | uncoloured |
| Tracer                     | ... | ... | ... | ... | ... | ... | ... | ... | red        |
| Armour piercing            | ... | ... | ... | ... | ... | ... | ... | ... | black      |
| Armour piercing incendiary | ... | ... | ... | ... | ... | ... | ... | ... | silver     |
| Observing                  | ... | ... | ... | ... | ... | ... | ... | ... | yellow     |
| Incendiary                 | ... | ... | ... | ... | ... | ... | ... | ... | blue       |

Combinations of these roles shall be indicated by a combination of the appropriate colours.

**TABLE 1**  
**CODE LETTERS AND COLOURS OF ANNULUS**  
**INDICATING NATURE OF ROUND OR CARTRIDGE**  
**FOR CALIBRES OF S.A.A. LISTED IN PARA. 9 OF TEXT**

| Item No. | Nature                      | Code letter stamped on base | Colour of annulus | Remarks                                                                                                                                                                                   |
|----------|-----------------------------|-----------------------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1        | Ball                        | Nil                         | Purple            |                                                                                                                                                                                           |
| 2        | A.P.                        | W                           | Green             |                                                                                                                                                                                           |
| 3        | Semi A.P.                   | F                           | Green             |                                                                                                                                                                                           |
| 4        | Tracer                      | G                           | Red               | Note. The annulus of .50 inch Browning, Mk. 6Z and .30 inch Browning, Mk. 1Z Tracer cartridges is coloured purple.                                                                        |
| 5        | Incendiary                  | B                           | Blue              |                                                                                                                                                                                           |
| 6        | Proof                       | Q                           | Yellow            | Special cartridges for high pressure testing of weapons. <b>NOT FOR SERVICE USE.</b>                                                                                                      |
| 7        | Blank                       | L                           | Colourless        | See Note 1 below. May not bear code letter.                                                                                                                                               |
| 8        | Drill                       | D                           | Empty cap chamber | For drill purposes only.                                                                                                                                                                  |
| 9        | Inspection (formerly dummy) | U                           | Empty cap chamber | For armourer's use only.                                                                                                                                                                  |
| 10       | Observing                   | O                           | Black             | For training purposes. Gives visual indication on strike.                                                                                                                                 |
| 11       | Explosive                   | R                           | Black             |                                                                                                                                                                                           |
| 12       | Rifle grenade               | H                           | Colourless        | Caps not ringed in.                                                                                                                                                                       |
| 13       | Smoke discharger            | E                           | Colourless        | Caps not ringed in.                                                                                                                                                                       |
| 14       | Practice                    | P                           | See Remarks       | Not normally met with in the Service, but may be introduced in an emergency. The annulus colour will be that of the parent type, e.g. ball/practice; tracer/practice; A.P./practice; etc. |

**NOTES.** 1. Blank ammunition is an exception to the cartridge code letter markings laid down in **Table 1** above. Although blank assembled from 1st grade cartridge cases bears the correct code letter and mark or model number on its base, blank ammunition may be made up from 2nd grade cases bearing the code letter and mark or model number of any nature of bulleted ammunition. The latter can be distinguished from the nature whose markings it bears by the absence of both a coloured varnished annulus and ringing to retain the percussion cap, as well as by the absence of a bullet.

2. Where a particular round or cartridge possesses more than one characteristic, e.g. A.P./tracer, all the relevant code letters are stamped on the base and the colour of the varnished annulus will be governed by the following order of precedence:—

**Q, O, R, W, F, B, G, P**

(e.g. A.P./tracer, whose code identification letters are W and G respectively, will be stamped WG and have the annulus varnished green.)

TABLE 2

IDENTIFICATION DETAILS

| Item No. | Calibre                                                             | Nature   | Colour of cartridge case                                                  | Stampings on base of cartridge case |   |   |   |   |   |    |    | Colour of annulus                          |                             | Colour of |                                                                             | Remarks |
|----------|---------------------------------------------------------------------|----------|---------------------------------------------------------------------------|-------------------------------------|---|---|---|---|---|----|----|--------------------------------------------|-----------------------------|-----------|-----------------------------------------------------------------------------|---------|
|          |                                                                     |          |                                                                           | 4                                   | 5 | 6 | 7 | 8 | 9 | 10 | 11 | bullet                                     | bullet tip                  |           |                                                                             |         |
| 1        | .22 inch (Rimfire)                                                  | Ball     | Brass (natural colour), copper, zinc, cupro nickel alloy or gilding metal | —                                   | * | — | — | — | — | —  | —  | 12                                         | 13                          | 14        | Trade supply.                                                               |         |
| 2        |                                                                     | Tracer   | Brass (natural colour), copper, zinc, cupro nickel alloy or gilding metal | —                                   | * | — | — | — | — | —  | —  | Lead alloy (natural colour)                | —                           | —         | Trade supply.<br>Only means of identification.                              |         |
| 3        | .22 inch (Rimfire) for 'Cash' captive bolt pistol                   | 2 grain  | Brass (natural colour)                                                    | —                                   | * | — | — | — | — | —  | —  | No bullet - mouth of case crimped          | Crimp coloured blue         | —         | Trade supply - known as "Blue label".                                       |         |
| 4        |                                                                     | 1½ grain | Brass (natural colour)                                                    | —                                   | * | — | — | — | — | —  | —  | No bullet - mouth of case crimped          | —                           | —         | Trade supply - known as "Yellow label".                                     |         |
| 5        | .22 inch (Rimfire) cartridge, seat ejection, secondary, No. 5 Mk. 1 | 3 grain  | Gilding metal                                                             | —                                   | * | — | — | — | — | —  | —  | No bullet - mouth of case spun over on wad | Closure wad coloured yellow | —         | Air Service.<br>Only means of identification except for label on container. |         |

TABLE 2 - continued

10

| Item No. | Calibre                               | Nature            | Colour of cartridge case | Stampings on base of cartridge case |                                                              |                                         |                                                                    |    |                      |                                             | Colour of annulus                                | Colour of                                                                                                                  |                                                                                                                                                                                                                                                                                                                                               | Remarks               |
|----------|---------------------------------------|-------------------|--------------------------|-------------------------------------|--------------------------------------------------------------|-----------------------------------------|--------------------------------------------------------------------|----|----------------------|---------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
|          |                                       |                   |                          | Calibre                             | Manufacturer's initials or recognized monogram or trade mark | Last two figures of year of manufacture | Code letter indicating nature of bullet or cartridge (See table 1) | cc | Mark or model number | Code letter indicating nature of propellant |                                                  | Symbol (if applicable) denoting round or cartridge is manufactured to conform to a N/A I.O. design (See para. 1f of text). | bullet                                                                                                                                                                                                                                                                                                                                        |                       |
| 1        | 2                                     | 3                 | 4                        | 5                                   | 6                                                            | 7                                       | cc                                                                 | 9  | 10                   | 11                                          | 12                                               | 13                                                                                                                         | 14                                                                                                                                                                                                                                                                                                                                            |                       |
| 6        | .22 inch (Rimfire) 'Ramset' cartridge | STRENGTH<br>Light | —                        | *                                   | —                                                            | —                                       | —                                                                  | —  | —                    | —                                           | No bullet - mouth of case crimped                | Crimp coloured green                                                                                                       | Bolt driving cartridges for use in "Ramset" Duo - jobmaster tool. Trade supply. May be of U.K., U.S.A. or Australian manufacture. Cartridges of U.S.A. and Australian manufacture of the same strength may differ slightly in overall length one from the other. All strengths manufactured in the U.K. will normally be of identical length. |                       |
| 7        |                                       |                   | Med.                     | —                                   | *                                                            | —                                       | —                                                                  | —  | —                    | —                                           | No bullet - mouth of case crimped                | Crimp coloured yellow                                                                                                      |                                                                                                                                                                                                                                                                                                                                               |                       |
| 8        |                                       |                   | Heavy                    | —                                   | *                                                            | —                                       | —                                                                  | —  | —                    | —                                           | —                                                | No bullet - mouth of case crimped                                                                                          |                                                                                                                                                                                                                                                                                                                                               | Crimp coloured red    |
| 9        |                                       |                   | Extra                    | —                                   | *                                                            | —                                       | —                                                                  | —  | —                    | —                                           | —                                                | No bullet - mouth of case crimped                                                                                          |                                                                                                                                                                                                                                                                                                                                               | Crimp coloured purple |
| 10       |                                       |                   | Super extra heavy        | —                                   | *                                                            | —                                       | —                                                                  | —  | —                    | —                                           | —                                                | No bullet - mouth of case crimped                                                                                          |                                                                                                                                                                                                                                                                                                                                               | Crimp coloured white  |
| 11       |                                       |                   | Plus power               | —                                   | *                                                            | —                                       | —                                                                  | —  | —                    | —                                           | —                                                | No bullet - mouth of case crimped                                                                                          |                                                                                                                                                                                                                                                                                                                                               | Crimp coloured black  |
| 12       | .30 inch carbine                      | Ball              | Brass (natural colour)   | .30                                 | *                                                            | *                                       | —                                                                  | *  | —                    | Purple                                      | Gilding metal or steel coated with gilding metal | —                                                                                                                          | Rimless cartridge case.                                                                                                                                                                                                                                                                                                                       |                       |
| 13       | .30 inch Browning                     | Ball              | Brass (natural colour)   | .30                                 | *                                                            | *                                       | —                                                                  | —  | —                    | Purple                                      | Steel coated with gilding metal                  | —                                                                                                                          | Rimless cartridge case.                                                                                                                                                                                                                                                                                                                       |                       |
| 14       |                                       | Tracer            | Brass (natural colour)   | .30                                 | *                                                            | *                                       | —                                                                  | —  | —                    | Purple                                      | Steel coated with gilding metal                  | Red                                                                                                                        |                                                                                                                                                                                                                                                                                                                                               |                       |

TABLE 2 - continued

|    | 1         | 2                   | 3                                                                                                                                                      | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11                             | 12                                                                                                                                      | 13                   | 14                                                                                                                                                                                                                                                            |
|----|-----------|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|---|---|---|----|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 15 | ·303 inch | Incendiary          | Brass (natural colour)                                                                                                                                 | — | * | * | * | * | * | —  | Blue                           | Gilding metal                                                                                                                           | Blue - (Mark 7 only) | Obsolete for Land and Naval Services.                                                                                                                                                                                                                         |
| 16 |           | Ball                | Brass (natural colour)                                                                                                                                 | — | * | * | — | * | * | —  | Purple                         | Mk. 7 and 7Z - Cupro nickel, steel coated with cupro-nickel, gilding metal or steel coated with gilding metal<br>Mk. 8Z - Gilding metal | —                    |                                                                                                                                                                                                                                                               |
| 17 |           | Tracer              | Brass (natural colour)                                                                                                                                 | — | * | * | * | * | — | —  | Red                            | Cupro-nickel or steel coated with cupro-nickel or steel coated with gilding metal                                                       | RED                  | SEE PARA 15 (8).                                                                                                                                                                                                                                              |
| 18 |           | Blank (un-bulleted) | Brass (natural colour)                                                                                                                                 | — | * | * | * | * | * | —  | Colourless                     | No bullet - mouth of case closed by six crimps                                                                                          | —                    | } see footnote to Table 1                                                                                                                                                                                                                                     |
| 19 |           | Blank (bulleted)    | Brass (natural colour)                                                                                                                                 | — | * | * | * | * | * | —  | Colourless                     | Hardwood bullet stained blue                                                                                                            | —                    |                                                                                                                                                                                                                                                               |
| 20 |           | Rifle grenade       | Brass (natural colour)<br>H Mk. 1Z - half of case length from mouth is coloured<br>black<br>H Mk. 7Z - half of case length from base is coloured black | — | * | * | * | * | * | —  | Colourless                     | No bullet - mouth of case closed by a cup<br><br>No bullet - mouth of case closed by crimping                                           | —                    | For use with No. 36 M rifle grenade.<br><br>For use with No. 94 Energa grenade. Cartridges of earlier Belgian production were not stained black and the bases were stamped with the manufacturer's monogram and last two figures of year of manufacture only. |
| 21 |           | Drill               | Chromium plated brass                                                                                                                                  | — | * | * | * | * | — | —  | Empty cap chamber coloured red | Normal ball                                                                                                                             | —                    | Three elongated flutes are formed around in the side of the cartridge case and coloured red. Some unplated rounds with drilled holes in lieu of flutes may be found in the Service.                                                                           |

TABLE 2 - continued

| Item No. | Calibre                       | Nature     | Colour of cartridge case | Stampings on base of cartridge case |                                                              |                                         |                                                                    |                      |                                             | Colour of annulus | Colour of                                                                                                                 |                                               | Remarks                 |                                                                                        |
|----------|-------------------------------|------------|--------------------------|-------------------------------------|--------------------------------------------------------------|-----------------------------------------|--------------------------------------------------------------------|----------------------|---------------------------------------------|-------------------|---------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|-------------------------|----------------------------------------------------------------------------------------|
|          |                               |            |                          | Calibre                             | Manufacturer's initials or recognized monogram or trade mark | Last two figures of year of manufacture | Code letter indicating nature of bullet or cartridge (See table 1) | Mark or model number | Code letter indicating nature of propellant |                   | Symbol (if applicable) denoting round or cartridge is manufactured to conform to a N.A.T.O. design (See para. 14 of text. | bullet                                        |                         | bullet tip                                                                             |
|          | 1                             | 2          | 3                        | 4                                   | 5                                                            | 6                                       | 7                                                                  | 8                    | 9                                           | 10                | 11                                                                                                                        | 12                                            | 13                      | 14                                                                                     |
| 22       | .303 inch<br><i>continued</i> | Observing  | Brass (natural colour)   | —                                   | *                                                            | *                                       | *                                                                  | *                    | *                                           | —                 | Black                                                                                                                     | Cupro-nickel                                  | Black<br><i>YELLOW.</i> | <i>SEE PARA 15(6)</i>                                                                  |
| 23       |                               | Inspection | Chromium plated          | —                                   | *                                                            | *                                       | *                                                                  | *                    | —                                           | —                 | Empty cap chamber                                                                                                         | Normal ball                                   |                         |                                                                                        |
| 24       |                               | Proof      | Copper plated            | —                                   | *                                                            | *                                       | *                                                                  | *                    | —                                           | —                 | Yellow                                                                                                                    | Normal ball                                   |                         |                                                                                        |
| 25       | .310 inch<br>(Horse killer)   | Ball       | Brass (natural colour)   | .310                                | *                                                            | *                                       | —                                                                  | *                    | *                                           | —                 | Colourless                                                                                                                | Lead alloy (natural colour)                   |                         | Flat nose bullet.                                                                      |
| 26       | .380 inch<br>(revolver)       | Ball       | Brass (natural colour)   | .380                                | *                                                            | *                                       | —                                                                  | *                    | *                                           | —                 | Purple                                                                                                                    | Cupro-nickel or gilding metal                 |                         |                                                                                        |
| 27       |                               | Blank      | Brass (natural colour)   | .380                                | *                                                            | *                                       | *                                                                  | *                    | *                                           | —                 | Colourless                                                                                                                | No bullet - mouth of case crimped             |                         |                                                                                        |
| 28       |                               | Drill      | Chromium plated brass    | .380                                | *                                                            | *                                       | *                                                                  | *                    | —                                           | —                 | —                                                                                                                         | Normal ball bullet                            |                         | Three elongated indents are formed in the side of the cartridge case and coloured red. |
| 29       |                               | Proof      | Copper-plated            | .380                                | *                                                            | *                                       | *                                                                  | *                    | *                                           | —                 | Yellow                                                                                                                    | Normal ball                                   | —                       |                                                                                        |
| 30       | .5 inch<br>Vickers            | Ball       | Brass (natural colour)   | —                                   | *                                                            | *                                       | —                                                                  | *                    | *                                           | —                 | Purple                                                                                                                    | Steel coated or cupro-nickel or gilding metal |                         | Obsolete.                                                                              |
| 31       | .50 inch<br>Browning          | Ball       | Brass (natural colour)   | .50                                 | *                                                            | *                                       | —                                                                  | *                    | *                                           | —                 | Purple                                                                                                                    | Gilding metal                                 |                         |                                                                                        |

TABLE 2 - continued

|    | 1                                 | 2             | 3                                                                                        | 4    | 5 | 6 | 7 | 8 | 9 | 10 | 11                                    | 12                                             | 13                                                  | 14                                                                                                                                                                                                                                                                                                                    |                                   |
|----|-----------------------------------|---------------|------------------------------------------------------------------------------------------|------|---|---|---|---|---|----|---------------------------------------|------------------------------------------------|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|
| 32 | .50 inch<br>Browning<br>continued | Tracer        | Brass (natural colour)                                                                   | .50  | * | * | * | * | * | —  | Red - except Mk. 6Z - which is purple | Gilding metal                                  | White, except Mk. 6Z - which is brown<br><i>RED</i> | Special night tracer (now obsolete) had a grey tip.<br><br><i>SEE PARA 15(2)</i>                                                                                                                                                                                                                                      |                                   |
| 33 |                                   | A.P./Inedy.   | Brass (natural colour)                                                                   | .50  | * | * | * | * | * | —  | Purple                                | Gilding metal                                  | Silver                                              | Use restricted to Land Service. Conforms to markings of matched American round. Only means of identification. This cartridge has the code letter indicating the type of round omitted from its base markings. Rounds of British manufacture have a narrow knurled cannellure immediately above the case/bullet joint. |                                   |
| 34 |                                   | A.P.          | Brass (natural colour)                                                                   | .50  | * | * | * | * | * | —  | Green                                 |                                                |                                                     | Obsolete.                                                                                                                                                                                                                                                                                                             |                                   |
| 35 |                                   | Drill         | Chromium plated                                                                          | .50  | * | * | * | * | — | —  | Empty cap chamber                     | Chromium plated                                | —                                                   | Three elongated flutes are formed in the side of the cartridge case and coloured red.                                                                                                                                                                                                                                 |                                   |
| 36 |                                   | Inspection    | Chromium plated                                                                          | .50  | * | * | * | * | — | —  | Empty cap chamber                     | Chromium plated                                | —                                                   | Three equidistant spaced holes .25 inch dia. are drilled in wall of case 1½ inches from base.                                                                                                                                                                                                                         |                                   |
| 37 | 7.62 mm.                          | Ball          | Brass (natural colour) model L2A1                                                        | 7.62 | * | * | — | * | — | —  | Purple                                | Gilding metal                                  | —                                                   | } Rimless cartridge case.                                                                                                                                                                                                                                                                                             |                                   |
|    |                                   |               | Brass (natural colour) model L2A2                                                        | —    | * | * | — | * | — | *  | Purple                                | Gilding metal                                  | —                                                   |                                                                                                                                                                                                                                                                                                                       | Conforms to N.A.T.O. Std. design. |
| 38 |                                   | Tracer        | Brass (natural colour)                                                                   | —    | * | * | — | * | — | —  | Red                                   |                                                | Red                                                 |                                                                                                                                                                                                                                                                                                                       |                                   |
| 39 |                                   | A.P.          | Brass (natural colour)                                                                   | —    | * | * | — | * | — | *  | Green                                 |                                                | Black                                               |                                                                                                                                                                                                                                                                                                                       |                                   |
| 40 |                                   | Rifle grenade | Brass (natural colour) models L1A1 and L1A2 half of case length from base coloured black | 7.62 | * | * | — | * | — | —  | Colourless                            | No bullet - mouth of case closed by six crimps | —                                                   | For use with No. 94 Energa grenades. L1A1 for use in F.N. rifles without flash hiders. L1A2 for use in rifles fitted with flash hiders.                                                                                                                                                                               |                                   |

13

TABLE 2 - continued

| Item No.           | Calibre                      | Nature           | Colour of cartridge case  | Stampings on base of cartridge case |                                                              |                                         |                                                                    |                      |                                             | Colour of annulus | Colour of                                                                                                                |                                                         | Remarks |                                    |                                                                                                    |
|--------------------|------------------------------|------------------|---------------------------|-------------------------------------|--------------------------------------------------------------|-----------------------------------------|--------------------------------------------------------------------|----------------------|---------------------------------------------|-------------------|--------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|---------|------------------------------------|----------------------------------------------------------------------------------------------------|
|                    |                              |                  |                           | Calibre                             | Manufacturer's initials or recognized monogram or trade mark | Last two figures of year of manufacture | Code letter indicating nature of bullet or cartridge (See Table I) | Mark or model number | Code letter indicating nature of propellant |                   | Symbol (if applicable) denoting round or cartridge is manufactured to conform to a N.A.T.O. design (See Para. 1 of text) | bullet                                                  |         | bullet tip                         |                                                                                                    |
|                    | 1                            | 2                | 3                         | 4                                   | 5                                                            | 6                                       | 7                                                                  | 8                    | 9                                           | 10                | 11                                                                                                                       | 12                                                      | 13      | 14                                 |                                                                                                    |
| 40<br><i>cont.</i> | 7.62 mm.<br><i>continued</i> | Rifle<br>Grenade |                           | —                                   | *                                                            | *                                       | —                                                                  | *                    | —                                           | *                 |                                                                                                                          | No bullet —<br>mouth of case<br>closed by six<br>crimps | —       | Conform to N.A.T.O.<br>Std. design |                                                                                                    |
| 41                 |                              | Blank            | Brass (natural<br>colour) | —                                   | *                                                            | *                                       | —                                                                  | *                    | —                                           | —                 | Colour-<br>less                                                                                                          | No bullet                                               | —       |                                    | } Rimless<br>cartridge<br>cases                                                                    |
| 42                 |                              | A.P./<br>Incdy.  | Brass (natural<br>colour) | —                                   | *                                                            | *                                       | —                                                                  | *                    | —                                           | *                 |                                                                                                                          |                                                         | Silver  | } Rimless<br>cartridge<br>cases    |                                                                                                    |
| 43                 |                              | Observing        | Brass (natural<br>colour) | —                                   | *                                                            | *                                       | —                                                                  | *                    | —                                           | *                 |                                                                                                                          |                                                         | Yellow  |                                    |                                                                                                    |
| 44                 |                              | Incendiary       | Brass (natural<br>colour) | —                                   | *                                                            | *                                       | —                                                                  | *                    | —                                           | *                 |                                                                                                                          |                                                         | Blue    |                                    |                                                                                                    |
| 45                 |                              | Drill            | Chromium<br>plated brass  | 7.62                                | *                                                            | *                                       | —                                                                  | *                    | —                                           | —                 | Empty<br>cap<br>chamber<br>coloured<br>red                                                                               | Steel coated with<br>gilding metal                      | —       |                                    | Three elongated<br>indents are formed in<br>the side of the<br>cartridge case and<br>coloured red. |
| 46                 |                              | Inspection       | Chromium<br>plated brass  | —                                   | *                                                            | *                                       | —                                                                  | *                    | —                                           | —                 | Empty<br>cap<br>chamber                                                                                                  | Steel coated with<br>gilding metal                      | —       |                                    |                                                                                                    |
| 47                 |                              | Proof            | Copper-plated             | 7.62                                | *                                                            | *                                       | —                                                                  | *                    | —                                           | —                 | Yellow                                                                                                                   | Normal ball                                             |         |                                    |                                                                                                    |



TABLE 2 - continued

|    | 1        | 2          | 3                                                               | 4     | 5 | 6 | 7 | 8 | 9 | 10 | 11                             | 12                                                                             | 13    | 14                                                                                          |
|----|----------|------------|-----------------------------------------------------------------|-------|---|---|---|---|---|----|--------------------------------|--------------------------------------------------------------------------------|-------|---------------------------------------------------------------------------------------------|
| 48 | 7.92 mm. | Ball       | Brass (natural colour)                                          | —     | * | * | — | * | * | —  | Purple                         | Steel coated with cupro-nickel or gilding metal                                | —     |                                                                                             |
| 49 |          | Tracer     | Brass (natural colour)                                          | —     | * | * | * | * | * | —  | Red                            | Steel coated with cupro-nickel or gilding metal                                | RED   | SEE PARA 15(b)                                                                              |
| 50 |          | Incendiary | Brass (natural colour)                                          | —     | * | * | * | * | * | —  | Blue                           | Gilding metal                                                                  | BLUE  | SEE PARA 15(b)                                                                              |
| 51 |          | A.P.       | Brass (natural colour)                                          | —     | * | * | * | * | * | —  | Green                          | Steel coated with cupro-nickel or gilding metal                                | BLACK | SEE PARA 15(b)                                                                              |
| 52 |          | Drill      | Chromium plated brass                                           | —     | * | * | * | * | * | *  | Empty cap chamber coloured red | Cupro-nickel                                                                   | —     | Three elongated flutes are formed in the side of the cartridge case and coloured red.       |
| 53 |          | Inspection | Chromium plated brass (Mk. 1)<br>Brass (natural finish) (Mk. 2) | —     | * | * | * | * | — | —  | Empty cap chamber              | Steel coated with cupro-nickel or gilding metal                                | —     | Three elongated flutes are formed in the side of the cartridge case (Mk. 2 cartridge only). |
| 54 |          | Proof      | Copper-plated                                                   | —     | * | * | * | * | — | —  | Yellow                         | Normal ball                                                                    | —     |                                                                                             |
| 55 | 9 mm.    | Ball       | Brass (natural colour)                                          | 9 mm. | * | * | — | * | — | —  | Purple                         | Cupro-nickel, gilding metal or steel coated with cupro-nickel or gilding metal | —     |                                                                                             |
| 56 |          | Drill      | Chromium plated brass                                           | 9 mm. | * | * | * | * | — | —  | Empty cap chamber coloured red | Normal ball bullet                                                             | —     | Three elongated indents are formed in the side of the cartridge case and coloured red.      |
| 57 |          | Inspection | Cadmium plated                                                  | 9 mm. | * | * | * | * | — | —  | Empty cap chamber              | Cadmium plated                                                                 | —     |                                                                                             |
| 58 |          | Proof      | Copper-plated                                                   | 9 mm. | * | * | * | * | — | —  | Yellow                         | Normal ball                                                                    | —     |                                                                                             |

RESTRICTED

TYPICAL IDENTIFICATION MARKINGS ON S.A.A.  
 (SMALL ARMS AMMUNITION)

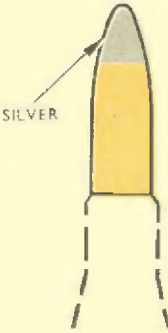
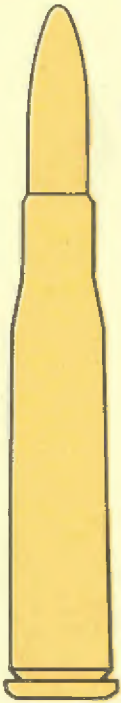
-50 INCH BROWNING

FIG.1

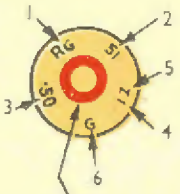
BALL

AP/INCENDIARY

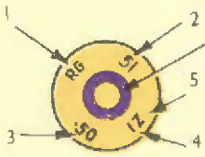
TRACER



WHITE *OR RED*  
 EXCEPT MK6Z IS  
 COLOURED BROWN



RED  
 EXCEPT MK6Z IS  
 COLOURED PURPLE



BASE STAMPINGS

FIG.2

DRILL

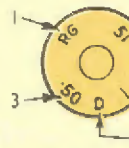
INSPECTION



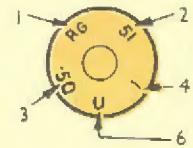
CHROMIUM  
 PLATED

3 FLUTES

3 EQUI-SPACED HOLES



BASE STAMPINGS



BASE STAMPINGS

BASE STAMPINGS

- 1 MANUFACTURERS RECOGNISED MONOGRAM OR INITIALS
- 2 YEAR OF MANUFACTURE
- 3 CALIBRE
- 4 MARK OF CARTRIDGE
- 5 PROPELLANT CODE (IF APPLICABLE)
- 6 CODE INDICATING NATURE OF ROUND

*SEE PARA 15(b)*

TYPICAL IDENTIFICATION MARKINGS ON S.A.A. (SMALL ARMS AMMUNITION)

FIG.1

.303 INCH (RIMMED CASE)

BALL



BASE STAMPINGS  
 ITEMS 1, 2, 4 & 5

TRACER



BASE STAMPINGS  
 ITEMS 1, 2, 4, 5 & 6

NOTE: RED BULLET TIP?  
 SEE PARA. 15 (6).

RIFLE GRENADE



BASE STAMPINGS  
 ITEMS 1, 2, 4, 5 & 6

FOR COLOUR IDENTIFICATION  
 OF CASE, See para 12(d)  
 (i) and (ii) of text



MK7Z

FIG.2

7.92 mm. BALL  
 (RIMLESS CASE)



BASE STAMPINGS  
 ITEMS 1, 2, 4 & 5

FIG.3

.380 INCH REVOLVER BALL  
 (RIMMED CASE)



BASE STAMPINGS  
 ITEMS 1, 2, 3, 4 & 5

FIG.4

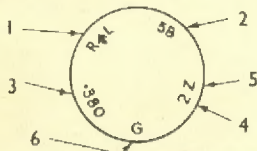
9 mm BALL  
 (RIMLESS CASE)



BASE STAMPINGS  
 ITEMS 1, 2, 3, 4 & 5

FIG.5

BASE STAMPINGS



- 1 MANUFACTURERS RECOGNISED MONOGRAM OR INITIALS
- 2 YEAR OF MANUFACTURE
- 3 CALIBRE
- 4 MARK OF ROUND
- 5 PROPELLANT CODE (IF APPLICABLE)
- 6 CODE INDICATING NATURE OF ROUND

NOTES:-

1. The "Calibre" is required only to be stamped on the base of the following: .30 inch Browning, .30 inch Carbine, .310 inch Horse-Killer, .380 inch Revolver, .50 inch Browning, 9 mm. and 7.62 mm. Ball L2A1, Rifle Grenade L1A1 and L1A2, Drill and Proof rounds.
2. The "Code indicating nature of round" is required only to be stamped on the base of:-
 

|               |   |                                                              |
|---------------|---|--------------------------------------------------------------|
| Incendiary    | - | .303 inch and 7.92 mm.                                       |
| Tracer        | - | .303 inch, .50 inch Browning and 7.92 mm.                    |
| Blank         | - | .303 inch and .380 inch.                                     |
| Rifle Grenade | - | .303 inch.                                                   |
| Drill         | - | .303 inch, .380 inch, 7.92 mm., 9 mm. and .50 inch Browning. |
| Observing     | - | .303 inch.                                                   |
| Inspection    | - | .303 inch, 7.92 mm., 9 mm. and .50 inch Browning.            |
| Proof         | - | .303 inch, .380 inch, 7.92 mm. and 9 mm.                     |
| AP            | - | .50 inch Browning and 7.92 mm.                               |
| AP/Incendiary | - | .50 inch Browning.                                           |

TYPICAL IDENTIFICATION MARKINGS ON S.A.A. (SMALL ARMS AMMUNITION)

7.62 mm. (RIMLESS CASE)

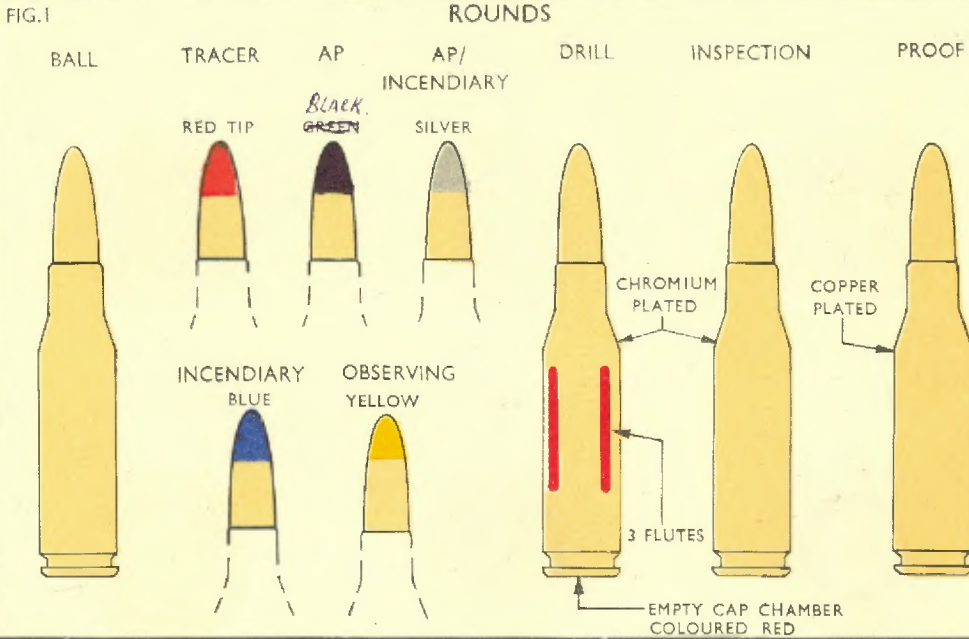


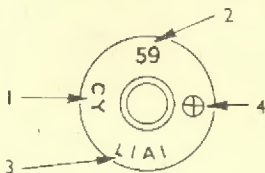
FIG.2 CARTRIDGES

RIFLE GRENADE LAUNCHING



MODELS LIA1  
 AND LIA2

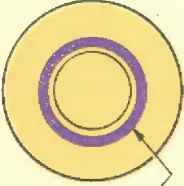
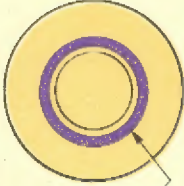

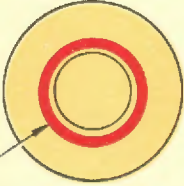
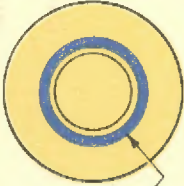
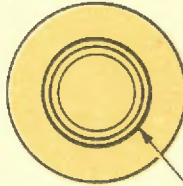
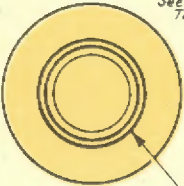
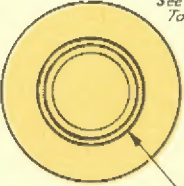

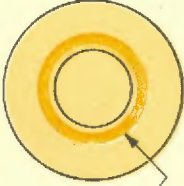
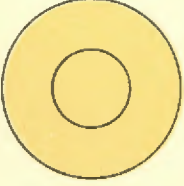
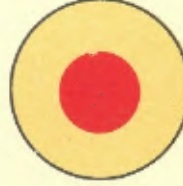
FIG.3 BASE STAMPINGS See also note 1 plate 2



- 1 MANUFACTURERS RECOGNISED MONOGRAM OR INITIALS
- 2 YEAR OF MANUFACTURE
- 3 MARK OR MODEL NUMBER
- 4 NATO DESIGN ~~SYMBOL~~ (IF APPLICABLE) MARK.

TYPICAL IDENTIFICATION MARKINGS ON S.A.A. (SMALL ARMS AMMUNITION)

COLOUR OF ANNULUS

|                                                                                                                                                                                                      |                                                                                                                                                                         |                                                                                                                                             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| <p>BALL</p>  <p>PURPLE</p>                                                                                          | <p>AP/INCENDIARY</p>  <p>PURPLE</p>                                                    | <p>AP AND SAP</p>  <p>GREEN</p>                           |
| <p>TRACER</p>  <p>RED</p> <p>EXCEPT MK 6 Z .50 in BROWNING AND MK 1 Z .30 in BROWNING WHICH ARE COLOURED PURPLE</p> | <p>INCENDIARY</p>  <p>BLUE</p>                                                         | <p>RIFLE GRENADE</p>  <p>COLOURLESS</p>                   |
| <p>BLANK<br/>1st GRADE CASES</p> <p><i>See note 1 Table 1</i></p>  <p>COLOURLESS</p>                              | <p>BLANK<br/>2nd GRADE CASES</p> <p><i>See note 1 Table 1</i></p>  <p>COLOURLESS</p> | <p>OBSERVING</p>  <p>BLACK</p>                          |
| <p>PROOF</p>  <p>YELLOW</p>                                                                                       | <p>INSPECTION</p>  <p>EMPTY CAP CHAMBER</p>                                          | <p>DRILL</p>  <p>EMPTY CAP CHAMBER<br/>COLOURED RED</p> |

TYPICAL IDENTIFICATION MARKINGS ON S.A.A. (SMALL ARMS AMMUNITION)  
 BALL, TRACER AND SPECIAL PURPOSE .22 INCH RIMFIRE CARTRIDGES, ETC.

FIG.1  
 CARTRIDGE, RIMFIRE, .22 INCH

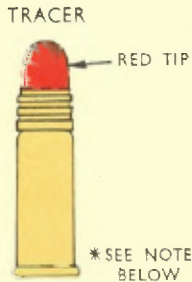


FIG.2  
 CARTRIDGE, RIMFIRE, .22 INCH FOR "CASH" CAPTIVE BOLT PISTOL



FIG.3  
 CARTRIDGE, SEAT EJECTION SECONDARY, No.5 MK.1 (.22 INCH RIMFIRE) (AIR SERVICE)

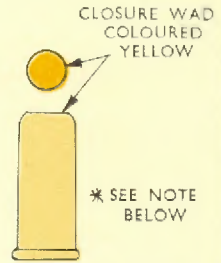
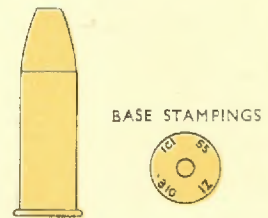


FIG.4  
 CARTRIDGE, .310 HORSE KILLER



BOLT DRIVING (.22 INCH RIMFIRE) CARTRIDGES FOR USE IN "RAMSET" DUO - JOBMASTER TOOL

FIG.5

STRENGTH - LIGHT  
 CRIMP COLOURED GREEN



STRENGTH - MEDIUM  
 CRIMP COLOURED YELLOW



STRENGTH - HEAVY  
 CRIMP COLOURED RED



STRENGTH - EXTRA HEAVY  
 CRIMP COLOURED PURPLE



STRENGTH - SUPER EXTRA HEAVY  
 CRIMP COLOURED WHITE



STRENGTH - PLUS POWER  
 CRIMP COLOURED BLACK



NOTE:- MANUFACTURERS RECOGNISED MONOGRAM OR INITIALS MAY OR MAY NOT BE MARKED ON BASE

*More Docket 1/10/54*

Admiralty No. B.R.1202F(2)/1954  
War Office Code No. 1803  
Air Ministry A.P. 3095

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AMMUNITION

5541

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# JOINT SERVICES AMMUNITION AND AMMUNITION PACKAGE MARKINGS HANDBOOK

Section 6 Part 2

20 mm. and 30 mm. AMMUNITION

1960

*(Supersedes Section 6, Part 2, 1954 edition)*

*Promulgated by Command of Their Lordships,*

*J. G. Lang*

*Promulgated by Command of The Army Council,*

*R. E. Day*

*Promulgated by Command of The Air Council,*

*L. J. Dean*





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| H.E./I.20 mm. Oerlikon     „            „            „            „ ... ..  |           |
| H.E./I/T 20 mm.            „            „            „            „ ... ..  |           |
| H.E./T. 20 mm.            „            „            „            „ ... ..   |           |

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| S.A.P./I.      —20 mm. Hispano      "      "      "      "          |            |
| S.A.P./I./Rep.—20 mm. Hispano   "      "      "      "              |            |
| Stampings—                                                          |            |
| on base of cartridge case, 20 mm. Hispano ...                       | 10(a)      |
| "      "      "      "      "      20 mm. Oerlikon ...              | 12(a)      |
| adjacent to extractor groove, 20 mm. Hispano ...                    | 10(b)(i)   |
| above base groove of cartridge case, 20 mm. Oerlikon ...            | 12(b)(i)   |
| on raised band of cartridge case, 30 mm. Aden ...                   | 11(b)(i)   |
| on shell or projectile, 20 mm. Oerlikon ...                         | 12(b)(ii)  |
| on fuze—                                                            |            |
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| Tracer, 20 mm. Hispano ammunition—                                  |            |
| identification colour of ...                                        | Table 1    |

## RESTRICTED

### INTRODUCTION

1. The principles of colour identification and details of markings in this section follow those laid down in Section 1, "General Introduction", which should be read in conjunction with it. There are exceptions and some of these are explained by examples.

#### METHODS OF IDENTIFICATION—GENERAL

2. The following methods of identification, or a combination of these methods, are used:—
  - Basic identification colours.
  - Stampings, etc.
  - Stencilling (including transfer and printing processes).
3. 20 mm. and 30 mm. ammunition will normally be identified by one or both of the following:—
  - Basic body colour of the shell or projectile.
  - Stamping of empty and filled particulars on the cartridge case.Typical examples of these markings are depicted in **Plates 1 to 4**.
4. There are various types of Hispano and Oerlikon ammunition, and these may be readily identified by the colour of the projectile when rounds are separated from their packages. Additionally, British 20 mm. Hispano rounds may be distinguished from 20 mm. Oerlikon rounds by having the calibre "20 MM" stamped on the base, whereas the Oerlikon round does not bear the calibre marking but has the letters "OE" stamped on the base. Another point of distinction between them is that the Oerlikon case has a longer shoulder and smaller rim than the Hispano case.

#### BASIC IDENTIFICATION COLOURS

5. The distinctive colours of paints or other marking media used will be as follows:—

|                |                   |
|----------------|-------------------|
| Black          | Deep bronze green |
| Turquoise blue | Red oxide         |
| Service brown  | White             |
6. *Colour of shell or projectile.* The portion of the body forward of the driving band, and including the fuze, will be painted an identification colour according to type, as shown in Table 1. The projectile of a proof round is normally coloured black. The projectile of the 20 mm. Oerlikon Drill round is coloured black in the Mark 1 version and is of unpainted hardwood in the Mark 2 version.
7. *Colour of cartridge case.* Cartridge cases for 20 mm. Hispano, 20 mm. Oerlikon and 30 mm. Aden rounds are normally issued in the natural finish of the metal from which they are manufactured, with the following exceptions:—
  - (a) *Proof rounds* will have the whole of the cartridge case copper-plated (reddened) to render them instantly distinguishable.

**THIS AMMUNITION IS INTENDED SOLELY FOR HIGH PRESSURE TESTING OF WEAPONS AND WILL NOT, UNDER ANY CIRCUMSTANCES, BE USED BY THE SERVICES.**

*Note.*—Although proof ammunition will not normally be encountered, this information concerning its distinctive marking is included to ensure that any rounds which may be found can be easily identified.

(b) *Drill/Inspection rounds* usually have the whole of the body and nose piece (or projectile) made of bright steel, which may or may not have a chromium plated finish. If the cap chamber (with anvil removed) is formed in the base, it will be left empty.

8. **Colour of the cap annulus.** This marking has no identification significance as all natures may have a cap annulus coloured purple.

9. **Colour of fuzes**

(a) *20 mm. Hispano fuzes.* The Mark 5 No. 254 and Mark 1 No. 917 fuzes will be painted deep bronze green, the painting being carried out after assembly of fuze to round.

(b) *30 mm. Aden fuzes.* The Mark 1 No. 944 and Mk. 1 No. 933 fuzes will be painted the same colour as the body of the shell.

(c) *20 mm. Oerlikon fuzes.* The No. 254 fuze will be painted the same colour as the body of the shell. The No. 258 fuze, in addition, will have the closing disc in the top of the fuze painted azure blue.

*Note.*—The colour of the 20 mm. Hispano and 30 mm. Aden fuzes has no identification significance.

### STAMPINGS

10. **20 mm. Hispano.**

(a) The following information will be stamped on the base of the cartridge case:—  
Contractor's initials or recognized mark.  
Year of manufacture, last two figures only.  
Calibre, i.e. "20 MM".

(b) In addition, the following information will be stamped where shown:—

(i) *On the case adjacent to the extractor groove:—*

Filler's monogram.

Lot number.

Date of filling (last two figures of year).

Code letter indicating type of round, e.g. "H.E./I."

Abbreviated code indicating nature of main filling of projectile (not required for ball or practice rounds).

Mark of round.

"T" indicating black powder or "Z" indicating any propellant other than cordite or black powder, e.g. Ballistite, Neonite, etc.

(ii) *On the fuze:—*

Contractor's initials or recognized trade mark.

Number and mark of fuze.

11. **30 mm. Aden**

(a) The following information will be stamped in the extractor groove of the cartridge case:—

Contractor's initials or recognized mark.

Year of manufacture, last two figures only.

Calibre, i.e. "30 MM".

(b) In addition, the following information will be stamped where shown:—

(i) *On the raised band on the case:*—

Filler's monogram.

Lot number.

Date of filling (last two figures of year).

Code indicating type of round, e.g. H.E.

Abbreviated code indicating nature of main filling of projectile (not required for ball or practice rounds).

Mark of round.

"T" indicating black powder or "Z" indicating any propellant other than cordite or black powder e.g. Ballistite, Neonite, etc.

(ii) *On the fuze:*—

Contractor's initials or recognized trade mark.

Number and mark of fuze.

## 12. 20 mm. Oerlikon

(a) The following information will be stamped on the base of the cartridge case:—

Weapon designation abbreviation, i.e. "OE"

Contractor's initials or recognized Trade Mark.

Year of manufacture (last two figures only).

"D" for Drill round (where applicable).

(b) In addition, the following information will be stamped where shown:—

(i) *On the side of the cartridge case of a filled round just above the base groove:*—

Monogram of filling station.

Lot number of filled round.

Date of filling (last two figures of year).

Abbreviated code indicating nature of ammunition.

Mark of round.

"T" indicating black powder or "Z" indicating any propellant other than cordite or black powder e.g. Ballistite, Neonite, etc.

(ii) *On the shell or projectile just above the driving band:*—

Contractor's initials or recognized trade mark.

Lot number of empty shell.

(iii) *On the fuze:*—

Number and mark (e.g. 258 N2).

Contractor's initials or recognized trade mark.

Lot number of fuze.

Monogram of station or initials of firm filling the fuze.

## STENCILLING (including transfer and printing processes)

### 13. 20 mm. Oerlikon

(a) Shell or projectiles having a dark ignition tracer filling will be stencilled "Df" in black on the body.

(b) Drill rounds will be stencilled "DRILL" in white on the black projectile.

## FILLING ABBREVIATIONS AND CODES

14. A list of approved nature of filling abbreviations and codes will be found in Tables 1 and 2 of Section 1, "General Introduction".

## PACKAGES

15. Particulars of colours and position of stencilling on packages will be found in Section 5, Part 2 "Packages, S.A.A., 20 mm. and 30 mm. Ammunition".

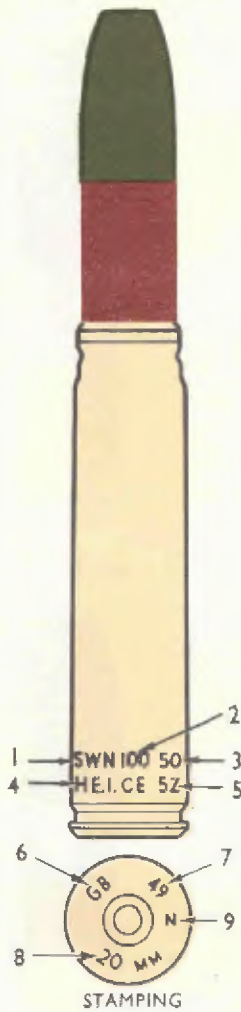
**TABLE 1**  
**IDENTIFICATION COLOURS OF PROJECTILES**

| Service                                                                 | Naval and Air Services                                                                                                                                                                            |                                                       | Naval and Air Services                       |                          | Naval Service                                                                                                                                                                                                                                                                                                                                                    |                          |
|-------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|----------------------------------------------|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
|                                                                         | 20 mm. Hispano                                                                                                                                                                                    |                                                       | 30 mm. Aden                                  |                          | 20 mm. Oerlikon                                                                                                                                                                                                                                                                                                                                                  |                          |
| Type of projectiles                                                     | Colour of body and length and colour of band                                                                                                                                                      | Colour and length of tip                              | Colour of body and length and colour of band | Colour and length of tip | Colour of body and length and colour of band                                                                                                                                                                                                                                                                                                                     | Colour and length of tip |
| BALL/PRACTICE<br>H.E./I.<br>A.P.<br>S.A.P./I.<br>S.A.P./I. REP.         | Turquoise blue<br>Upper half—Deep bronze green<br>Lower half—Red oxide<br>Black<br>Red oxide<br>Turquoise blue<br>Turquoise blue, with Service brown band, 10 mm. wide, in front of driving band. | —<br><br>White 13 mm.<br>White 10 mm.<br>White 10 mm. |                                              |                          | Upper half—Deep bronze green<br>Lower half—Red oxide                                                                                                                                                                                                                                                                                                             |                          |
| TRACER                                                                  |                                                                                                                                                                                                   |                                                       |                                              |                          |                                                                                                                                                                                                                                                                                                                                                                  |                          |
| PRACTICE<br>H.E.                                                        |                                                                                                                                                                                                   |                                                       | Turquoise blue<br>Deep bronze green          |                          | Turquoise blue<br>Deep bronze green                                                                                                                                                                                                                                                                                                                              |                          |
| PRACTICE<br>TRACER<br><br>H.E./I/T.<br><br>S.A.P./H.E./I.<br><br>H.E/T. |                                                                                                                                                                                                   |                                                       |                                              |                          | Turquoise blue with Service brown band, 10 mm wide in front of driving band.<br>Upper third—Deep bronze green<br>Middle third—Red oxide with black symbol (DI)<br>Lower third—Service brown<br>Upper third—white<br>Middle third—Deep bronze green<br>Lower third—Red oxide<br>Deep bronze green with Service brown band, 10 mm. wide, in front of driving band. |                          |
| PROOF<br>DRILL                                                          | (see paras. 6 and 7)<br>(see paras. 6 and 7)                                                                                                                                                      |                                                       | (see paras. 6 and 7)<br>(see paras. 6 and 7) |                          | (see paras. 6 and 7)<br>Mk. 1 Black<br>Mk. 2 Unpainted hard wood.                                                                                                                                                                                                                                                                                                |                          |

20mm. HISPANO AMMUNITION ( NAVAL AND AIR SERVICES)

FIG.1

TYPICAL ROUND H.E./I



- FILLING DETAILS:-
- 1..... FILLERS RECOGNIZED MARK OR INITIALS
  - 2..... FILLED LOT NUMBER
  - 3..... DATE OF FILLING (LAST TWO FIGURES OF YEAR)
  - 4..... SYMBOL INDICATING TYPE OF ROUND (AS APPLICABLE)
  - 5..... MARK OF ROUND EMPTY DETAILS:-
- EMPTY DETAILS:-
- 6..... CONTRACTORS RECOGNIZED MARK OR INITIALS
  - 7..... DATE OF MANUFACTURE (LAST TWO FIGURES OF YEAR)
  - 8..... WEAPON DESIGNATION
  - 9..... "N" (FOR NAVAL SERVICE ONLY)

FIG.2

BALL/PRACTICE



FIG.3

ARMOUR PIERCING



FIG.4

S.A.P./ INCENDIARY



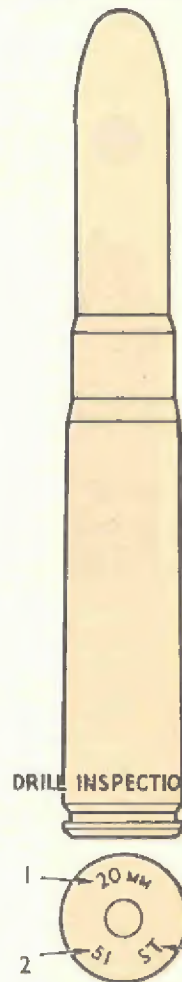
FIG.5

S.A.P./ INCENDIARY REP



FIG.7

DRILL/INSPECTION



- 1..... WEAPON DESIGNATION
- 2..... YEAR OF MANUFACTURE
- 3..... CONTRACTORS RECOGNIZED MARK OR INITIALS

FIG.6

TRACER





20mm OERLIKON AMMUNITION (NAVAL SERVICE)

FIG.1

TYPICAL ROUND  
 (Example HEIT)

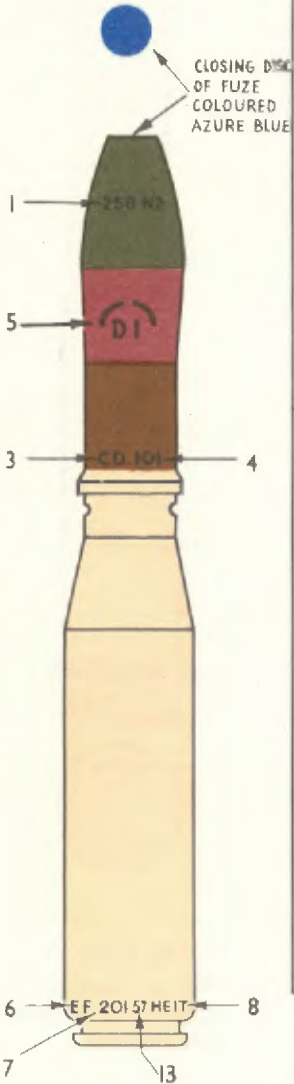


FIG.2

PRACTICE



FIG.3

PRACTICE TRACER



FIG.4

H.E. INCENDIARY



FIG.5

S.A.P./H.E./ INCENDIARY



FIG.6

H.E.



FIG.7

H.E./TRACER



FUZE DETAILS:-

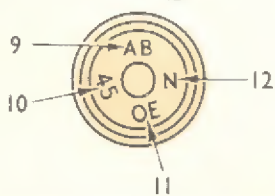
- 1.....NUMBER AND MARK OF FUZE
- 2.....CONTRACTORS RECOGNIZED MARK OR INITIALS, LOT NUMBER AND MONOGRAM OF FILLING STATION (ON REVERSE)

PROJECTILE DETAILS:-

- 3.....CONTRACTORS RECOGNIZED MARK OR INITIALS
- 4.....LOT NUMBER OF EMPTY SHELL

COMPLETE ROUND DETAILS:-

- 5.....TRACER SYMBOL
- 6.....MONOGRAM OF FILLING STATION
- 7.....LOT NUMBER OF FILLED ROUND
- 8.....NATURE OF AMMUNITION
- 9.....CONTRACTORS RECOGNIZED MARK OR INITIALS
- 10.....DATE OF MANUFACTURE
- 11.....WEAPON DESIGNATION
- 12....."N"(FOR NAVAL SERVICE ONLY)
- 13.....DATE OF FILLING, LAST TWO FIGURES OF YEAR



30mm. ADEN AMMUNITION ( NAVAL AND AIR SERVICES)

FIG.1

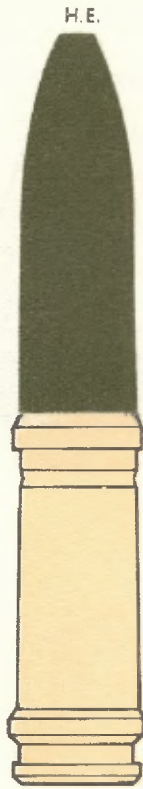


FIG.2

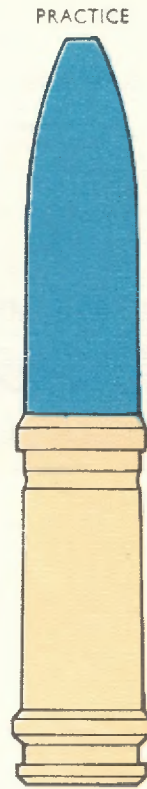
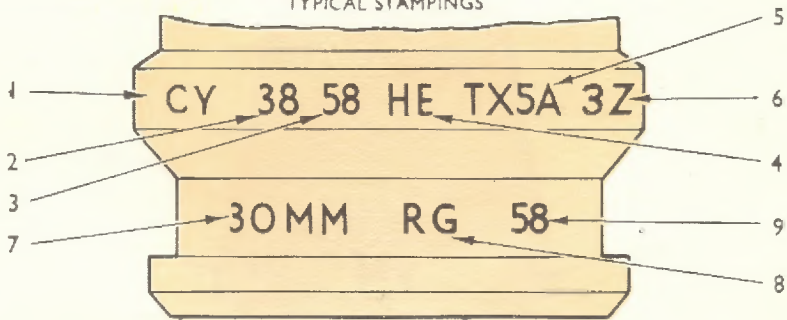


FIG.3

TYPICAL STAMPINGS



FILLED DETAILS:-

- 1...CONTRACTORS RECOGNIZED MARK OR INITIALS
- 2...FILLED LOT NUMBER
- 3...YEAR OF FILLING (LAST TWO FIGURES)
- 4...NATURE OF ROUND
- 5...FILLING CODE
- 6...MARK OF ROUND

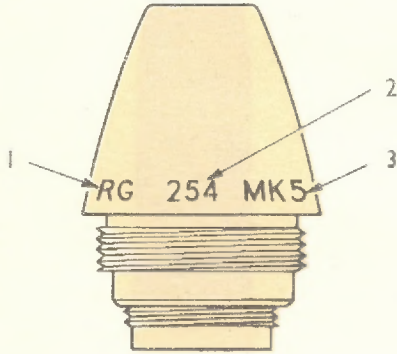
EMPTY DETAILS:-

- 7...CALIBRE
- 8...CONTRACTORS RECOGNIZED MARK OR INITIALS
- 9...YEAR OF MANUFACTURE (LAST TWO FIGURES)

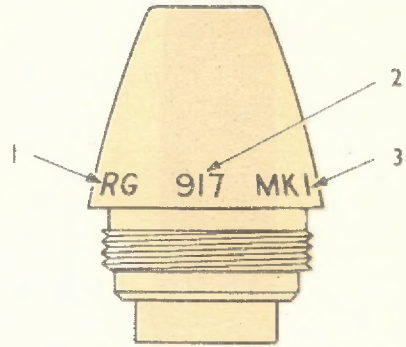
20mm. AND 30mm. FUZE MARKINGS (NAVAL AND AIR SERVICES)

20mm HISPANO FUZES

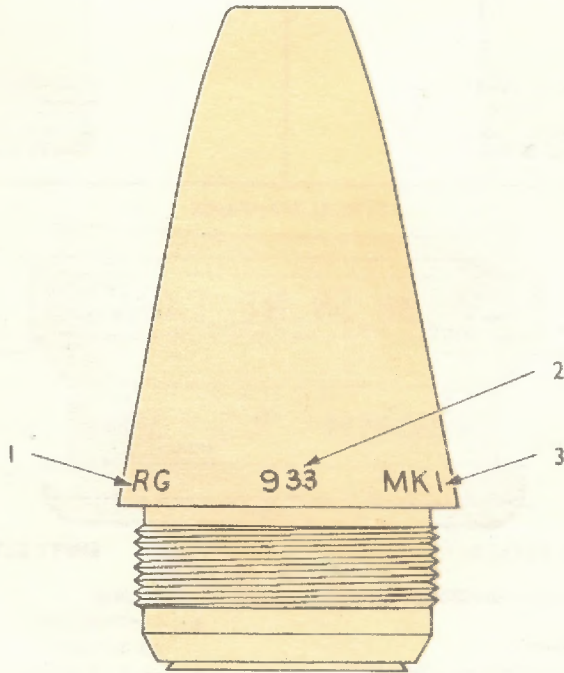
FUZE No. 254



FUZE No. 917



30mm ADEN FUZE No. 933



- 1... CONTRACTORS RECOGNIZED MARK OR INITIALS
- 2... FUZE NUMBER
- 3... MARK OF FUZE

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AMMUNITION

5541

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JOINT SERVICES  
AMMUNITION  
AND AMMUNITION PACKAGE  
MARKINGS HANDBOOK

Section 6 Part 3

GRENADES

1960

*(Supersedes Section 6, Part 3, 1952 edition)*

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## RESTRICTED

### INTRODUCTION

1. The general principles of colour identification and details of markings in this Section follow those laid down in Section 1, "General Introduction" which should be read in conjunction with it. There are exceptions, and some of these are explained by examples.

### METHOD OF IDENTIFICATION—GENERAL

2. The following methods of identification or a combination of these methods are used:—

Stamping, embossing, engraving, moulding, etc.  
Basic body identification colours.  
Ring indicating grenade contains an active agent.  
Ring(s) indicating type of charging of chemical grenades.  
Stencilling (including transfer and printing processes)  
Filling code abbreviations.

3. The distinctive colours of paints or other marking media used will be as follows:—

(a) *For basic body colours:—*

Black  
Turquoise blue  
Deep bronze green  
Sea green  
Light grey  
Red oxide  
White

(b) *For rings, stripes, symbols, stencilling, etc:—*

~~Black~~  
Azure blue  
Brilliant green  
Signal red  
Golden yellow  
Light brunswick green

### STAMPING, EMBOSSING, ENGRAVING, MOULDING, ETC.

4. The following permanent markings will be applied by an approved method or process in an approved and prominent position. They are required to indicate details of manufacture and acceptance inspection of the **empty** store, assembly or component. **They are not normally** required by the user and are usually overpainted with the basic body identification colour and stencilled markings.

|                                                           |                  |
|-----------------------------------------------------------|------------------|
| Abbreviated nomenclature, number and mark or model number | } of empty store |
| Manufacturer's recognized mark or initials                |                  |
| Lot, cast or batch number                                 |                  |
| Date of manufacture (month and year)                      |                  |



## BASIC BODY IDENTIFICATION COLOURS

5. The basic body colours and colours of the main details stencilled thereon indicate the type of the grenade, as follows:—

| Colour of              |                             | Nature         | Remarks                                                                                                                                                |
|------------------------|-----------------------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Body                   | Stencilling (main details)  |                |                                                                                                                                                        |
| Deep bronze green      | Golden yellow               | High explosive | As an exception, certain H.E. grenades (e.g. No. 36) with cast iron bodies may be phosphated and varnished instead of being painted deep bronze green. |
| Sea green              | Black                       | Smoke          | — INCLUDING LACHRYMATORY AND IRRITANT.                                                                                                                 |
| Light grey             | Black but see also para. 11 | Chemical       |                                                                                                                                                        |
| Red oxide              | Black                       | Incendiary     | SIGNAL                                                                                                                                                 |
| Turquoise blue         | White                       | Practice       |                                                                                                                                                        |
| White                  | Black                       | Drill          |                                                                                                                                                        |
| <i>ORIGINAL FINISH</i> | <i>BLACK</i>                |                |                                                                                                                                                        |

6. Coloured rings, bands or stripes are painted over the basic body colour to indicate:—

- (a) that the grenade contains or is assembled with an active agent.
- (b) the type of charging of chemical grenades.
- (c) Special features.

Where the ring, band or stripe is of the same colour as the basic body colour of the grenade on which it appears, it will be denoted by two black or white hair lines appropriately spaced.

7. Other coloured symbols or markings—Certain other coloured symbols or markings may be used to indicate special characteristics of grenades not covered by the standard approved markings.

### RING INDICATING GRENADE CONTAINS AN ACTIVE AGENT

8. A signal red ring painted over the basic body identification colour denotes that the grenade contains an active agent (explosive, chemical or otherwise) and is normally required to be classified for storage, transit and handling in a Government Explosive Group. There are three types of red ring, as follows:—

- (a) A plain red ring indicates suitability for issue and storage under all climatic conditions.
- (b) A cross-bar red ring indicates a limited life in hot or cold climates. It is a cautionary warning denoting that the store should be frequently inspected and/or tested to confirm its continued serviceability.

In addition to this symbol, when the store is restricted in transit and storage to below or above a specified temperature, the critical temperature figures enclosed in a rectangle preceded by the letters TSL (denoting "Transit and Storage

Temperature Limitation”) and the words “NOT ABOVE” or “NOT BELOW” (as applicable) will be stencilled in red on the body of the grenade, e.g.

TSL NOT ABOVE 

|       |
|-------|
| 120°F |
|-------|

 (actual temperature figure as applicable)

TSL NOT BELOW 

|       |
|-------|
| -25°F |
|-------|

 (actual temperature figure as applicable)

Where applicable the above-mentioned indications may be amalgamated either following or underneath one another, in which case the words “NOT ABOVE” or “NOT BELOW” will be omitted.

(c) *A hatched red ring* indicates restrictions of issue and storage to temperate climates only.

9. **Standard width of ring:**—This will depend on the size and shape of the grenade and will normally be as follows:—

|                          | <i>3 inch dia. and<br/>above</i>                                                  | <i>below 3 inch<br/>dia.</i>                                                      |
|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Plain red ring           | $\frac{1}{2}$ inch                                                                | $\frac{1}{4}$ inch                                                                |
| Cross-bar-cross red ring | $\frac{1}{2}$ inch                                                                | $\frac{1}{4}$ inch                                                                |
| Hatched red ring.        | $\frac{1}{2}$ inch wide centre<br>ring with hatched<br>bars of $\frac{3}{8}$ inch | $\frac{1}{4}$ inch wide centre<br>ring with hatched<br>bars of $\frac{1}{2}$ inch |

10. **Position.** This will depend on the nature and shape of the grenade. It is usually painted around the grenade near the top and above the stencilling.

#### RING(S) INDICATING TYPE OF CHARGING OF CHEMICAL GRENADES

11. The basic body colour of chemical grenades will be light grey and the type of charging will be classified according to its tactical use.

Green ring(s), with the code letters indicating the chemical agent also stencilled in green, indicate a casualty producing agent.

Red ring(s), with the code letters indicating the chemical agent also stencilled in signal red, indicate a harassing agent.

One coloured ring indicates a non-persistent and two rings a persistent agent.

12. **Standard width of rings**

3 inch dia. and above — 1 inch wide with 1 inch between rings if two are used.  
below 3 inch dia. —  $\frac{1}{2}$  inch wide with  $\frac{1}{2}$  inch between rings if two are used.

13. **Standard position of rings.** First ring to be positioned approximately one third of the distance down from the shoulder or main body of the grenade.

#### STENCILLING (including transfer and printing processes)

14. These details are applied over the basic body identification colour and give such additional information as is necessary to make identification complete. Examples are given in the following paragraphs and where the size and shape permit are normally stencilled on the grenade:—

(a) Abbreviated nomenclature, number and mark or model number. (If not already applied at the empty manufacture stage (*see para. 4*))

    Filled series lot number.

    Recognized monogram or initials of filler.

Date of filling (month and year).

Colour of smoke (in the case of coloured smoke grenades) e.g. RED, GREEN, BLUE or YELLOW (as applicable) the lettering being in golden yellow.

Recognized monogram or initials of charging station and date of charging (month and year) in the case of chemical stores only.

Code indicating nature of filling, smoke composition or chemical charging (as applicable).

Notes.— (i) For grenades filled with white phosphorus, the letters "WP" will be stencilled on the body in white lettering. *PROMINENTLY.*

(ii) For grenades filled with a chemical agent, the code indicating the nature of filling will be stencilled in the colour as shown in **para. 11.**

Instructions for use may also require to be given on some grenades.

(b) Where the size or shape of the grenade does not permit of the details referred to in (a) above being stencilled on the body, either all or part of the information required will be stamped, embossed, engraved or moulded on a convenient surface.

**15. Drill Grenades.** The word DRILL will be stencilled prominently in bold black lettering on the body. An exception will be made, however, for DRILL No. 36 Hand and Rifle grenades where, owing to their shape, this is not practicable; they are, however, additionally identified by holes drilled in the body.

**16. Size of stencilling.** Owing to the difference in size and shape, it is not possible to standardize the size of stencilled details. They should, however, be as large as the space available permits.

Nature of Filling abbreviations and codes and the word denoting the particular colour of smoke and flare compositions, etc. should so far as space permits, be twice the size of the remaining details stencilled on the store.

#### NATURE OF FILLING ABBREVIATIONS AND CODES

**17.** A list of approved nature of filling abbreviations and codes will be found in Tables 1 to 3 of Section 1, "General Introduction".

#### GRENADES OF FOREIGN ORIGIN

**18.** In certain cases, where grenades of foreign origin are adopted in the British Service, a foreign system of colour marking may be accepted to conform to the requirements of one or more of our allies.

In such cases details of the method of identification marking adopted will be promulgated by the Service concerned.

RESTRICTED

GRENADES

FIG.1 GRENADE, HAND No.36M.H.E

BODY PHOSPHATED  
AND STOVE VARNISHED

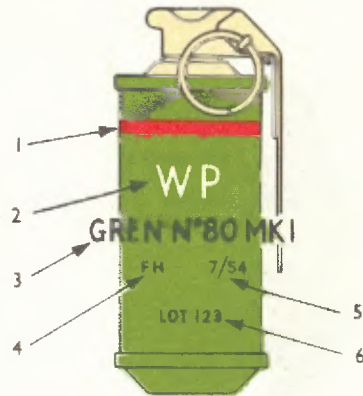


1... RED FILLING RING

NOTE

IF FILLED TNT THE LETTERS  
TNT WILL BE STENCILLED ON THE  
BODY IN LIGHT CONTRASTING  
COLOUR PAINT

FIG.2 GRENADE, No.80 W P



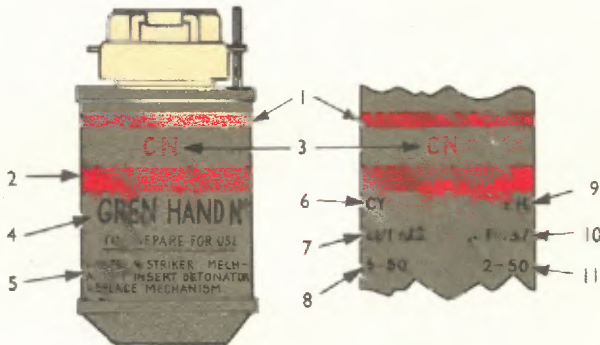
- 1... RED FILLING RING
- 2... NATURE OF FILLING (STENCILLED IN WHITE)
- 3... NOMENCLATURE AND MARK
- 4... RECOGNIZED MONOGRAM OR INITIALS OF CHARGING STATION
- 5... DATE OF CHARGING (MONTH AND YEAR)
- 6... FILLED LOT NUMBER

FIG.3 GRENADE, HAND,  
No.83 SMOKE (COLOURED)



- 1... RED FILLING RING
- 2... NOMENCLATURE AND MARK
- 3... FILLED LOT NUMBER
- 4... COMPOSITION CODE
- 5... DATE OF FILLING
- 6... COLOUR OF SMOKE (AS APPLICABLE) STENCILLED IN GOLDEN YELLOW
- 7... RECOGNIZED MONOGRAM OR INITIALS OF FILLER

FIG.4 GRENADE, HAND, CHEMICAL (TYPICAL)



- 1... RED FILLING RING
- 2... TYPE OF CHARGING (TACTICAL USE)
- 3... CODE OF CHARGING
- 4... NOMENCLATURE AND MARK
- 5... INSTRUCTIONS FOR USE
- 6... RECOGNIZED MONOGRAM OR INITIALS OF FILLER
- 7... FILLED LOT NUMBER
- 8... DATE OF FILLING (MONTH AND YEAR)
- 9... RECOGNIZED MONOGRAM OR INITIALS OF CHARGING STATION
- 10... FILLED LOT NUMBER
- 11... DATE OF CHARGING (MONTH AND YEAR)

CHARGING DETAILS

GRENADES

FIG. 1  
 GRENADE, RIFLE A.TK., No. 94

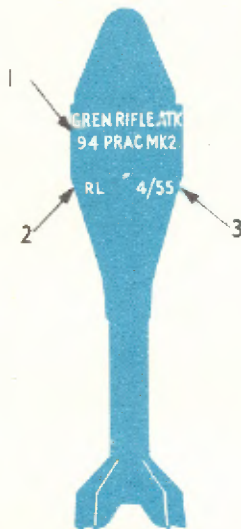
HEAT



- 1.. RED FILLING RING
- 2.. NOMENCLATURE AND MARK
- 3.. TYPE OF FILLING
- 4.. FILLED LOT NUMBER
- 5.. RECOGNIZED MARK OR INITIALS OF FILLER
- 6.. DATE OF FILLING (MONTH AND YEAR)

FIG. 2  
 GRENADE, RIFLE A.TK., No. 94

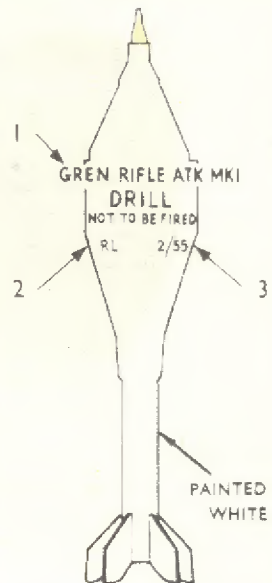
PRACTICE



- 1.. NOMENCLATURE AND MARK
- 2.. MANUFACTURERS RECOGNIZED MARK OR INITIALS
- 3.. DATE OF MANUFACTURE (MONTH AND YEAR)

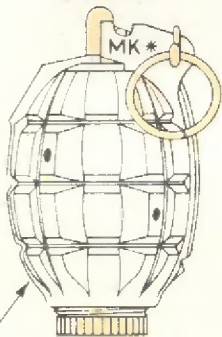
FIG. 3  
 GRENADE, RIFLE A.TK., No. 94

DRILL



- 1.. NOMENCLATURE AND MARK
- 2.. MANUFACTURERS RECOGNIZED MARK OR INITIALS
- 3.. DATE OF MANUFACTURE (MONTH AND YEAR)

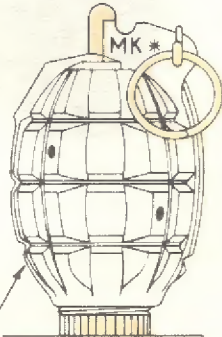
FIG. 4  
 GRENADE No. 36M HAND DRILL



PAINTED WHITE

\* MARK AS APPLICABLE

FIG. 5  
 GRENADE No. 36M RIFLE DRILL



PAINTED WHITE

\* MARK AS APPLICABLE

FIG. 6  
 GRENADE No. 80 DRILL

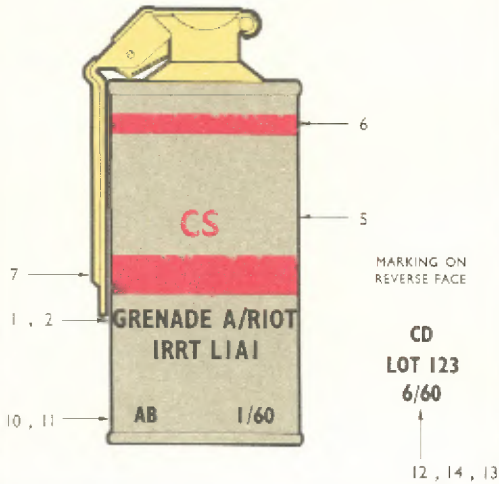


BODY PAINTED WHITE

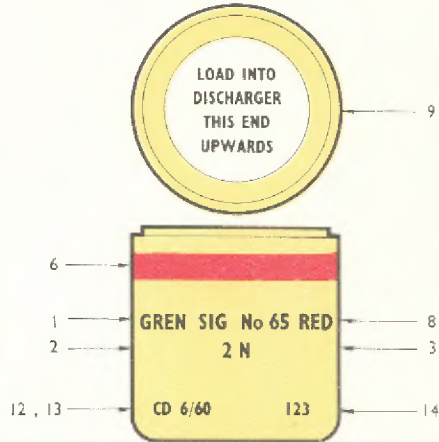
- 1.. NOMENCLATURE AND MARK
- 2.. MANUFACTURERS RECOGNIZED MARK OR INITIALS
- 3.. DATE OF MANUFACTURE (MONTH AND YEAR)

## GRENADES

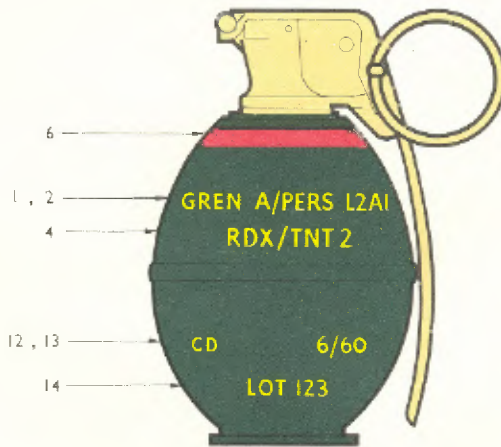
**FIG. 1** GRENADE, ANTI-RIOT, IRRITANT, L1A1  
Service :- NAVAL, LAND AND AIR



**FIG 2** GRENADE, SIGNAL, No.65  
RED, YELLOW OR GREEN  
Service :- NAVAL



**FIG. 3** GRENADE, ANTI-PERSONNEL, L2A1 H.E.  
Service :- NAVAL AND LAND



KEY TO MARKINGS

- |                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>1 ABBREVIATED NOMENCLATURE</p> <p>2 MODEL NUMBER AND/OR MARK OF STORE</p> <p>3 "N" INDICATING NAVAL SERVICE</p> <p>4 ABBREVIATION OR CODE DENOTING FILLING COMPOSITION USED</p> <p>5 CODE OF CHEMICAL FILLING AGENT</p> <p>6 RED FILLING RING</p> <p>7 RING INDICATING TYPE OF CHEMICAL CHARGING</p> | <p>8 WORD INDICATING COLOUR AS APPLICABLE</p> <p>9 INSTRUCTIONS FOR USE</p> <p>10 INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER</p> <p>11 DATE OF MANUFACTURE (MONTH &amp; YEAR)</p> <p>12 INITIALS OR RECOGNISED MONOGRAM OF FILLER</p> <p>13 DATE OF FILLING (MONTH &amp; YEAR)</p> <p>14 FILLED LOT NUMBER</p> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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## JOINT SERVICES AMMUNITION AND AMMUNITION PACKAGE MARKINGS HANDBOOK

### Section 7

NAVAL UNDERWATER WEAPONS, LAND SERVICE MINES AND FUZES,  
DEMOLITION CHARGES AND ASSOCIATED STORES, SWITCHES,  
EXPLODERS, ETC.

1961

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*Promulgated by Command of Their Lordships*

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## RESTRICTED

### INTRODUCTION

1. The general principles of colour identification and details of markings in this Section follow those laid down in Section 1, "General Introduction" which should be read in conjunction with it. There are exceptions, and some of these are explained by examples.

### METHODS OF IDENTIFICATION - GENERAL

2. Owing to the diverse natures of stores dealt with in this section, it is not possible to lay down any hard and fast system of identification markings. The following methods or a combination of these methods, will, however, be employed as circumstances permit:-

Stamping, embossing, engraving, moulding, etc.  
Basic body identification colours.  
Ring, band or stripe indicating store contains an active agent.  
Special feature rings, stripes, symbols or markings.  
Stencilling (including transfer or printing processes).

3. The distinctive colours of paints or other marking media used will be as follows:-

(a) *For basic body colours*

| <i>Nature of store</i>                                                      | <i>Basic body colour</i>                                                        |
|-----------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| <i>Naval Service</i>                                                        |                                                                                 |
| Mines, aircraft                                                             | } Deep bronze green                                                             |
| Depth charges, aircraft                                                     |                                                                                 |
| Projectiles, hedgehog                                                       |                                                                                 |
| Projectiles, A/S                                                            |                                                                                 |
| Depth charges (other than aircraft type)                                    | } Dark admiralty grey                                                           |
| Interior, torpedo warheads                                                  |                                                                                 |
| Limpets                                                                     |                                                                                 |
| Mine charge cases                                                           |                                                                                 |
| Torpedo warheads (filling details will be marked on outer door or bulkhead) | } Self-colour zinc sprayed (outer door or bulkhead to be painted golden yellow) |
| Projectiles, A/S light,                                                     | Golden yellow                                                                   |
| Torpedoes, practice and torpedo heads, practice                             | } Arc chrome yellow (N.S. Pattern 7056)                                         |
| Mines, buoyant and submarine laid                                           | } Black                                                                         |
| Devices, rope cutting                                                       |                                                                                 |
| Charges, demolition                                                         |                                                                                 |
| <i>Land Service</i>                                                         |                                                                                 |
| Mines                                                                       | } Deep bronze green                                                             |
| Charges, demolition                                                         |                                                                                 |
| Bangalore torpedoes                                                         |                                                                                 |
| Uncased charges and cased intermediaries                                    | } Uncoloured protective wrapper or carton, which may be varnished               |
| <i>Air Service</i>                                                          |                                                                                 |
| Destructors, H.E., aircraft                                                 | Deep bronze green                                                               |

*All Services*

|                                                                             |                |
|-----------------------------------------------------------------------------|----------------|
| Smoke stores                                                                | Sea green      |
| Incendiary stores                                                           | Red oxide      |
| Flame stores                                                                | Signal red     |
| Chemical stores                                                             | Light grey     |
| Practice stores and mines, exercise (Naval)                                 | Turquoise blue |
| Drill, inert and imitation stores (for exceptions see }<br>paras. 10 to 15) | Black          |

(b) *For rings, stripes, symbols, etc.*

Azure blue  
Turquoise blue  
Brilliant green  
Light brunswick green  
Signal red  
Golden yellow

(c) *For stencilling details.* Unless specially stated otherwise, stencilling colours will be related to basic body colours, as follows:-

| <i>Basic body colour</i> | <i>Stencilling colour</i>    |
|--------------------------|------------------------------|
| Black                    | White                        |
| Turquoise blue           | White                        |
| Deep bronze green        | Golden yellow                |
| Sea green                | Black                        |
| Light grey               | Red or green (as applicable) |
| Dark admiralty grey      | White                        |
| Red oxide                | Black                        |
| Signal red               | Black                        |
| White                    | Black                        |
| Golden yellow            | Black                        |

4. The following stores are included in this section:-

(a) *Naval Service*

Warheads, torpedo  
Mines and mine charge cases  
Depth charges  
Projectiles, Hedgehog and A/S.  
Charges, demolition  
Devices, rope cutting  
Charges for explosive sweep  
Primers for warheads, mines and depth charges  
"T" cutters  
Detonators  
Practice torpedoes  
Limpets

(b) *Land Service*

Bangalore torpedoes  
Mines and fuzes, anti-tank, anti-personnel, beach and fluvial  
Explosive mine - Clearance devices  
Miscellaneous demolition stores  
Charges demolition  
Switches and mechanisms

(c) *Air Service*

Destructors, H.E., Aircraft

**Note.** Demolition and other relevant stores are included in Naval and Land Service lists in sub-para. (a) and (b) above.

## CLASSIFICATION OF STORES

5. Although rigid classification of all stores in this section is difficult, if not impossible, the majority of them can nevertheless be grouped as follows:-
- (a) *Cased charges*: including warheads, mines, depth charges, projectiles hedgehog, projectiles A/S, anti-tank mines, limpets, demolition charges, etc.
  - (b) *Uncased charges*: e.g. CE/TNT slabs, and wrapped cartridges such as gelignite, Nobel's 808.
  - (c) *Cased intermediaries*: e.g. primers warhead, detonator-bursters (other than for aircraft bombs), CE and TNT exploders.
  - (d) *Uncased intermediaries*: e.g. dry guncotton primers, CE and TNT primers and exploders.
  - (e) *Fuzes*, anti-tank and anti-personnel mines.
  - (f) *Initiators*: e.g. caps, detonators.
  - (g) *Initiatory mechanisms*: e.g. igniters, switches, delay mechanisms.
  - (h) *Cord fuzes*: e.g. time fuze, instantaneous fuze, detonating cord.

## STAMPING, MOULDING, EMBOSSING, ENGRAVING, ETC.

6. The following permanent markings will normally be applied by an approved method or process and will be prominently marked in an approved position. They are required to indicate details of manufacture of the empty store or component and acceptance inspection. **They are not normally required by the user.** Such details are usually overpainted by the basic body identification colour and the stencilling, etc.:-

Initials or recognized monogram of manufacturer. }  
Date of manufacture (month and year). } of empty store.  
Other markings may also be employed on certain stores.

## RING, BAND OR STRIPE INDICATING STORE CONTAINS AN ACTIVE AGENT

7. The ring, band or stripe will be in signal red to denote that the store contains an active agent (explosive, chemical or otherwise) and is normally required to be classified for storage, transit and handling in a government explosives group. It will be applied in a prominent position which will be determined by the shape of the store and the user requirements.

There are three types, as follows:-

*OR AS DANGEROUS FOCUS, SEE PARA 17 (c)*

- (a) *A plain red ring, band or stripe* indicates suitability for transit, issue and storage under all climatic conditions.
- (b) *A cross-bar-cross red ring, band or stripe* denotes a limited life in hot or cold climates. It is a cautionary warning denoting that the store should be frequently inspected and/or tested to confirm its continued serviceability.

In addition to this symbol, when the store is restricted in storage and transit to below or above a specified temperature, the critical temperature figures enclosed in a rectangle preceded by the letters TSL (denoting "Transit and Storage Temperature Limitation") and the words NOT "ABOVE" or "NOT BELOW" (as applicable) will be stencilled in signal red on the body of the store, e.g.:-

TSL NOT ABOVE 120F (Actual temperature figure as applicable)

or

TSL NOT BELOW - 25F (Actual temperature figure as applicable).

Where applicable the above-mentioned indications may be amalgamated, either following or underneath one another, in which case the words "NOT ABOVE" or "NOT BELOW" will be omitted.

- (c) *A hatched red ring, band or stripe* denotes restriction of issue, transit and storage to temperate climates only.

## STENCILLING (including transfer or printing processes)

8. These details will be applied over the basic body identification colour to give such additional information as is necessary to make identification complete. They are applied in a contrasting colour (see para. 3(c)) and include the following:—

Approved abbreviated nomenclature and mark or model number of the filled store.  
Abbreviated code denoting nature of main explosive filling.  
Filled lot or series number.  
Filler's initials or recognized monogram.  
Date of filling (month and year).

For typical examples see Plates 1 to 11.

## SPECIAL REQUIREMENT BASIC BODY COLOURS AND MARKINGS

### 9. Cased charges

- (a) *Operational.* These charges will normally be painted a basic body identification colour as laid down in para. 3(a). To meet the requirements of camouflage, for ease of recovery, for preservation or for differentiation of the store, a basic body colour as determined by the user Service may be specified in lieu. They will have the red filling ring (see para. 7) and details as shown in para. 8 stencilled on the body. See Plate 5, Fig. 2.
- (b) *Stores with transparent plastic casing.* These may have the red filling ring (see para. 7) and filling details (see para. 8) printed on a label applied to the inside surface of the case. Stores with plastic cases are often difficult to paint. They are, therefore, normally left in their natural colour and stencilling is replaced by transfers or labelling where necessary. See Plate 5, Fig. 1.
- (c) *Drill, inert, imitation, etc.* In *Naval Service* inert filled stores which may be used for drill purposes will be painted a basic body identification colour according to the requirements of the Service, and the word **INERT** will be stencilled in a contrasting colour in a prominent position.

In *Land Service* drill, inert or imitation cased charges will normally be painted black and will have the word **DRILL, INERT** or **IMITATION** (as applicable) stencilled in white in a prominent position. The word **DRILL, INERT, or IMITATION** (as applicable), will always be present irrespective of the basic body identification colour adopted. Certain Royal Engineer inert and imitation mines and similar stores may be left in the natural colour of the material from which manufactured. Alternatively, if specifically required by the user Service the basic body identification colour may conform to that of the equivalent operational store. In such cases, however, the red filling ring (see para. 7) must on no account be applied. The following particulars will be stencilled in a contrasting colour in bold type in a prominent position:—

Approved abbreviated nomenclature, e.g.,

“MINE A.TK No. . . .

**DRILL, INERT** or **IMTN** (as applicable) MK . . .

**SAND/PITCH**, etc. (if applicable)”

Filler or assemblers' initials or recognized monogram.

Date of filling or assembly (month and year).

The above stencilled details will always be present irrespective of what basic body colour is adopted (see Plate 9).

In the *Air Service* drill, inert or imitation stores of *Naval* or *Land Service* origin will be identified in accordance with the policy adopted by the parent Service.

- (d) *Practice* (except as indicated in para. 3(a)). These stores, will, where possible, be painted a basic body identification colour of turquoise blue. The wide yellow band previously painted around the body to denote a practice store will no longer be used.

The following particulars will be stencilled in white in bold type in a prominent position:—

“**PRACTICE**” or abbreviation “**PRAC**”

“**HE SUB**” or code indicating nature of filling (if applicable).

Filler or assembler’s initials or recognized monogram.

Date of filling or assembly (month and year).

*Land Service* practice mines are for use on exercises and consist of an inert filled body in conjunction with a special fuze (usually pyrotechnic) which functions to show that the mine has been actuated. This fuze will be coloured a basic colour of turquoise blue and will have a red filling ring painted around it if space allows. If the inserted fuze is not visible, the mine body will carry the red filling ring and will additionally be marked with the word “**PRACTICE**”.

- (e) *Instructional*. These stores normally consist of an inert replica of the completely assembled operational or practice store they represent. They contain no explosive or pyrotechnic compositions. They will be painted a basic body colour and stencilled strictly to conform to the particular Service equivalent they represent. The words “**INERT INSTRUCT**” will be stencilled prominently on each separately assembled component in the same colour as used for the other main details. Instructional stores are provided for use in lecture rooms, for teaching identification and for display purposes.

#### 10. Uncased charges

- (a) *Operational*. These will not normally have the red filling ring (see para. 7) applied, and can be sub-divided as follows:—
- (i) *Charges enclosed in cartons* (e.g. CE/TNT slabs). These have the details shown in para. 8 printed on the carton. (see Plate 10, Fig. 2).
- (ii) *Charges wrapped in paper* (e.g. cartridges of gelignite, plastic explosives, etc.). These will have the details shown in para. 8 printed on the wrapper. Some, however, may be trade stores and sufficient details for identification will normally be printed on the paper wrapping, although such markings may not conform to approved Service markings.
- (iii) *Charges without any wrapping*. These charges will not normally bear any markings, all necessary details being found on the package.
- (b) *Drill*. These will normally be made up from wood or other inert material and painted black or left in the natural colour. The word **DRILL** will be stencilled in white in bold type in a prominent position.

#### 11. Cased intermediaries

- (a) *Operational*. These will normally be marked with a red filling ring as indicated in para. 7. Where size permits the details shown in para. 8 (with the exception of the abbreviated code denoting the nature of the main explosive filling) will be stencilled on the store. Where the size of the store is too small to permit of stencilling the details will be applied to the body by stamping, embossing, rolling on or by a label.
- (b) *Drill*. These will be treated as in para 10(b).

#### 12. Uncased intermediaries

- (a) *Operational*. These will be treated as in paras. 10(a) (ii) and (iii).
- (b) *Drill*. These will be treated as in para. 10(b).

#### 13. Fuzes, anti-tank and anti-personnel (see Plate 6)

These will not normally be painted a basic body identification colour, stencilled, or have a red filling ring (see para. 7) applied. They will be stamped with the store number and mark or model number, the empty maker’s initials or recognized trade mark, lot or batch number and year of manufacture (see para. 6). The filled series lot number, the filler’s initials or recognized



monogram, and date (month and year) of filling or assembly will also be stamped or shown on a label affixed to the store.

Fuzes for mines, anti-tank, are always packed separately and must be assembled to the mine immediately before laying.

Fuzes for mines, anti-personnel, are normally issued packed separately but in the same box as the mine with which used.

#### 14. Initiators

Stencilling or stamping of caps, detonators, etc. is normally impracticable owing to the small size of these stores. The necessary information will therefore be found on the package (see Section 5, Part 1).

#### 15. Initiatory mechanisms (see Plate 7)

(a) *Switches, igniters, etc.* will not normally be painted or stencilled, but will be stamped with the nomenclature and mark, the maker's initials or recognized mark, and date of manufacture (month and year). Explosive components, such as capped snouts, will be distinguished by a red ring or annulus.

(b) Delay switches will normally be colour coded to indicate times of delay. The coding colours and their significance will be as follows:

|              |                          |               |                   |
|--------------|--------------------------|---------------|-------------------|
| <b>Black</b> | = 10 minutes delay       | <b>Green</b>  | = 5 hrs delay     |
| <b>Red</b>   | = $\frac{1}{4}$ hr delay | <b>Yellow</b> | = 12/14 hrs delay |
| <b>White</b> | = 2 hrs delay            | <b>Blue</b>   | = 25/30 hrs delay |

Some delay switches, however, may have the time of delay marked on a label or tag in place of colour coding. Their range of delays may also exceed those covered by the coding colours specified above.

#### 16. Cord fuzes

Normally it is impracticable to identify such stores by stencilling, stamping, etc. although in the case of drill cordtex it will be identifiable as follows:—

(a) Earlier issues will have a plain or semi-transparent white cover with an interwoven red thread. This cover will be marked at foot intervals, with the word "**DRILL**" in bright red.

(b) Later issues will be distinguished by a longitudinal ridge on the surface of the cover. The ridge will extend along the entire length of the cordtex. The cover will not be marked "**DRILL**" but the cordtex will be wound on brown painted reels (in Cylinder No. 443 and Box 340) stencilled with the word "**DRILL**".

The ridge method of marking provides identification by touch as well as by sight, giving positive identification under conditions of poor visibility.

## FILLING ABBREVIATIONS AND CODES

17. Filling abbreviations and codes will be found listed in Tables 1-3 of Section 1, General Introduction. They should, so far as space permits, be marked twice the size and in the same colour as the main identification details on the store. They will be applied as follows:—
- (a) Abbreviations or codes denoting the type of H.E. filling will be marked twice, diametrically opposite, on stores 3 inches diameter and above and once on others.
  - (b) Abbreviations or codes denoting the particular composition used in Flare, Illuminating, Incendiary, Smoke or Star stores will be marked once only on the store.
  - (c) Stores which are classified as "Dangerous Goods" (see Appendix A of the Comprehensive Classified List of Government Explosives, 1958, prepared by the E.S.T.C.) will be marked with the nature of filling, particularly when they are stored and transported unpackaged.

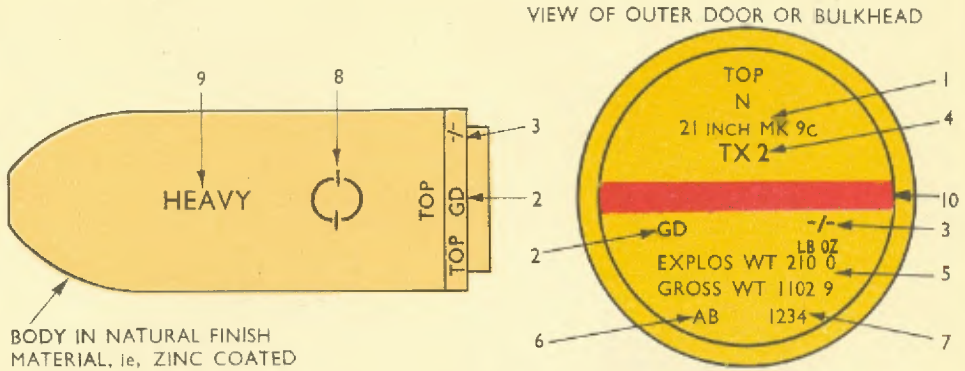
## GENERAL

18. Owing to the great variety of stores dealt with in this section, no comprehensive set of coloured illustrations is possible, within the scope of this publication. A number of typical examples are, however, illustrated in **Plates 1 to 11.**

RESTRICTED

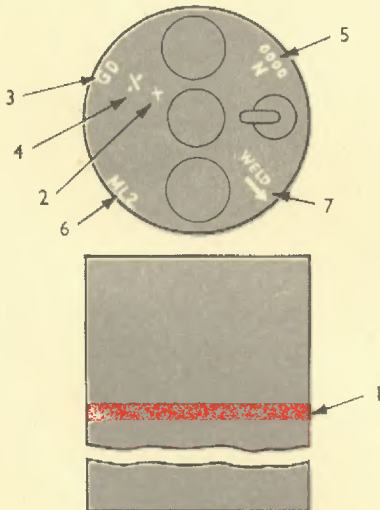
MISCELLANEOUS - NAVAL SERVICE

FIG.1 TORPEDO WARHEAD



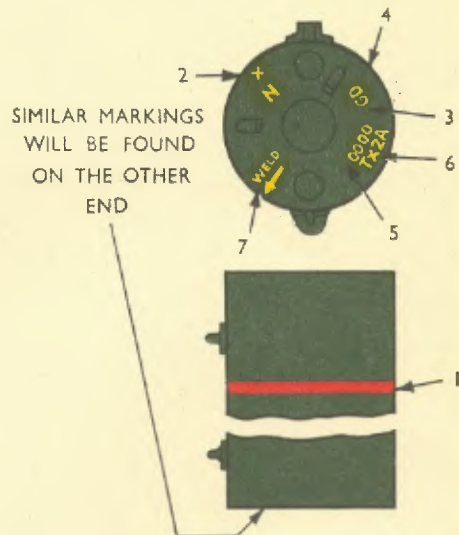
- |                                                       |                                                                                                         |
|-------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| 1....SIZE AND MARK (INCLUDING TYPE LETTER)            | 7.... REGISTER NUMBER                                                                                   |
| 2....RECOGNIZED MONOGRAM OR INITIALS OF FILLER        | 8....CENTRE OF GRAVITY SYMBOL (IN 3 PLACES AROUND WARHEAD)                                              |
| 3.... DATE OF FILLING                                 | 9...."HEAVY" (IN 3 PLACES) INDICATING THAT WARHEAD IS HEAVIER THAN PREVIOUS TNT FILLED STANDARD WARHEAD |
| 4....CODE DENOTING FILLING COMPOSITION USED           | 10....RED FILLING BAND                                                                                  |
| 5....WEIGHT DETAILS                                   |                                                                                                         |
| 6.... RECOGNIZED MONOGRAM OR INITIALS OF MANUFACTURER |                                                                                                         |

FIG.2 DEPTH CHARGES (SHIPS)



- |                                                |
|------------------------------------------------|
| 1....RED FILLING RING                          |
| 2.... MARK OF DEPTH CHARGE (AS APPLICABLE)     |
| 3....RECOGNIZED MONOGRAM OR INITIALS OF FILLER |
| 4....DATE OF FILLING                           |

DEPTH CHARGES (AIRCRAFT)

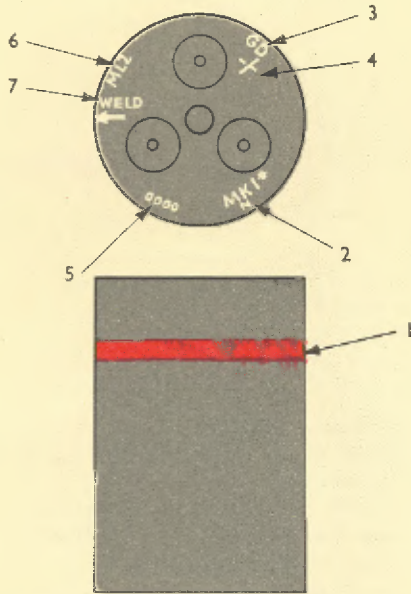


- |                                               |
|-----------------------------------------------|
| 5....SERIAL NUMBER                            |
| 6....CODE DENOTING FILLING COMPOSITION USED   |
| 7....INDICATING POSITION OF LONGITUDINAL WELD |

MISCELLANEOUS (NAVAL SERVICE)

FIG. 1

CASE CHARGES



- 1 RED FILLING RING
- 2 MARK (AS APPLICABLE)
- 3 RECOGNISED MONOGRAM OR INITIALS OF FILLER
- 4 DATE OF FILLING
- 5 SERIAL NUMBER
- 6 CODE DENOTING FILLING COMPOSITION USED
- 7 INDICATING POSITION OF LONGITUDINAL WELD

MISCELLANEOUS (NAVAL SERVICE)

PROJECTILE HEDGEHOG

FIG. 1

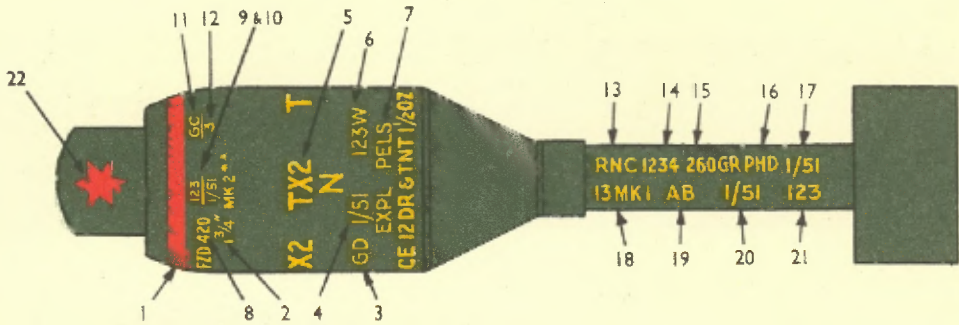
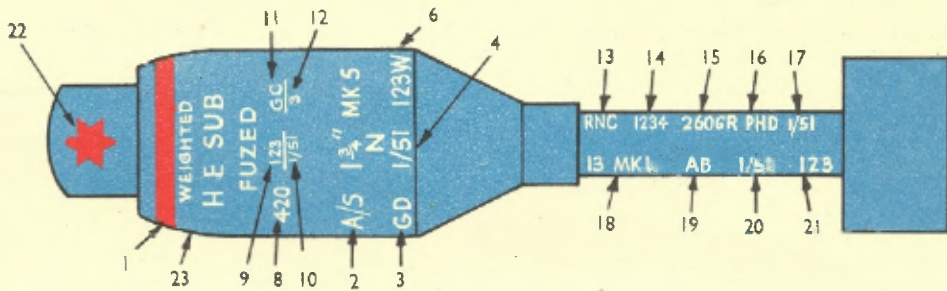


FIG. 2

PROJECTILE A/S, PRACTICE HEDGEHOG

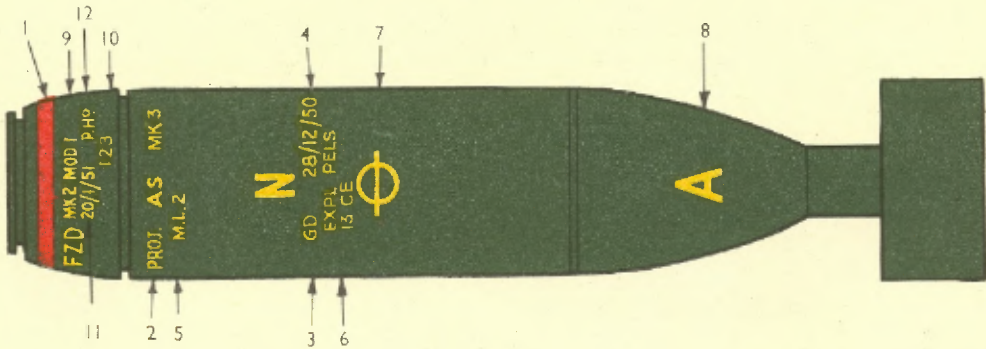


- |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>1 RED FILLING RING</p> <p>2 SIZE AND MARK</p> <p>3 INITIALS OR RECOGNIZED MONOGRAM OF FILLER</p> <p>4 DATE OF FILLING (MONTH AND YEAR)</p> <p>5 FILLING CODE LETTERS DENOTING TYPE OF FILLING</p> <p>6 LOT NUMBER (EMPTY AND FILLED) WITH CODE LETTER DENOTING MAKER</p> <p>7 EXPLODER DETAILS</p> <p style="text-align: center;">FUZE PARTICULARS</p> <p>8 SERIAL NUMBER</p> <p>9 FILLED LOT NUMBER</p> <p>10 CONTRACTORS RECOGNIZED MARK OR INITIALS</p> <p>11 DATE OF FILLING (MONTH AND YEAR)</p> <p>12 MARK</p> <p style="text-align: center;">23. NATURE OF FILLING (IN TWO PLACES DIAMETRICALLY OPPOSITE)</p> | <p style="text-align: center;">CARTRIDGE PARTICULARS</p> <p>13 DISTINGUISHING LETTERS OF PROPELLANT MANUFACTURER</p> <p>14 LOT NUMBER OF PROPELLANT</p> <p>15 WEIGHT OF CHARGE (IN GRAINS)</p> <p>16 INITIALS OR RECOGNIZED MONOGRAM OF FILLER</p> <p>17 DATE OF FILLING (MONTH AND YEAR)</p> <p style="text-align: center;">PRIMER PARTICULARS</p> <p>18 NUMBER AND MARK</p> <p>19 INITIALS OR RECOGNIZED MONOGRAM OF FILLER</p> <p>20 DATE OF FILLING (MONTH AND YEAR)</p> <p>21 LOT NUMBER</p> <p>22 DENOTES THAT PROJECTILE IS FUZED</p> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

MISCELLANEOUS (NAVAL SERVICE)

FIG. 1.

PROJECTILE, A.S.



- 1 RED FILLING RING
- 2 NOMENCLATURE AND MARK
- 3 INITIALS OR RECOGNIZED MONOGRAM
- 4 DATE OF FILLING OF FILLER
- 5 CODE DENOTING FILLING COMPOSITION USED
- 6 EXPLODER DETAILS

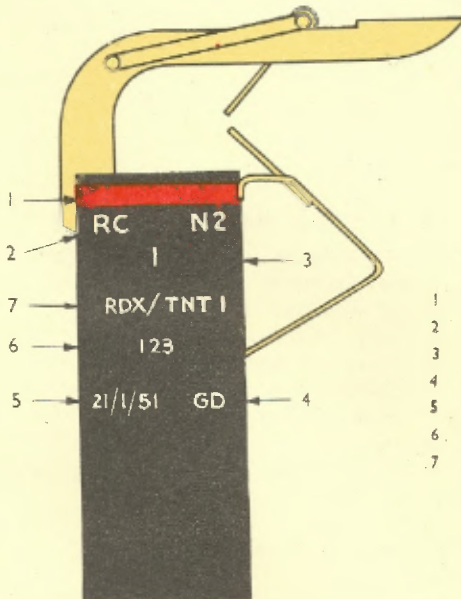
- 7 CENTRE OF GRAVITY SYMBOL (IN THREE PLACES EQUALLY SPACED AROUND BODY)
- 8 "A" DENOTES THAT THE TAIL CONE HAS BEEN ANNEALED

FUZE PARTICULARS

- 9 MARK AND MOD. NUMBER
- 10 LOT NUMBER
- 11 DATE OF FUZING PROJECTILE
- 12 RECOGNISED MONOGRAM OR INITIALS OF FILLER OF FUZE

FIG. 2.

DEVICE, ROPE CUTTING.



- 1 RED FILLING RING
- 2 NOMENCLATURE
- 3 MARK
- 4 INITIALS OR RECOGNIZED MONOGRAM
- 5 DATE OF FILLING OF FILLER
- 6 SERIAL NUMBER
- 7 CODE DENOTING FILLING COMPOSITION USED

MISCELLANEOUS (LAND SERVICE)

FIG. 1.

MINE, ANTI-PERSONNEL No. 6, MK. I

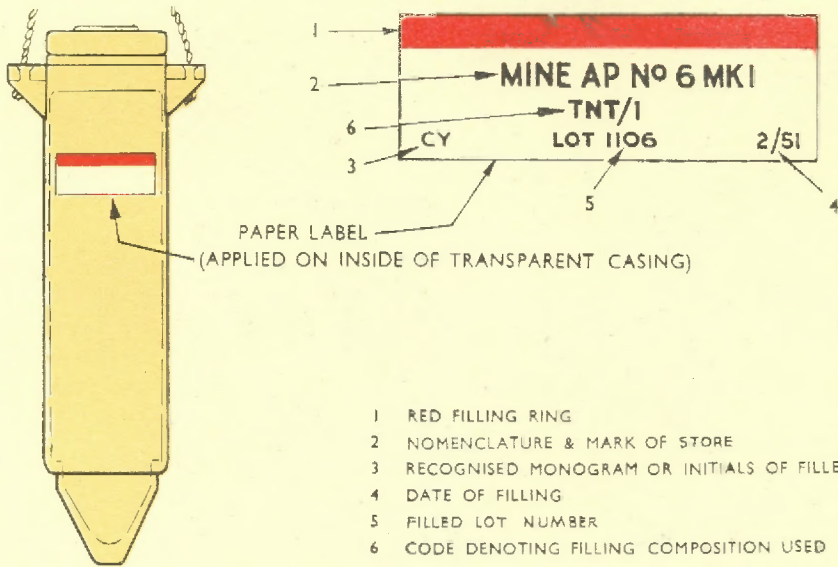
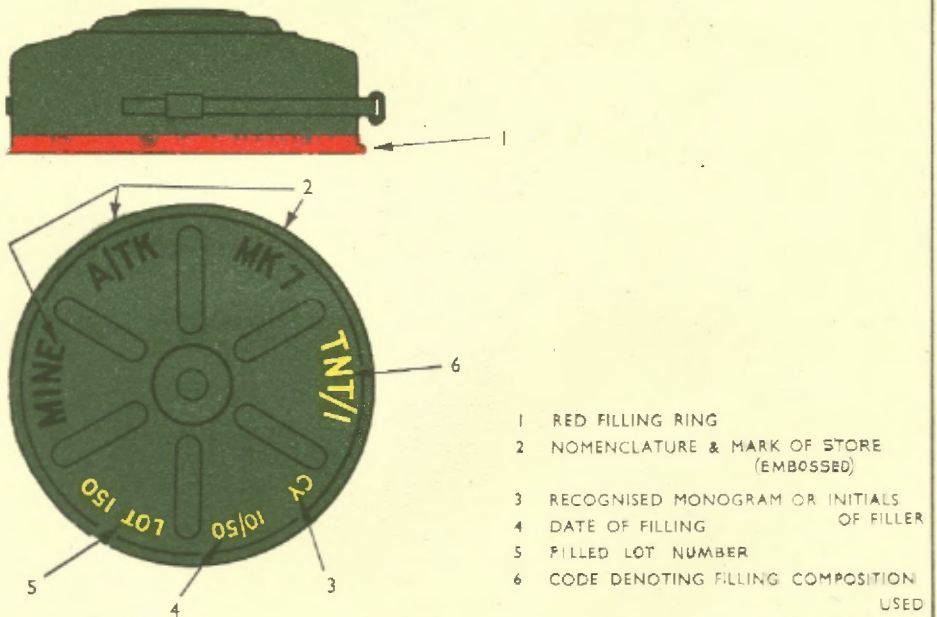


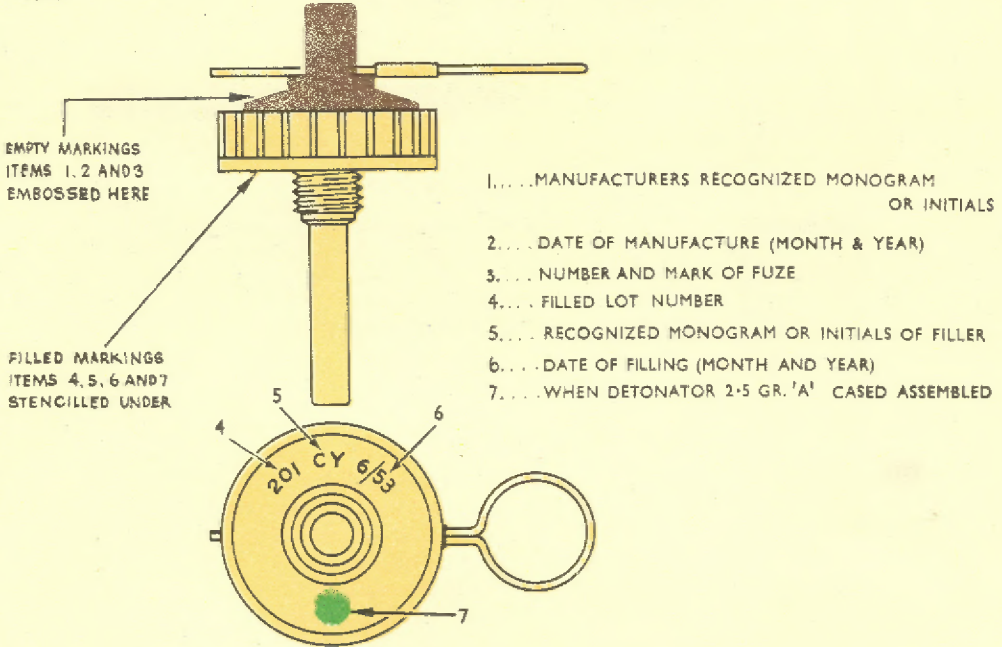
FIG. 2.

MINE, A/TK., MK. 7.



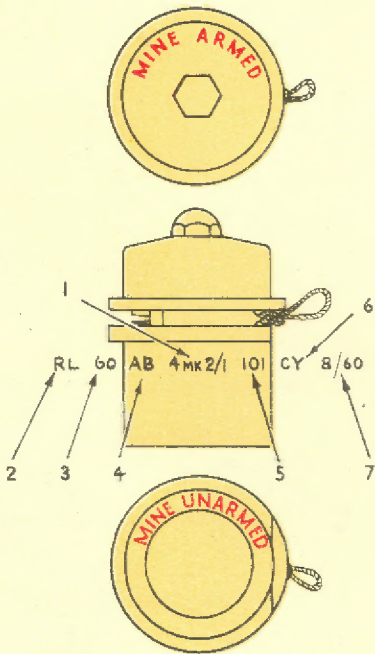
MISCELLANEOUS (LAND SERVICE)

FIG. 1 FUZE, MINE, ANTI-PERSONNEL, No.2, MARK2/I



FUZE, MINE, A.T.K., No.4, MARK2/I

FIG. 2



EMPTY DETAILS:-

- 1... NUMBER AND MARK OF FUZE
- 2... MANUFACTURERS RECOGNIZED  
MONOGRAM OR INITIALS
- 3... YEAR OF MANUFACTURE
- 4... TWO LETTER COMBINATION TO INDICATE  
SERIES LOT NUMBER

FILLED DETAILS:-

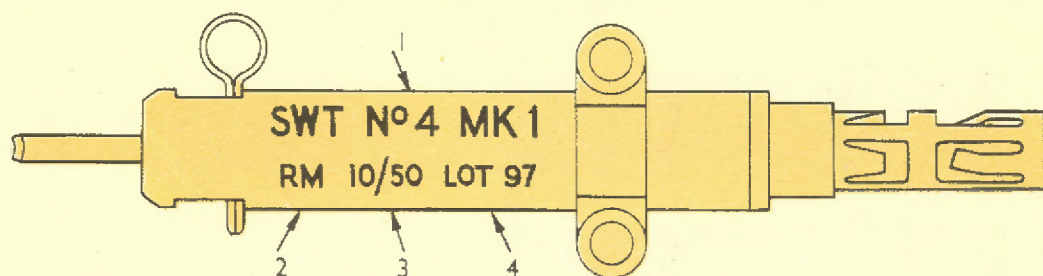
- 5... LOT NUMBER
- 6... RECOGNIZED MONOGRAM OR INITIALS  
OF FILLER
- 7... DATE OF FILLING (MONTH AND YEAR)



MISCELLANEOUS (LAND SERVICE)

FIG. 1

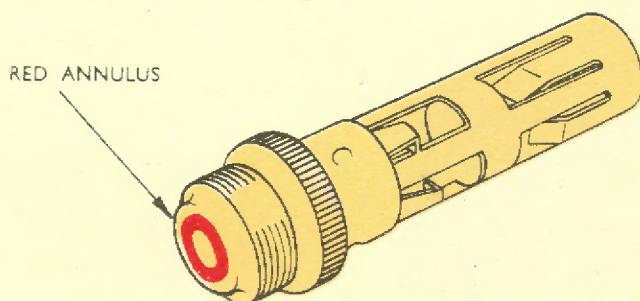
SWITCH, PULL No. 4, MK. I



- 1..... NOMENCLATURE AND MARK OF STORE
- 2..... MANUFACTURERS' RECOGNISED MONOGRAM OR INITIALS
- 3..... DATE OF MANUFACTURE (MONTH AND YEAR)
- 4..... LOT NUMBER

FIG. 2

SNOUT, SWITCH, CAPPED MK. I



NOTE:-  
DETAILS OF NOMENCLATURE, MARK OF STORE, MANUFACTURERS' INITIALS AND LOT NUMBER ARE GIVEN ON OUTSIDE OF PACKAGE CONTAINING SWITCHES.

FIG. 3

SWITCH, TIME PENCIL No. 10, MK. I

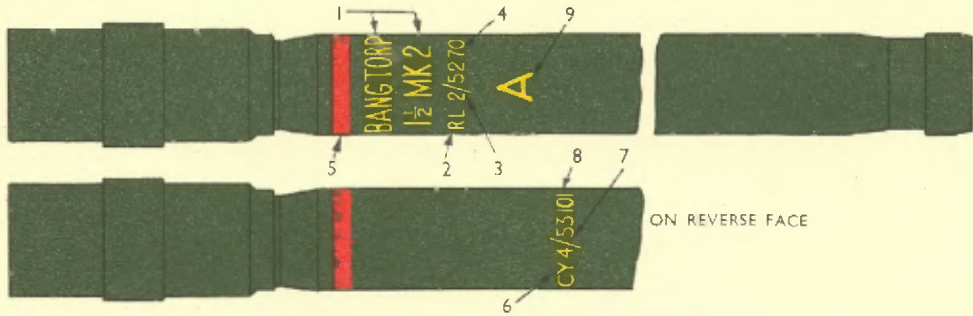


- 1..... RED FILLING RING
- 2..... COLOURED PATCH INDICATING TIME OF DELAY

NOTE:-  
DETAILS OF NOMENCLATURE, MARK OF STORE, MANUFACTURERS' INITIALS AND LOT NUMBER ARE GIVEN ON OUTSIDE OF PACKAGE CONTAINING SWITCHES.

MISCELLANEOUS (LAND SERVICE)

FIG.1 BANGALORE TORPEDO, SECTIONAL, 1½ -IN., 6 FT. MK 2.



EMPTY DETAILS:-

- 1....NOMENCLATURE AND MARK
- 2....MANUFACTURERS RECOGNIZED MONOGRAM OR INITIALS
- 3....DATE OF MANUFACTURE
- 4....LOT NUMBER

FILLED DETAILS:-

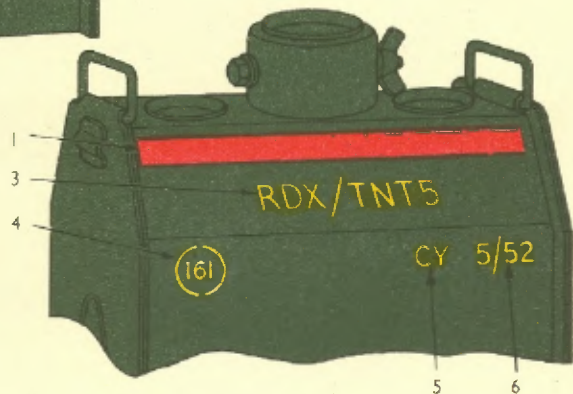
- 5....RED FILLING RING
- 6....RECOGNISED MONOGRAM OR INITIALS OF FILLER
- 7....DATE OF FILLING
- 8....LOT NUMBER
- 9....FILLING CODE

FIG.2

CHARGE, DEMOLITION, No.14  
11-lb. MARK I



ON REVERSE FACE



- 1....RED FILLING BAND
- 2....NOMENCLATURE AND MARK
- 3....FILLING CODE
- 4....FILLED SERIES NUMBER
- 5....RECOGNISED MONOGRAM OR INITIALS OF FILLER
- 6....DATE OF FILLING (MONTH AND YEAR)

MISCELLANEOUS (LAND SERVICE)

FIG.1 MINE A-TK., INERT

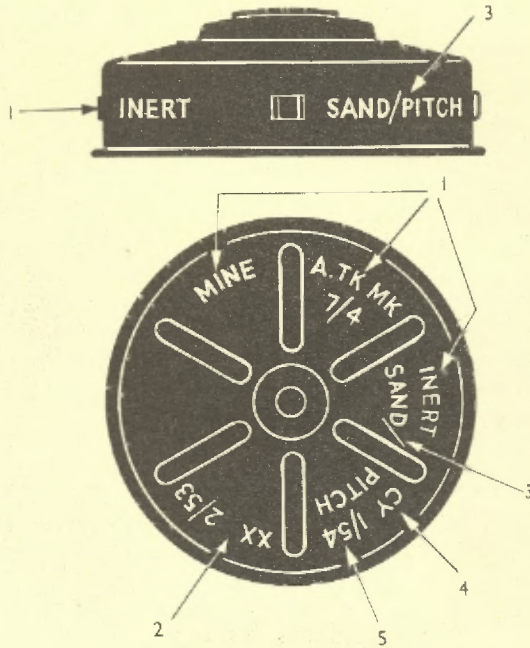
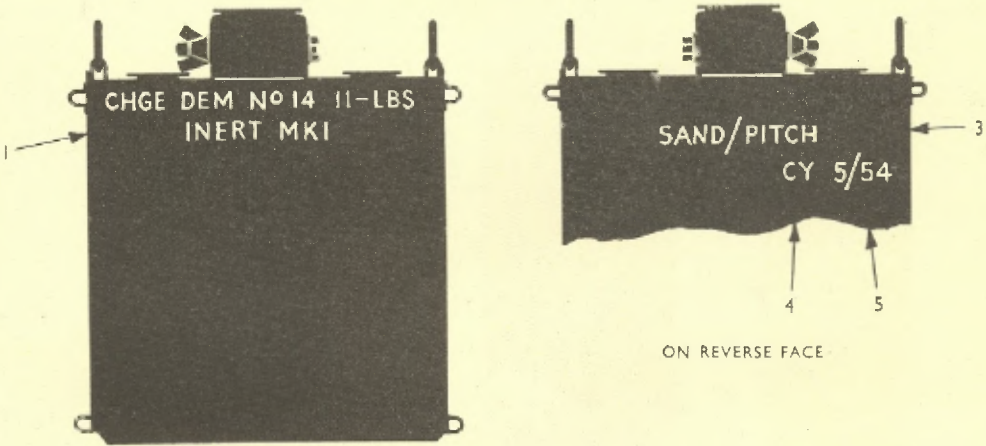


FIG.2 DEMOLITION CHARGE, INERT



- 1 ABBREVIATED NOMENCLATURE & MARK
- 2 RECOGNISED MONOGRAM OR INITIALS OF MANUFACTURER AND DATE OF MANUFACTURE
- 3 NATURE OF FILLING (MONTH AND YEAR)
- 4 RECOGNISED MONOGRAM OR INITIALS OF FILLER
- 5 DATE OF FILLING

MISCELLANEOUS (NAVAL AND LAND SERVICES)

FIG. 1

DEMOLITION CHARGES

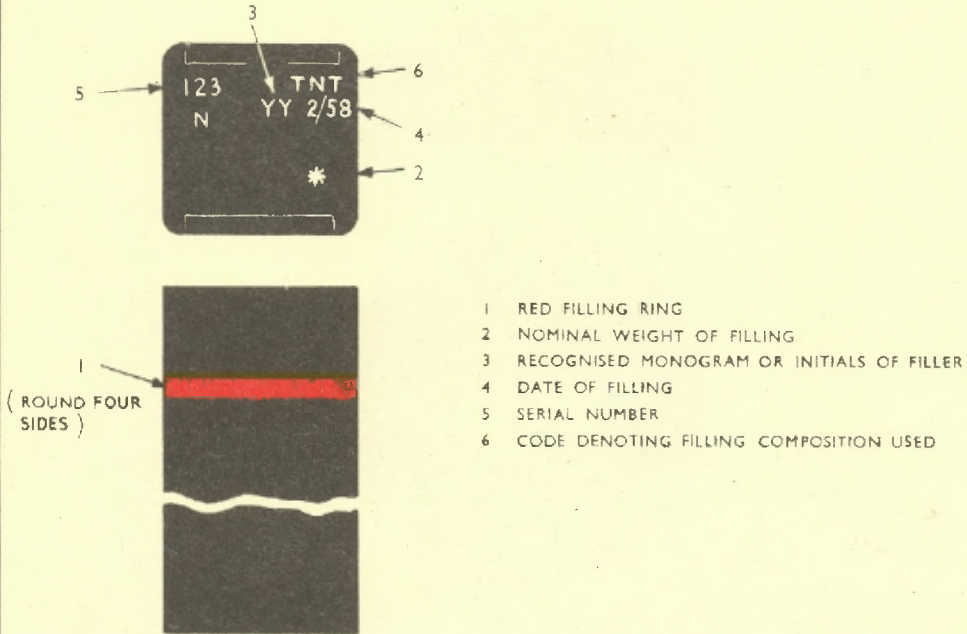
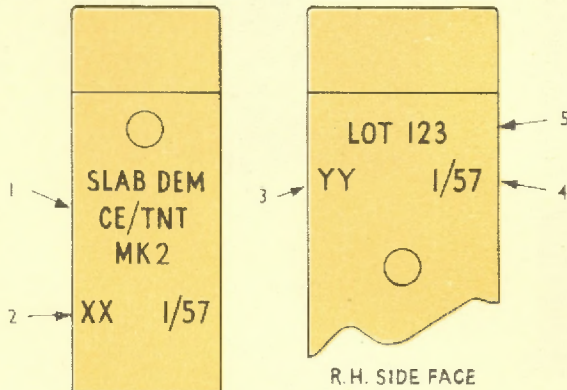


FIG. 2

DEMOLITION SLAB

EMPTY MARKINGS

FILLED MARKINGS



FRONT FACE

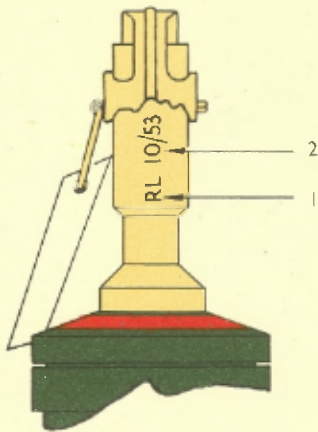
R.H. SIDE FACE

- 1 ABBREVIATED NOMENCLATURE AND MARK
- 2 RECOGNISED MONOGRAM OR INITIALS OF MANUFACTURER AND DATE OF MANUFACTURE (MONTH AND YEAR)
- 3 RECOGNISED MONOGRAM OR INITIALS OF FILLER
- 4 DATE OF FILLING
- 5 LOT NUMBER

MISCELLANEOUS (AIR SERVICE)

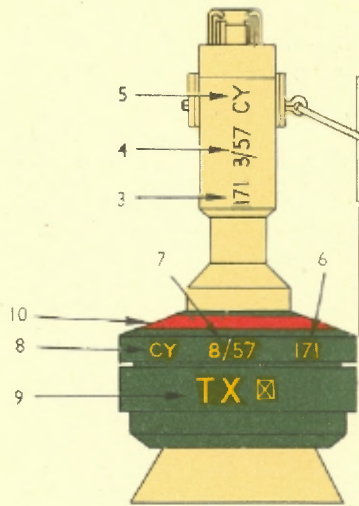
DESTRUCTOR, A/C  
HE No.1 MK.1

EMPTY STAMPINGS



ON REVERSE FACE

FILLED STAMPINGS



DESTRUCTOR H.E. No.1 MK.1(AIR)  
PRIMARY SAFETY PIN  
CAUTION- THIS PIN MUST NOT  
BE REMOVED UNLESS THE  
DESTRUCTOR IS IN POSITION AND  
ABOUT TO BE USED P.T.O.

INSTRUCTIONS:- GRIP TO RESTRAIN  
FLY-OFF LEVER. POSITION FIRMLY  
DEPRESS SUCTION CLIP TO AFFIX.  
WITHDRAW SAFETY PIN, RETIRE  
TO SAFETY IMMEDIATELY LEVER  
IS RELEASED (DELAY 1 MIN)

- 1..... MANUFACTURERS RECOGNISED MONOGRAM OR INITIALS
  - 2..... DATE OF MANUFACTURE (MONTH AND YEAR)
  - 3..... FILLED LOT NUMBER
  - 4..... DATE OF FILLING (MONTH AND YEAR)
  - 5..... RECOGNIZED MONOGRAM OR INITIALS OF FILLER
  - 6..... FILLED LOT NUMBER
  - 7..... DATE OF FILLING (MONTH AND YEAR)
  - 8..... RECOGNIZED MONOGRAM OR INITIALS OF FILLER
  - 9..... CODE DENOTING FILLING
  - 10..... RED FILLING RING
- } EXPLOSIVE CHAMBER

Deel...

Manchester W

Ministry of Defence DG-1001  
Admiralty No. B.R. 1202H  
War Office Code No. 1803  
Air Ministry A.P. 3095

26  
Manuals  
4251

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**JOINT SERVICES  
AMMUNITION AND AMMUNITION  
PACKAGE MARKINGS HANDBOOK**

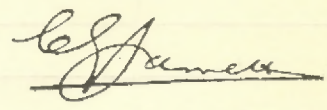
**Section 8**

**PYROTECHNICS AND MISCELLANEOUS CHEMICAL AND SMOKE STORES (excluding Shell, Mortar Bombs, Grenades and Rocket Projectiles)**

**1963**

*(Supersedes Section 8, 1953 Edition)*

*Promulgated by Command of Their Lordships*



*Promulgated by Command of the Army Council*

*A. C. W. Drew*

*Promulgated by Command of the Air Council*

*M. T. Pugh*



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## RESTRICTED

### INTRODUCTION

1. The general principles of colour identification and details of markings in this section follow those laid down in Section 1 "General Introduction", which should be read in conjunction with it. There are exceptions and some of these are explained by examples or depicted in the illustrations.

#### METHODS OF IDENTIFICATION—GENERAL

2. Owing to the diverse natures, shapes and sizes of the stores dealt with in this section, it is not possible to lay down any hard and fast system of identification markings. The following methods or a combination of them will be employed as circumstances permit:—

Stamping, embossing, engraving, moulding, milling, etc.

Basic body identification colours.

Ring to indicate store contains an active agent.

Ring(s) indicating type of charging of chemical stores.

Ring(s) indicating special features.

Symbols indicating special characteristics.

Stencilling (including transfer and printing processes).

Labels, including metal tags.

3. The distinctive colours of paints or other marking media used will be as follows:—

(a) *For basic body colours:—*

|                   |                  |
|-------------------|------------------|
| Black             | Red oxide        |
| Turquoise blue    | Signal red       |
| Middle buff       | Silver/Aluminium |
| Deep bronze green | White            |
| Sea green         | Golden yellow    |
| Light grey        |                  |

(b) *For rings, stripes, symbols, stencilling, etc:—*

|                       |               |
|-----------------------|---------------|
| Black                 | Signal red    |
| Azure blue            | White         |
| Middle brown          | Golden yellow |
| Light brunswick green |               |

#### PERMANENT MARKINGS AT EMPTY STAGE

4. Permanent markings applied by stamping, engraving, moulding or other approved processes to indicate details of manufacture and acceptance inspection of the empty store or assembly are not normally required by the user and may be barred out or overpainted at a later stage with the basic body identification colour or finish and the stencilled markings.

The following details will, where practicable, be permanently marked in an approved position on the store:—

- |                                                      |                            |
|------------------------------------------------------|----------------------------|
| (a) Abbreviated nomenclature                         | } alternative or combined. |
| (b) Number, mark or model number                     |                            |
| (c) Initials or recognized monogram of manufacturer. |                            |
| (d) Date of manufacture (month and year).            |                            |
| (e) Serial number (if required)                      | } Air Service only.        |
| (f) Stores reference number (if required)            |                            |

5. **Embossing.** Where identification by touch is a Service requirement for certain signal stores, e.g. when used by night, embossed symbols will be marked on the store to indicate the colour(s) of the star(s) ejected. For multi-star signal stores (that is, those ejecting 2 or more stars) the appropriate symbols will be combined.

(a) The symbols to be used and their meanings are as follows:—

Red



Green



White or Yellow (but *see para. 6*)



(b) Examples of stores having these embossed symbols are as follows:—

- (i) 1 inch Signal cartridges, *see Fig. 3 of Plate 2.*
- (ii) 1½ inch P.F.F. cartridges, *see Fig. 4 of Plate 4.*
- (iii) One and Double star signals, *see Figs. 1 and 2 of Plate 19.*
- (iv) Ten star signals, *see Figs. 1 and 2 of Plate 21.*

(c) In some instances the symbols may:—

- (i) be coloured the appropriate colour of the star ejected, *see Fig. 3 of Plate 2 and Fig. 4 of Plate 4;*
- (ii) have a star in the appropriate colour stencilled or printed on the symbol, *see Figs. 1 and 2 of Plate 19;*
- (iii) be uncoloured, with stars of the appropriate colour marked adjacent to the symbol, *see Fig. 1 of Plate 21.*

6. To distinguish between new patterns of 1 inch Illuminating and 1 inch White signal cartridges, the cases of which are identical, the Illuminating cartridge will have a  $\frac{1}{8}$  inch raised point (or pip) embossed in the centre of the closing cup affixed in the mouth of the case and the White signal cartridge will have the embossed symbol "O" on the closing disc, as stated in para. 5(a), *see Figs. 1 and 3 of Plate 2.*

7. **Millng.** 1 inch Illuminating and 1 inch Signal cartridges (*see Figs. 1 and 3 of Plate 2*) will have additional means for identification by touch, as follows:—

- (a) *Illuminating and White star or stars.* The rim of the cartridge will be milled for half its circumference.
- (b) *Red star or stars.* The whole circumference of the rim will be milled.
- (c) *Green star or stars.* The rim will be left plain.
- (d) *Yellow star or stars.* The rim of the cartridge will be milled for a quarter of its circumference.

### BASIC BODY IDENTIFICATION COLOURS

8. The basic body colour and stencilling colour for the main details normally indicate the nature of the store; where the store has a dual role, this will be indicated by a combination of the basic body colours, *see para. 11(a).*

In some instances, however, combined colours may be used for other than a dual role, for example certain marine stores may have the portion which is visible above the waterline coloured golden yellow to render them more conspicuous, *see para. 11(b)(i).* A different example of the use of combined colours is described in *para. 11(b)(ii).*

9. Standard coding and stencilling colours, and the categories of stores identified by those colours, are as follows:—

| Basic body colour | Stencilling colour (main details) | Nature of Store                                                                                                                                      |
|-------------------|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| Black             | White                             | Drill.                                                                                                                                               |
| Turquoise blue    | White                             | Practice.                                                                                                                                            |
| Deep bronze green | Golden yellow                     | High explosive (e.g. certain Simulators, having a H.E. filling). Also interchangeable aircraft bomb tail units used on certain aircraft flares, etc. |
| Sea green         | Black                             | Smoke.                                                                                                                                               |
| Light grey        | Black, but <i>see para. 16</i>    | Chemical (including Irritant and Lachrymatory).                                                                                                      |
| Red oxide         | Black                             | Incendiary.                                                                                                                                          |
| Signal red        | Black                             | Flame.                                                                                                                                               |
| White             | Black                             | Flare, Flash, Illuminating and Star.                                                                                                                 |

10. To meet concealment and other special requirements, current supplies of some pyrotechnics and associated stores may be found in overall and stencilling colours which have no coding significance and users will, therefore, have to rely upon the detail markings in order to identify the store. As a further aid to identification, a list of these stores with details of their overall and stencilling colours is given in the following table.

In future, all new designs and all new patterns or models of existing stores should use only the standard coding and stencilling colours having the significance as given in para. 9.

| Basic body colour(s) | Stencilling colour (main details)                                                                                                                                                                                                      | Store                                                                                                                                                                                                                                                                                                                                                                    |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Black                | White, <i>see para. 30(b)</i><br>White, <i>see para. 30(b)</i><br>White, <i>see para. 30(b)</i><br><br>White<br>Golden yellow, <i>see para. 31</i><br>Signal red, <i>para. 31</i><br><br>White<br><br>White<br>White<br>White<br>White | Flare<br>Aircraft, reconnaissance, 4 inch.<br>Aircraft, reconnaissance, 4.5 inch.<br>Aircraft, reconnaissance, 7 inch, hooded.<br>Helicopter, ground, illuminating.<br>Ground, indicating, No. 1 Mk. 1 and 3—Yellow.<br>Ground, warning, Mk. 4—Red.<br>Tripwire.<br>Float, signal, submerged.<br>Signal<br>One star.<br>Double star.<br>Ten star.<br>Rallying, ten star. |

| Basic body colour(s)                                                                           | Stencilling colour (main details)                                                                                                                                                                                      | Store                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Black                                                                                          | White<br>White<br>White<br>White<br>—                                                                                                                                                                                  | Simulator<br>25 pr. H.E. shellburst.<br>Gunflash, No. 3<br>Machine gun, airborne, No. 1.<br>Signal, airborne.<br>Flash, photographic, 8 inch; <i>see</i> also <b>para. 11(b)(ii)</b> .                                                                                                                                                                                                  |
| Blue (label)                                                                                   | Black                                                                                                                                                                                                                  | Signal, emergency, 5 star—White.                                                                                                                                                                                                                                                                                                                                                        |
| Sea green/signal red<br><i>see para. 11(a)</i>                                                 | Golden yellow                                                                                                                                                                                                          | Float, Smoke and Flame, aircraft, 3½ lb.<br>Indicator, anti submarine, No. 1.                                                                                                                                                                                                                                                                                                           |
| Light grey (plastic)                                                                           | Black                                                                                                                                                                                                                  | Signal, distress, day and night.                                                                                                                                                                                                                                                                                                                                                        |
| Dark bluish grey                                                                               | Golden yellow<br>( <i>see para. 32</i> )                                                                                                                                                                               | Certain Markers, Marine when required to be inconspicuous.                                                                                                                                                                                                                                                                                                                              |
| Signal red                                                                                     | Black<br>Golden yellow                                                                                                                                                                                                 | Signal, distress, Two star—Red.<br>Float, flame, aircraft, navigation, No. 3.<br>Certain Markers, Marine; <i>see</i> also <b>para. 11(b)(i)</b> .                                                                                                                                                                                                                                       |
| Silver/Aluminium                                                                               | Black                                                                                                                                                                                                                  | Signal, airfield locating.                                                                                                                                                                                                                                                                                                                                                              |
| Golden yellow                                                                                  | Black                                                                                                                                                                                                                  | Rocket, buoyant, line carrying; to make it conspicuous in the water.                                                                                                                                                                                                                                                                                                                    |
| Natural colour or protective finish (including aluminium, brass, cloth, paper, plastics, etc.) | Black, but <i>see para 30(a)</i><br>Black<br>Black<br><br>Black, but <i>see paras. 24 and 26 to 29</i><br>Black<br>Black<br>Black<br>Black<br><br>Black<br>Black<br>Black<br>Black and Signal red, <i>see para. 25</i> | Flare<br>Identification, Green, Red or Yellow.<br>Aircraft, illuminator.<br>Minefiring indicator — White, Red or Green.<br>Cartridges, illuminating, P.F.F., Signal and similar stores.<br>Portfire, friction.<br>Puff, powder.<br>Rocket, line carrying, Schermuly.<br>Signal, illuminating.<br>Simulator<br>Gunfire.<br>Mortarfire.<br>Thunderflash<br>Cartridge, photographic flash. |

11. Examples of combined basic body colours referred to in para. 8 are as follows:—

- (a) *Combined colours, dual role.* Floats, Smoke and Flame, and Indicators, Anti-submarine, No. 1, Mk. 1, will be coloured half sea green and half signal red to indicate their dual role. To render them more conspicuous, the portion which shows above the surface of the water will be coloured golden yellow, *see Fig. 2 of Plate 11 and Fig. 3 of Plate 14.*

(b) *Dual colours, single role*

- (i) Certain Floats, Flame, Aircraft Navigation, and Marine Markers, in addition to their basic body colour of signal red, will have the portion which shows above the surface of the water coloured golden yellow to render them more conspicuous, *see Fig. 1 of Plate 9 and Figs. 2 and 4 of Plate 13.*
- (ii) Flashes, Aircraft, Photographic, 8 inch, in addition to their basic body colour of black, will have the rear end of the body for approximately 10 inches coloured signal red. **This is to denote the dangerous nature of the store and to distinguish it from an illuminating flare, *see Fig. 2 of Plate 8.***

**RED RING TO INDICATE THE PRESENCE OF AN ACTIVE AGENT**

12. A signal red ring positioned around the nose or forward part of a store denotes that the store contains an active agent (explosive, chemical or otherwise) and is normally required to be classified for storage, transit and handling in a Government explosives group or as "Dangerous Goods" of a non explosive category related by function to explosives, *see para. 36(c).* This marking is not used on small stores as Illuminating and Signal cartridges, etc. There are three types of red ring, as follows:—

- (a) A plain red ring indicates suitability for issue and storage under all climatic conditions.
- (b) A cross-bar-cross red ring indicates a limited life in hot or cold climates. It is a cautionary warning denoting that the store should be frequently inspected or tested to confirm its continued serviceability.

Where certain temperature limitations during transit and storage are imposed, markings additional to the red ring are required on the store. These will consist of the letters "TSL" followed by the words "NOT ABOVE" or "NOT BELOW" as applicable) and a rectangle enclosing the critical temperature figures. These markings are to be in signal red on the body of the store, as follows:—

**TSL NOT ABOVE 120° F or TSL NOT BELOW -25° F**

(examples only. Actual temperature, as applicable, to be shown).

Where maximum and minimum temperature limits are imposed, the markings may be combined either following or underneath one another and the words "NOT ABOVE" or "NOT BELOW" omitted.

- (c) A hatched red ring indicates restrictions on issue and storage to temperate climates only.

13. **Position of ring.** The ring will be marked around the nose or forward end of the store, clear of removable caps and similar fittings.

**Note.** With Flares, Trip-wire the red ring is marked around the cap (*see Fig. 1 of Plate 8*) but with this store the cap is cemented to the body of the flare.

14. **Standard width of ring.** The standard width of ring as shown in the following table will normally be used. Where, however, the shape and size of the store does not permit the application of the standard width of ring, the width may be modified and will be as shown on the relevant marking drawing for the particular store concerned.

| Types of ring            | For stores             |                    |
|--------------------------|------------------------|--------------------|
|                          | Up to 3 inch dia.      | Above 3 inch dia.  |
| Plain red ring           | $\frac{1}{4}$ inch     | $\frac{1}{2}$ inch |
| Cross-bar-cross red ring | $\frac{1}{4}$ inch     | $\frac{1}{2}$ inch |
| Hatched red ring         | Width of centre ring   | $\frac{1}{4}$ inch |
|                          | Length of hatched bars | $\frac{1}{2}$ inch |
|                          |                        | $\frac{7}{8}$ inch |



15. For stores having a basic body colour of signal red, the plain red ring will be indicated on the store by two black hair lines appropriately spaced. Cross-bar-cross and hatched red rings will be superimposed on a black ring for contrast. Alternatively, the same results may be produced by stencilling a black ring from which the appropriate marking has been cut out, thus leaving the basic body colour showing through in the form of the appropriate red ring.

#### RING(S) INDICATING TYPE OF CHARGING OF CHEMICAL STORES

16. The basic body colour for chemical stores will be light grey, as stated in para. 9, and the type of charging will be indicated by coloured rings according to its tactical use. One ring will indicate a non-persistent, and two rings a persistent, agent.
- (a) Green ring(s), with the code letters for the chemical agent also in green, indicate a casualty producing agent.
  - (b) Red ring(s), with the code letters for the chemical agent also in red, indicate a harassing agent.
17. **Position of ring(s).** When two rings are used the first ring will be positioned approximately one third of the distance from the head or forward end of the store with the second ring positioned as shown in paras. 18(a) or (b); when one ring is used it will be positioned approximately around the middle of the store.
18. **Standard width of ring(s).** The standard width of ring as shown below will normally be used. Where, however, the shape and size of the store does not permit the application of ring(s) of the standard width, the width(s) may be modified and will be as shown on the relevant marking drawing for the particular store concerned.
- (a) For stores below 4 inch dia.  $\frac{1}{2}$  inch wide, with  $\frac{1}{2}$  inch space between rings where two are required.
  - (b) For stores of 4 inch dia. and above. 1 inch wide, with 1 inch space between rings where two are required.

#### RINGS INDICATING SPECIAL FEATURES

19. Coloured rings are applied to certain Air Service pyrotechnic stores, as follows:—
- (a) Ring(s) of the appropriate colour or colours will be marked around the body of  $1\frac{1}{2}$  inch Single and Double star signal cartridges,  $1\frac{1}{2}$  inch P.F.F. cartridges and Signals, airfield locating to indicate the colour or colours of the star(s) produced, see Figs. 1, 2 and 4 of Plate 4 and Fig. 5 of Plate 20 respectively.
  - (b) Three rings of the appropriate colour or colours will be marked around the body of  $1\frac{1}{2}$  inch G.R. (General Recognition) signal cartridges. The top ring marked with the letters "TR" will indicate the colour of the tracer unit. The two lower rings will indicate the colour or colours of the stars. The colour of the upper of these two lower rings will indicate the colour of the star which appears first on ejection, see Fig. 3 of Plate 4.
  - (c) A single red ring of double the standard width (see para. 14) will be marked around the upper part of the body of the  $1\frac{3}{4}$  inch Photographic flash cartridge as a warning of the dangerous nature of this store, see Fig. 2 of Plate 3.
20. A white zig-zag ring of double standard width will be marked around the body of radar echo stores.

#### SYMBOLS INDICATING SPECIAL CHARACTERISTICS

21. **Coloured stars.** A star marked in the appropriate colour denotes the presence of a star composition filling. Two stars of the appropriate colour positioned one above the other denote a change colour star unit, the colour of the top star indicating the colour of the star which appears first on ejection. A number in the same colour, positioned on the right and adjacent to the star, denotes the number of stars present. The letter "M" or abbreviation "MULTI", immediately below the star denotes the presence of more than two stars when the exact number is unimportant.

Examples of stores marked with coloured stars are as follows:—

- (a) 1 inch signal cartridges, *see* Fig. 3 of Plate 2.
- (b) One star signals, *see* Fig. 1 of Plate 19.
- (c) Double star signals, *see* Fig. 2 of Plate 19.
- (d) \*Ten star rallying signals, *see* Fig. 1 of Plate 21.
- (e) \*Ten star signals, *see* Fig. 2 of Plate 21.  
(\**see* also Note 1 below)

#### NOTES

- 1. Signals, 10 star (*see* Fig. 2 of Plate 21) and Signals, Rallying (*see* Fig. 1 of Plate 21) do not conform strictly to the requirements of this paragraph, in that neither the number of stars, the letter "M" or abbreviation "MULTI" is shown. The information is indicated on the "Nomenclature and Instruction" label affixed to such signals.
- 2. To meet special identification requirements when used from aircraft, certain signal cartridges have coloured rings in lieu of stars marked around the body of the case. For details of these *see* para. 19.

22. **Redundant symbols.** Certain symbol markings which are no longer in current use may be found on older stocks. Examples are as follows:—

- (a) A lightning flash in white to denote a photographic flash.
- (b) A serpentine symbol in white or brown to denote a smoke puff of that colour.
- (c) An eyebrow symbol in the appropriate colour around the initial letter of the colour to denote that a tracer is included and to indicate its colour.

#### STENCILLING (INCLUDING TRANSFER AND PRINTING PROCESSES)

23. Stencilled markings will be applied in approved positions on the store and may be superimposed on the basic body identification colour, where used, to give such additional information as is necessary to make identification complete. Examples of the information which may be required are as follows:—

- (a) Abbreviated nomenclature
  - (b) Number, mark or model number
  - (c) Filled lot or series number.
  - (d) Initials or recognized monogram of filler.
  - (e) Date of filling (month and year).
  - (f) Abbreviation or code indicating nature of filling, if required.
  - (g) Word(s) indicating colour of effect produced, where applicable.
  - (h) Time of delay, where applicable.
- } alternative or combined.

24. **Cartridges, Illuminating, 1 and 1½ inch.** The word "ILLUMINATING" will be printed in blue lettering on a white background on the closing disc in the mouth of the cartridge case, *see* Figs. 1 and 2 of Plate 2. For exception *see* para. 6.

25. **Cartridges, Photographic Flash, 1½ and 1¾ inch.** The abbreviated nomenclature and time of delay (where applicable) marked on the side of the cartridge case, together with the warning legend printed on the closing disc in the mouth of the cartridge case, will be in red lettering. The 1¾ inch cartridge will also be marked "1¾ IN" on the body following the marking "PHOTOFLASH", *see* Figs. 1 and 2 of Plate 3. Additionally, in respect of the 1¾ inch cartridge the word "DANGER" will be marked prominently in red lettering, in two places diametrically opposite, along the body of the projected flash unit. The latter is a cautionary warning indicating that the unit is dangerous to handle should it be expelled and fail to function.

26. **Cartridges, Signal, 1½ inch.** The word in full indicating the colour of the star ejected will be printed in blue lettering on a white background across the closing disc in the mouth of the cartridge case, *see Fig. 1 of Plate 4.*
27. **Cartridges, Signal, double star 1½ inch.** The word or words in full indicating the colour of the star(s) ejected will be printed in the appropriate colour on a white background across the closing disc in the mouth of the cartridge case, *see Fig. 2 of Plate 4.*
28. **Cartridges, Signal, G.R., 1½ inch.** The letters "G.R." followed by a numerical series code will be marked in black characters between the two coloured bands which indicate the colour(s) of the stars ejected. The same details will also be printed in blue characters on a white background on the closing disc in the mouth of the cartridge case, *see Fig. 3 of Plate 4.*
29. **Cartridge, Signal, smoke puff, 1½ inch.** In future, the serpentine symbol previously used, *see para. 22(b)* will be replaced by the marking "BROWN SMK PUFF" or "WHITE SMK PUFF" (as applicable) in bold lettering along the side of the cartridge case. The marking "BROWN SMOKE PUFF" or "WHITE SMOKE PUFF" (as applicable) will also be printed in blue on a white background on the closing disc in the mouth of the cartridge case, *see Fig. 4 of Plate 3.*
30. **Coloured Smoke and Flare stores.** Stores filled with coloured smoke compositions will have the colour "BLUE", "GREEN", "RED", or "YELLOW" (as applicable) marked in golden yellow, while stores filled with coloured flare compositions will have the colour (as applicable) marked in black. Exceptions to this rule are:—
  - (a) *Flares, Identification.* Green, Red or Yellow, where the colour of the flare is stencilled in white lettering on a black patch, *see Fig. 2 of Plate 6.*
  - (b) *Flares, Aircraft, reconnaissance.* 4 inch, 4.5 inch and 7 inch hooded, where the colour of the flare and all other details are marked in white lettering on a basic body colour of black, *see Figs. 2 and 3 of Plate 7 and Fig. 1 of Plate 6 respectively.*
 Initial letters or abbreviation will not be used for colours. The word denoting the colour of the particular smoke or flare composition should, so far as space permits, be twice the size of the other main filling details marked on the store.
31. **Flares, Ground Warning, Red and Flares, Ground Indicating, Yellow.** Descriptive details and instructions will be printed on the black basic body colour of the store, in signal red for the warning flare and in golden yellow for the indicating flare, *see Figs. 1 and 2 of Plate 5.*
32. **Markers, Marine.** Where a camouflage or inconspicuous overall finish is required (*see para. 10*) the main details will be marked in golden yellow characters.
33. **Simulators, airborne.** Machinegun, Riflefire, Mortarfire and Signal: to clearly indicate to the user the time of delay incorporated in the design, this information will be marked in an approved position in the same colour as used for the other identification details, *see Figs. 1 and 2 of Plate 22 and Figs. 1 and 2 of Plate 23.*
34. **Drill stores.** Drill stores will normally have a basic body colour of black with the word "DRILL" prominently marked in white on the body.
35. **Size of stencilling.** The widely differing shapes and sizes of stores dealt with in this section do not allow a specific size to be nominated for stencilled markings. All stencilled markings should, therefore, be proportionately as large as the shape and size of the particular store will permit.

#### FILLING ABBREVIATIONS AND CODES

36. Filling abbreviations and codes will be found listed in Tables 1 to 3 of Section I "General Introduction". They should, so far as space permits, be twice the size and in the same colour as the other main details marked on the store. They will be applied as follows:—
  - (a) Abbreviations or codes denoting the type of H.E. filling will be marked twice, diametrically opposite, on stores three inch diameter and above, and once on others.

- (b) Abbreviations or codes indicating the particular composition used in Flare, Illuminating, Incendiary, Smoke and Star stores will be marked once only.
- (c) Stores which are classified as "Dangerous Goods" (see Appendix A of the Comprehensive Classified List of Government Explosives, 1958, prepared by the E.S.T.C.) will be marked with the nature of the filling, particularly where they are stored and transported unpackaged.

#### POSITIONS OF MARKINGS—EXCEPTIONS TO RULE

- 37. While adhering generally to the foregoing rules, the position but not the sequence of markings may be varied in special cases to avoid obliteration by package supports, packing pieces, etc.

#### LABELS AND TAGS

- 38. Labels and tags are sometimes used on pyrotechnic, chemical and smoke stores to convey warnings or instructions to users, but on certain smaller items, e.g. special purposes cartridges, portfires, simulators, thunderflashes, etc. and also on certain trade stores, labels or tags may be used for identification markings. In such cases, only the minimum markings are required provided that they are sufficient to identify the specific item.

RESTRICTED

CANDLES

FIG. 1

SMOKE, WHITE  
Service:— NAVAL

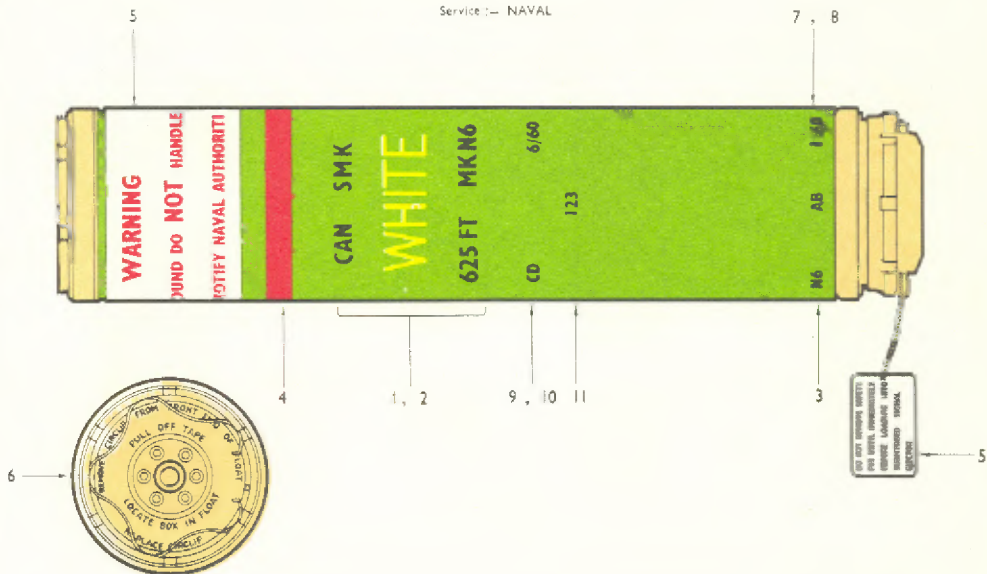
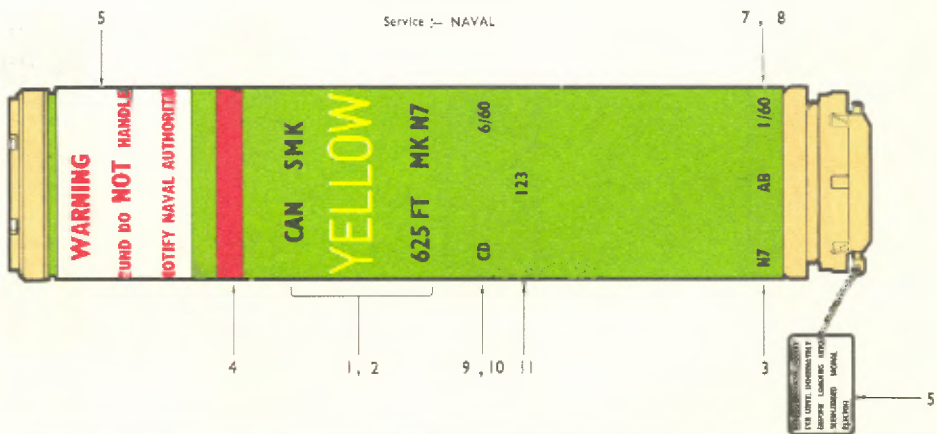


FIG. 2

SMOKE, YELLOW  
Service:— NAVAL



KEY TO MARKINGS

- 1 ABBREVIATED NOMENCLATURE
- 2 MODEL NUMBER AND/OR MARK OF STORE (AS APPLICABLE)
- 3 "N" INDICATING NAVAL SERVICE FOLLOWED BY STORE NUMBER
- 4 RED FILLING RING
- 5 WARNING LABEL

INSTRUCTIONS FOR USE

- 6 INSTRUCTIONS FOR USE
- 7 INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER
- 8 DATE OF MANUFACTURE (MONTH & YEAR)
- 9 INITIALS OR RECOGNISED MONOGRAM OF FILLER
- 10 DATE OF FILLING (MONTH & YEAR)
- 11 FILLED LOT NUMBER

## CARTRIDGES

FIG 1

ILLUMINATING, 1-INCH

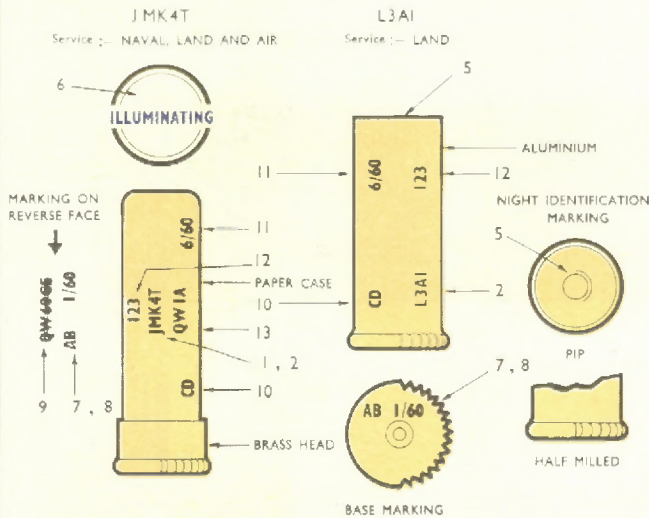


FIG 2

ILLUMINATING, 1½-INCH

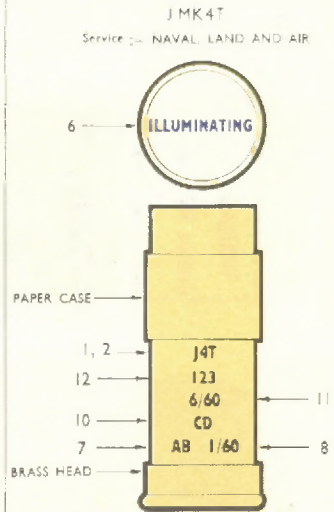


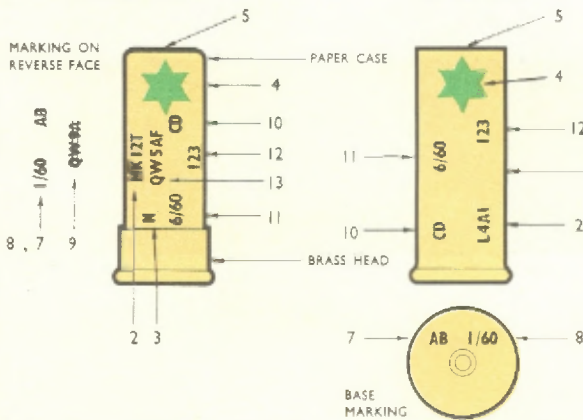
FIG 3

SIGNAL, 1-INCH

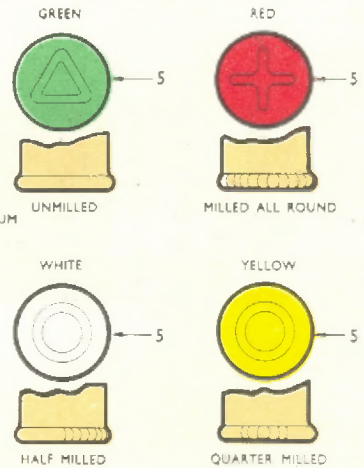
GREEN MK12T RED MK13T  
Service: NAVAL, LAND AND AIR

WHITE MK11T  
Service: NAVAL AND AIR

GREEN L4A1 RED L5A1  
YELLOW L6A1  
Service: LAND



NIGHT IDENTIFICATION MARKING  
DENOTING COLOUR AS APPLICABLE



KEY TO MARKINGS

NOTE: NO RED FILLING RING IS APPLIED TO THESE STORES

- |   |                                                       |    |                                                 |
|---|-------------------------------------------------------|----|-------------------------------------------------|
| 1 | ABBREVIATED NOMENCLATURE                              | 7  | INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER |
| 2 | MODEL NUMBER AND/OR MARK OF STORE (AS APPLICABLE)     | 8  | DATE OF MANUFACTURE (MONTH & YEAR)              |
| 3 | "N" INDICATING NAVAL SERVICE                          | 9  | EMPTY PART NUMBER (BLOCKED OUT ON FILLING)      |
| 4 | STAR INDICATING COLOUR (AS APPLICABLE)                | 10 | INITIALS OR RECOGNISED MONOGRAM OF FILLER       |
| 5 | RAISED SYMBOL ON DISC OR CUP (COLOURED AS APPLICABLE) | 11 | DATE OF FILLING (MONTH & YEAR)                  |
| 6 | IDENTIFICATION LABEL                                  | 12 | FILLED LOT NUMBER                               |
|   |                                                       | 13 | FILLED PART NUMBER (AS APPLICABLE)              |

## CARTRIDGES

FIG. 1

• PHOTOGRAPHIC FLASH, 1½ -INCH,  
Nos. 1 TO 8 MK1T  
Service :— AIR

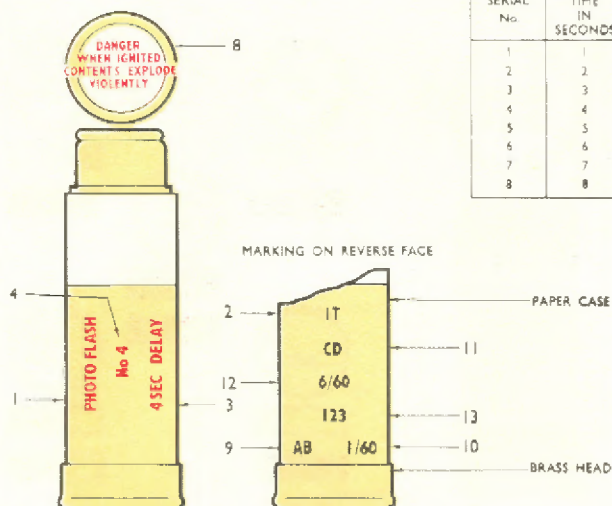


FIG. 2

PHOTOGRAPHIC FLASH, 1½ -INCH,  
No. 2 MK1  
Service :— NAVAL AND AIR

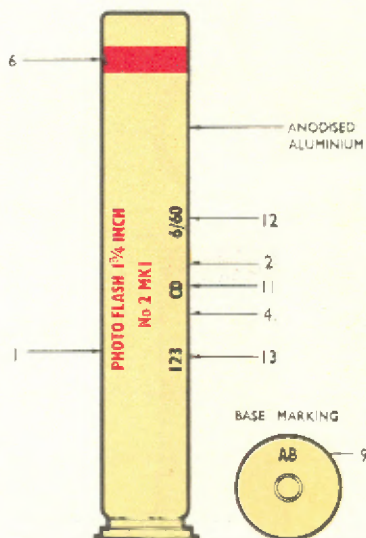


FIG. 3

• RADAR ECHO WARNING,  
1½ -INCH MK1  
Service :— AIR

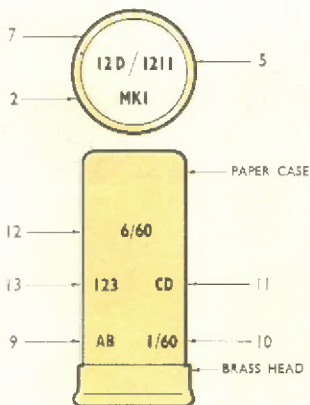
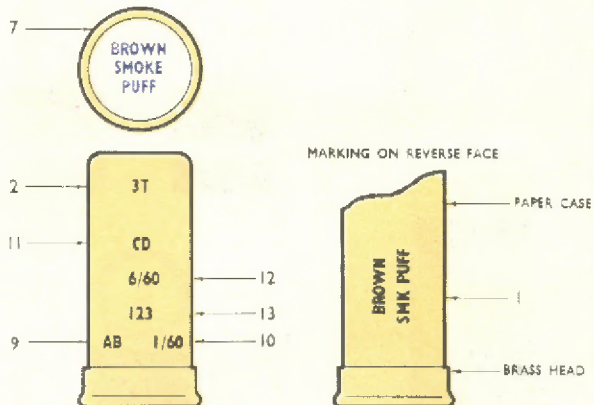


FIG. 4

• SIGNAL, SMOKE PUFF, 1½ -INCH  
BROWN MK3T  
WHITE MK3T  
Service :— NAVAL, LAND AND AIR



KEY TO MARKINGS

• NOTE:— NO RED FILLING RING IS APPLIED TO THESE STORES (FIGS. 1, 3 & 4)

- |   |                                                            |    |                                                 |
|---|------------------------------------------------------------|----|-------------------------------------------------|
| 1 | NOMENCLATURE, OR ABBREVIATED NOMENCLATURE, (AS APPLICABLE) | 7  | IDENTIFICATION LABEL                            |
| 2 | MODEL NUMBER AND/OR MARK OF STORE (AS APPLICABLE)          | 8  | WARNING LABEL                                   |
| 3 | TIME OF DELAY                                              | 9  | INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER |
| 4 | SERIAL NUMBER (AS APPLICABLE)                              | 10 | DATE OF MANUFACTURE (MONTH & YEAR)              |
| 5 | STORES REFERENCE NUMBER                                    | 11 | INITIALS OR RECOGNISED MONOGRAM OF FILLER       |
| 6 | RED RING INDICATING DANGEROUS NATURE OF STORE              | 12 | DATE OF FILLING (MONTH & YEAR)                  |
|   |                                                            | 13 | FILLED LOT NUMBER                               |

## CARTRIDGES

FIG 1 SIGNAL, 1½ -INCH  
RED MK7T YELLOW MK4T  
GREEN MK7T  
Service :- NAVAL, LAND AND AIR

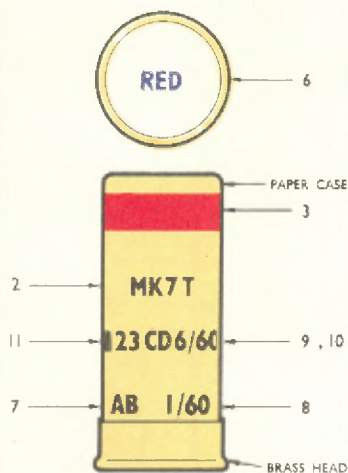


FIG 2 SIGNAL, DOUBLE STAR, 1½ -INCH  
GREEN - GREEN MK5T GREEN - YELLOW MK5T YELLOW - RED MK3T  
GREEN - RED MK5T RED - RED MK3T YELLOW - YELLOW MK3T  
Service :- NAVAL, LAND AND AIR

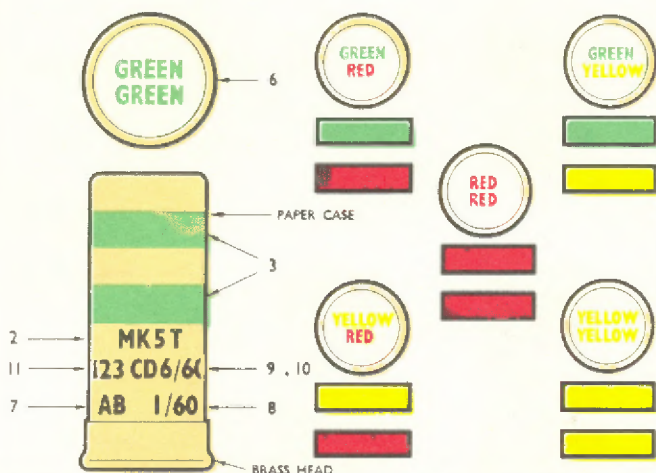


FIG 3 SIGNAL, G.R., 1½ -INCH  
TYPE 16 MK1T TYPE 26 MK2T  
TYPE 21 MK2T TYPE 29 MK2T  
Service :- NAVAL, LAND AND AIR

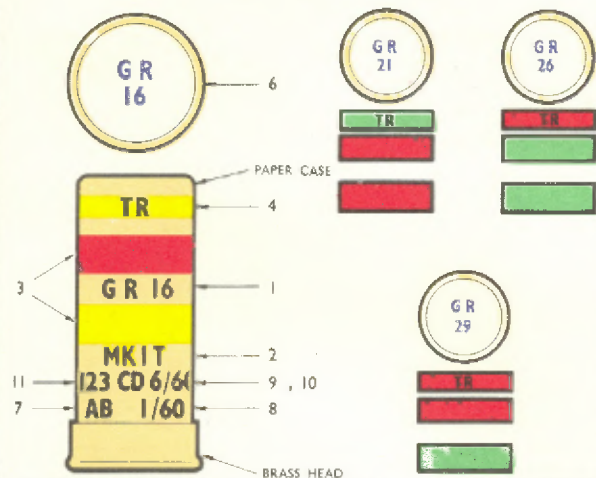
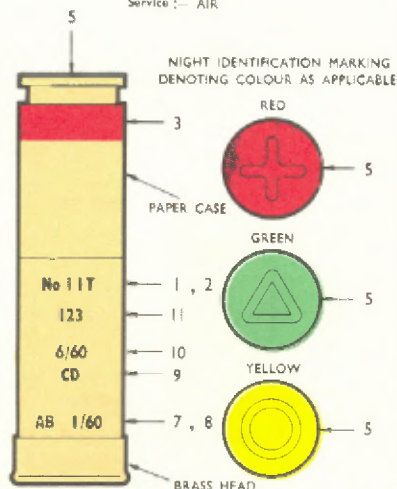


FIG 4 P.F.F., 1½ -INCH, No.1  
RED MK1T GREEN MK1T  
YELLOW MK1T  
Service :- AIR



**KEY TO MARKINGS**

NOTE:- NO RED FILLING RING IS APPLIED TO THESE STORES

- |                                                           |                                                   |
|-----------------------------------------------------------|---------------------------------------------------|
| 1 ABBREVIATED NOMENCLATURE                                | 6 IDENTIFICATION LABEL                            |
| 2 MODEL NUMBER AND/OR MARK OF STORE (AS APPLICABLE)       | 7 INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER |
| 3 RING(S) INDICATING COLOUR(S) OF STAR(S) (AS APPLICABLE) | 8 DATE OF MANUFACTURE (MONTH & YEAR)              |
| 4 RING INDICATING COLOUR OF TRACE (AS APPLICABLE)         | 9 INITIALS OR RECOGNISED MONOGRAM OF FILLER       |
| 5 RAISED SYMBOL ON DISC (COLOURED AS APPLICABLE)          | 10 DATE OF FILLING (MONTH & YEAR)                 |
|                                                           | 11 FILLED LOT NUMBER                              |



## FLARES

FIG 1

GROUND, INDICATING No.1 MK3 & 3 YELLOW

Service :- NAVAL, LAND AND AIR



FIG 2

GROUND, WARNING MK4 RED

Service :- LAND AND AIR

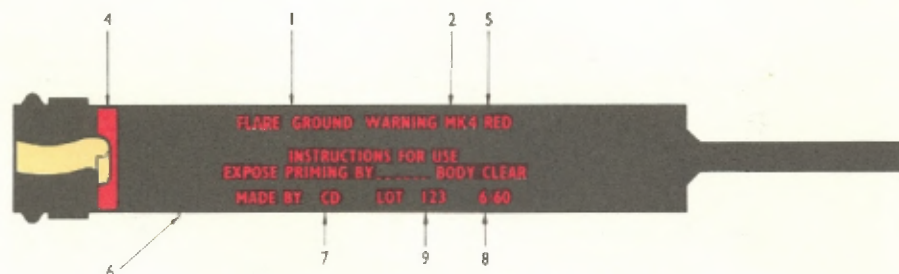


FIG 3

HELICOPTER, GROUND ILLUMINATING No.1 MK 1

Service :- NAVAL, LAND AND AIR



### KEY TO MARKINGS

- |   |                                                   |   |                                           |
|---|---------------------------------------------------|---|-------------------------------------------|
| 1 | NOMENCLATURE                                      | 5 | WORD INDICATING COLOUR (AS APPLICABLE)    |
| 2 | MODEL NUMBER AND/OR MARK OF STORE (AS APPLICABLE) | 6 | INSTRUCTIONS FOR USE                      |
| 3 | STORES REFERENCE NUMBER                           | 7 | INITIALS OR RECOGNISED MONOGRAM OF FILLER |
| 4 | RED FILLING RING                                  | 8 | DATE OF FILLING (MONTH & YEAR)            |
|   |                                                   | 9 | FILLED LOT NUMBER AND SERIAL NUMBER       |

## FLARES

FIG. 1 AIRCRAFT, RECONNAISSANCE, 7-INCH, HOODED, No.7 MK I  
Service :— AIR

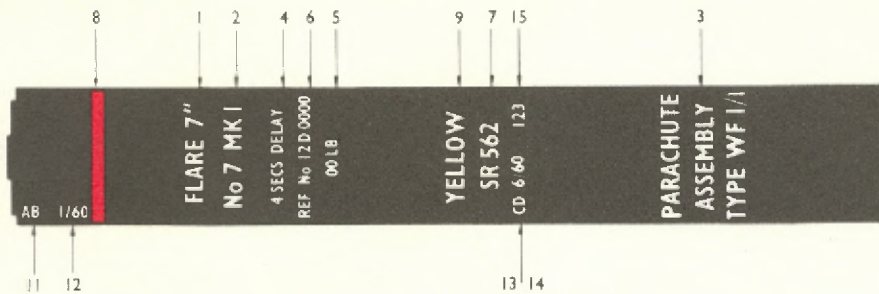


FIG. 2 IDENTIFICATION, GREEN, RED OR YELLOW  
Service :— NAVAL

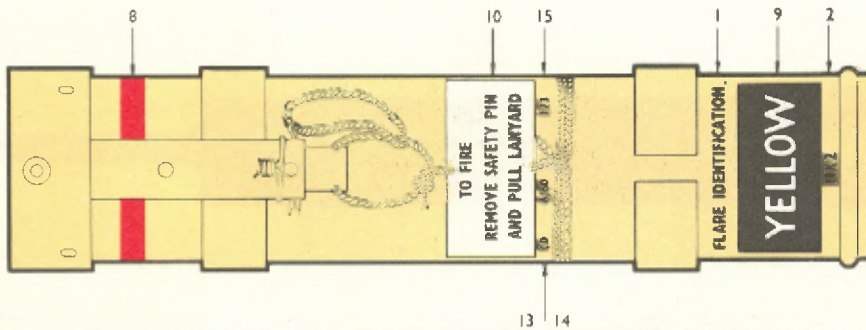
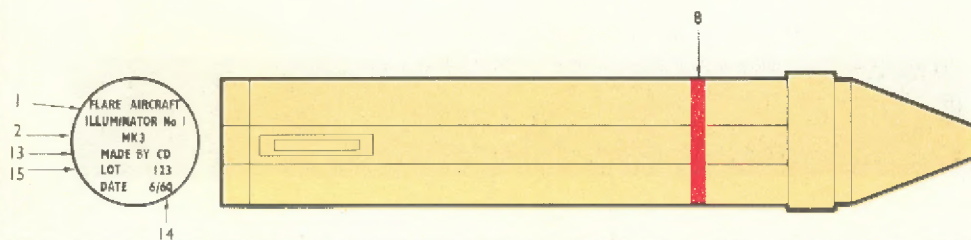


FIG. 3 AIRCRAFT, ILLUMINATOR No. 1  
Service :— AIR



KEY TO MARKINGS

- |   |                                                        |    |                                                 |
|---|--------------------------------------------------------|----|-------------------------------------------------|
| 1 | NOMENCLATURE                                           | 8  | RED FILLING RING                                |
| 2 | MODEL NUMBER AND/OR MARK OF STORE ( AS APPLICABLE )    | 9  | WORD INDICATING COLOUR (AS APPLICABLE)          |
| 3 | DETAILS OF PARACHUTE ASSEMBLY                          | 10 | INSTRUCTIONS FOR USE                            |
| 4 | TIME OF DELAY                                          | 11 | INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER |
| 5 | WEIGHT OF COMPLETE STORE                               | 12 | DATE OF MANUFACTURE (MONTH & YEAR)              |
| 6 | STORES REFERENCE NUMBER                                | 13 | INITIALS OR RECOGNISED MONOGRAM OF FILLER       |
| 7 | ABBREVIATION OR CODE DENOTING FILLING COMPOSITION USED | 14 | DATE OF FILLING (MONTH & YEAR)                  |
|   |                                                        | 15 | FILLED LOT NUMBER                               |

FLARES

FIG 1

MINE, FIRING, INDICATOR, WHITE, RED OR GREEN

Service :— NAVAL

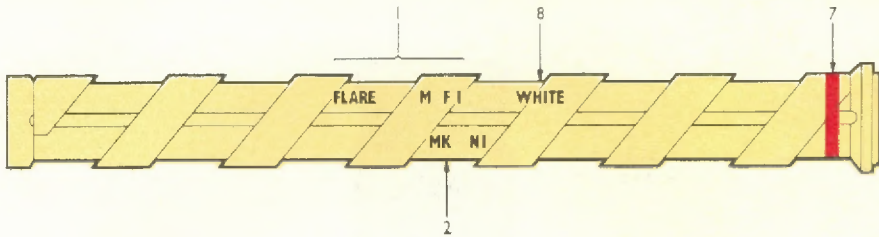


FIG 2

AIRCRAFT, RECONNAISSANCE, 4-INCH

Service :— LAND AND AIR

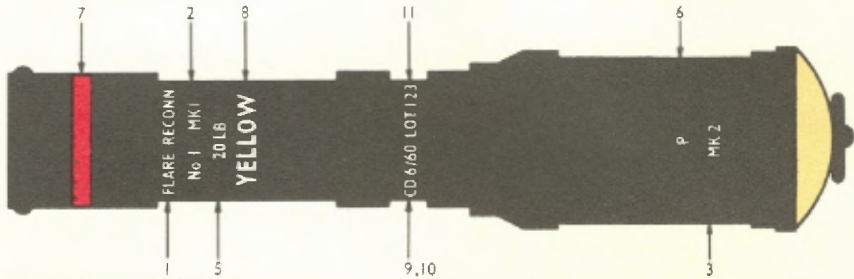
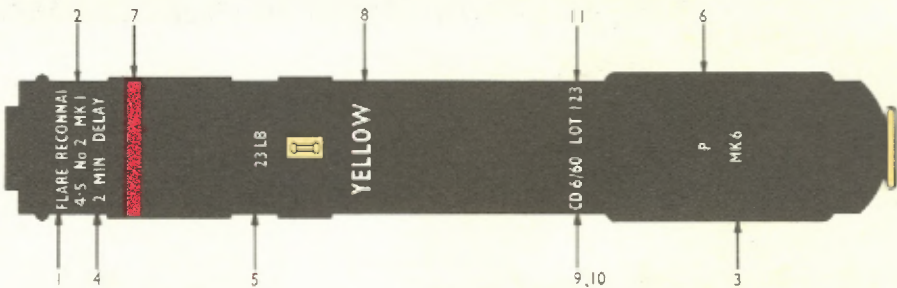


FIG 3

AIRCRAFT, RECONNAISSANCE, 4.5-INCH

Service :— NAVAL AND AIR



KEY TO MARKINGS

- |                                                                                                                                                                                                                |                                                                                                                                                                                                                                                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>1 NOMENCLATURE OR ABBREVIATED NOMENCLATURE</p> <p>2 MODEL NUMBER AND/OR MARK OF STORE, "N" INDICATING NAVAL SERVICE</p> <p>3 MARK OF PARACHUTE</p> <p>4 TIME OF DELAY</p> <p>5 WEIGHT OF COMPLETE STORE</p> | <p>6 "P" INDICATING PARACHUTE FITTED</p> <p>7 RED FILLING RING</p> <p>8 WORD INDICATING COLOUR (AS APPLICABLE)</p> <p>9 INITIALS OR RECOGNISED MONOGRAM OF FILLER</p> <p>10 DATE OF FILLING (MONTH &amp; YEAR)</p> <p>11 FILLED LOT NUMBER</p> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## FLOATS

FIG. 1

FLAME, AIRCRAFT, NAVIGATION No.3

Service :- AIR

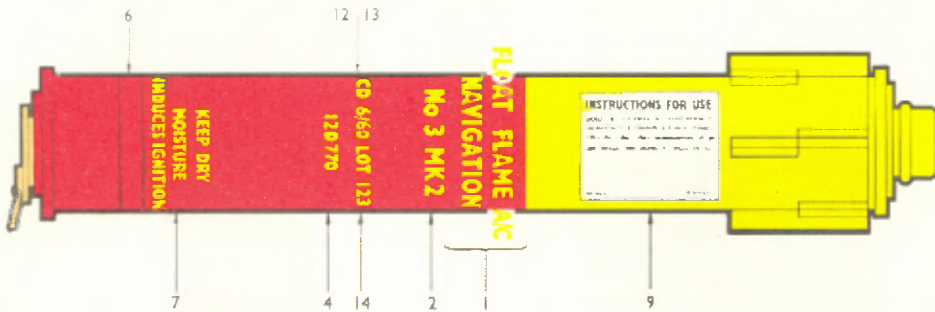


FIG. 2

NAVIGATION 13 LBS MK 1

Service :- NAVAL

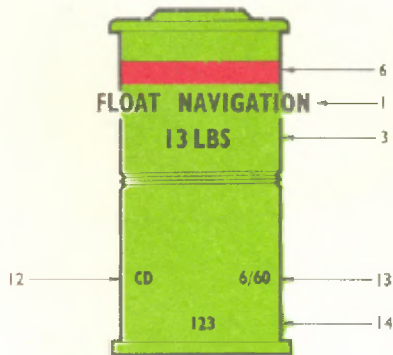
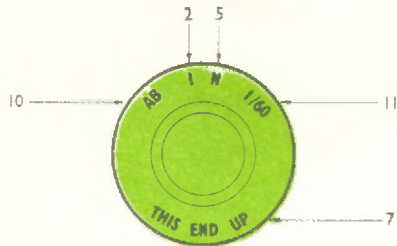
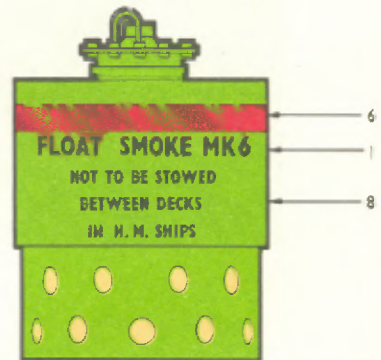
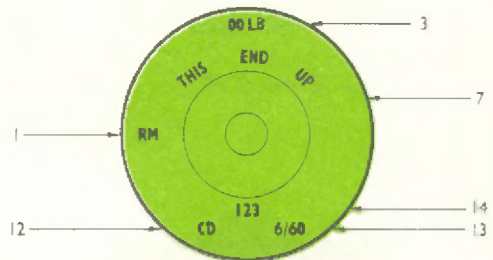


FIG. 3

SMOKE, TYPE RM MK 6

Service :- NAVAL



## KEY TO MARKINGS

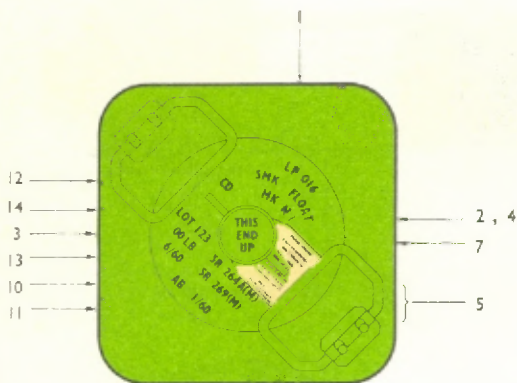
- |   |                                           |    |                                                 |
|---|-------------------------------------------|----|-------------------------------------------------|
| 1 | NOMENCLATURE, OR ABBREVIATED NOMENCLATURE | 8  | STOWAGE WARNING                                 |
| 2 | MODEL NUMBER AND/OR MARK OF STORE         | 9  | INSTRUCTIONS FOR USE                            |
| 3 | WEIGHT OF COMPLETE STORE                  | 10 | INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER |
| 4 | STORES REFERENCE NUMBER                   | 11 | DATE OF MANUFACTURE (MONTH & YEAR)              |
| 5 | "N" INDICATING NAVAL SERVICE              | 12 | INITIALS OR RECOGNISED MONOGRAM OF FILLER       |
| 6 | RED FILLING RING                          | 13 | DATE OF FILLING (MONTH & YEAR)                  |
| 7 | TRANSIT WARNING                           | 14 | FILLED LOT NUMBER                               |

# FLOATS

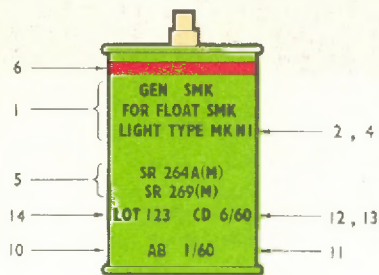
FIG 1

## SMOKE, LIGHT TYPE

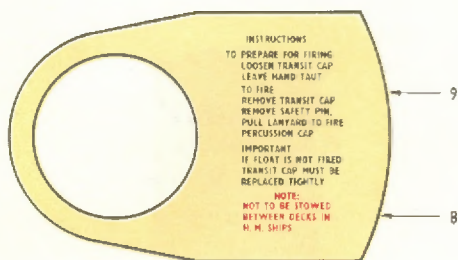
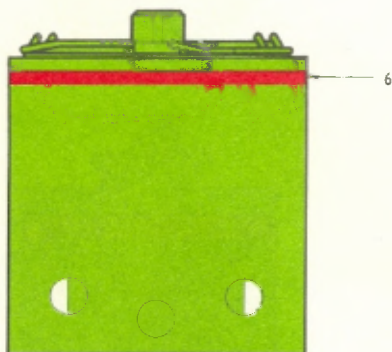
Service :- NAVAL



MARKING ON TOP FACE



GENERATOR



KEY TO MARKINGS

- |   |                                                        |    |                                                 |
|---|--------------------------------------------------------|----|-------------------------------------------------|
| 1 | ABBREVIATED NOMENCLATURE                               | 7  | TRANSIT WARNING                                 |
| 2 | MODEL NUMBER AND/OR MARK OF STORE (AS APPLICABLE)      | 8  | STOWAGE WARNING                                 |
| 3 | WEIGHT OF COMPLETE STORE                               | 9  | INSTRUCTIONS FOR USE                            |
| 4 | "N" INDICATING NAVAL SERVICE                           | 10 | INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER |
| 5 | ABBREVIATION OR CODE DENOTING FILLING COMPOSITION USED | 11 | DATE OF MANUFACTURE (MONTH & YEAR)              |
| 6 | RED FILLING RING                                       | 12 | INITIALS OR RECOGNISED MONOGRAM OF FILLER       |
|   |                                                        | 13 | DATE OF FILLING (MONTH & YEAR)                  |
|   |                                                        | 14 | FILLED LOT NUMBER                               |

## FLOATS

FIG. 1

SIGNAL, SUBMERGED

Service :— NAVAL

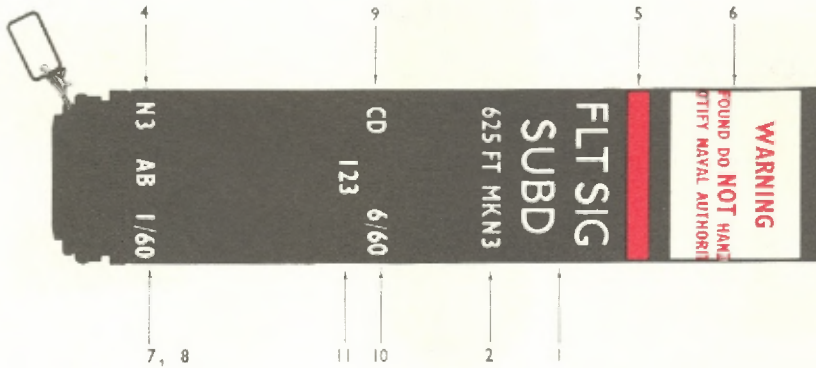


FIG. 2

SMOKE AND FLAME, AIRCRAFT 3½ LBS

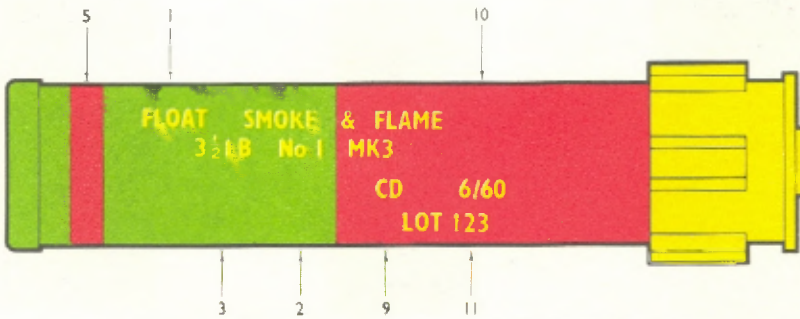
No.1 MK3

No.2 MK1

Service :— NAVAL AND AIR

No.2 MK2

Service :— NAVAL



KEY TO MARKINGS

|   |                                                          |    |                                                 |
|---|----------------------------------------------------------|----|-------------------------------------------------|
| 1 | NOMENCLATURE OR ABBREVIATED NOMENCLATURE (AS APPLICABLE) | 6  | WARNING LABEL                                   |
| 2 | MODEL NUMBER AND/OR MARK OF STORE (AS APPLICABLE)        | 7  | INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER |
| 3 | WEIGHT                                                   | 8  | DATE OF MANUFACTURE (MONTH & YEAR)              |
| 4 | "N" INDICATING NAVAL SERVICE FOLLOWED BY STORE NUMBER    | 9  | INITIALS OR RECOGNISED MONOGRAM OF FILLER       |
| 5 | RED FILLING RING                                         | 10 | DATE OF FILLING (MONTH & YEAR)                  |
|   |                                                          | 11 | FILLED LOT NUMBER                               |

## GENERATORS

FIG. 1 SMOKE No.6  
Service :— NAVAL AND AIR

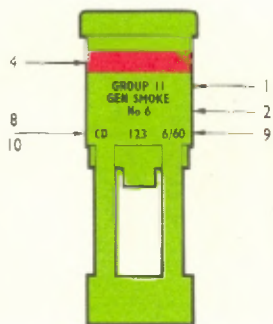


FIG.2 SMOKE No.8  
Service :— LAND AND AIR

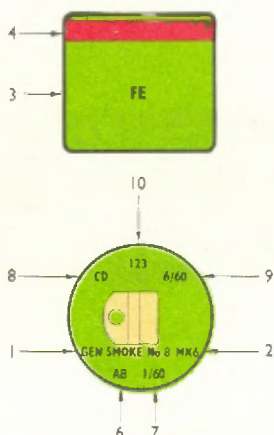


FIG.3 SMOKE No.16  
Service :— NAVAL

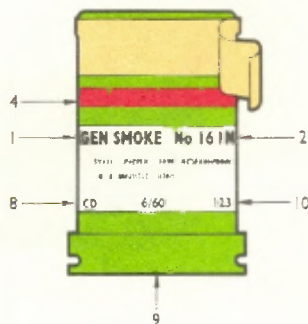


FIG.4 SMOKE No.24  
Service :— LAND AND AIR

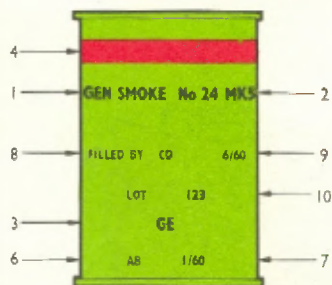


FIG.5 SMOKE No.28 MK N2  
Service :— NAVAL, LAND AND AIR

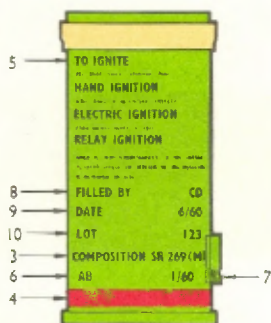
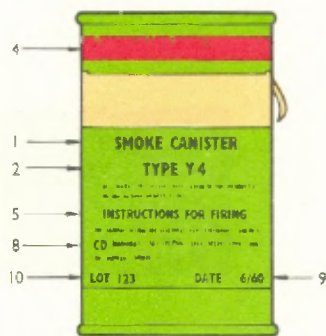


FIG.6 SMOKE TYPE Y4  
Service :— NAVAL



### KEY TO MARKINGS

- |                                                                                                                                                                                                                      |                                                                                                                                                                                                                                     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>1 NOMENCLATURE OR ABBREVIATED NOMENCLATURE</p> <p>2 MODEL NUMBER AND/OR MARK OF STORE</p> <p>3 ABBREVIATION OR CODE DENOTING FILLING COMPOSITION USED</p> <p>4 RED FILLING RING</p> <p>5 INSTRUCTIONS FOR USE</p> | <p>6 INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER</p> <p>7 DATE OF MANUFACTURE (MONTH &amp; YEAR)</p> <p>8 INITIALS OR RECOGNISED MONOGRAM OF FILLER</p> <p>9 DATE OF FILLING (MONTH &amp; YEAR)</p> <p>10 FILLED LOT NUMBER</p> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## MARKERS

FIG. 1 SMOKE, WHITE,  
ANTI-SUBMARINE  
Service :— NAVAL

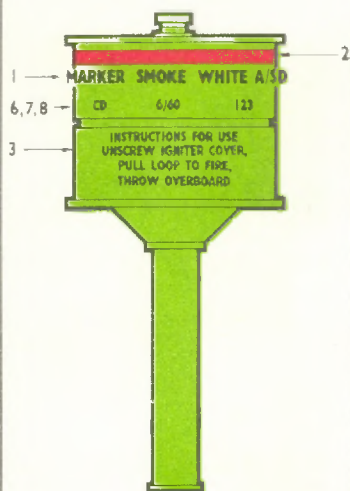


FIG. 2 MARINE, AIRCRAFT, No.2  
Service :— NAVAL

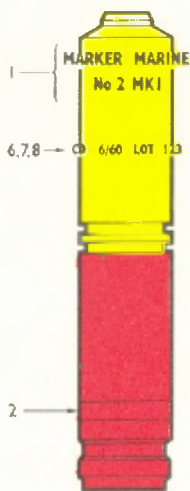


FIG. 3 MARINE, AIRCRAFT, No.3  
Service :— NAVAL AND AIR

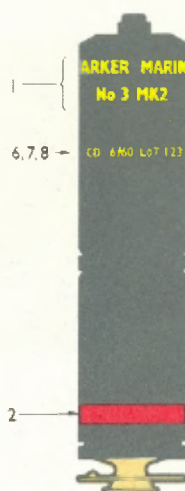


FIG. 4 MARINE No.4 MK1  
Service :— NAVAL AND AIR

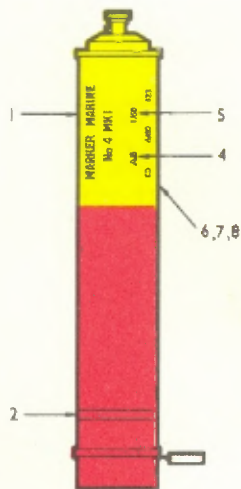


FIG. 5 SMOKE AND FLAME MK NI  
Service :— NAVAL

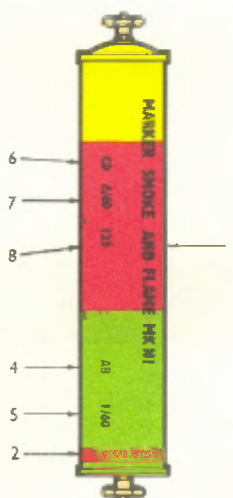
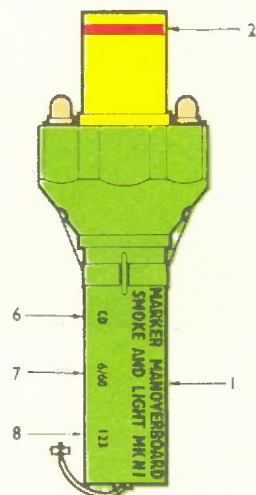


FIG. 6 MANOVERBOARD,  
SMOKE AND LIGHT, MK NI  
Service :— NAVAL



### KEY TO MARKINGS

- 1 { NOMENCLATURE OR ABBREVIATED NOMENCLATURE,  
MODEL NUMBER AND/OR MARK OF STORE ( AS APPLICABLE )
- 2 RED FILLING RING
- 3 INSTRUCTIONS FOR USE
- 4 INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER
- 5 DATE OF MANUFACTURE (MONTH & YEAR)
- 6 INITIALS OR RECOGNISED MONOGRAM OF FILLER
- 7 DATE OF FILLING (MONTH & YEAR)
- 8 FILLED LOT NUMBER



MISCELLANEOUS STORES

FIG. 1

CRACKER, CHINESE MK1

Service :- NAVAL

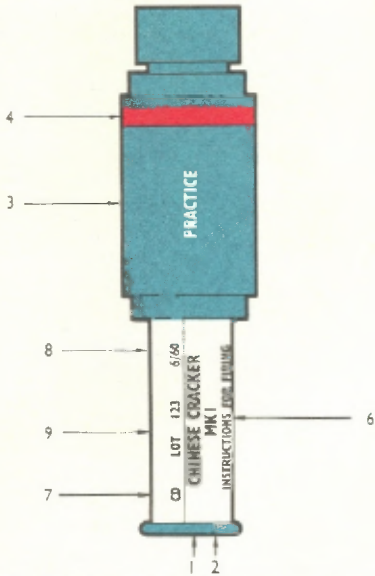


FIG. 2

PORTFIRE, FRICTION MK2

Service :- NAVAL, LAND AND AIR

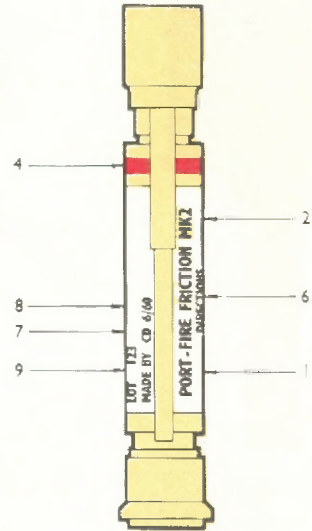
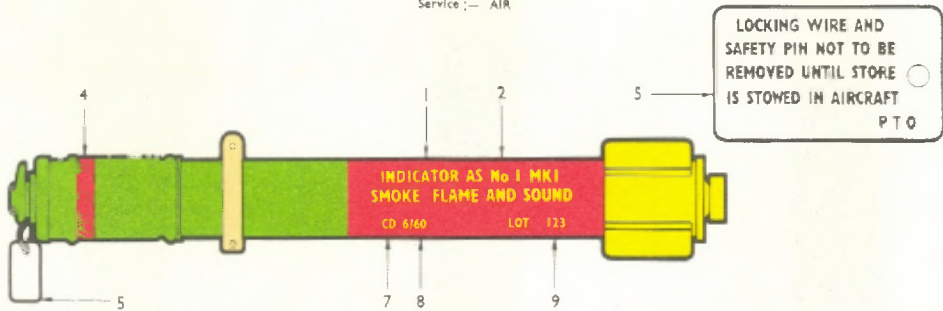


FIG. 3

INDICATOR, ANTI-SUBMARINE No.1 MK1  
SMOKE FLAME AND SOUND

Service :- AIR



KEY TO MARKINGS

- |   |                                                          |   |                                           |
|---|----------------------------------------------------------|---|-------------------------------------------|
| 1 | NOMENCLATURE OR ABBREVIATED NOMENCLATURE (AS APPLICABLE) | 6 | INSTRUCTIONS FOR USE                      |
| 2 | MODEL NUMBER AND/OR MARK OF STORE (AS APPLICABLE)        | 7 | INITIALS OR RECOGNISED MONOGRAM OF FILLER |
| 3 | PRIMARY ROLE                                             | 8 | DATE OF FILLING (MONTH & YEAR)            |
| 4 | RED FILLING RING                                         | 9 | FILLED LOT NUMBER                         |
| 5 | WARNING LABEL                                            |   |                                           |

### MISCELLANEOUS STORES

FIG. 1 PUFF, POWDER Nos.8, 9 AND 10  
Service :- NAVAL, LAND AND AIR

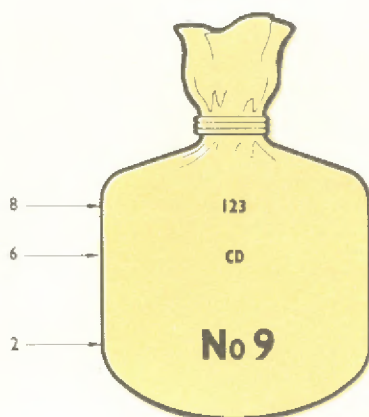


FIG. 2 PUFF, POWDER, FRICTION IGNITED No.1  
Service :- AIR

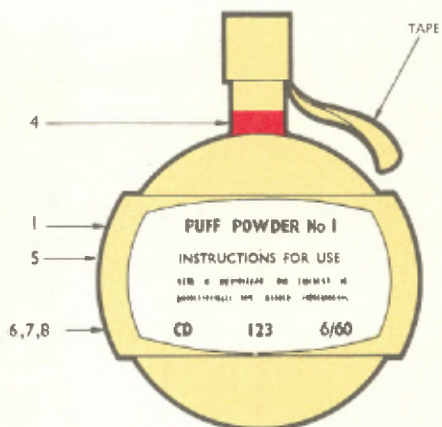


FIG. 3 MATCHES, SAFETY No.4 MK I  
Service :- NAVAL, LAND AND AIR

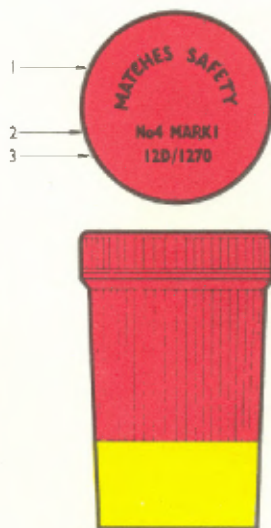


FIG. 4 THUNDERFLASH, LARGE MK N2  
Service :- NAVAL

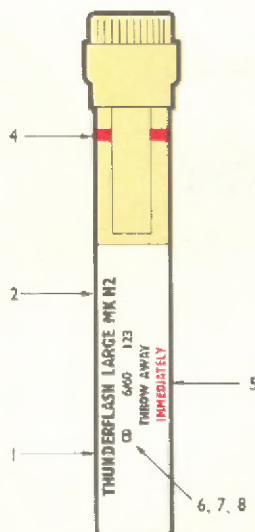
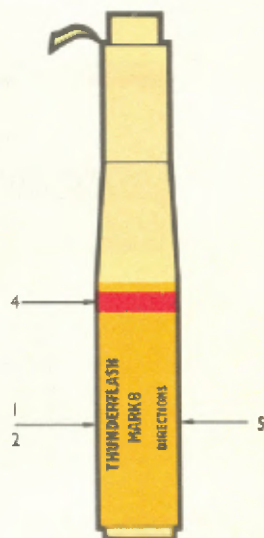


FIG. 5 THUNDERFLASH MK8  
Service :- LAND AND AIR



KEY TO MARKINGS

- |   |                                                     |   |                                           |
|---|-----------------------------------------------------|---|-------------------------------------------|
| 1 | NOMENCLATURE, OR ABBREVIATED NOMENCLATURE           | 5 | INSTRUCTIONS FOR USE                      |
| 2 | MODEL NUMBER AND/OR MARK OF STORE ( AS APPLICABLE ) | 6 | INITIALS OR RECOGNISED MONOGRAM OF FILLER |
| 3 | STORES REFERENCE NUMBER                             | 7 | DATE OF FILLING (MONTH & YEAR)            |
| 4 | RED FILLING RING                                    | 8 | FILLED LOT NUMBER                         |

MISCELLANEOUS CHEMICAL STORES

FIG. 1

CARTRIDGE, 1½ -INCH, ANTI-RIOT IRRITANT, L2A2

Service :- NAVAL, LAND AND AIR

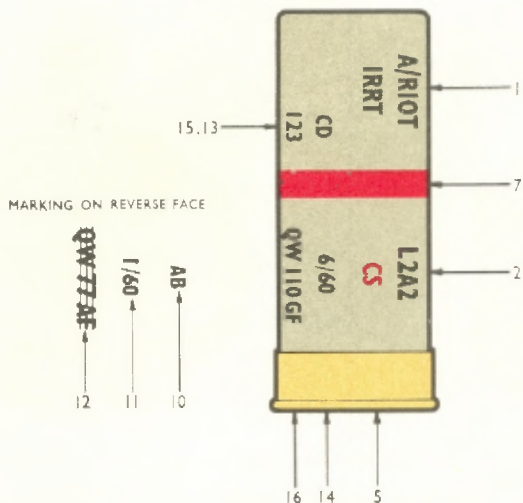
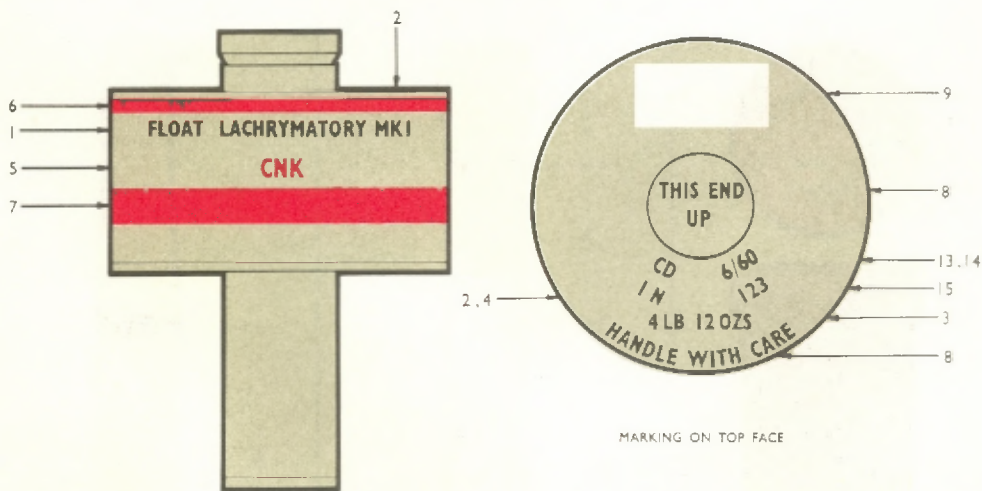


FIG. 2

FLOAT, LACHRYMATORY MKI

Service :- NAVAL



KEY TO MARKINGS

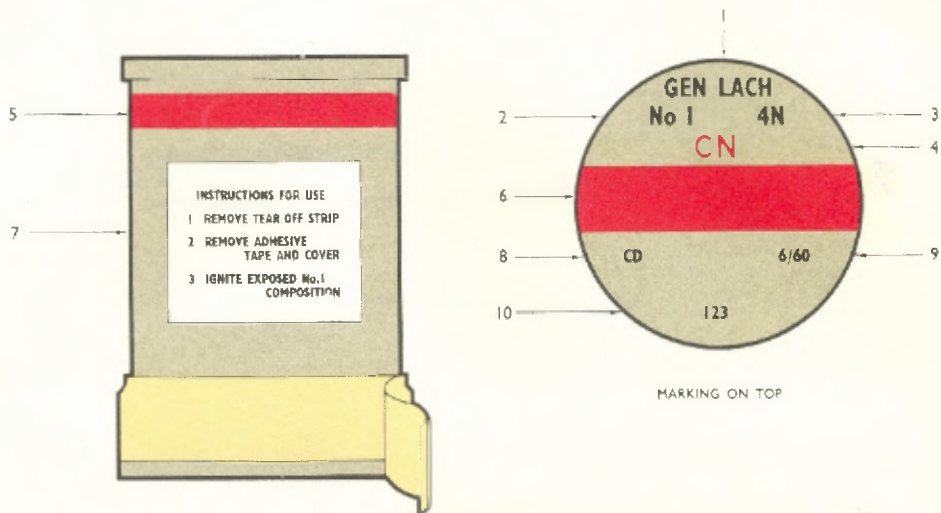
- |                                                     |                                                    |
|-----------------------------------------------------|----------------------------------------------------|
| 1 NOMENCLATURE OR ABBREVIATED NOMENCLATURE          | 9 INSTRUCTIONS FOR USE                             |
| 2 MODEL NUMBER AND/OR MARK OF STORE (AS APPLICABLE) | 10 INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER |
| 3 WEIGHT OF COMPLETE STORE                          | 11 DATE OF MANUFACTURE (MONTH & YEAR)              |
| 4 "N" INDICATING NAVAL SERVICE                      | 12 EMPTY PART NUMBER (BLOCKED OUT ON FILLING)      |
| 5 CODE OF CHEMICAL FILLING AGENT                    | 13 INITIALS OR RECOGNISED MONOGRAM OF FILLER       |
| 6 RED FILLING RING                                  | 14 DATE OF FILLING (MONTH & YEAR)                  |
| 7 RING INDICATING TYPE OF CHEMICAL CHARGING         | 15 FILLED LOT NUMBER                               |
| 8 TRANSIT WARNING                                   | 16 FILLED PART NUMBER (AS APPLICABLE)              |

## MISCELLANEOUS CHEMICAL STORES

FIG 1

GENERATOR, LACHRYMATORY No.1

Service :- NAVAL AND LAND

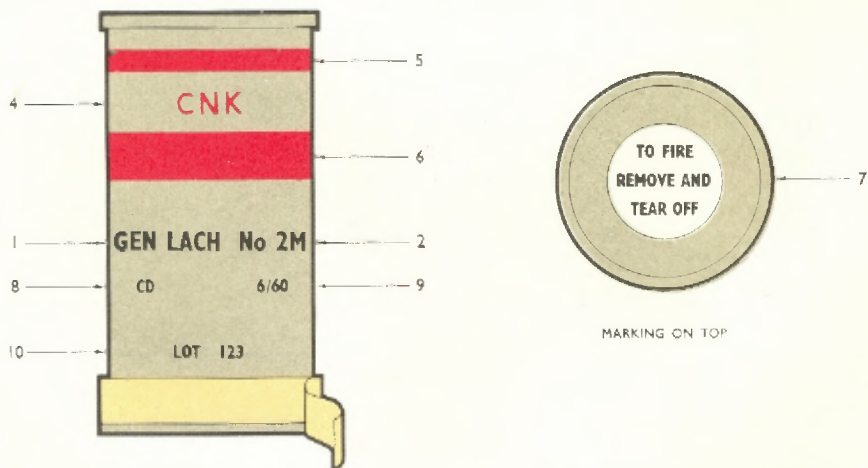


MARKING ON TOP

FIG 2

GENERATOR, LACHRYMATORY No.2

Service :- NAVAL AND LAND



MARKING ON TOP

### KEY TO MARKINGS

- |   |                                                          |    |                                                     |
|---|----------------------------------------------------------|----|-----------------------------------------------------|
| 1 | ABBREVIATED NOMENCLATURE                                 | 6  | RING OR STRIPE INDICATING TYPE OF CHEMICAL CHARGING |
| 2 | MODEL NUMBER AND/OR MARK OF STORE                        | 7  | INSTRUCTIONS FOR USE                                |
| 3 | NUMBER OF STORE FOLLOWED BY "N" INDICATING NAVAL SERVICE | 8  | INITIALS OR RECOGNISED MONOGRAM OF FILLER           |
| 4 | CODE OF CHEMICAL FILLING AGENT                           | 9  | DATE OF FILLING (MONTH & YEAR)                      |
| 5 | RED FILLING RING                                         | 10 | FILLED LOT NUMBER                                   |

## ROCKETS

FIG. 1

BUOYANT, LINE CARRYING Nos. 1 OR 2

Service :— AIR

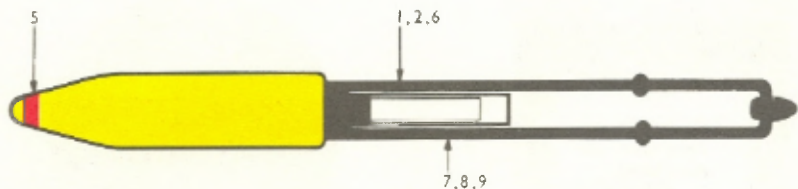
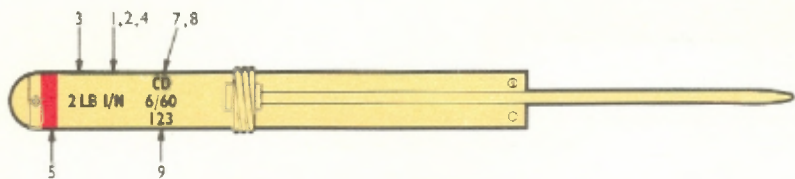


FIG. 2

LINE CARRYING, SCHERMÜLY 2-LB

Service :— NAVAL



### KEY TO MARKINGS

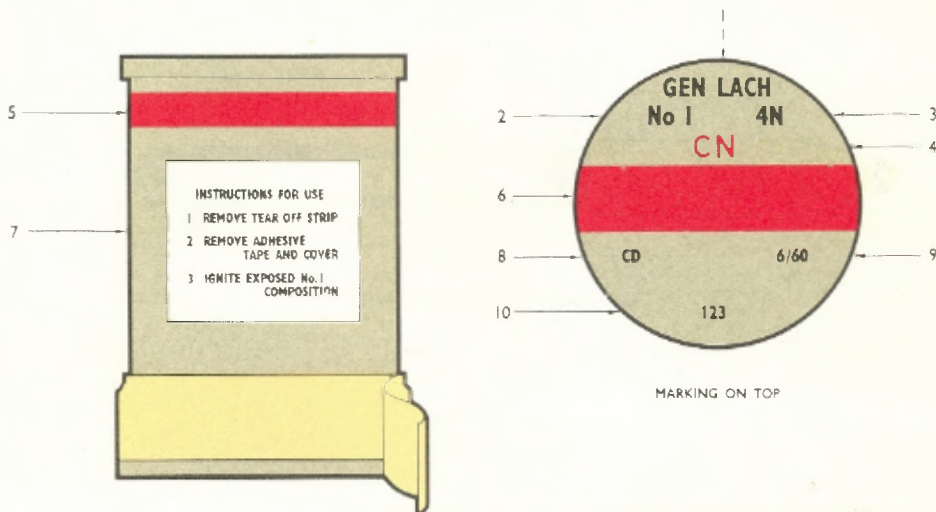
- |                                                          |                                             |
|----------------------------------------------------------|---------------------------------------------|
| 1 ABBREVIATED NOMENCLATURE                               | 7 INITIALS OR RECOGNISED MONOGRAM OF FILLER |
| 2 MODEL NUMBER AND/OR MARK OF STORE<br>( AS APPLICABLE ) | 8 DATE OF FILLING (MONTH & YEAR)            |
| 3 WEIGHT                                                 | 9 FILLED LOT NUMBER                         |
| 4 "N" INDICATING NAVAL SERVICE                           |                                             |
| 5 RED FILLING RING                                       |                                             |
| 6 INSTRUCTIONS FOR USE                                   |                                             |

## MISCELLANEOUS CHEMICAL STORES

FIG 1

### GENERATOR, LACHRYMATORY No.1

Service :- NAVAL AND LAND

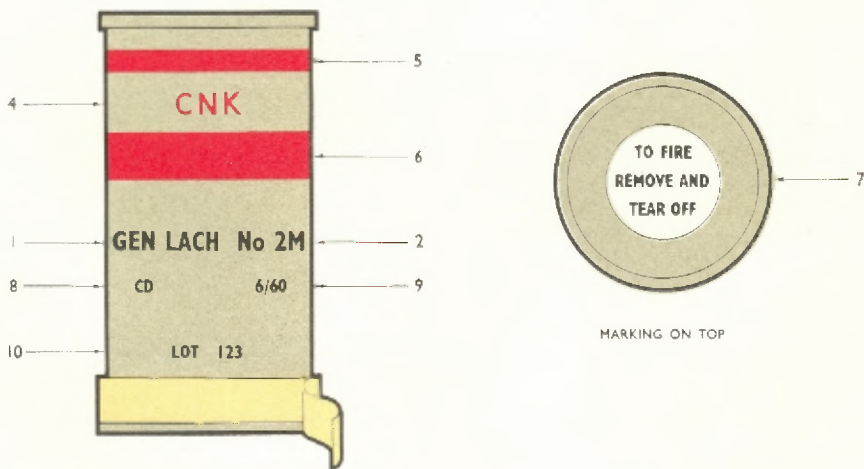


MARKING ON TOP

FIG 2

### GENERATOR, LACHRYMATORY No.2

Service :- NAVAL AND LAND



MARKING ON TOP

#### KEY TO MARKINGS

- |   |                                                          |    |                                                     |
|---|----------------------------------------------------------|----|-----------------------------------------------------|
| 1 | ABBREVIATED NOMENCLATURE                                 | 6  | RING OR STRIPE INDICATING TYPE OF CHEMICAL CHARGING |
| 2 | MODEL NUMBER AND/OR MARK OF STORE                        | 7  | INSTRUCTIONS FOR USE                                |
| 3 | NUMBER OF STORE FOLLOWED BY "N" INDICATING NAVAL SERVICE | 8  | INITIALS OR RECOGNISED MONOGRAM OF FILLER           |
| 4 | CODE OF CHEMICAL FILLING AGENT                           | 9  | DATE OF FILLING (MONTH & YEAR)                      |
| 5 | RED FILLING RING                                         | 10 | FILLED LOT NUMBER                                   |

# SIGNALS

FIG. 1

## ONE STAR, MK.3, RED OR GREEN

Service : — LAND

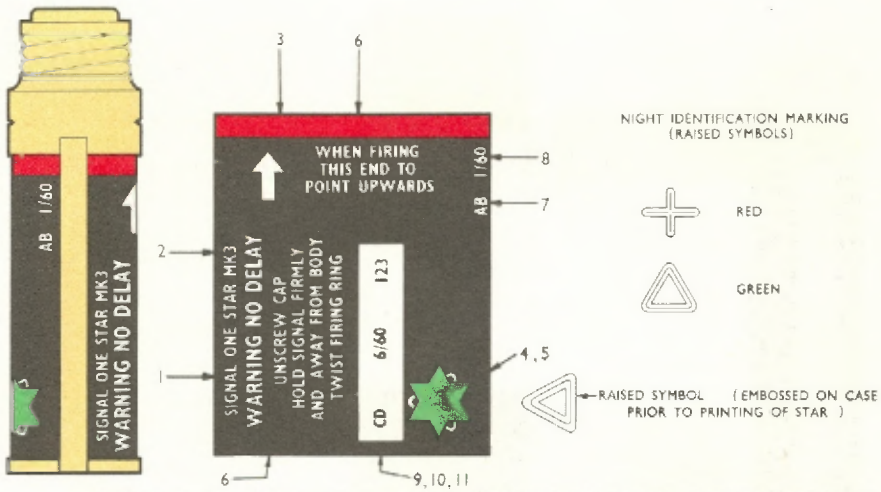
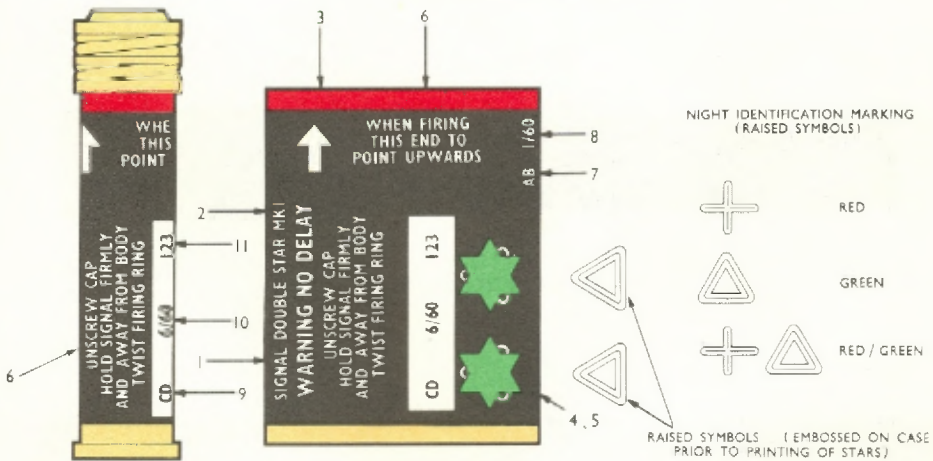


FIG. 2

## DOUBLE STAR, MK.1, RED, GREEN OR RED/GREEN

Service : — LAND



### KEY TO MARKINGS

1 NOMENCLATURE

2 MODEL NUMBER AND/OR MARK OF STORE

3 RED FILLING RING

4 STAR INDICATING COLOUR (AS APPLICABLE)

5 RAISED SYMBOL INDICATING COLOUR (AS APPLICABLE)

6 INSTRUCTIONS FOR USE

7 INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER

8 DATE OF MANUFACTURE (MONTH & YEAR)

9 INITIALS OR RECOGNISED MONOGRAM OF FILLER

10 DATE OF FILLING (MONTH & YEAR)

11 FILLED LOT NUMBER

## SIGNALS

FIG.1 DISTRESS, 2 STAR, RED  
MK4

Service :— AIR

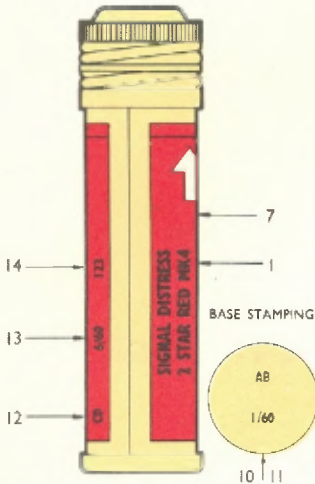


FIG.2 DISTRESS, DAY AND NIGHT  
No.1 MK1

Service :— NAVAL, LAND AND AIR

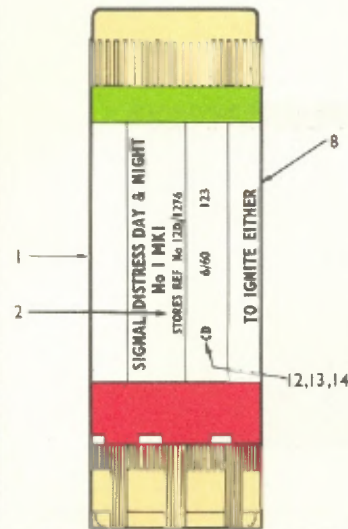


FIG.3 ILLUMINATING, MK1

Service :— LAND

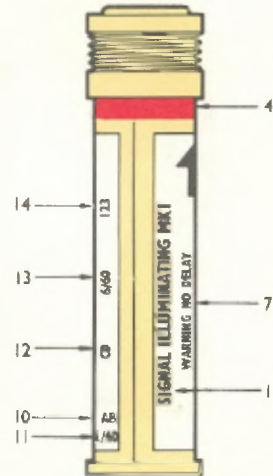


FIG.4

EMERGENCY, 5 STAR WHITE, MK 3N

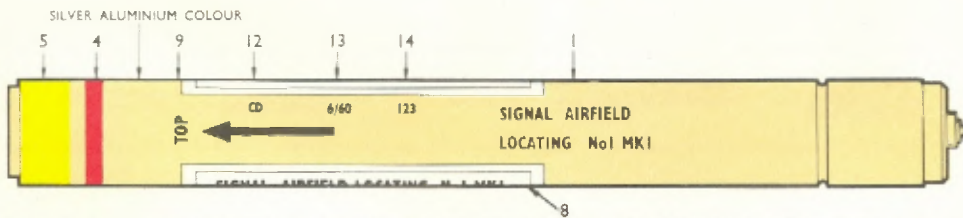
Service :— NAVAL



FIG.5

AIRFIELD, LOCATING, No.1 MK1

Service :— LAND AND AIR



KEY TO MARKINGS

- |   |                                                                     |                         |                                                 |
|---|---------------------------------------------------------------------|-------------------------|-------------------------------------------------|
| 1 | NOMENCLATURE<br>{ MODEL NUMBER AND/OR MARK OF STORE (AS APPLICABLE) | 7                       | IDENTIFICATION AND WARNING LABEL                |
| 2 |                                                                     | STORES REFERENCE NUMBER | 8                                               |
| 3 | "N" INDICATING NAVAL SERVICE                                        | 9                       | STOWAGE WARNING                                 |
| 4 | RED FILLING RING                                                    | 10                      | INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER |
| 5 | RING INDICATING COLOUR OF STAR (AS APPLICABLE)                      | 11                      | DATE OF MANUFACTURE (MONTH & YEAR)              |
| 6 | WORD INDICATING COLOUR                                              | 12                      | INITIALS OR RECOGNISED MONOGRAM OF FILLER       |
|   |                                                                     | 13                      | DATE OF FILLING (MONTH & YEAR)                  |
|   |                                                                     | 14                      | FILLED LOT NUMBER                               |



# SIGNALS

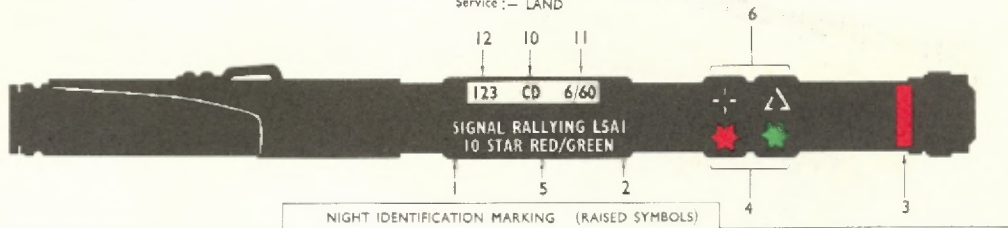
FIG. 1

## RALLYING

L5A1 10 STAR RED/GREEN  
L6A1 10 STAR RED/YELLOW  
L7A1 10 STAR RED/RED

L8A1 10 STAR GREEN/YELLOW  
L9A1 10 STAR GREEN/GREEN  
L10A1 10 STAR YELLOW/YELLOW

Service:— LAND



NIGHT IDENTIFICATION MARKING (RAISED SYMBOLS)

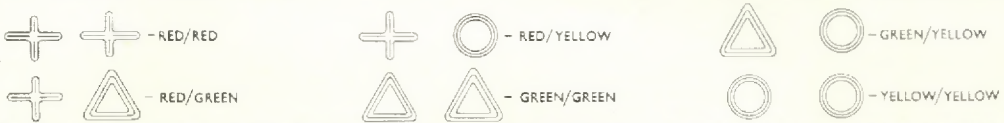


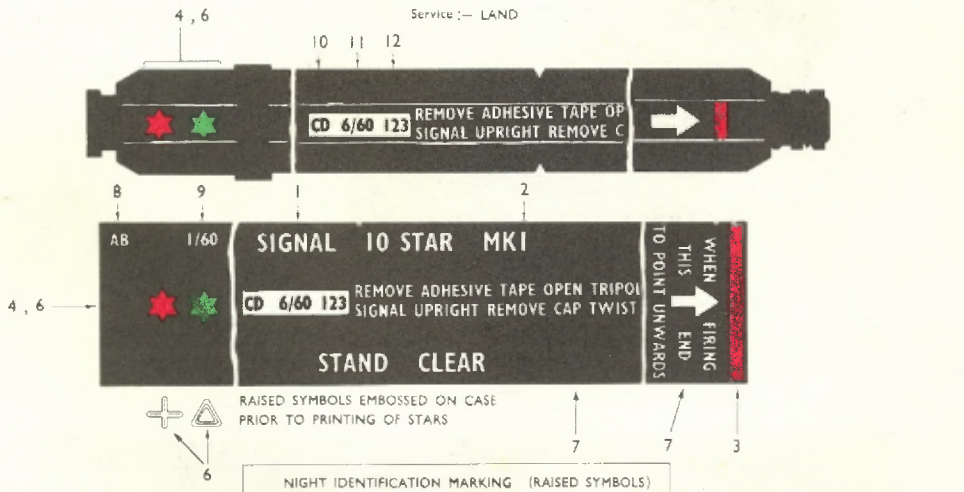
FIG. 2

## 10 STAR

RED MKI  
GREEN MKI  
RED AND YELLOW MKI

YELLOW MKI  
RED AND GREEN MKI

Service:— LAND



RAISED SYMBOLS EMBOSSED ON CASE PRIOR TO PRINTING OF STARS

NIGHT IDENTIFICATION MARKING (RAISED SYMBOLS)



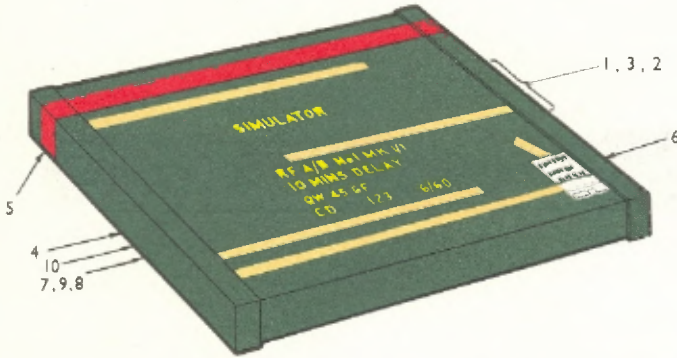
### KEY TO MARKINGS

- |   |                                                   |    |                                                 |
|---|---------------------------------------------------|----|-------------------------------------------------|
| 1 | NOMENCLATURE                                      | 7  | INSTRUCTIONS FOR USE                            |
| 2 | MODEL NUMBER AND/OR MARK OF STORE (AS APPLICABLE) | 8  | INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER |
| 3 | RED FILLING RING                                  | 9  | DATE OF MANUFACTURE (MONTH & YEAR)              |
| 4 | STAR INDICATING COLOUR (AS APPLICABLE)            | 10 | INITIALS OR RECOGNISED MONOGRAM OF FILLER       |
| 5 | WORD INDICATING COLOUR (AS APPLICABLE)            | 11 | DATE OF FILLING (MONTH & YEAR)                  |
| 6 | RAISED SYMBOL INDICATING COLOUR (AS APPLICABLE)   | 12 | FILLED LOT NUMBER                               |

# SIMULATORS

FIG.1

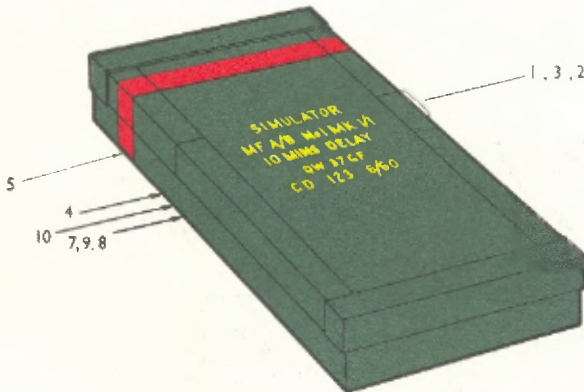
RIFLE-FIRE, AIRBORNE, No.1  
Service:— LAND



|       |                  |
|-------|------------------|
| MK1/1 | 10 MINUTES DELAY |
| MK2/1 | ½ HOUR DELAY     |
| MK3/1 | 2 HOURS DELAY    |

FIG.2

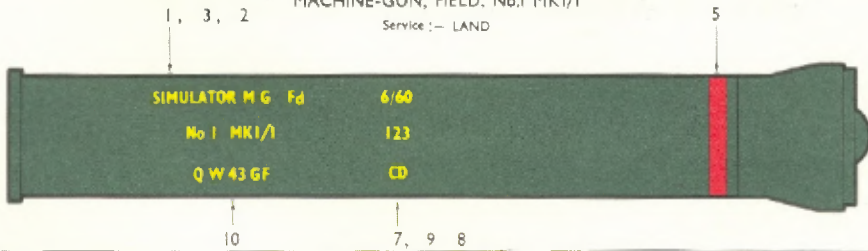
MORTAR-FIRE, AIRBORNE, No.1  
Service:— LAND



|       |                  |
|-------|------------------|
| MK1/1 | 10 MINUTES DELAY |
| MK2/1 | ½ HOUR DELAY     |
| MK3/1 | 2 HOURS DELAY    |

FIG.3

MACHINE-GUN, FIELD, No.1 MK1/1  
Service:— LAND



KEY TO MARKINGS

- |   |                                                   |    |                                           |
|---|---------------------------------------------------|----|-------------------------------------------|
| 1 | ABBREVIATED NOMENCLATURE.                         | 6  | WARNING LABEL                             |
| 2 | MODEL NUMBER AND/OR MARK OF STORE (AS APPLICABLE) | 7  | INITIALS OR RECOGNISED MONOGRAM OF FILLER |
| 3 | DETAILS OF WEAPON SIMULATED                       | 8  | DATE OF FILLING (MONTH & YEAR)            |
| 4 | TIME OF DELAY (AS APPLICABLE)                     | 9  | FILLED LOT NUMBER                         |
| 5 | RED FILLING RING                                  | 10 | FILLED PART NUMBER (AS APPLICABLE)        |

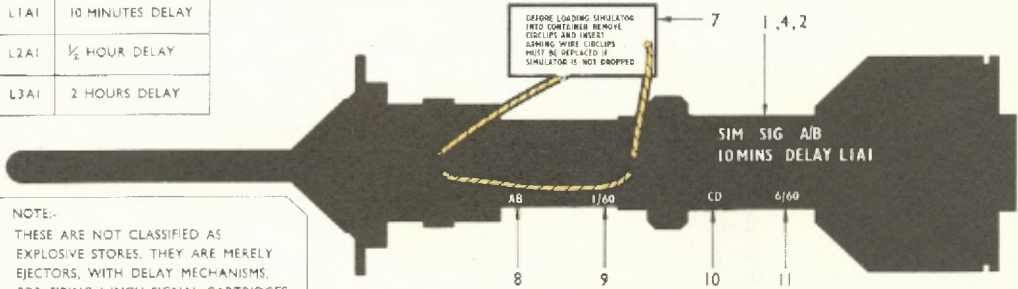
# SIMULATORS

FIG. 1

## SIGNAL, AIRBORNE

Service :— LAND

|      |                  |
|------|------------------|
| L1A1 | 10 MINUTES DELAY |
| L2A1 | ½ HOUR DELAY     |
| L3A1 | 2 HOURS DELAY    |

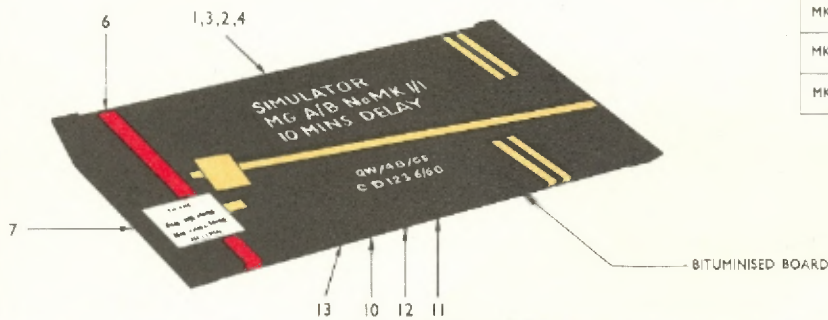


NOTE:-  
THESE ARE NOT CLASSIFIED AS  
EXPLOSIVE STORES. THEY ARE MERELY  
EJECTORS, WITH DELAY MECHANISMS,  
FOR FIRING 1-INCH SIGNAL CARTRIDGES

FIG. 2

## MACHINE-GUN, AIRBORNE, No.1 MK1/1

Service :— LAND



|       |                  |
|-------|------------------|
| MK1/1 | 10 MINUTES DELAY |
| MK2/1 | ½ HOUR DELAY     |
| MK3/1 | 2 HOURS DELAY    |

FIG. 3

## GUNFLASH, No.3, MK1/1

Service :— LAND

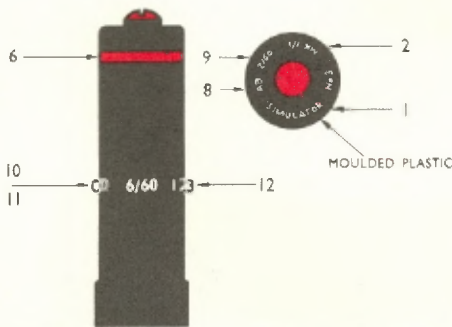
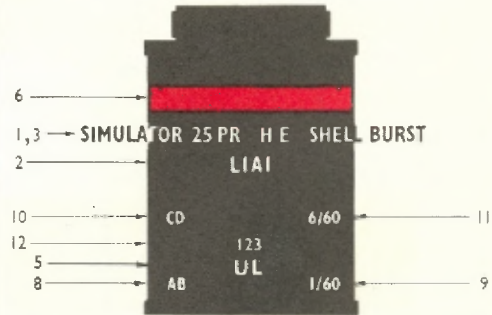


FIG. 4

## SHELL-BURST 25PR L1A1

Service :— LAND



### KEY TO MARKINGS

- |   |                                                           |    |                                                 |
|---|-----------------------------------------------------------|----|-------------------------------------------------|
| 1 | NOMENCLATURE OR ABBREVIATED NOMENCLATURE, (AS APPLICABLE) | 7  | INSTRUCTIONS FOR USE                            |
| 2 | MODEL NUMBER AND/OR MARK OF STORE (AS APPLICABLE)         | 8  | INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER |
| 3 | DETAILS OF WEAPON SIMULATED                               | 9  | DATE OF MANUFACTURE (MONTH & YEAR)              |
| 4 | TIME OF DELAY (AS APPLICABLE)                             | 10 | INITIALS OR RECOGNISED MONOGRAM OF FILLER       |
| 5 | ABBREVIATION OR CODE DENOTING FILLING COMPOSITION USED    | 11 | DATE OF FILLING (MONTH & YEAR)                  |
| 6 | RED FILLING RING                                          | 12 | FILLED LOT NUMBER                               |
|   |                                                           | 13 | FILLED PART NUMBER (AS APPLICABLE)              |

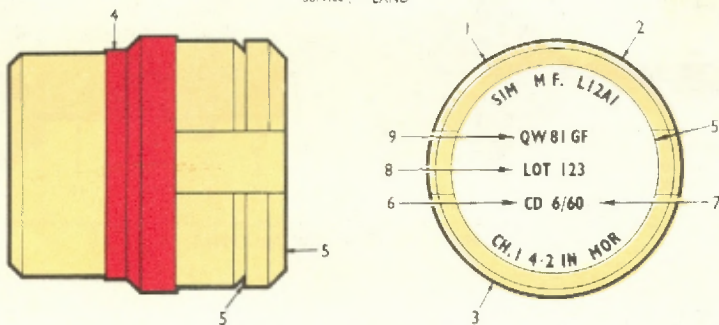
## SIMULATORS

FIG. 1

### MORTAR - FIRE

- \* L10AI 3-INCH MORTAR CHARGE 1
- \* L11AI 3-INCH MORTAR CHARGE 2
- L12AI 4-2-INCH MORTAR CHARGE 1
- \* L13AI 4-2-INCH MORTAR CHARGE 2

Service: — LAND



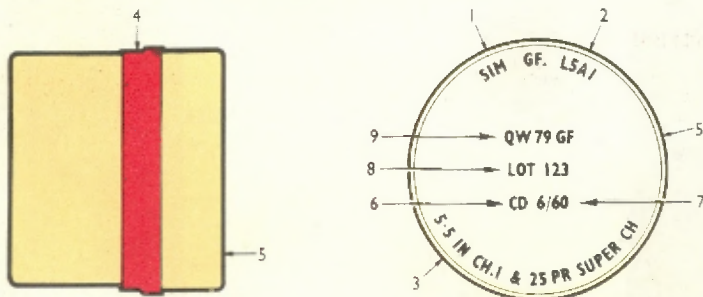
\* ALTHOUGH THE DIMENSIONS AND CONTOUR MAY DIFFER SLIGHTLY, THE MARKINGS ON THESE STORES SHOULD BE APPLIED IN SEQUENCE, RELATIVE SIZE AND COLOUR SIMILAR TO THOSE SHOWN

FIG. 2

### GUNFIRE

- \* L2AI 25PR CHARGE 1
- \* L3AI 25PR CHARGE 2 & 40mm.
- \* L4AI 25PR CHARGE 3
- L5AI 5-5-INCH CHARGE 1 & 25PR SUPER CHARGE
- \* L6AI 5-5-INCH CHARGE 2
- \* L7AI 5-5-INCH CHARGE 3
- \* L8AI 5-5-INCH CHARGE 4
- \* L9AI 5-5-INCH SUPER CHARGE
- \* L14AI 120mm. BAT.

Service: — LAND



\* ALTHOUGH THE DIMENSIONS AND CONTOUR MAY DIFFER SLIGHTLY, THE MARKINGS ON THESE STORES SHOULD BE APPLIED IN SEQUENCE, RELATIVE SIZE AND COLOUR SIMILAR TO THOSE SHOWN

#### KEY TO MARKINGS

- |                                                     |                                             |
|-----------------------------------------------------|---------------------------------------------|
| 1 ABBREVIATED NOMENCLATURE                          | 6 INITIALS OR RECOGNISED MONOGRAM OF FILLER |
| 2 MODEL NUMBER AND/OR MARK OF STORE (AS APPLICABLE) | 7 DATE OF FILLING (MONTH & YEAR)            |
| 3 DETAILS OF WEAPON SIMULATED (AS APPLICABLE)       | 8 FILLED LOT NUMBER                         |
| 4 RED FILLING RING                                  | 9 FILLED PART NUMBER (AS APPLICABLE)        |
| 5 IDENTIFICATION LABEL                              |                                             |

**RESTRICTED**

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**JOINT SERVICES  
 AMMUNITION AND AMMUNITION  
 PACKAGE MARKINGS HANDBOOK**

**Section 9****ROCKETS**

(EXCLUDING PYROTECHNICS)

1961

(Supersedes Section 9 1953 edition)

*Promulgated by Command of Their Lordships*

*J. G. Lang*

*Promulgated by Command of The Army Council*

*R. E. M. Day*

*Promulgated by Command of the Air Council*

*H. J. Dean*



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|                                                             | Plate    |
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| <b>Rocket heads (Naval Service):–</b>                       |          |
| Typical identification plate .. .. .                        | 1 Fig. 1 |
| S.A.P. filled TNT .. .. .                                   | 1 Fig. 2 |
| Flare .. .. .                                               | 1 Fig. 3 |
| Drill .. .. .                                               | 1 Fig. 4 |
| A.P. (solid) .. .. .                                        | 1 Fig. 5 |
| <b>Rocket heads (Air Service):–</b>                         |          |
| Typical identification plate .. .. .                        | 2 Fig. 1 |
| H.E., S.A.P. .. .. .                                        | 2 Fig. 2 |
| H.E., G.P. .. .. .                                          | 2 Fig. 3 |
| A.P. (solid) .. .. .                                        | 2 Fig. 4 |
| Drill .. .. .                                               | 2 Fig. 5 |
| Practice (concrete) .. .. .                                 | 2 Fig. 6 |
| <b>3-inch aircraft rockets:–</b>                            |          |
| H.E. 18 lb., G.P. .. .. .                                   | 3 Fig. 1 |
| Practice, 12 lb. .. .. .                                    | 3 Fig. 2 |
| <b>2-inch aircraft rockets:–</b>                            |          |
| H.E., 3·25 lb. .. .. .                                      | 3 Fig. 3 |
| Practice, 3·25 lb. .. .. .                                  | 3 Fig. 4 |
| <b>Rocket motors:–</b>                                      |          |
| Motor, rocket, a/c, 3 inch (Naval and Air Services) .. .. . | 4 Fig. 1 |
| Motor, rocket, a/c, 2 inch (Naval and Air Services) .. .. . | 4 Fig. 1 |
| Motor, rocket, a/c, 2 inch, Drill .. .. .                   | 4 Fig. 2 |
| Motor, rocket, a/c, 5 inch (Naval Service) .. .. .          | 4 Fig. 3 |
| <b>Rockets (Land Service):–</b>                             |          |
| 3·5 inch H.E.A.T. .. .. .                                   | 5 Fig. 1 |
| 3·5 inch Practice .. .. .                                   | 5 Fig. 2 |
| Motor, rocket, 3 inch .. .. .                               | 6 Fig. 1 |
| Motor, rocket, 5 inch .. .. .                               | 6 Fig. 2 |

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| rocket heads .. .. .                                                    | 5     |
| rocket motors .. .. .                                                   | 5     |
| Venturis .. .. .                                                        | 16    |
| Complete round – stencilled details .. .. .                             | 18    |
| <b>D</b>                                                                |       |
| Date of expiry of service life .. .. .                                  | 15(e) |
| Drill rockets .. .. .                                                   | 5, 30 |
| <b>E</b>                                                                |       |
| Empty stores – identification details .. .. .                           | 4     |
| Exploded practice rockets and/or heads .. .. .                          | 28    |
| <b>F</b>                                                                |       |
| Filled series number .. .. .                                            | 26    |
| Filling abbreviations and codes .. .. .                                 | 32    |
| Firing temperature limitations .. .. .                                  | 15(c) |
| <b>H</b>                                                                |       |
| Heads – basic body colours and colours of stencilling:–                 |       |
| Carrier heads .. .. .                                                   | }     |
| Drill heads .. .. .                                                     |       |
| Practice heads .. .. .                                                  |       |
| Warheads .. .. .                                                        |       |
| <b>I</b>                                                                |       |
| Identification plates .. .. .                                           | 4, 33 |
| Identification – methods of .. .. .                                     | 2     |
| <b>L</b>                                                                |       |
| Labels including metal tags .. .. .                                     | 34    |
| <b>M</b>                                                                |       |
| Markings to indicate special features .. .. .                           | 14    |
| Metal identification plates – use by Air Service .. .. .                | 4     |
| Methods of identification – general .. .. .                             | 2     |
| Motors: basic body colours and colours of stencilling .. .. .           | 5     |
| firing temperature limitations .. .. .                                  | 15(c) |
| stencilling: colours .. .. .                                            | 5     |
| details .. .. .                                                         | 23    |
| thermal initiation markings .. .. .                                     | 15(d) |



|                                                                       | <b>P</b> | <b>Para.</b> |
|-----------------------------------------------------------------------|----------|--------------|
| Permanent markings .. .. .                                            |          | 4            |
| Position of markings – exceptions to rules .. .. .                    |          | 35           |
| Practice rockets .. .. .                                              |          | 28           |
| Propellant identification codes .. .. .                               |          | 32           |
| <b>R</b>                                                              |          |              |
| Ring to indicate store contains an active agent .. .. .               |          | 8            |
| Ring(s) to indicate type of charging of chemical rocket heads .. .. . |          | 11           |
| Rockets – drill .. .. .                                               |          | 24, 30       |
| Rocket heads: basic body colours .. .. .                              |          | 5            |
| filled coloured smoke or coloured flare compositions .. .. .          |          | 29           |
| stencilling colours and details .. .. .                               |          | 5, 19 to 22  |
| Rocket motors: basic body colours .. .. .                             |          | 5            |
| stencilling colours and details .. .. .                               |          | 5, 23        |
| <b>S</b>                                                              |          |              |
| Service life expiry date .. .. .                                      |          | 15(e)        |
| Special feature markings .. .. .                                      |          | 14           |
| Stampings – empty details .. .. .                                     |          | 4            |
| Stencilling: colour of .. .. .                                        |          | 5            |
| details .. .. .                                                       |          | 17           |
| size of .. .. .                                                       |          | 31           |
| <b>T</b>                                                              |          |              |
| Temperature limitations – marking of .. .. .                          |          | 15(c)        |
| Thermal initiation markings .. .. .                                   |          | 15(d)        |
| <b>V</b>                                                              |          |              |
| Venturis:—                                                            |          |              |
| Colour markings .. .. .                                               |          | 16           |
| Colour rings .. .. .                                                  |          | 16           |
| Stencilling of .. .. .                                                |          | 25           |
| <b>W</b>                                                              |          |              |
| Warheads: basic body colours .. .. .                                  |          | 5            |
| stencilling colours .. .. .                                           |          | 5            |
| stencilled details .. .. .                                            |          | 19, 20       |

## RESTRICTED

### INTRODUCTION

1. The general principles of colour identification and details of markings in this Section follow those laid down in **Section 1, "General Introduction"**, which should be read in conjunction with it. There are exceptions, and some of these are explained by examples.

### METHODS OF IDENTIFICATION - GENERAL

2. The following methods of identification, or a combination of these methods are used:-

- Stamping, embossing, engraving, etc.
- Basic body identification colours
- Ring to indicate store contains an active agent
- Ring(s) indicating type of charging of chemical warheads
- Stencilling (including transfer and printing processes)
- Identification plates, labels or tags

3. The distinctive colour of paints or other marking media used will be as follows:-

- (a) For basic body identification colours:-

- Black
- Deep bronze green
- Light grey
- Red oxide
- Sea green
- Turquoise blue
- White

- (b) For rings, stripes, symbols, stencilling, etc.:-

- Black
- Azure blue
- Brilliant green
- Golden yellow
- Light brown
- Signal red
- White

### STAMPINGS, EMBOSSING, ENGRAVING, ETC.

4. The following permanent markings will be applied by an approved method or process in an approved and prominent position on the head. They are usually stamped on the body or rear face of the rocket head, but on cast iron heads they may be embossed (or recessed).

They are required to indicate details of manufacture and acceptance inspection of the empty store or assembly. **They are not normally required by the user** and are usually overpainted by the basic body identification colour and stencilled markings.

Abbreviated nomenclature and mark or model number.

Initials or recognized mark of manufacturer.

Date of manufacture (month and year).

Lot or batch number, or identification mark or cast or heat treatment batch.

Abbreviated code letters of materials, i.e.:-

- CS .. Cast steel
- FS .. Forged steel
- CI .. Cast iron
- SS .. Semi-steel
- BS .. Bar steel

*Exceptions*

- (a) In Air and Naval Service identification markings relating to filling details are normally stamp rolled on the body, but alternatively a metal identification plate is affixed with the fillers marking stamped thereon. For details of markings on identification plates, see para. 33.
- (b) On rocket motors the appropriate empty details are usually combined with the filling details and **stencilled** on the store as stamping is apt to distort the tube.

**BASIC BODY IDENTIFICATION COLOURS**

5. The basic body identification colour and colour of the main details stencilled thereon indicate the type of rocket head and rocket motor, as follows:--

| Basic body colour                                                        | Stencilling colour<br>(main details - when applicable) | Type *                                                      | Abbreviation           |
|--------------------------------------------------------------------------|--------------------------------------------------------|-------------------------------------------------------------|------------------------|
| <b>ROCKET HEADS</b>                                                      |                                                        |                                                             |                        |
| Deep bronze green                                                        | Golden yellow                                          | { High explosive<br>" " G.P.<br>" " Semi armour<br>piercing | HE<br>HEGP<br>HESAP    |
| Black                                                                    | Red                                                    | Armour piercing (solid)                                     | AP                     |
| Black                                                                    | White                                                  | Drill                                                       | DRILL                  |
| Sea green                                                                | Black                                                  | Smoke                                                       | SMK                    |
| Light grey                                                               | Black but see also para. 11                            | Chemical                                                    | CHEM                   |
| Red oxide                                                                | Black                                                  | Incendiary                                                  | INCDY                  |
| Turquoise blue (Air Service: if concrete, in natural colour of material) | White                                                  | Practice                                                    | PRAC                   |
| White                                                                    | Black                                                  | { Flash<br>Star<br>Illuminating                             | FLASH<br>STAR<br>ILLUM |

\*Heads are classified into four main categories, viz:--

Warheads - intended to be lethal

Carrier heads - being any type of head other than warhead, practice or drill

Practice heads

Drill heads

**ROCKET MOTORS**

|                   |               |                                     |       |
|-------------------|---------------|-------------------------------------|-------|
| Deep bronze green | Golden yellow | Operational - Land and Air Services |       |
| White             | Black         | Operational - Naval Service         |       |
| Black             | White         | Drill                               | DRILL |

6. **Coloured rings, bands and stripes** are painted over the basic body colour to indicate:--

- (a) That the store or component contains or is assembled with an active agent.
- (b) The type of charging of chemical rocket heads.

**7. Other coloured symbols or markings**

Certain other coloured symbols or markings may also be used to indicate special characteristics of the store not covered by the standard approved markings.

**RING TO INDICATE STORE CONTAINS AN ACTIVE AGENT**

8. A signal red ring painted around a rocket warhead, head or rocket motor denotes that it contains an active agent (explosive, chemical or otherwise) and is normally required to be classified for storage, transit and handling in a government explosives group.

This identification marking will also be used on practice rocket heads having inert fillings which are fitted with exploders, flash pellets or spotting charges.

There are three types of red ring, as follows:-

- (a) *A plain red ring* indicates suitability for issue and storage under all climatic conditions.
- (b) *A cross-bar-cross red ring* indicates a limited life in hot or cold climates. It is a cautionary warning denoting that the store should be frequently inspected and/or tested to confirm its continued serviceability. In addition to this red ring, when the store is restricted in transit and storage to below or above a specified temperature, the critical temperature figures enclosed in a rectangle preceded by the letters TSL (denoting "Transit and Storage Temperature Limitation") and the words "NOT ABOVE" or "NOT BELOW" (as applicable will be stencilled in red on the body of the store, e.g.:-

TSL NOT ABOVE 120F (actual temperature figure as applicable)

TSL NOT BELOW - 25F (actual temperature figure as applicable)

Where applicable the above markings may be combined, either following or underneath one another, in which case the words "NOT ABOVE" or "NOT BELOW" will be omitted.

- (c) *A hatched red ring* indicates restrictions on issue and storage to temperate climates only.

**9. Standard width of ring**

*For heads and motors*

|                                  | <i>Less than 3 in. dia.</i>                                                  | <i>3 in. dia. and above</i>                                               |
|----------------------------------|------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| Plain red ring .. .. .           | .. $\frac{1}{4}$ in.                                                         | $\frac{1}{2}$ in.                                                         |
| Cross-bar-cross red ring .. .. . | .. $\frac{1}{4}$ in.                                                         | $\frac{1}{2}$ in.                                                         |
| Hatched red ring .. .. .         | .. $\frac{1}{4}$ in. wide centre ring with hatched bars of $\frac{1}{2}$ in. | $\frac{1}{2}$ in. wide centre ring with hatched bars of $\frac{7}{8}$ in. |

10. **Standard position of ring.** It will normally be positioned on the shoulder or forward end of rocket head or front portion of rocket motors and above the stencilled details.

**Note.** For stores having a basic body colour of red the plain red ring may be indicated by two black hair lines appropriately spaced, but cross-bar-cross or hatched red filling rings will be superimposed on a black ring to render them easily distinguishable from the red basic body colour. Alternatively, the same effect may be produced by stencilling a black ring from which the appropriate marking has been cut out, leaving the basic body colour showing through.

**RING(S) INDICATING TYPE OF CHARGING OF CHEMICAL ROCKET HEADS**

11. The basic body colour of chemical rocket heads will be light grey and the type of charging will be classified according to its tactical use.

*Green ring(s)*, with the chemical agent code also stencilled in green, indicate a casualty producing agent.

*Red ring(s)*, with the chemical agent code also stencilled in red, indicate a harassing agent.

One coloured ring indicates a non-persistent and two rings a persistent agent.

## 12. Standard width of rings

4 in. dia. and above: 1 in. wide, 2 in. between rings where two are used.

Less than 4 in. dia.:  $\frac{1}{2}$  in. wide, with 1 in. between rings where two are used.

## 13. Standard position of ring(s)

First ring to be positioned approximately one third of the distance down from the front portion of the head.

### MARKINGS INDICATING SPECIAL FEATURES

## 14. Heads

(a) A light brown ring placed above and adjacent to the red filling ring indicates a cast iron or semi-steel head.

## 15. Motors

(a) *Rockets, Practice, 3.5 inch - Land Service*, 3.5 inch practice rockets will have one 1 inch wide white band painted around the lower part of the motor body tube and one  $\frac{1}{2}$  inch wide painted immediately below the contact ring.

(b) *Rockets, 5-inch No. 3 Marks 2 and 3 (Baby Viper)*. A 1 inch wide golden yellow stripe, which acts as a locating mark, will be painted along the length of the rocket motor body.

(c) *Firing temperature limitations*. This will be denoted by a red circle with the firing limitation stencilled within it also in red, e.g. (actual firing temperature limitations as applicable).



(d) *Thermal initiation*. The letters "TH" in red will be added within a red circle when the motor is suitable for thermal initiation.

When motors of a particular type and mark are either all suitable for thermal initiation or where there is no intention of using thermal initiation with them, this special feature marking may be omitted.

(e) *Date of expiry of Service life (Not Naval Service)*

The restricted or date of expiry of service life will be indicated by the letters SL (denoting service life) followed by the date (month and year) stencilled in red in an approved position on the body of the motor. e.g. SL/6 - 59.

## 16. Venturis, for 5-inch A.T.O. Motors

These are not painted a basic body identification colour but are left in the natural protective colour of the material from which manufactured.

(a) Venturis for use in various climatic conditions are painted with a 2 inch wide ring coloured as follows:-

|            |                 |
|------------|-----------------|
| Red        | — Tropical      |
| Green      | — Temperate     |
| White      | — Arctic Mk. 1  |
| Azure blue | — Arctic Mk. 2. |

(b) The corresponding firing temperature limitations (see para. 15(c) above) are also marked on the Venturis.

### STENCILLING (including transfer and printing processes)

17. These details are applied over the basic body identification colour and give such additional information as is necessary to make identification complete. In the Air Service, markings may be by metal plates (see Fig. 1 of Plate 2) or by stampings. Examples of this information are given in the following paragraphs and in Plates 1 to 6.

**18. Complete assembled rockets (Operational)**

*(a) Details on head*

Nomenclature and mark or model number.  
Abbreviated code denoting type of filling (in Land Service this code may also be stamped).  
Filled series lot number.  
One line code method of filling design or if allocated a model number (Land Service only)  
the recognized mark or initials of filler and date of filling (month and year).  
Stores reference number (Air Service only).

*(b) Details on motor*

Propellant identification code.  
Propellant lot number.  
Recognized mark or initials of filler.  
Date of filling (month and year).  
Firing temperature limitation (if applicable).  
Batch number of complete round (Land Service only).

**19. Warheads - H.E., H.E.G.P., and H.E.S.A.P.**

Abbreviated nomenclature and mark or model number. } Naval and Land Service  
Abbreviated code denoting type of filling. } only.  
(In Land Service this code may also be stamped in the head.)  
Fuze number and mark. }  
Recognized mark or initials of fuze filler. }  
Date of filling of fuze (month and year). }  
Lot number of filled fuze. } Naval Service only.  
Mark of thermal initiator. }  
Recognized mark or initials of thermal initiator filler. }  
Date of filling of thermal initiator (month and year). }  
Lot number of filled thermal initiator. }  
Identification plate (*see para. 33*) (Naval and Air Services only).

**20. Warheads - Armour piercing**

Abbreviated nomenclature, mark or model number. } Naval and Land Services  
Recognized mark or initials of manufacturer. } only.  
Date of manufacture (month and year).

**21. Heads - Carrier**

Abbreviated nomenclature and mark or model number.  
Abbreviated code denoting type of filling.  
Recognized mark or initials of empty manufacturer.  
Last two figures of year of empty manufacture.  
Recognized mark or initials of filler.  
Date of filling (month and year).  
Filled series lot number.  
"P" denoting parachute and its number, e.g. P6 (if applicable).

**22. Heads - Drill and practice**

Abbreviated nomenclature and mark or model number. } Naval and Land Service  
Recognized mark or initials of filler. } only.  
Date of filling (month and year). }  
Nature of filling, i.e. HE SUB., SAND, SALT, WEIGHTED, etc. }  
Word "DRILL" or "PRAC" (as applicable). }  
Identification plate. } Air Service only.  
Stores reference number.

### 23. Motors – Operational

- Abbreviated nomenclature and mark or model number.
- Recognized mark or initials of empty manufacturer.
- Date of empty manufacture (month and year).
- Recognized mark or initials of filler.
- Date of filling (month and year).
- Propellant identification code.
- Lot number of propellant or filled motor.
- Date of expiry of Service life (if applicable).
- Firing temperature limitations (if applicable).
- “TH” indicating suitable for thermal initiation (if applicable).
- Details of igniter:-
  - Composition code.
  - Filled series lot number of composition.
  - Recognized mark or initials of filler.
  - Date of filling (month and year).
- Fuzehead batch number.

### 24. Motors – Drill

- Abbreviated nomenclature and mark or model number.
- Recognized mark or initials of manufacturer.
- Date of manufacture (month and year)
- Word “DRILL”

### 25. Venturis for 5 inch A.T.O. motors

- On Venturis for 5 inch A.T.O. motors the following details only are stencilled:-
  - Drawing design number.
  - Temperature limitation.
  - Recognized mark or initials of contractor.
  - Year of manufacture.

## FILLED SERIES NUMBER

26. The serial number stencilled in a circle relates to the filled lot series for H.E., smoke, star, flare, chemical and practice rocket heads and motors.

On Air Service filled rocket heads, in order to reduce marking to a minimum and at the same time maintain identity of components, the complete heads are grouped by “assemblies” which are allocated a serial number prefixed by the initials or recognized mark of the filler. Each assembly number will, as far as practicable, contain not more than one lot of any component, e.g. “Assembly CY/0099” indicates the 99th filled group coming from Chorley.

If at any time during maintenance or repair it is necessary to substitute any new lot of a component for a defective one, a sub-assembly letter will be added after the original assembly number.

## BATCHING

27. In Land Service, where rocket heads are assembled with their motors and fuzes and issued as a complete round, in order to facilitate issue to the user of ballistically homogeneous groups of rockets, to reduce markings to a minimum and at the same time maintain identity of components, the complete filled rockets are assembled and marked in groups known as batches or sub-batches.

Each batch will contain only one filled motor lot; the sub-batch will be governed by the fuze and contain only one filled fuze lot.

The allocation of batch and sub-batch letters will follow the details given in para. 13 of Section 3, Cartridges.

## EXPLODERED PRACTICE ROCKETS AND/OR HEADS

28. The heads will be painted a basic body identification colour of turquoise blue and will have the word "PRACTICE" or abbreviation "PRAC" together with the abbreviation "HE SUB" (indicating HE substitute composition), if applicable, stencilled on the body in bold white letters.

To indicate the presence of an exploder, flash pellets, etc. a plain red filling ring will be painted around the nose or forward part of the head.

## ROCKET HEADS FILLED COLOURED SMOKE OR COLOURED FLARE COMPOSITIONS

29. Rocket heads filled with coloured smoke compositions will have the colour "BLUE", "GREEN", "RED" or "YELLOW" (as applicable) stencilled in golden yellow, while rocket heads filled with coloured flare compositions will have the colour (as applicable) stencilled in black. Initial letters or abbreviations will **not** be used. The word denoting the colour of the particular smoke or flare composition should, so far as space permits, be twice the size of the other main filling details stencilled on the rocket head (*see para. 31*).

## ROCKETS - DRILL

30. Drill rockets, heads and motors will be painted a basic body identification colour of black and will have the word "DRILL" prominently stencilled in white in an approved position.

## SIZE OF STENCILLING

31. Main filling details will normally be stencilled in the following sizes:-

For heads and motors 4 in. dia. and above -  $\frac{3}{4}$  in.  
For heads and motors below 4 in. dia. -  $\frac{3}{8}$  in.

## FILLING ABBREVIATIONS, FILLING AND PROPELLANT CODES

32. Filling abbreviations, filling and propellant codes will be found in **Tables 1 to 3 and Appendix 1 of Section 1 "General Introduction"**. They should, so far as space permits, be stencilled twice the size and the same colour as the other main filling details stencilled on the store.

Filling abbreviations and codes denoting the type of H.E. fillings will be stencilled twice, diametrically opposite, on heads 4 in. dia. and above and once on others. Code abbreviations indicating the particular composition used in flare, illuminating, incendiary, star, etc. rocket heads and codes indicating the particular propellant used in rocket motors will be stencilled once only on the store concerned.

## IDENTIFICATION PLATES

33. In Naval and Air Services metal identification plates (*see Fig. 1 Plates 1 and 2*) may be used in lieu of or in addition to the stencilled details referred to in the foregoing paragraphs. The following details will be shown on the plates:-

Abbreviated nomenclature and mark of head.  
Stores reference number.  
Recognized mark or initials of filler.  
Date of filling (month and year) (Naval Service).  
Filled series lot number (Naval Service).  
Filled assembly lot number (Air Service).  
Nature of filling abbreviation or code.



## LABELS, INCLUDING METAL TAGS

34. Special warning or instructional labels or tags may be used as necessary.

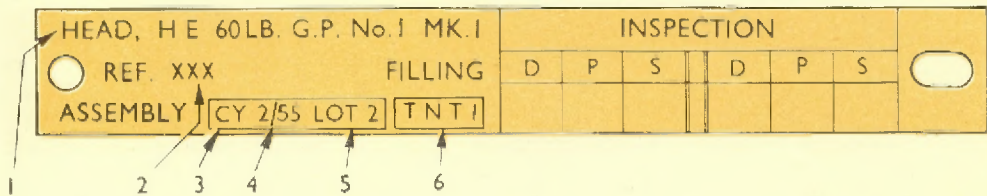
## POSITION OF MARKINGS - EXCEPTIONS TO RULES

35. While adhering generally to the foregoing rules, the position but **not** the sequence of markings, may be varied to avoid, in special cases, obliteration by package supports, etc. The sizes of all markings, notwithstanding the dimensions given, may be proportionally adjusted to the space available and size of the store.

**RESTRICTED**

ROCKET HEADS (NAVAL SERVICE)

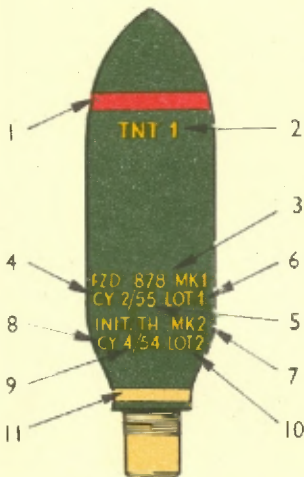
FIG. 1 TYPICAL IDENTIFICATION PLATE FOR ROCKET HEADS



- 1.. NOMENCLATURE AND MARK OF HEAD
- 2.. STORE REFERENCE
- 3.. RECOGNIZED MONOGRAM OR INITIALS OF FILLER
- 4.. DATE OF FILLING (MONTH AND YEAR)
- 5.. FILLED LOT NUMBER
- 6.. FILLING CODE LETTERS

FIG. 2

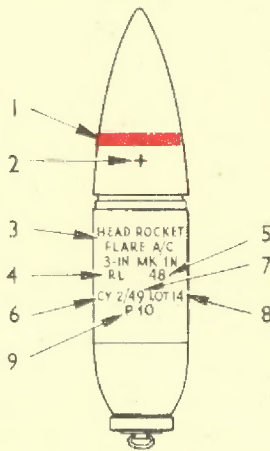
SAP. FILLED T N T



- 1.. RED FILLING RING
- 2.. FILLING CODE LETTERS
- 3.. FUZE NUMBER AND MARK
- 4.. RECOGNIZED MONOGRAM OR INITIALS OF FUZE FILLER
- 5.. DATE OF FILLING OF FUZE (MONTH AND YEAR)
- 6.. LOT NUMBER OF FILLED FUZE
- 7.. MARK OF THERMAL INITIATOR
- 8.. RECOGNIZED MARK OR INITIALS OF THERMAL INITIATOR FILLER
- 9.. DATE OF FILLING OF THERMAL INITIATOR (MONTH AND YEAR)
- 10.. LOT NUMBER OF FILLED THERMAL INITIATOR
- 11.. IDENTIFICATION PLATE

FIG. 3

FLARE



- 1.. RED FILLING RING
- 2.. COMPOSITION CODE
- 3.. NOMENCLATURE AND MARK
- 4.. RECOGNIZED MONOGRAM OR INITIALS OF MANUFACTURER
- 5.. DATE OF MANUFACTURE
- 6.. RECOGNIZED MONOGRAM OR INITIALS OF FILLER
- 7.. DATE OF FILLING (MONTH AND YEAR)
- 8.. LOT NUMBER
- 9.. 'P' DENOTING PARACHUTE AND NUMBER

FIG. 4

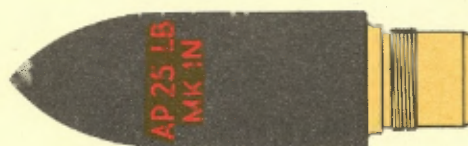
DRILL



- 1.. NOMENCLATURE AND MARK OF STORE REPRESENTED
- 2.. MANUFACTURERS RECOGNIZED MONOGRAM OR INITIALS
- 3.. DATE OF MANUFACTURE (MONTH & YEAR)

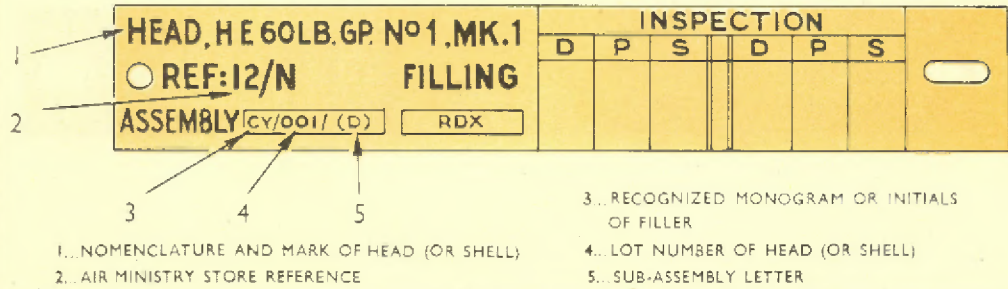
FIG. 5

AP (SOLID)



## ROCKET HEADS (AIR SERVICE)

FIG. 1 TYPICAL IDENTIFICATION PLATE FOR ROCKET HEADS



### 3 INCH AIRCRAFT ROCKET HEADS

FIG. 2 H. E. SAP



FIG. 3 H. E. GP.

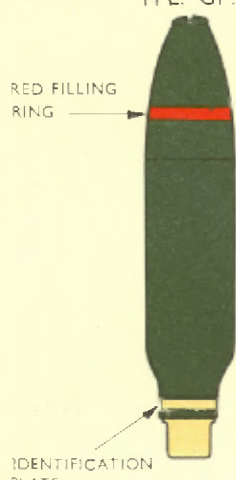


FIG. 4 A. P. (SOLID)

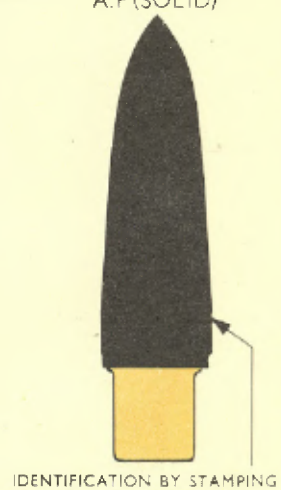


FIG. 5 DRILL

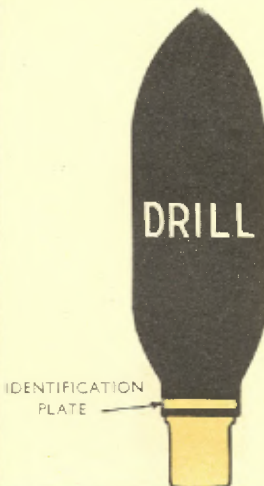
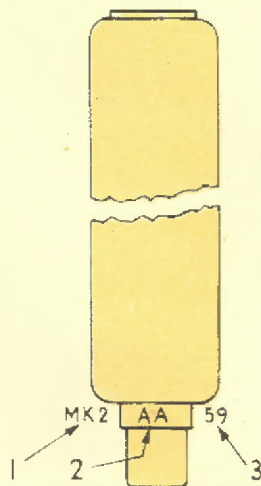


FIG. 6 PRACTICE (CONCRETE)



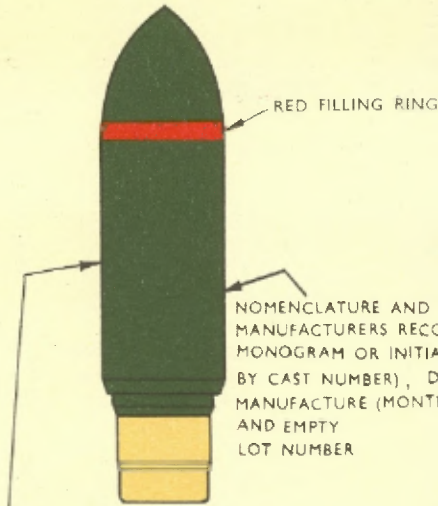
1. MARK OF HEAD
2. MANUFACTURERS RECOGNIZED MONOGRAM OR INITIALS
3. DATE OF MANUFACTURE (LAST TWO FIGURES OF YEAR)

ROCKET HEADS (AIR SERVICE)

FOR 3 INCH AIRCRAFT ROCKETS

FIG.1

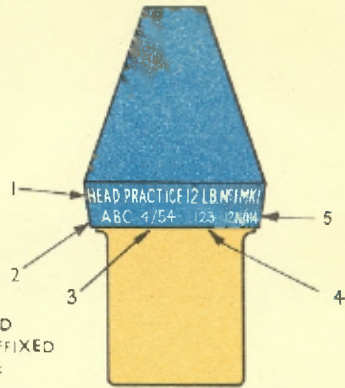
HE, 18LB. GP



SIMILAR DETAILS TO IDENTIFICATION PLATE (SHOWN IN FIG.1 PLATE 2) EXCEPT NOMENCLATURE AND MARK ARE ROLLED IN

FIG.2

PRACTICE, 12LB.

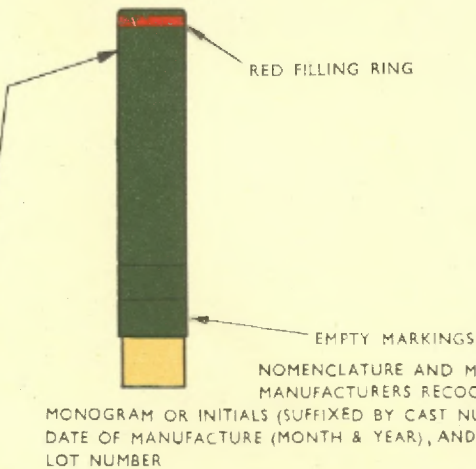


1. NOMENCLATURE AND MARK
2. MANUFACTURERS RECOGNIZED MONOGRAM OR INITIALS
3. DATE OF MANUFACTURE (MONTH & YEAR)
4. EMPTY LOT NUMBER
5. STORES REFERENCE NUMBER

FOR 2 INCH AIRCRAFT ROCKETS

FIG.3

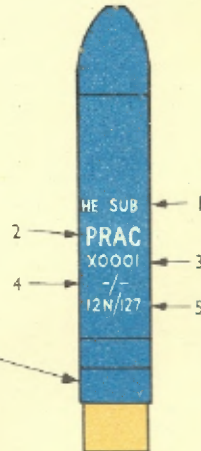
HE, 3-25LB.



SIMILAR DETAILS TO IDENTIFICATION PLATE (SHOWN IN FIG.1 PLATE 2) EXCEPT NOMENCLATURE AND MARK ARE ROLLED IN

FIG.4

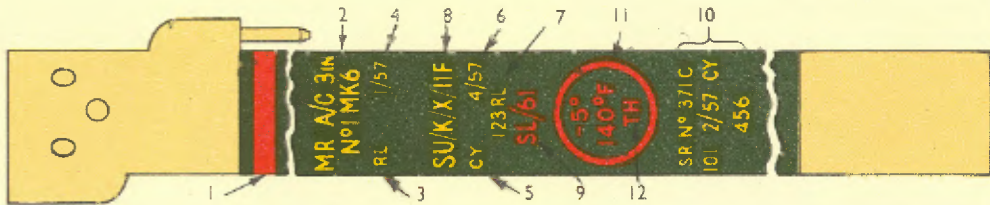
PRACTICE, 3-25LB.



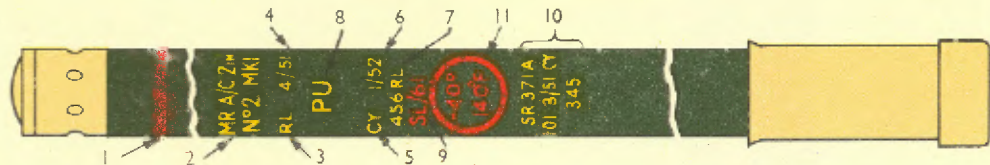
1. NATURE OF FILLING
2. TYPE OF PROJECTILE
3. FILLERS SYMBOL AND LOT NUMBER OF HEAD
4. DATE OF FILLING (MONTH & YEAR)
5. STORES REFERENCE NUMBER

ROCKET MOTORS

FIG. 1 MOTOR, ROCKET, A/C, 3 INCH (NAVAL AND AIR SERVICES)

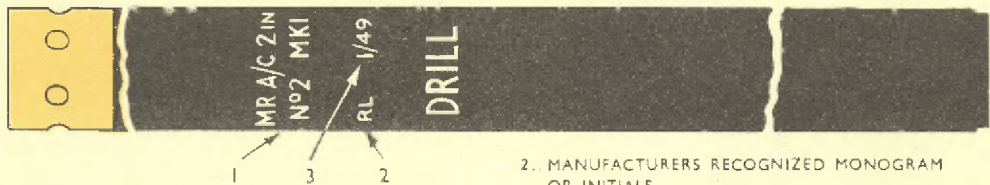


MOTOR, ROCKET, A/C, 2 INCH (NAVAL AND AIR SERVICES)



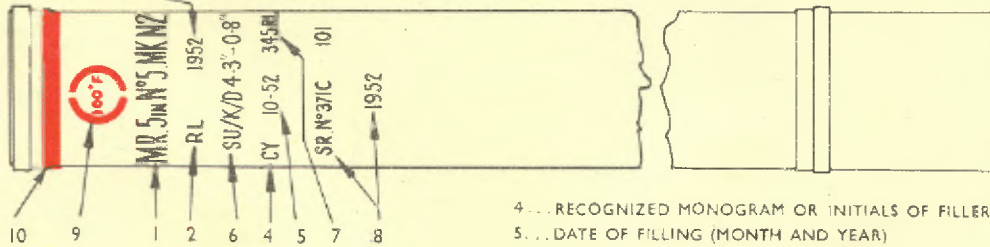
- |                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>1. RED FILLING RING</li> <li>2. NOMENCLATURE, NUMBER AND MARK</li> <li>3. MANUFACTURERS RECOGNIZED MONOGRAM OR INITIALS</li> <li>4. DATE OF MANUFACTURE (MONTH AND YEAR)</li> <li>5. RECOGNIZED MONOGRAM OR INITIALS OF FILLER</li> <li>6. DATE OF FILLING (MONTH AND YEAR)</li> </ul> | <ul style="list-style-type: none"> <li>7. LOT NUMBER OF PROPELLANT (INCLUDING MAKERS' INITIALS)</li> <li>8. PROPELLANT IDENTIFICATION LETTERS ETC.</li> <li>9. SERVICE EXPIRY DATE</li> <li>10. DETAILS OF IGNITER</li> <li>11. FIRING TEMPERATURE LIMITATIONS</li> <li>12. SUITABLE FOR THERMAL INITIATION (IF APPLICABLE)</li> </ul> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

FIG. 2 MOTOR, ROCKET, A/C, 2 INCH DRILL



- |                                                                                    |                                                                                                                                                     |
|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>1. NOMENCLATURE, NUMBER AND MARK</li> </ul> | <ul style="list-style-type: none"> <li>2. MANUFACTURERS RECOGNIZED MONOGRAM OR INITIALS</li> <li>3. DATE OF MANUFACTURE (MONTH AND YEAR)</li> </ul> |
|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|

FIG. 3 MOTOR, ROCKET, A/C, 5 INCH (NAVAL SERVICE)

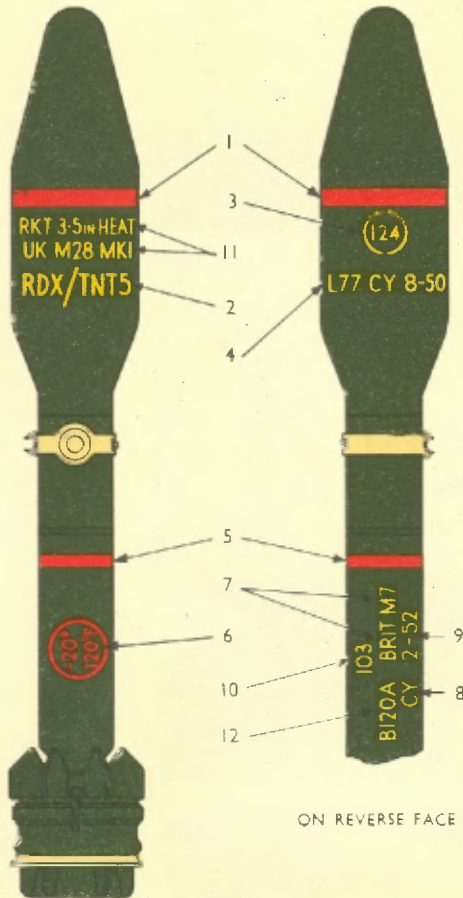


- |                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>1. NOMENCLATURE, NUMBER AND MARK</li> <li>2. MANUFACTURERS RECOGNIZED MONOGRAM OR INITIALS</li> <li>3. YEAR OF MANUFACTURE</li> </ul> | <ul style="list-style-type: none"> <li>4. RECOGNIZED MONOGRAM OR INITIALS OF FILLER</li> <li>5. DATE OF FILLING (MONTH AND YEAR)</li> <li>6. PROPELLANT IDENTIFICATION LETTERS ETC.</li> <li>7. LOT NUMBER OF PROPELLANT INCLUDING MAKERS' INITIALS</li> <li>8. DETAILS OF IGNITER</li> <li>9. FIRING TEMPERATURE LIMITATION</li> <li>10. RED FILLING RING</li> </ul> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

ROCKETS (LAND SERVICE)

FIG. 1

ROCKET, 3.5 INCH, HEAT



ON REVERSE FACE

HEAD DETAILS

- 1... RED FILLING RING
- 2... CODE (DENOTING FILLING)
- 3... FILLED SERIES NUMBER
- 4... ONE LINE CODE (METHOD OF FILLING)

MOTOR DETAILS

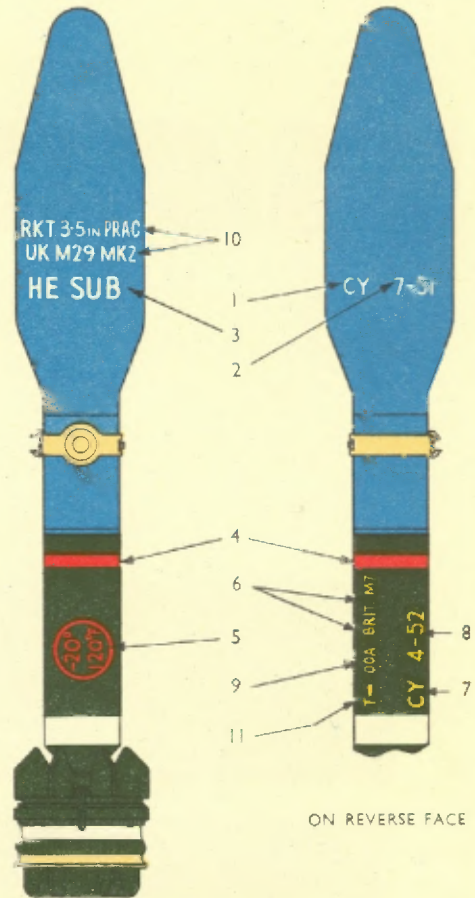
- 5... RED FILLING RING
- 6... FIRING TEMPERATURE LIMITATIONS
- 7... NATURE OF PROPELLANT
- 8... RECOGNIZED MONOGRAM OR INITIALS OF FILLER
- 9... DATE OF FILLING (MONTH AND YEAR)
- 10... PROPELLANT LOT NUMBER

COMPLETE ROUND DETAILS

- 11... NOMENCLATURE AND MARK OF STORE
- 12... BATCH NUMBER

FIG. 2

ROCKET 3.5 INCH PRACTICE



ON REVERSE FACE

HEAD DETAILS (IF APPLICABLE)

- 1... RECOGNIZED MONOGRAM OR INITIALS OF FILLER
- 2... DATE OF FILLING (MONTH AND YEAR) FILLER
- 3... NATURE OF FILLING (AS APPLICABLE)

MOTOR DETAILS

- 4... RED FILLING RING
- 5... FIRING TEMPERATURE LIMITATIONS
- 6... NATURE OF PROPELLANT
- 7... RECOGNIZED MONOGRAM OR INITIALS OF FILLER
- 8... DATE OF FILLING (MONTH AND YEAR) FILLER
- 9... PROPELLANT LOT NUMBER

COMPLETE ROUND DETAILS

- 10... NOMENCLATURE AND MARK OF STORE
- 11... BATCH NUMBER

ROCKETS (LAND SERVICE)

FIG.1 MOTOR, ROCKET, 3 INCH

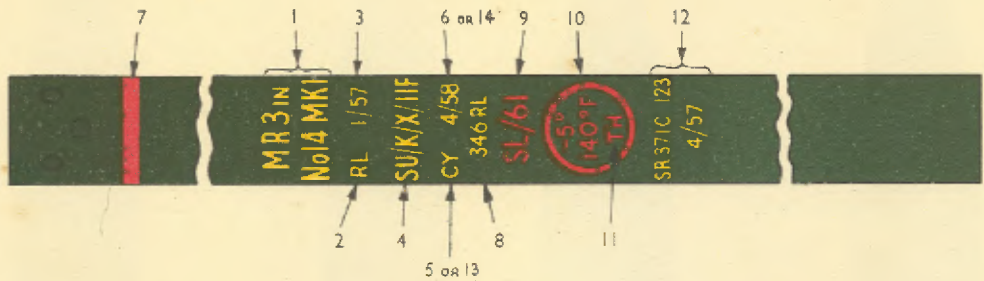
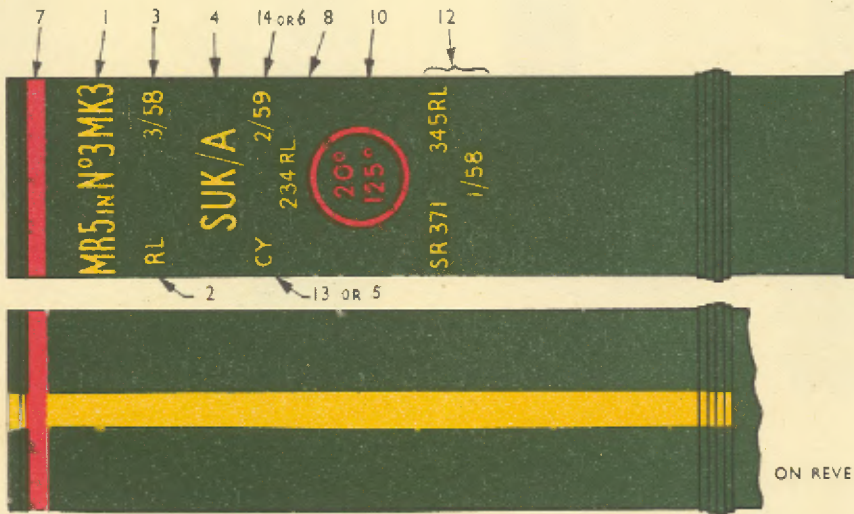


FIG.2 MOTOR, ROCKET, 5 INCH



- |                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ol style="list-style-type: none"> <li>1. ABBREVIATED NOMENCLATURE AND MARK</li> <li>2. MANUFACTURERS RECOGNIZED MONOGRAM OR INITIALS</li> <li>3. DATE OF MANUFACTURE (MONTH &amp; YEAR)</li> <li>4. PROPELLANT IDENTIFICATION CODE</li> <li>5. RECOGNIZED MONOGRAM OR INITIALS OF FILLER</li> <li>6. DATE OF FILLING (MONTH &amp; YEAR)</li> </ol> | <ol style="list-style-type: none"> <li>7. RED FILLING RING</li> <li>8. PROPELLANT LOT NUMBER INCLUDING MAKERS INITIALS</li> <li>9. SERVICE EXPIRY DATE</li> <li>10. FIRING TEMPERATURE LIMITATIONS</li> <li>11. SUITABLE FOR THERMAL INITIATION</li> <li>12. DETAILS OF IGNITER</li> <li>13. INITIALS OR RECOGNIZED MONOGRAM OF ASSEMBLER</li> <li>14. DATE OF ASSEMBLY (MONTH &amp; YEAR)</li> </ol> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

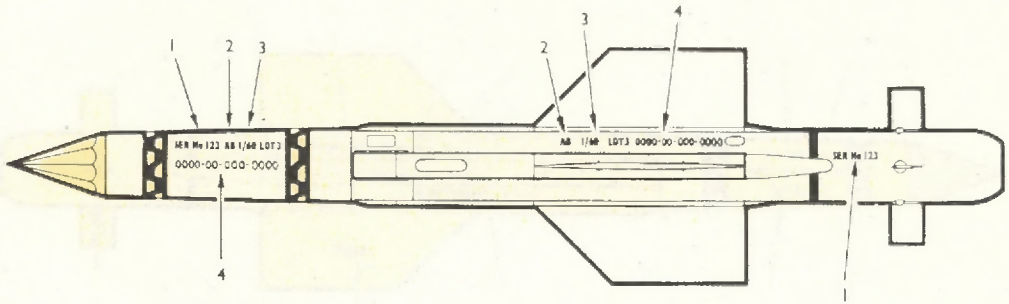
TYPICAL IDENTIFICATION MARKINGS- GUIDED MISSILE FIRESTREAK (AIR to AIR)  
 FOR NAVAL AND AIR SERVICES

MARKINGS TO BE APPLIED BY MANUFACTURER

FIG. 1 OPERATIONAL MISSILE

NAVAL & AIR

PORT (LEFT) SIDE VIEW

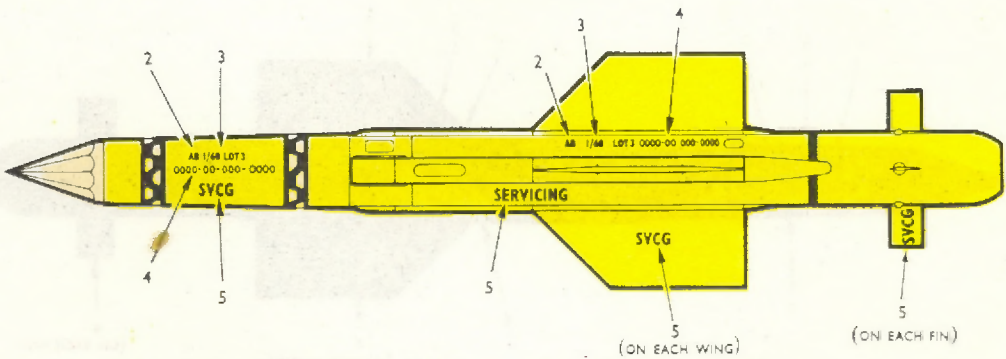


Note: EMPTY MARKINGS ON PRACTICE MISSILES FOR NAVAL SERVICE ARE IDENTICAL TO ABOVE.

FIG. 2 SERVICING MISSILE

NAVAL & AIR

PORT (LEFT) SIDE VIEW



KEY TO MARKINGS

- 1 SERIAL NUMBER
- 2 INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER
- 3 DATE OF MANUFACTURE (MONTH & YEAR) AND MANUFACTURERS LOT NUMBER
- 4 STORES REFERENCE NUMBER OR JOINT SERVICES IDENTIFICATION NUMBER
- 5 TYPE OF MISSILE



TYPICAL IDENTIFICATION MARKINGS- GUIDED MISSILE FIRESTREAK (AIR to AIR)  
 FOR NAVAL AND AIR SERVICES

MARKINGS TO BE APPLIED BY MANUFACTURER

FIG. 1 ACQUISITION MISSILE

NAVAL & AIR

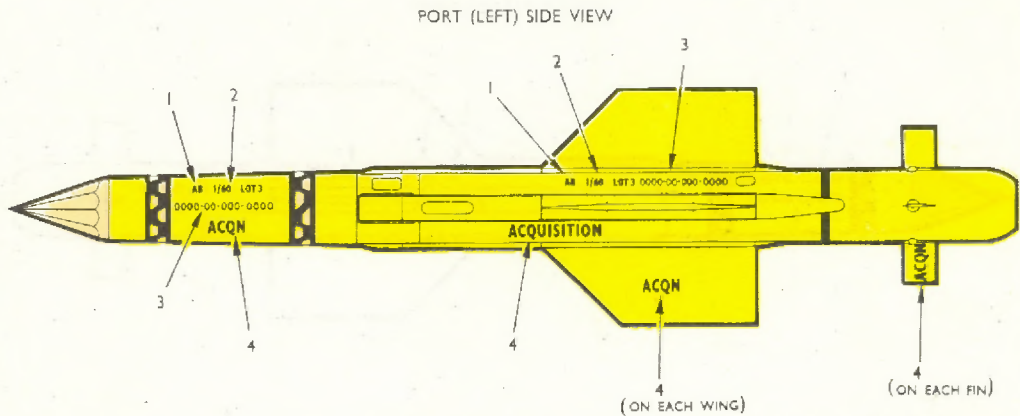
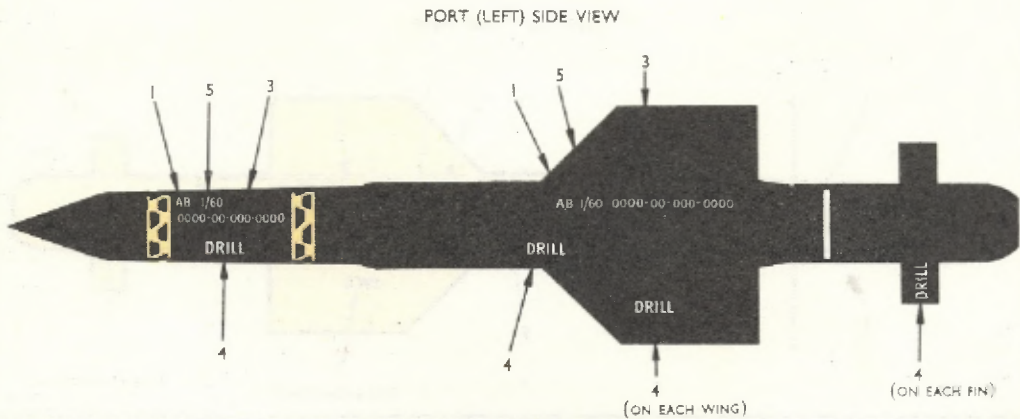


FIG. 2 DRILL MISSILE

NAVAL & AIR



KEY TO MARKINGS

- 1 INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER
- 2 DATE OF MANUFACTURE (MONTH & YEAR) AND MANUFACTURERS LOT NUMBER
- 3 STORES REFERENCE NUMBER OR JOINT SERVICES IDENTIFICATION NUMBER
- 4 TYPE OF MISSILE
- 5 DATE OF MANUFACTURE (MONTH & YEAR)

TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE FIRESTREAK (AIR to AIR)  
 FOR NAVAL AND AIR SERVICES

MARKINGS TO BE APPLIED BY ASSEMBLY UNITS AND R.N. ARMAMENT DEPOTS

FIG. 1 OPERATIONAL & PRACTICE MISSILES

NAVAL

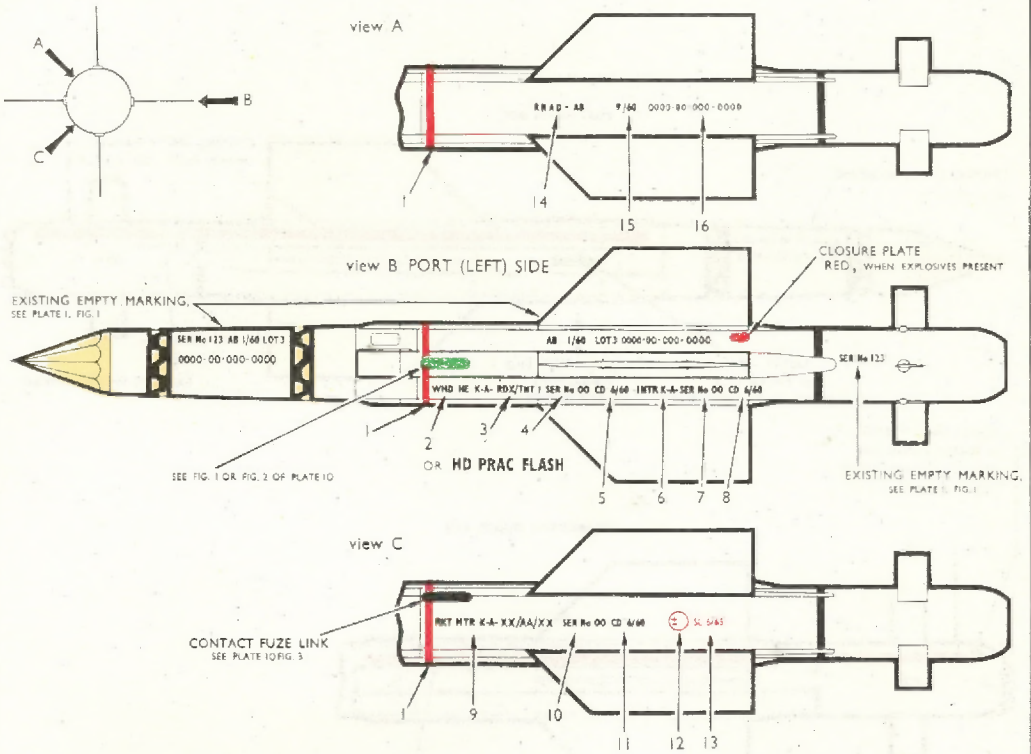
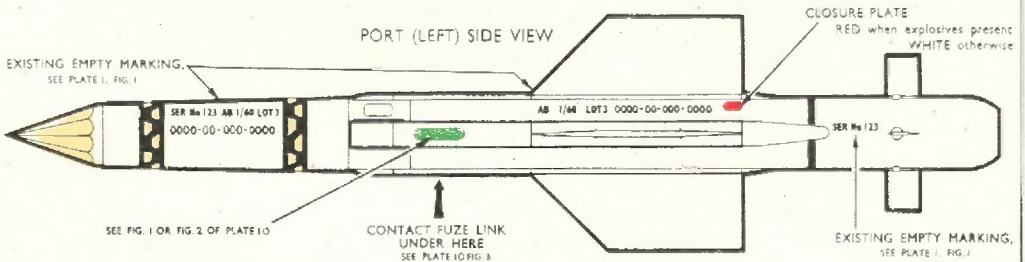


FIG. 2 OPERATIONAL MISSILE

Note: There is no Firestreak PRACTICE missile for AIR SERVICE

AIR



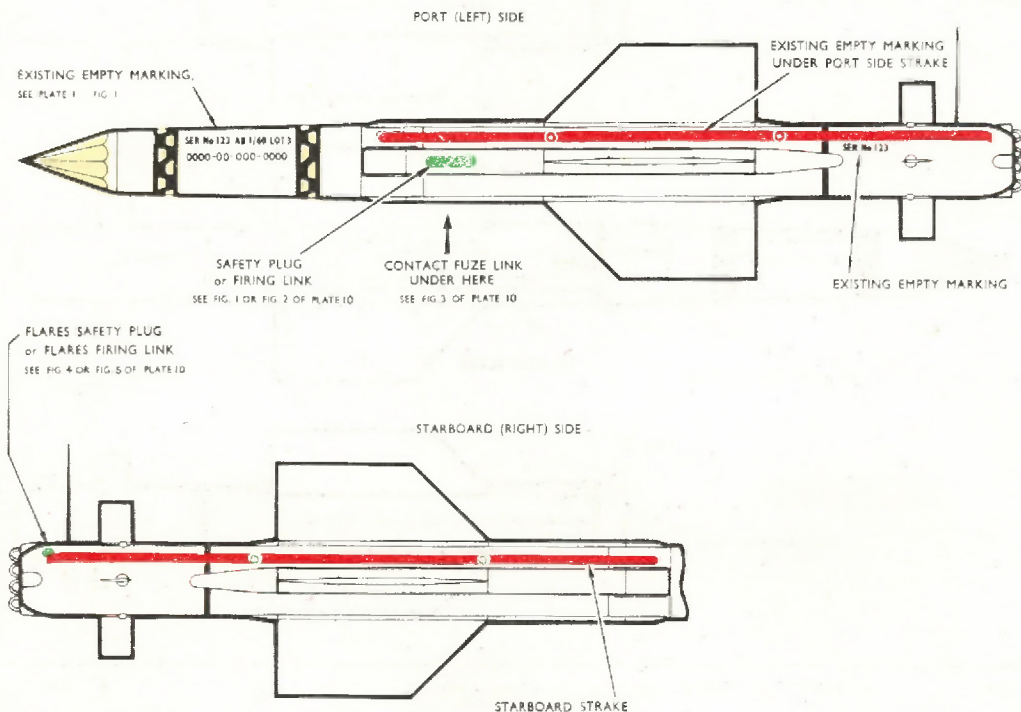
KEY TO MARKINGS

- 1 — RED FILLING RING
  - 2,3,4,5 — WARHEAD OR PRACTICE HEAD DETAILS
  - 6,7,8 — INITIATOR DETAILS
  - 9,10,11,12,13 — MOTOR DETAILS
  - 14 — INITIALS OR RECOGNISED MONOGRAM OF ASSEMBLER
  - 15 — DATE OF ASSEMBLY (MONTH & YEAR)
  - 16 — STORES REFERENCE NUMBER OF COMPLETE ASSEMBLY
- } OF AFT BODY

TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE FIRESTREAK (AIR to AIR)  
FOR AIR SERVICE

MARKINGS TO BE APPLIED BY ASSEMBLY UNITS

FIG. 1 TELEMETRY (CONVERSION) MISSILE



TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE FIRESTREAK (AIR to AIR)  
FOR NAVAL AND AIR SERVICES

MARKINGS TO BE APPLIED BY MANUFACTURER AND/OR FILLER

FIG. 1 OPERATIONAL WARHEAD

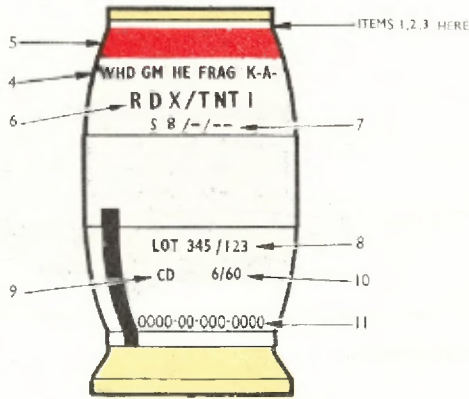


FIG. 2 PRACTICE HEADS

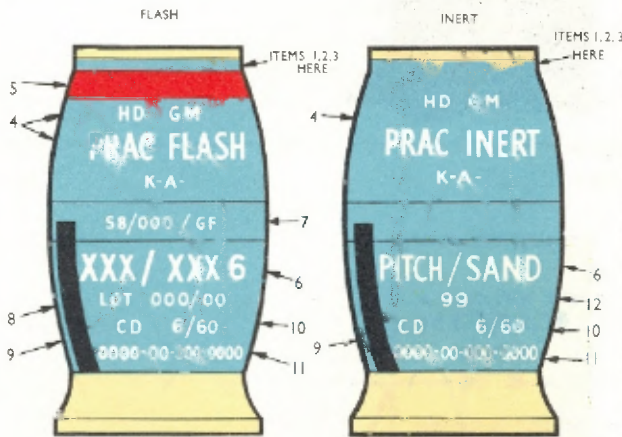
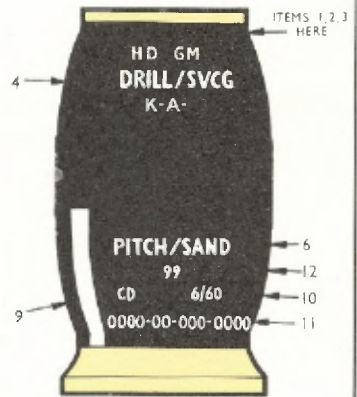


FIG. 3 DRILL/SERVICING HEAD



KEY TO MARKINGS

EMPTY

STAMPED

- 1 SERIAL NUMBER OF HEAD
- 2 INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER
- 3 DATE OF MANUFACTURE (MONTH & YEAR)

STENCILLED

- 4 ABBREVIATED NOMENCLATURE, NATURE AND MODEL NUMBER

FILLED

STENCILLED

- 5 RED FILLING RING
- 6 ABBREVIATION OR CODE DENOTING FILLING COMPOSITION USED
- 7 METHOD OF FILLING DESIGN OR DRAWING NUMBER
- 8 FILLED LOT NUMBER AND SERIAL NUMBER (SAME AS ITEM 1)
- 9 INITIALS OR RECOGNISED MONOGRAM OF FILLER
- 10 DATE OF FILLING (MONTH & YEAR)
- 11 STORES REFERENCE NUMBER OR JOINT SERVICES IDENTIFICATION NUMBER
- 12 SERIAL NUMBER (SAME AS ITEM 1)

STAMPED AT  
EMPTY STAGE  
AND MAY BE  
OVERPAINTED

TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE **FIRESTREAK** (AIR to AIR)  
 FOR **NAVAL AND AIR SERVICES**

MARKINGS TO BE APPLIED BY **MANUFACTURER AND/OR FILLER**

FIG. 1 OPERATIONAL INITIATOR

NAVAL & AIR

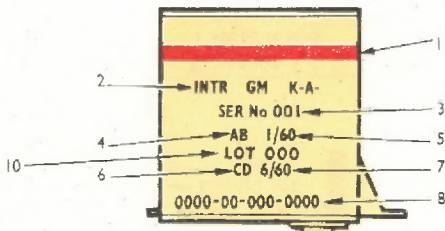


FIG. 2 DRILL/SERVICING INITIATOR

NAVAL & AIR

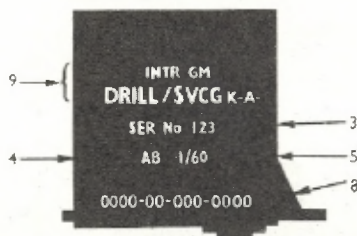
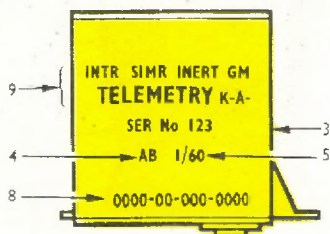


FIG. 3 TELEMETRY INITIATOR SIMULATOR

AIR



KEY TO MARKINGS

- 1 RED FILLING RING
- 2 ABBREVIATED NOMENCLATURE, AND MODEL NUMBER
- 3 SERIAL NUMBER
- 4 INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER
- 5 DATE OF MANUFACTURE (MONTH & YEAR)
- 6 INITIALS OR RECOGNISED MONOGRAM OF FILLER
- 7 DATE OF FILLING (MONTH & YEAR)
- 8 STORES REFERENCE NUMBER OR JOINT SERVICES IDENTIFICATION NUMBER
- 9 ABBREVIATED NOMENCLATURE, NATURE AND MODEL NUMBER
- 10 FILLED LOT NUMBER

TYPICAL IDENTIFICATION MARKINGS- GUIDED MISSILE FIREBREAK (AIR to AIR)  
FOR NAVAL AND AIR SERVICES

MARKINGS TO BE APPLIED BY MANUFACTURER AND/OR FILLER

FIG.1 OPERATIONAL ROCKET MOTOR

NAVAL & AIR

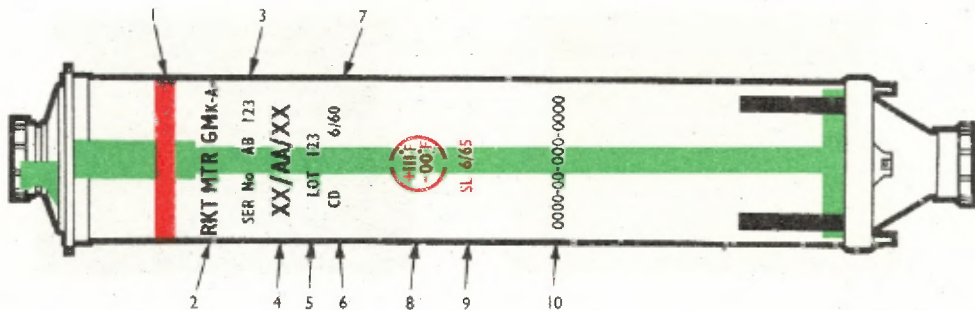
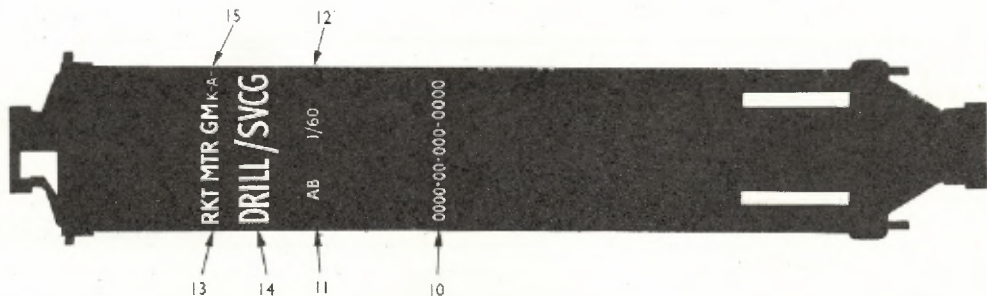


FIG.2 DRILL/SERVICING ROCKET MOTOR

NAVAL & AIR



KEY TO MARKINGS

- |          |                                                                           |
|----------|---------------------------------------------------------------------------|
| 1        | RED FILLING RING (TYPE AS APPLICABLE)                                     |
| 2        | ABBREVIATED NOMENCLATURE, AND MODEL NUMBER                                |
| 3        | SERIAL NUMBER PREFIXED BY INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER |
| 4        | ABBREVIATION OR CODE DENOTING FILLING COMPOSITION USED                    |
| 5        | FILLED LOT NUMBER                                                         |
| 6        | INITIALS OR RECOGNISED MONOGRAM OF FILLER                                 |
| 7        | DATE OF FILLING (MONTH & YEAR)                                            |
| 8        | FIRING TEMPERATURE LIMITATIONS (IF APPLICABLE)                            |
| 9        | DATE OF EXPIRY OF SERVICE LIFE (IF APPLICABLE)                            |
| 10       | STORES REFERENCE NUMBER OR JOINT SERVICES IDENTIFICATION NUMBER           |
| 11       | INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER                           |
| 12       | DATE OF MANUFACTURE (MONTH & YEAR)                                        |
| 13,14,15 | ABBREVIATED NOMENCLATURE, NATURE AND MODEL NUMBER                         |

TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE FIRESTREAK (AIR to AIR)  
 FOR NAVAL AND AIR SERVICES

MARKINGS TO BE APPLIED BY MANUFACTURER AND/OR FILLER

FIG 1 OPERATIONAL IGNITER NAVAL & AIR

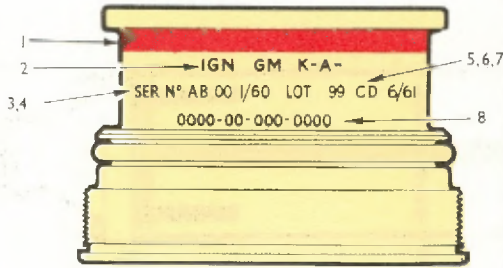


FIG 2 DRILL/SERVICING IGNITER NAVAL & AIR

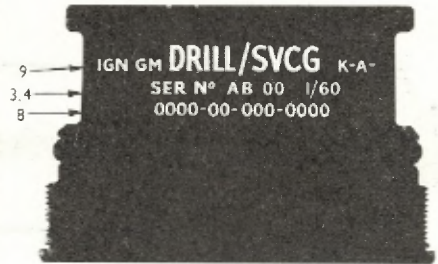


FIG 3 OPERATIONAL FLARE

AIR

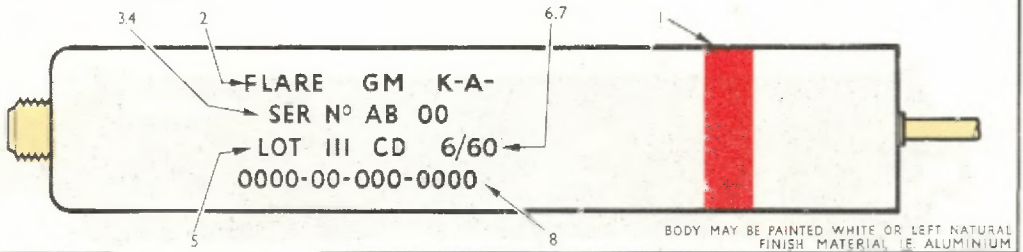
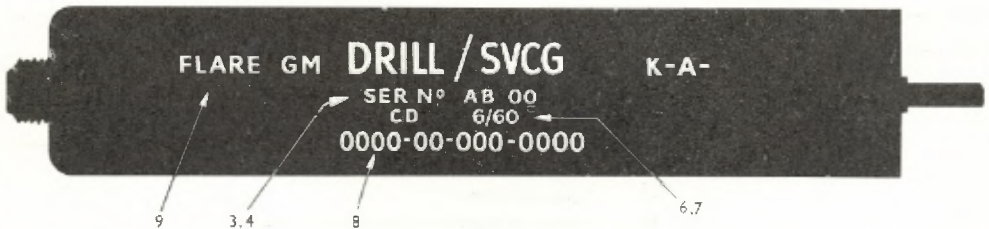


FIG 4 DRILL/SERVICING FLARE

AIR



KEY TO MARKINGS

- 1 RED FILLING RING
- 2 ABBREVIATED NOMENCLATURE AND MODEL NUMBER
- 3 SERIAL NUMBER PREFIXED BY INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER
- 4 DATE OF MANUFACTURE (MONTH & YEAR)
- 5 FILLED LOT NUMBER
- 6,7 INITIALS OR RECOGNISED MONOGRAM OF FILLER AND DATE OF FILLING (MONTH & YEAR)
- 8 STORES REFERENCE NUMBER
- 9 ABBREVIATED NOMENCLATURE, NATURE AND MODEL NUMBER

TYPICAL IDENTIFICATION MARKINGS- GUIDED MISSILE FIRESTREAK (AIR to AIR)  
 FOR NAVAL AND AIR SERVICES

MARKINGS TO BE APPLIED BY MANUFACTURER

FIG.1 OPERATIONAL HEAT SHIELD NAVAL & AIR

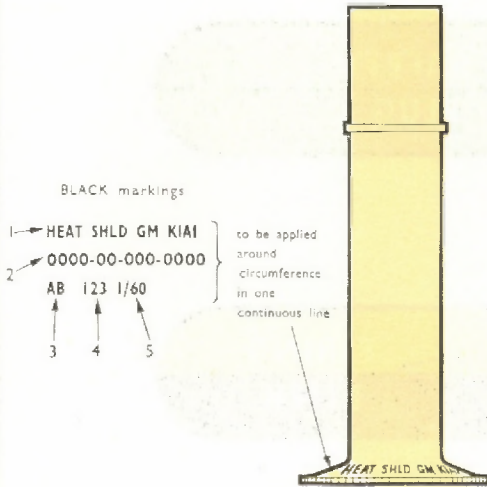


FIG.2 DRILL/SERVICING HEAT SHIELD NAVAL & AIR

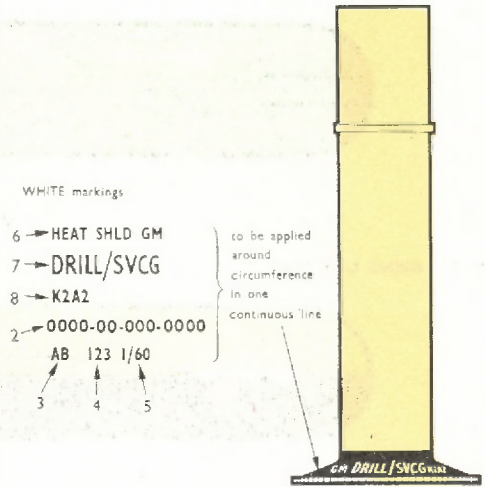
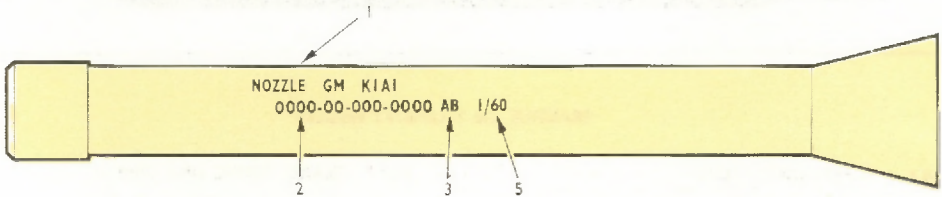


FIG.3 NOZZLE NAVAL & AIR



KEY TO MARKINGS

- 1 ABBREVIATED NOMENCLATURE, AND MODEL NUMBER
- 2 STORES REFERENCE NUMBER OR JOINT SERVICES IDENTIFICATION NUMBER
- 3 INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER
- 4 SERIAL NUMBER
- 5 DATE OF MANUFACTURE (MONTH & YEAR)
- 6,7,8 ABBREVIATED NOMENCLATURE, NATURE AND MODEL NUMBER



TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE FIRESTREAK (AIR to AIR)  
FOR NAVAL AND AIR SERVICES

MARKINGS TO BE APPLIED BY MANUFACTURER

OPERATIONAL, PRACTICE AND TELEMETRY MISSILES

FIG.1 SAFETY PLUG



FIG.2 FIRING LINK UNIT

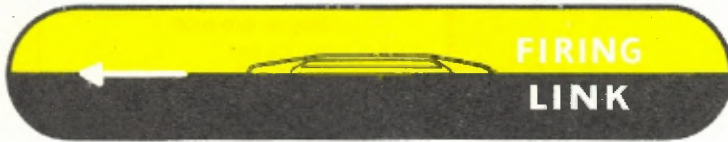


FIG.3 CONTACT FUZE LINK UNIT



PRACTICE AND TELEMETRY MISSILES

FIG.4 FLARES SAFETY PLUG

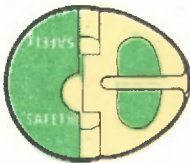


FIG.5 FLARES FIRING LINK UNIT



NOTE

MARKINGS SHOWN ABOVE ARE ENGRAVINGS FILLED WHITE

TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE SEACAT (SURFACE to AIR)

FOR NAVAL SERVICE

MARKINGS TO BE APPLIED BY MANUFACTURER/ASSEMBLY UNITS

CANISTER CONTAINING MISSILES

FIG. 1 OPERATIONAL

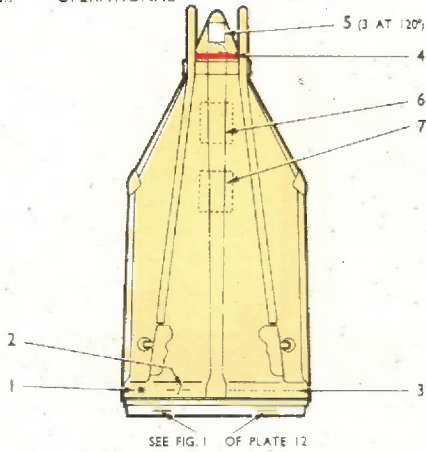


FIG. 2 PRACTICE

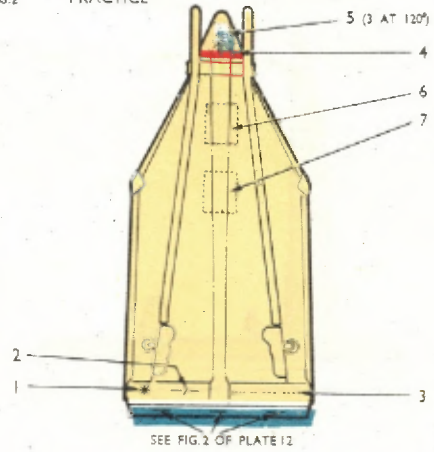


FIG. 3 DRILL

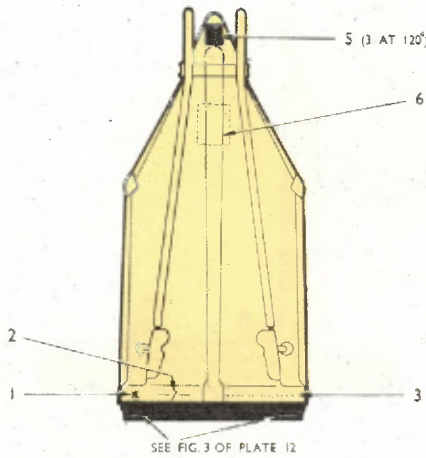
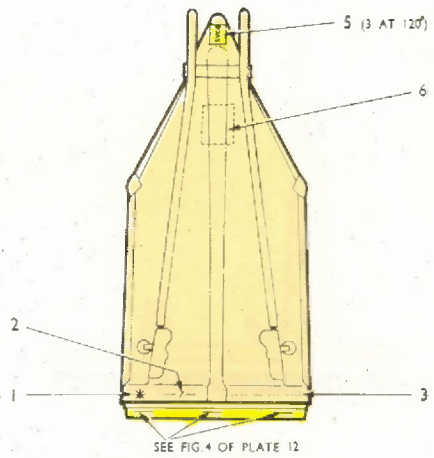


FIG. 4 SERVICING



KEY TO MARKINGS

MARKING APPLICABLE TO CANISTER TOP

APPLIED BY MANUFACTURER

- 1 INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER
- 2 DATE OF MANUFACTURE (MONTH & YEAR)
- 3 STORES REFERENCE NUMBER OR JOINT SERVICES IDENTIFICATION NUMBER

APPLIED BY ASSEMBLY UNIT

- 4 RED FILLING RING
- 5 TYPE OF MISSILE IDENTIFICATION PATCH
- 6 CONTENTS LABEL
- 7 GOVERNMENT EXPLOSIVES GROUP LABEL

## TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE SEACAT (SURFACE to AIR)

FOR NAVAL SERVICE

MARKINGS TO BE APPLIED BY ASSEMBLY UNITS

COMPLETELY ASSEMBLED MISSILES

FIG. 1 OPERATIONAL

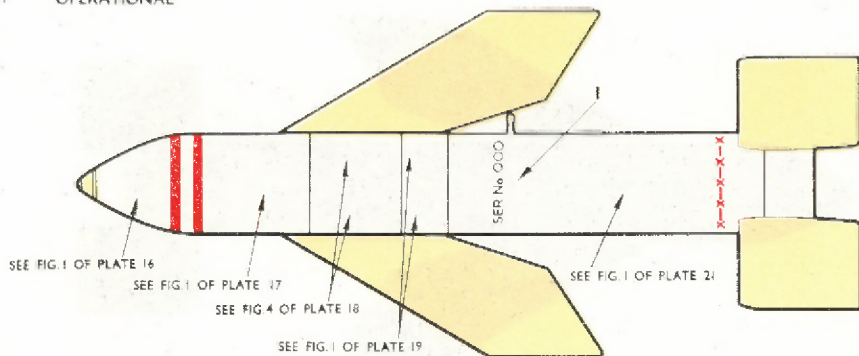
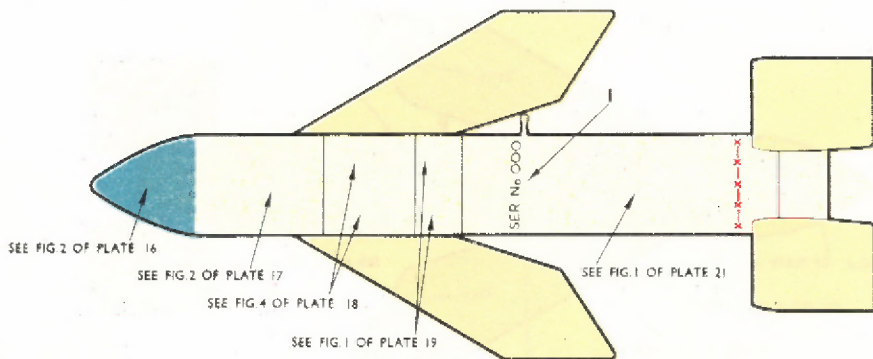


FIG. 2 PRACTICE



## KEY TO MARKINGS

I. MASTER SERIAL NUMBER OF MISSILE

TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE SEACAT (SURFACE to AIR)  
 FOR NAVAL SERVICE  
 MARKINGS TO BE APPLIED BY MANUFACTURER/ASSEMBLY UNITS

COMPLETELY ASSEMBLED MISSILES

FIG.1 DRILL

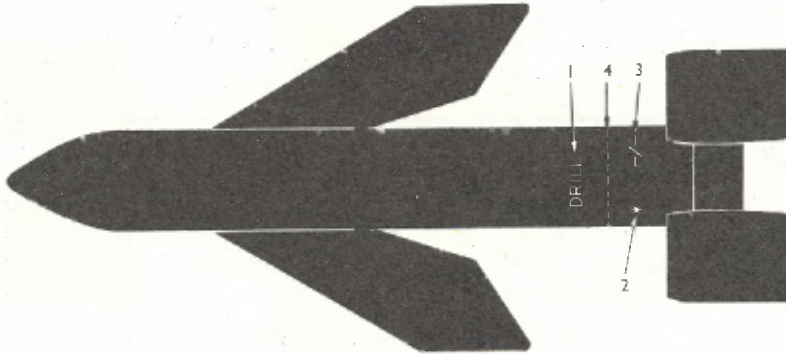
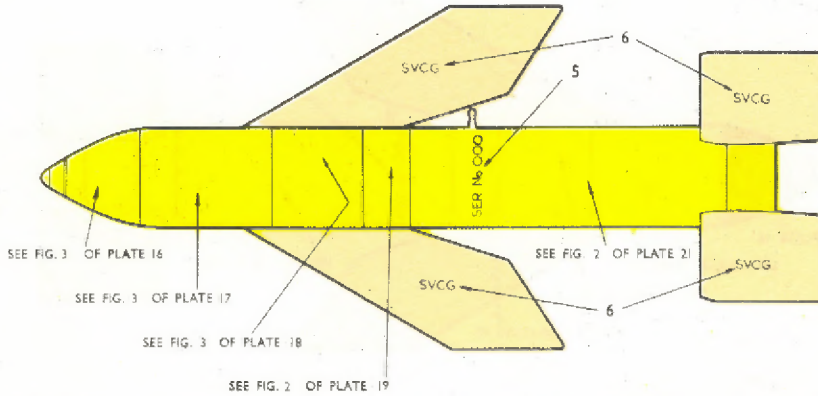


FIG.2 SERVICING



KEY TO MARKINGS

APPLIED BY MANUFACTURER

APPLIED BY ASSEMBLY UNIT

- 1 TYPE OF MISSILE
- 2 INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER
- 3 DATE OF MANUFACTURE (MONTH & YEAR)
- 4 STORES REFERENCE NUMBER OR JOINT SERVICES IDENTIFICATION NUMBER

- 5 MASTER SERIAL NUMBER OF MISSILE
- 6 TYPE OF MISSILE

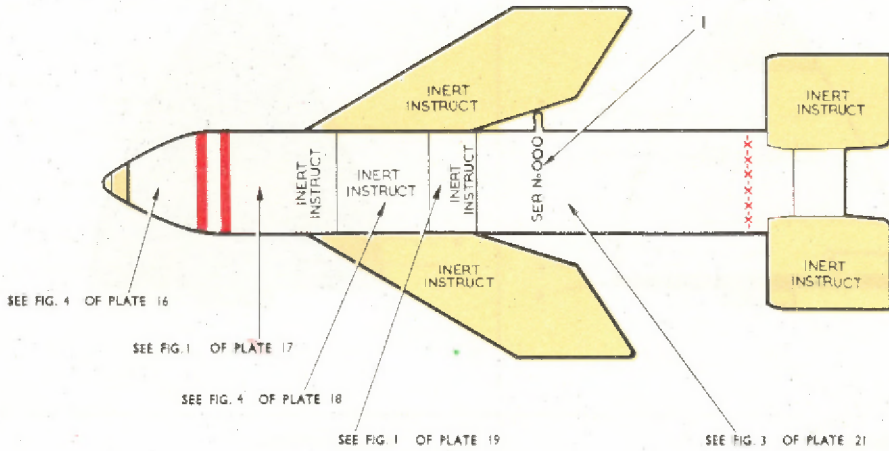
TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE SEACAT (SURFACE to AIR)

FOR NAVAL SERVICE

MARKINGS TO BE APPLIED BY ASSEMBLY UNITS

COMPLETELY ASSEMBLED MISSILES

FIG. 1 INSTRUCTIONAL



KEY TO MARKINGS

MASTER SERIAL NUMBER OF MISSILE

INERT INSTRUCT TO BE ADDED AS SHOWN

TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE SEACAT (SURFACE to AIR)  
 FOR NAVAL SERVICE

MARKINGS TO BE APPLIED BY MANUFACTURER AND/OR FILLER

FUZES

FIG.1 OPERATIONAL

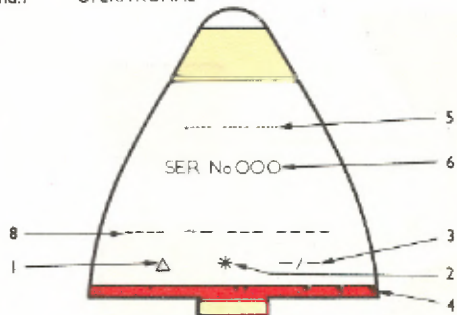


FIG.2 PRACTICE

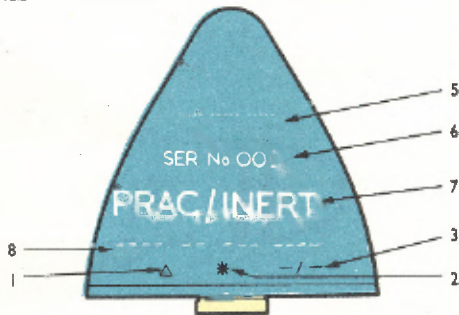


FIG.3 SERVICING

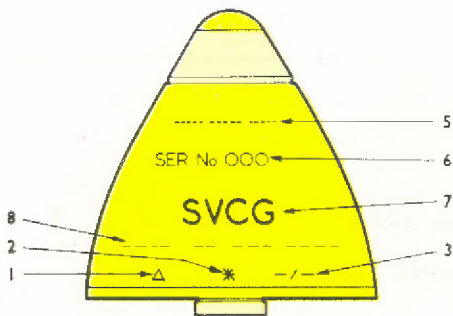
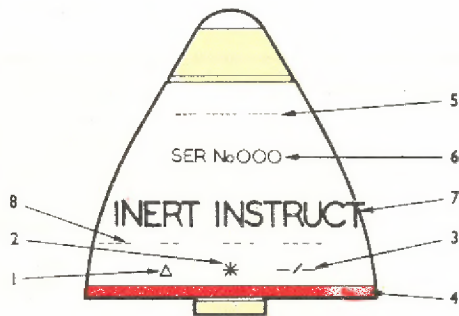


FIG.4 INSTRUCTIONAL



KEY TO MARKINGS

APPLIED BY MANUFACTURER

- 1 SERIAL NUMBER
- 2 INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER
- 3 DATE OF MANUFACTURE (MONTH & YEAR)

STAMPED AND MAY BE OVERPAINTED

APPLIED BY FILLER

- 4 RED FILLING RING
- 5 ABBREVIATED NOMENCLATURE, AND MODEL NUMBER
- 6 SERIAL NUMBER OF FILLED FUZE
- 7 TYPE OF FUZE
- 8 STORES REFERENCE NUMBER OR JOINT SERVICES IDENTIFICATION NUMBER

TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE SEACAT (SURFACE to AIR)  
FOR NAVAL SERVICE

MARKINGS TO BE APPLIED BY MANUFACTURER/ASSEMBLY UNITS

WARHEAD BAYS

FIG.1 OPERATIONAL

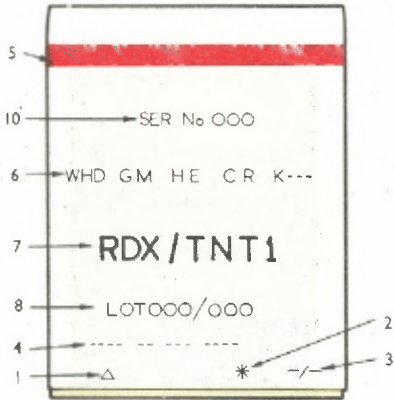


FIG.2 PRACTICE

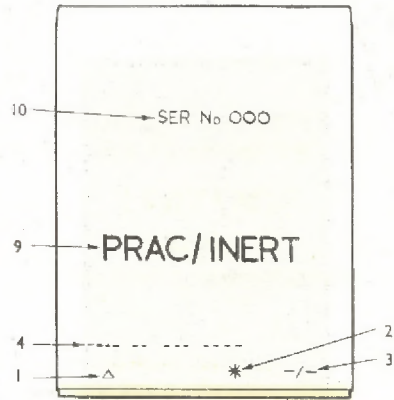
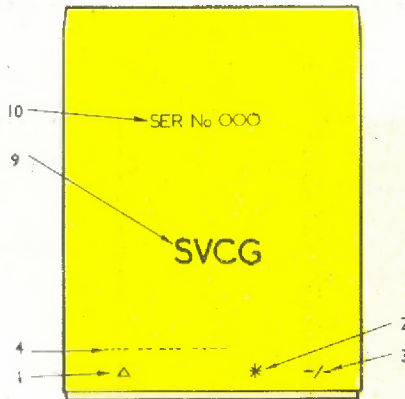


FIG.3 SERVICING



KEY TO MARKINGS

APPLIED BY MANUFACTURER

- 1 SERIAL NUMBER OF BAY
- 2 INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER
- 3 DATE OF MANUFACTURE (MONTH & YEAR)
- 4 STORES REFERENCE NUMBER OR JOINT SERVICES IDENTIFICATION NUMBER OF BAY

STAMPED AND MAY BE OVERPAINTED

APPLIED BY ASSEMBLY UNIT

- 5 RED FILLING RING
- 6 ABBREVIATED NOMENCLATURE, NATURE AND MODEL NUMBER
- 7 ABBREVIATION OR CODE DENOTING FILLING COMPOSITION USED
- 8 FILLED LOT NUMBER AND SERIAL NUMBER OF WARHEAD
- 9 TYPE OF HEAD
- 10 SERIAL NUMBER (SAME AS ITEM 1)

TYPICAL IDENTIFICATION MARKINGS- GUIDED MISSILE SEACAT (SURFACE to AIR)  
 FOR NAVAL SERVICE

MARKINGS TO BE APPLIED BY **MANUFACTURER** AND/OR **FILLER**

WARHEAD & PRACTICE HEAD

FIG. 1 WARHEAD-OPERATIONAL

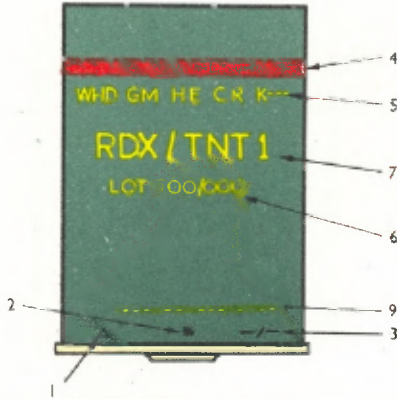


FIG. 2 HEAD-PRACTICE



ELECTRONICS PACKS

FIG. 3 ELECTRONICS PACK-SERVICING

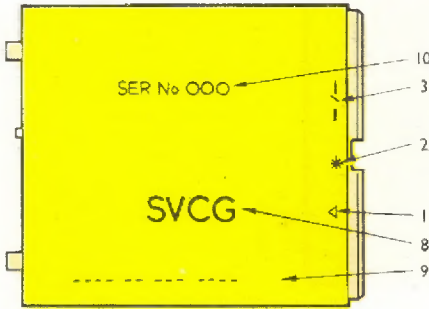
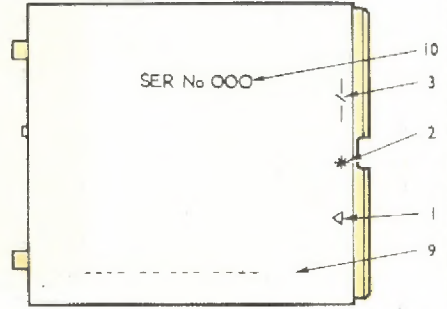


FIG. 4 ELECTRONICS PACK-OPERATIONAL & PRACTICE



KEY TO MARKINGS-

APPLIED BY MANUFACTURER-

- 1 SERIAL NUMBER
- 2 INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER
- 3 DATE OF MANUFACTURE (MONTH & YEAR)

STAMPED AND MAY BE OVERPAINTED

APPLIED BY FILLER-

- 4 RED FILLING RING
- 5 ABBREVIATED NOMENCLATURE, NATURE AND MODEL NUMBER
- 6 FILLED LOT NUMBER AND SERIAL NUMBER
- 7 ABBREVIATION OR CODE DENOTING FILLING COMPOSITION USED
- 8 TYPE OF HEAD
- 9 STORES REFERENCE NUMBER OR JOINT SERVICES IDENTIFICATION NUMBER
- 10 SERIAL NUMBER (SAME AS ITEM 1)



TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE SEACAT (SURFACE to AIR)  
 FOR NAVAL SERVICE  
 MARKINGS TO BE APPLIED BY MANUFACTURER/ASSEMBLY FACTORY

CONTROL SERVICE ACTUATOR ASSEMBLY

FIG. 1 OPERATIONAL & PRACTICE

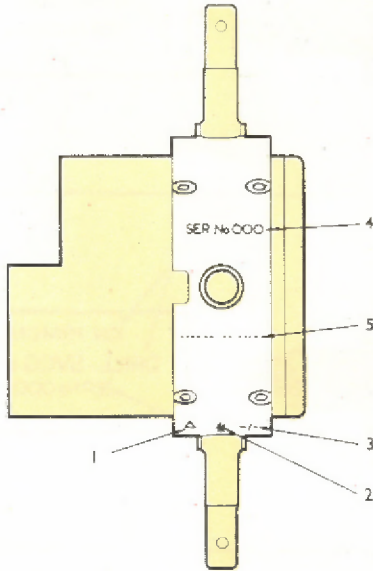
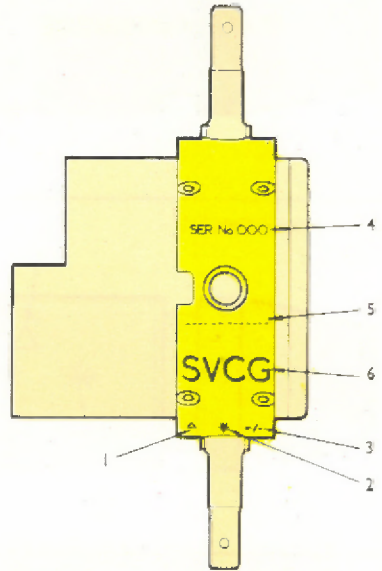


FIG. 2 SERVICING



KEY TO MARKINGS

APPLIED BY EMPTY MANUFACTURER

- 1 SERIAL NUMBER
- 2 INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER
- 3 DATE OF MANUFACTURE (MONTH & YEAR)

STAMPED  
 AND MAY BE  
 OVERPAINTED

APPLIED BY ASSEMBLY FACTORY

- 4 SERIAL NUMBER (SAME AS ITEM 1)
- 5 STORES REFERENCE NUMBER OR JOINT SERVICES IDENTIFICATION NUMBER
- 6 TYPE OF ACTUATOR

TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE SEACAT (SURFACE to AIR)  
 FOR NAVAL SERVICE

MARKINGS TO BE APPLIED BY MANUFACTURER AND/OR FILLER

IGNITER PRIMER

FIG. 1 OPERATIONAL & PRACTICE

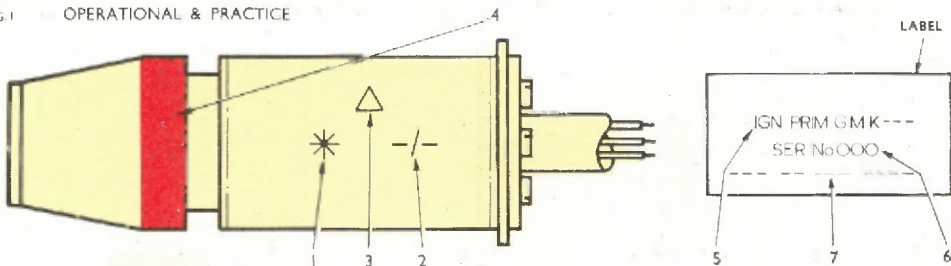


FIG. 2 DRILL/SERVICING

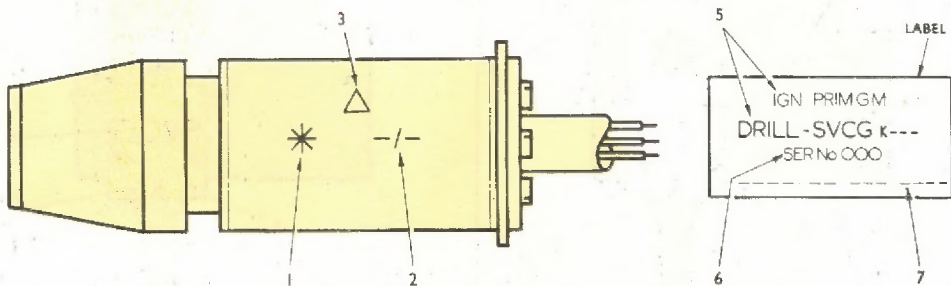
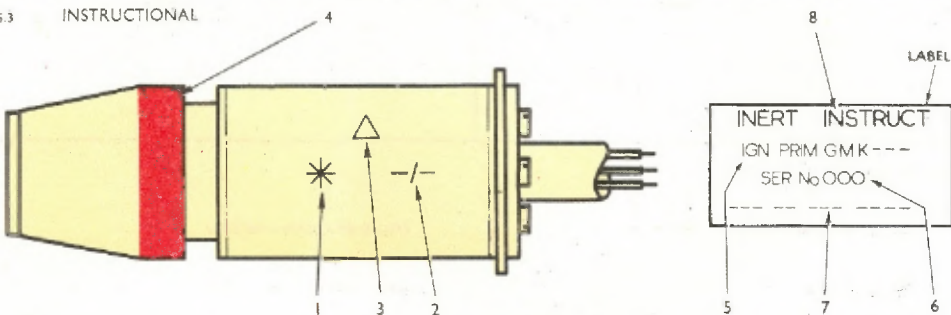


FIG. 3 INSTRUCTIONAL



KEY TO MARKINGS

APPLIED BY MANUFACTURER (COVERED BY LABEL)

- 1 INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER
- 2 DATE OF MANUFACTURE (MONTH & YEAR)
- 3 SERIAL NUMBER

APPLIED BY FILLER

- 4 RED FILLING RING
- 5 ABBREVIATED NOMENCLATURE, AND MODEL NUMBER
- 6 SERIAL NUMBER
- 7 STORES REFERENCE NUMBER OR JOINT SERVICES IDENTIFICATION NUMBER
- 8 TYPE OF IGNITER PRIMER

TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE SEACAT (SURFACE to AIR)  
 FOR NAVAL SERVICE

MARKINGS TO BE APPLIED BY MANUFACTURER AND/OR FILLER

ROCKET MOTORS

FIG. 1 OPERATIONAL AND PRACTICE

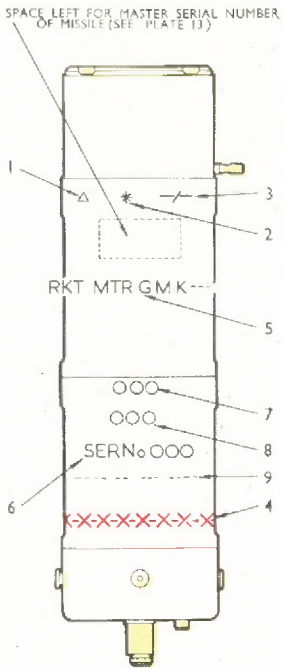


FIG. 2 SERVICING

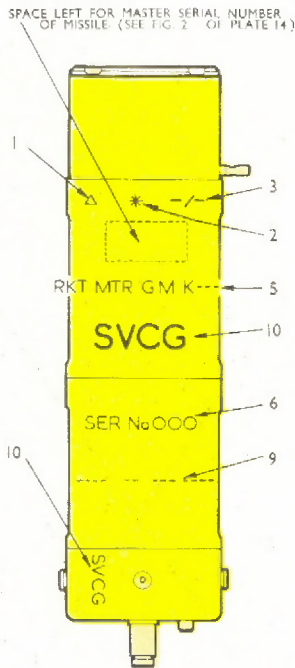
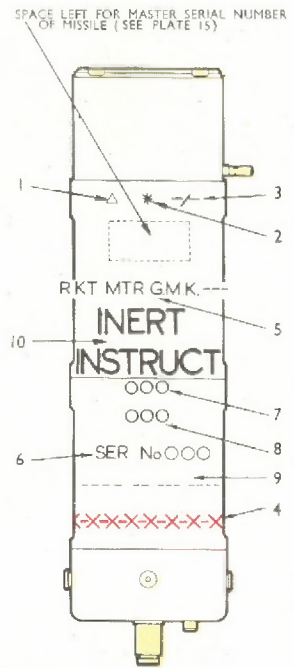


FIG. 3 INSTRUCTIONAL



KEY TO MARKINGS

APPLIED BY MANUFACTURER

- 1 SERIAL NUMBER OF EMPTY BODY
- 2 INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER
- 3 DATE OF MANUFACTURE (MONTH & YEAR)

APPLIED AND MAY BE OVERPAINTED

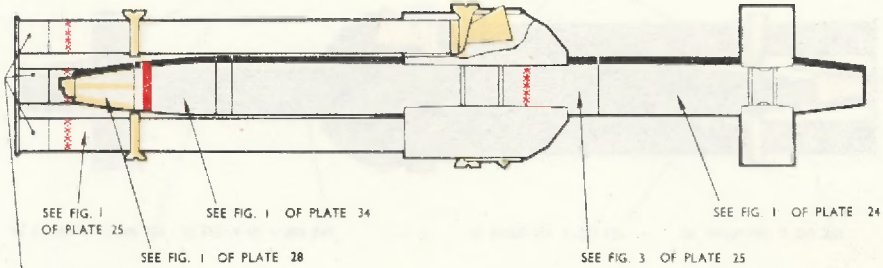
APPLIED BY FILLER

- 4 RED FILLING RING
- 5 ABBREVIATED NOMENCLATURE, AND MODEL NUMBER
- 6 SERIAL NUMBER OF FILLED MOTOR
- 7 LOT NUMBER OF SUSTAINER CHARGE
- 8 LOT NUMBER OF BOOST CHARGE
- 9 STORES REFERENCE NUMBER OR JOINT SERVICES IDENTIFICATION NUMBER
- 10 TYPE OF MOTOR

TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE SEASLUG (SURFACE to AIR)  
FOR NAVAL SERVICE

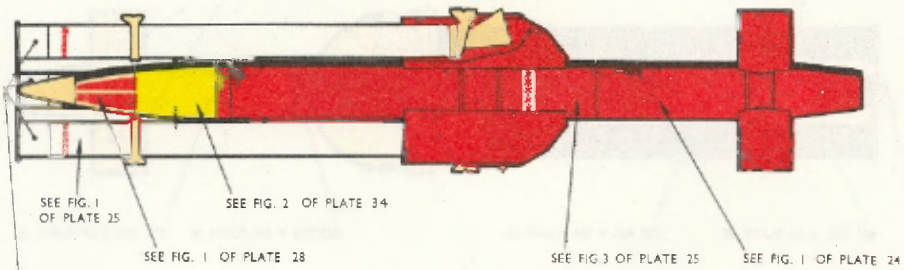
COMPLETELY ASSEMBLED MISSILES

FIG.1 OPERATIONAL



LOCKING PIN (WITH PENNANT) MUST BE REMOVED PRIOR TO LAUNCHING

FIG.2 TELEMETRY



LOCKING PIN (WITH PENNANT) MUST BE REMOVED PRIOR TO LAUNCHING

POPPY RED COLOURING TO BE APPLIED BY ASSEMBLY UNIT AS SHOWN

(EXISTING MARKING TO BE PROTECTED DURING PAINTING)

TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE **SEASLUG** (SURFACE to AIR)  
FOR NAVAL SERVICE

MARKINGS TO BE APPLIED BY MANUFACTURER

COMPLETELY ASSEMBLED MISSILES

FIG. 1 DRILL

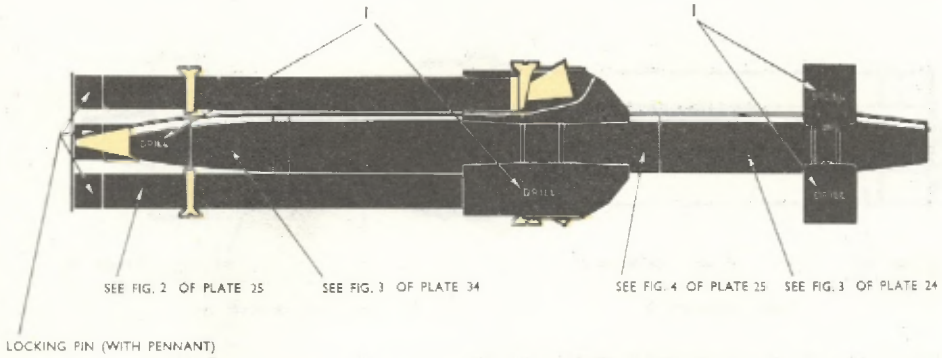
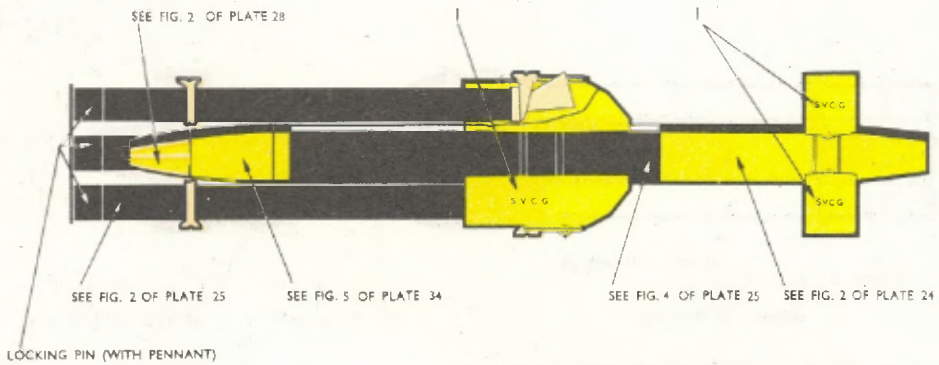


FIG. 2 SERVICING



KEY TO MARKINGS

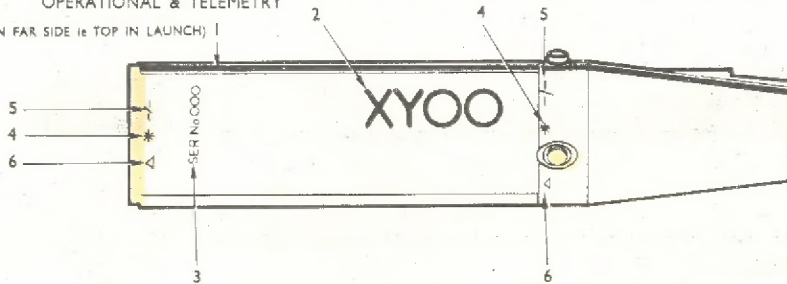
I TYPE OF MISSILE

**TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE SEASLUG (SURFACE to AIR)  
 FOR NAVAL SERVICE**

**MARKINGS TO BE APPLIED BY MANUFACTURER**

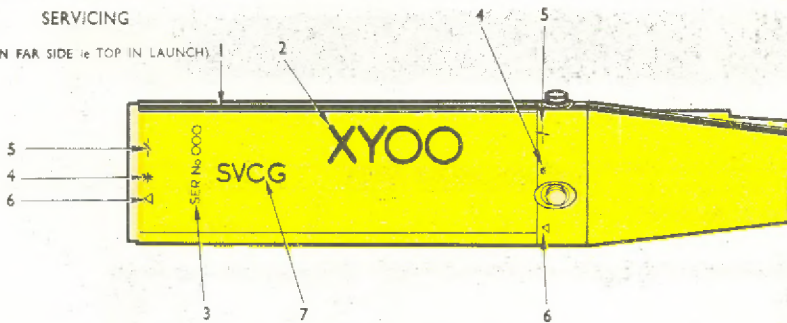
**AFTBODY SECTION**

**FIG. 1 OPERATIONAL & TELEMETRY**  
 (ON FAR SIDE ie TOP IN LAUNCH)



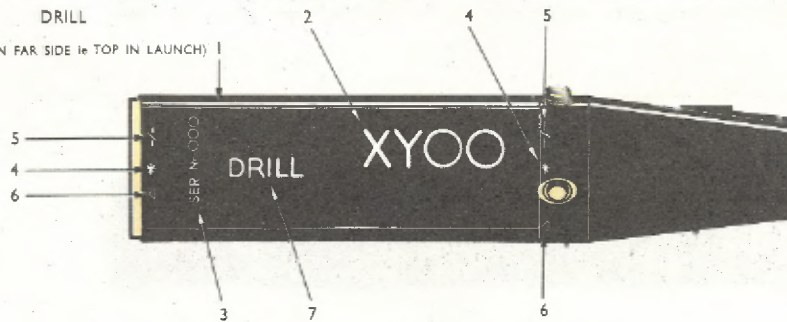
**FIG. 2 SERVICING**

(ON FAR SIDE ie TOP IN LAUNCH)



**FIG. 3 DRILL**

(ON FAR SIDE ie TOP IN LAUNCH)



**KEY TO MARKINGS**

- |   |                                                 |                                     |
|---|-------------------------------------------------|-------------------------------------|
| 1 | LINE INDICATING TOP IN LAUNCH                   |                                     |
| 2 | MASTER SERIAL NUMBER OF MISSILE (BOTH SIDES)    |                                     |
| 3 | SERIAL NUMBER (SAME AS ITEM 6)                  |                                     |
| 4 | INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER | } STAMPED<br>AND MAY BE OVERPAINTED |
| 5 | DATE OF MANUFACTURE (MONTH & YEAR)              |                                     |
| 6 | SERIAL NUMBER                                   |                                     |
| 7 | TYPE                                            |                                     |

**TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE SEASLUG (SURFACE to AIR)  
 FOR NAVAL SERVICE**

**MARKINGS TO BE APPLIED BY MANUFACTURER AND/OR FILLER**

**BOOST ROCKET MOTOR**

FIG. 1 OPERATIONAL & TELEMETRY

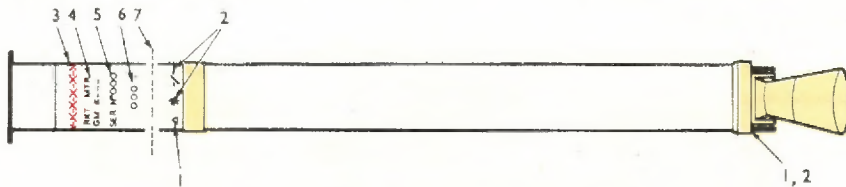
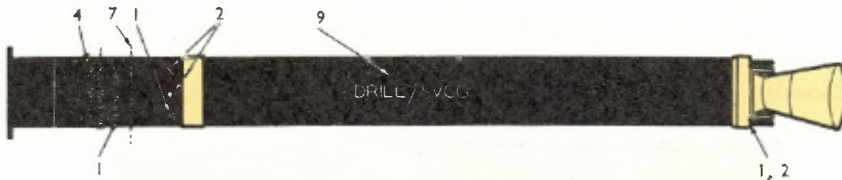


FIG. 2 DRILL/SERVICING



**SUSTAINER ROCKET MOTOR**

FIG. 3 OPERATIONAL & TELEMETRY

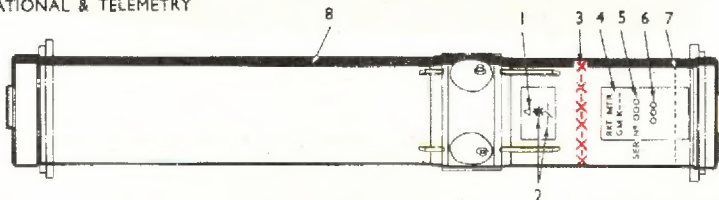
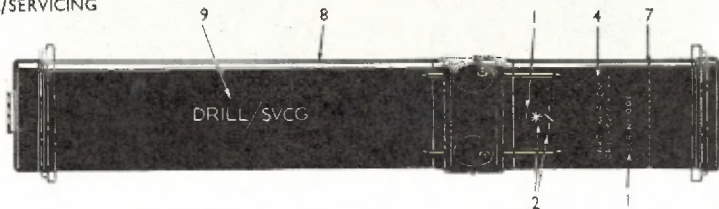


FIG. 4 DRILL/SERVICING



**KEY TO MARKINGS**

**APPLIED BY MANUFACTURER**

- 1 SERIAL NUMBER OF EMPTY BODY
- 2 INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER AND DATE OF MANUFACTURE (MONTH & YEAR)

**APPLIED BY FILLER**

- 3 RED FILLING RING (TYPE AS APPLICABLE)
- 4 ABBREVIATED NOMENCLATURE, AND MODEL NUMBER
- 5 SERIAL NUMBER OF FILLED MOTOR
- 6 LOT NUMBER OF PROPELLANT
- 7 STORES REFERENCE NUMBER OR JOINT SERVICES IDENTIFICATION NUMBER
- 8 LINE INDICATING TOP IN LAUNCH
- 9 TYPE OF MOTOR

TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE **SEASLUG** (SURFACE to AIR)  
FOR NAVAL SERVICE

MARKINGS TO BE APPLIED BY **MANUFACTURER** AND/OR **FILLER**

BOOST ROCKET MOTOR IGNITER

FIG.1 OPERATIONAL & TELEMETRY

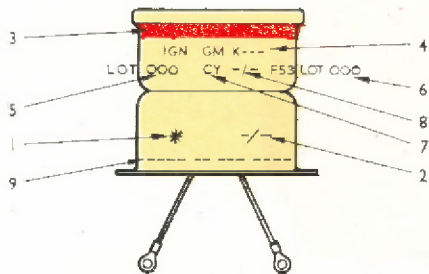


FIG.2 INSTRUCTIONAL

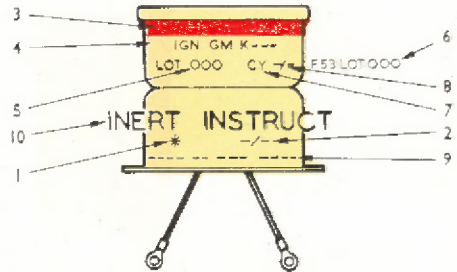


FIG.3 DRILL/SERVICING



KEY TO MARKINGS

APPLIED BY MANUFACTURER

- 1 INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER  
2 DATE OF MANUFACTURE (MONTH & YEAR)

APPLIED BY FILLER

- 3 RED FILLING RING  
4 ABBREVIATED NOMENCLATURE AND MODEL NUMBER  
5 LOT NUMBER OF FILLING  
6 LOT NUMBER OF FUZE  
7 INITIALS OR RECOGNISED MONOGRAM OF FILLER  
8 DATE OF FILLING (MONTH & YEAR)  
9 STORES REFERENCE NUMBER OR JOINT SERVICES IDENTIFICATION NUMBER  
10 TYPE OF IGNITER



TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE SEASLUG (SURFACE to AIR)  
 FOR NAVAL SERVICE

MARKINGS TO BE APPLIED BY MANUFACTURER AND/OR FILLER

BREAK UP - CHARGE

FIG 1 OPERATIONAL & TELEMETRY

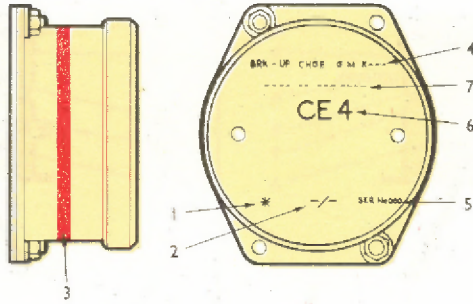
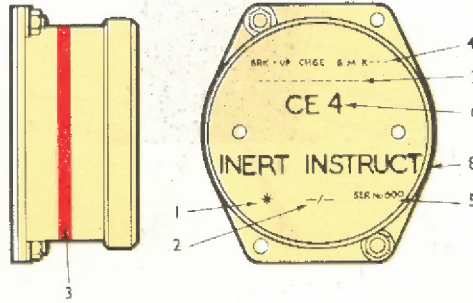


FIG 2 INSTRUCTIONAL



KEY TO MARKINGS

APPLIED BY MANUFACTURER

APPLIED BY FILLER

- 1 INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER
- 2 DATE OF MANUFACTURE (MONTH & YEAR)

- 3 RED FILLING RING
- 4 ABBREVIATED NOMENCLATURE, AND MODEL NUMBER
- 5 SERIAL NUMBER
- 6 CODE INDICATING NATURE OF FILLING
- 7 STORES REFERENCE NUMBER OR JOINT SERVICES IDENTIFICATION NUMBER
- 8 TYPE

**TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE SEASLUG (SURFACE to AIR)  
 FOR NAVAL SERVICE  
 MARKINGS TO BE APPLIED BY MANUFACTURER AND/OR FILLER**

GAS GENERATORS

FIG.1 OPERATIONAL & TELEMETRY

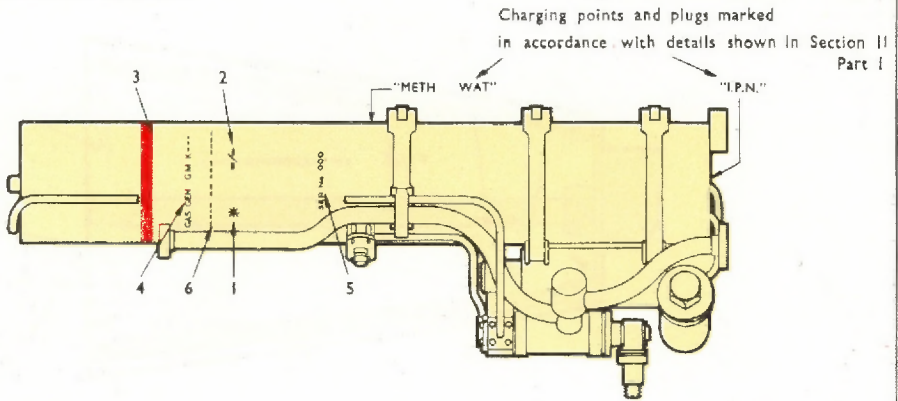
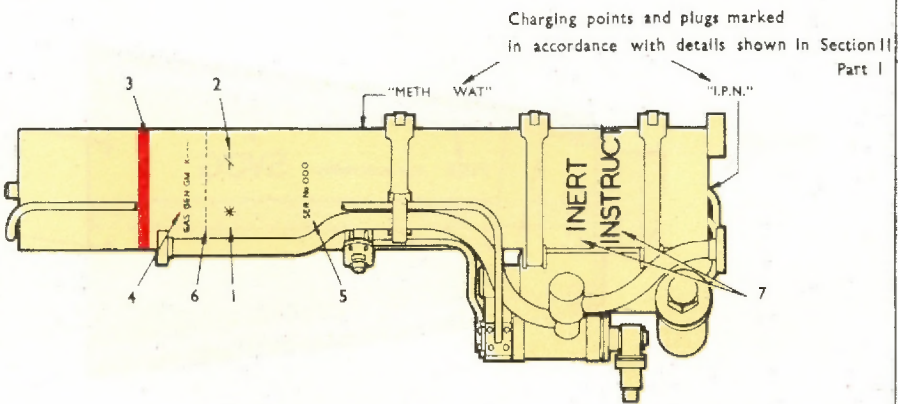


FIG.2 INSTRUCTIONAL



KEY TO MARKINGS

APPLIED BY MANUFACTURER

- 1 INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER
- 2 DATE OF MANUFACTURE (MONTH & YEAR)

APPLIED BY FILLER

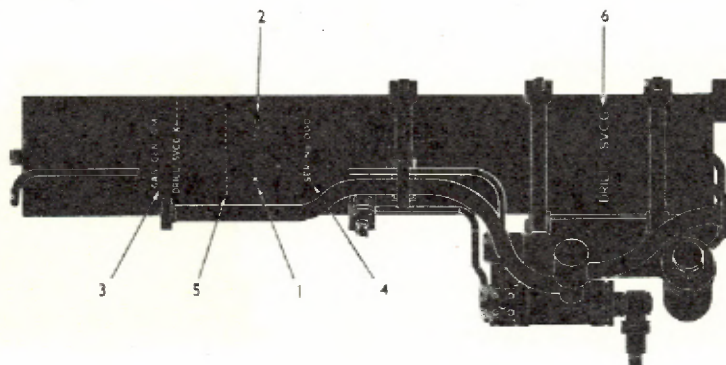
- 3 RED FILLING RING
- 4 ABBREVIATED NOMENCLATURE AND MODEL NUMBER
- 5 SERIAL NUMBER
- 6 STORES REFERENCE NUMBER OR JOINT SERVICES IDENTIFICATION NUMBER
- 7 TYPE OF GENERATOR

# TYPICAL IDENTIFICATION MARKINGS- GUIDED MISSILE SEASLUG (SURFACE to AIR) FOR NAVAL SERVICE

## MARKINGS TO BE APPLIED BY MANUFACTURER AND/OR FILLER

### GAS GENERATOR

FIG.1 DRILL/SERVICING



### GAS GENERATOR CARTRIDGE IGNITER

FIG.2 OPERATIONAL & TELEMTRY

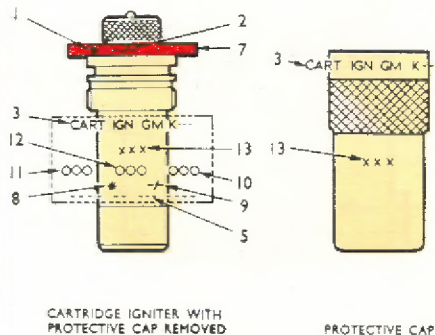
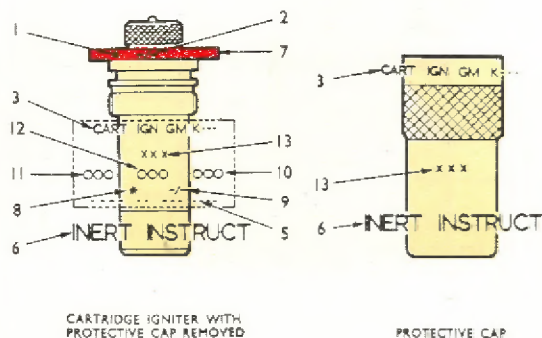


FIG.3 INSTRUCTIONAL



### KEY TO MARKINGS

- |   |                                                                 |    |                                           |
|---|-----------------------------------------------------------------|----|-------------------------------------------|
| 1 | INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER                 | 7  | RED FILLING RING                          |
| 2 | DATE OF MANUFACTURE (MONTH & YEAR)                              | 8  | INITIALS OR RECOGNISED MONOGRAM OF FILLER |
| 3 | ABBREVIATED NOMENCLATURE, AND MODEL NUMBER                      | 9  | DATE OF FILLING (MONTH & YEAR)            |
| 4 | SERIAL NUMBER                                                   | 10 | LOT NUMBER OF FUZE                        |
| 5 | STORES REFERENCE NUMBER OR JOINT SERVICES IDENTIFICATION NUMBER | 11 | LOT NUMBER OF PELLET                      |
| 6 | TYPE                                                            | 12 | LOT NUMBER OF COMPOSITION                 |
|   |                                                                 | 13 | CODE INDICATING NATURE OF PELLET          |

TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE SEASLUG (SURFACE to AIR)  
 FOR NAVAL SERVICE

MARKINGS TO BE APPLIED BY **MANUFACTURER** AND/OR **FILLER**

INITIATORS

FIG.1 INITIATOR - OPERATIONAL



FIG.2 INITIATOR SIMULATOR-TELEMETRY & SERVICING

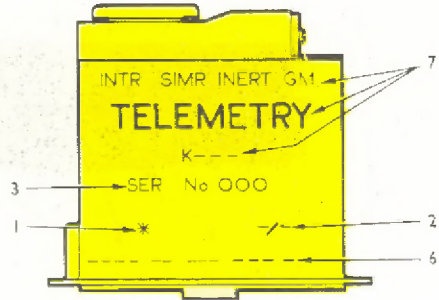


FIG.3 BREAK-UP INITIATOR-TELEMETRY

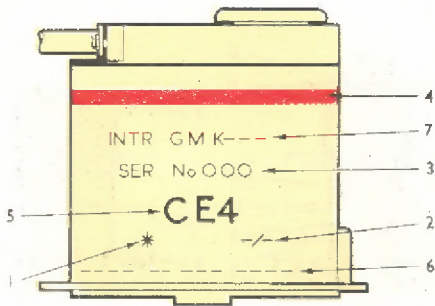
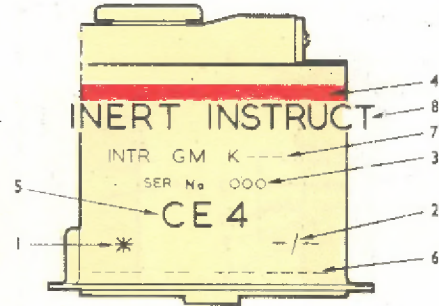


FIG.4 INITIATOR - INSTRUCTIONAL



KEY TO MARKINGS

APPLIED BY MANUFACTURER

- 1 INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER
- 2 DATE OF MANUFACTURE (MONTH & YEAR)

APPLIED BY FILLER

- 3 SERIAL NUMBER
- 4 RED FILLING RING
- 5 ABBREVIATION OR CODE DENOTING FILLING COMPOSITION USED
- 6 STORES REFERENCE NUMBER OR JOINT SERVICES IDENTIFICATION NUMBER
- 7 ABBREVIATED NOMENCLATURE AND MODEL NUMBER
- 8 TYPE OF INITIATOR

TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE SEASLUG (SURFACE to AIR)  
 FOR NAVAL SERVICE  
 MARKINGS TO BE APPLIED BY MANUFACTURER AND/OR FILLER

SUSTAINER ROCKET MOTOR IGNITER

FIG.1 OPERATIONAL & TELEMETRY

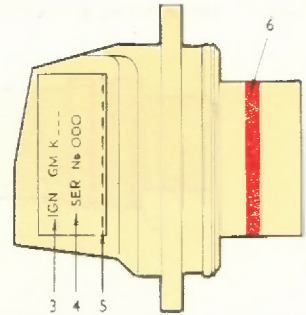
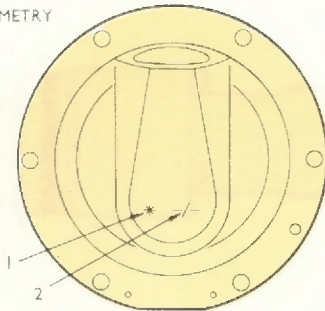


FIG.2 INSTRUCTIONAL

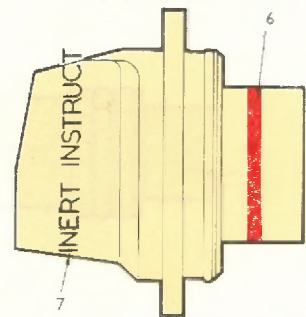
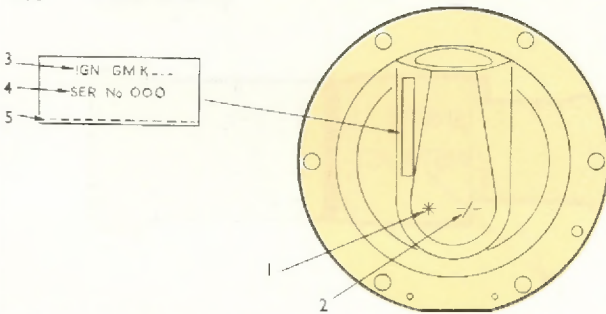
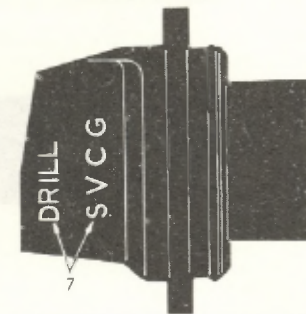
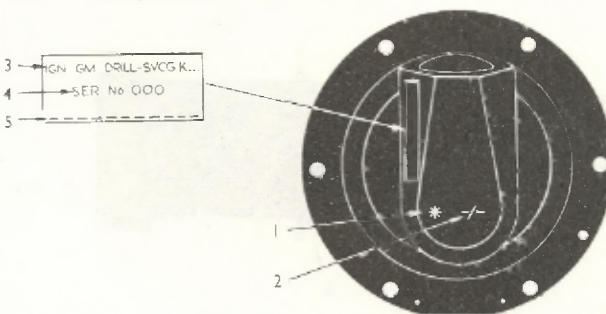


FIG.3 DRILL/SERVICING



KEY TO MARKINGS

APPLIED BY MANUFACTURER

- 1 INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER
- 2 DATE OF MANUFACTURE (MONTH & YEAR)

APPLIED BY FILLER

- 3 ABBREVIATED NOMENCLATURE, AND MODEL NUMBER
- 4 SERIAL NUMBER
- 5 STORES REFERENCE NUMBER OR JOINT SERVICES IDENTIFICATION NUMBER
- 6 RED FILLING RING
- 7 TYPE OF IGNITER

TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE **SEASLUG** (SURFACE to AIR)  
 FOR NAVAL SERVICE

MARKINGS TO BE APPLIED BY **MANUFACTURER** AND/OR **FILLER**

SUSTAINER ROCKET MOTOR IGNITER PRIMER

FIG. 1 OPERATIONAL & TELEMETRY

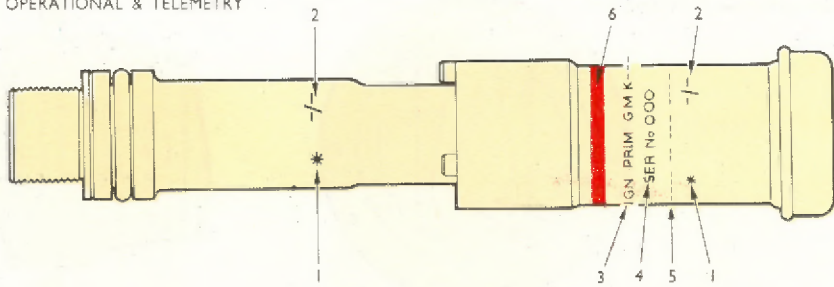


FIG. 2 INSTRUCTIONAL

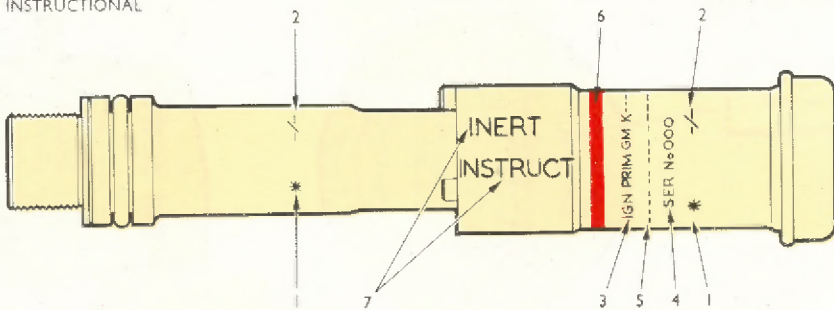
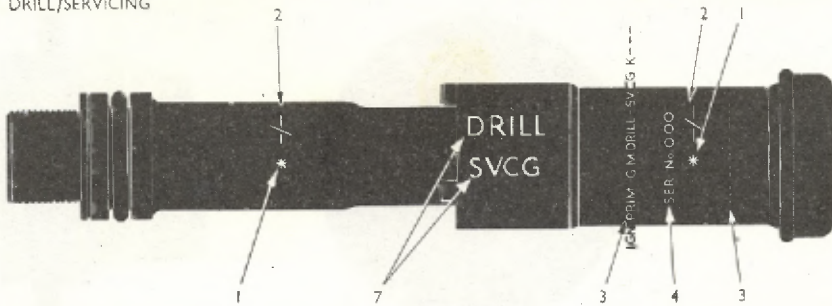


FIG. 3 DRILL/SERVICING



KEY TO MARKINGS

| APPLIED BY MANUFACTURER |                                                 | APPLIED BY FILLER |                                                                 |
|-------------------------|-------------------------------------------------|-------------------|-----------------------------------------------------------------|
| 1                       | INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER | 3                 | ABBREVIATED NOMENCLATURE, AND MODEL NUMBER                      |
| 2                       | DATE OF MANUFACTURE (MONTH & YEAR)              | 4                 | SERIAL NUMBER OF ASSEMBLED PRIMER                               |
|                         |                                                 | 5                 | STORES REFERENCE NUMBER OR JOINT SERVICES IDENTIFICATION NUMBER |
|                         |                                                 | 6                 | RED FILLING RING                                                |
|                         |                                                 | 7                 | TYPE OF PRIMER                                                  |

# TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE SEASLUG (SURFACE to AIR) FOR NAVAL SERVICE

## MARKINGS TO BE APPLIED BY MANUFACTURER AND/OR FILLER

### WARHEADS AND HEADS

FIG. 1 WARHEAD-OPERATIONAL

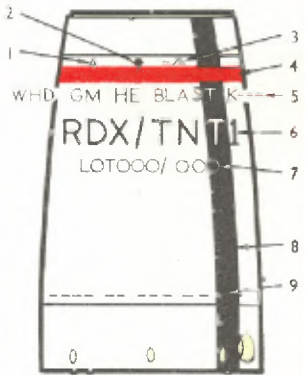


FIG. 2 HEAD-TELEMETRY

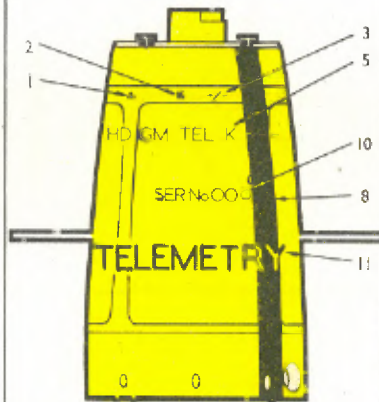


FIG. 3 HEAD-DRILL

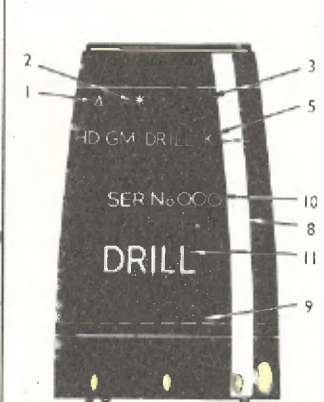


FIG. 4 WARHEAD - INSTRUCTIONAL

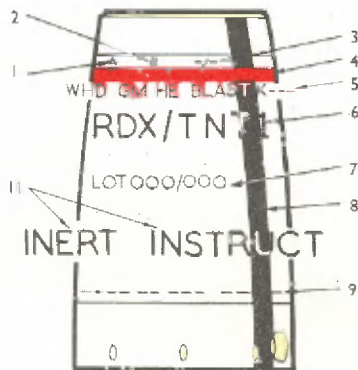
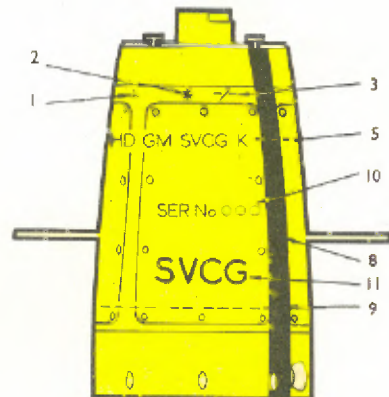


FIG. 5 HEAD-SERVICING



#### KEY TO MARKINGS

##### APPLIED BY MANUFACTURER

- |                                                      |                                                          |
|------------------------------------------------------|----------------------------------------------------------|
| 1 SERIAL NUMBER                                      | } STAMPED AT<br>EMPTY STAGE<br>AND MAY BE<br>OVERPAINTED |
| 2 INITIALS OR RECOGNISED MONOGRAM OF<br>MANUFACTURER |                                                          |
| 3 DATE OF MANUFACTURE (MONTH & YEAR)                 |                                                          |

##### APPLIED BY MANUFACTURER/FILLER

- |                                                                      |
|----------------------------------------------------------------------|
| 4 RED FILLING RING                                                   |
| 5 ABBREVIATED NOMENCLATURE, NATURE AND MODEL NUMBER                  |
| 6 ABBREVIATION OR CODE DENOTING FILLING COMPOSITION<br>USED          |
| 7 FILLED LOT NUMBER AND SERIAL NUMBER                                |
| 8 LINE INDICATING TOP IN LAUNCH                                      |
| 9 STORES REFERENCE NUMBER OR JOINT SERVICES<br>IDENTIFICATION NUMBER |
| 10 SERIAL NUMBER (SAME AS ITEM 1)                                    |
| 11 TYPE OF HEAD                                                      |

TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE SEASLUG (SURFACE to AIR)  
 FOR NAVAL SERVICE  
 MARKINGS TO BE APPLIED BY MANUFACTURER AND/OR FILLER

FLARES

FIG. 1 TELEMETRY

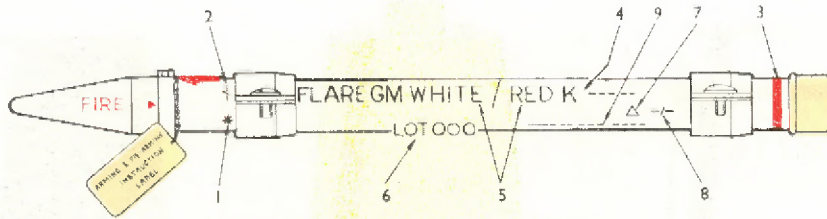


FIG. 2 DRILL



KEY TO MARKINGS

APPLIED BY MANUFACTURER

- 1 INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER
- 2 DATE OF MANUFACTURE (MONTH & YEAR)
- 10 TYPE OF FLARE

APPLIED BY FILLER

- 3 RED FILLING RING
- 4 ABBREVIATED NOMENCLATURE, AND MODEL NUMBER
- 5 COLOUR OF FLARE (AS APPLICABLE)
- 6 LOT NUMBER OF FILLING
- 7 INITIALS OR RECOGNISED MONOGRAM OF FILLER
- 8 DATE OF FILLING (MONTH & YEAR)
- 9 STORES REFERENCE NUMBER OR JOINT SERVICES IDENTIFICATION NUMBER



**TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE MALKARA (SURFACE to SURFACE)  
 FOR LAND SERVICE**

**COMPLETELY ASSEMBLED MISSILES**

FIG.1 OPERATIONAL (KNOWN AS MARK 1A)

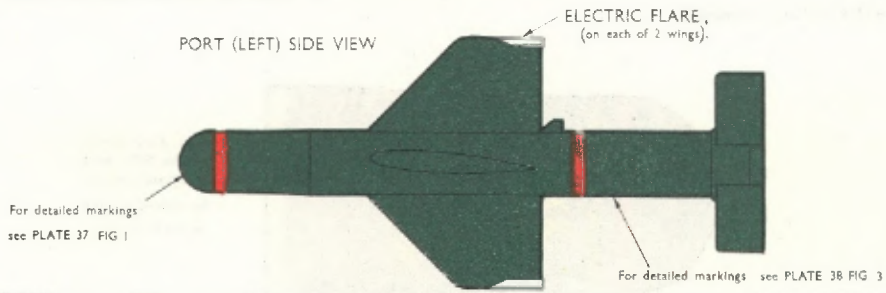


FIG.2 PRACTICE (KNOWN AS MARK 1)

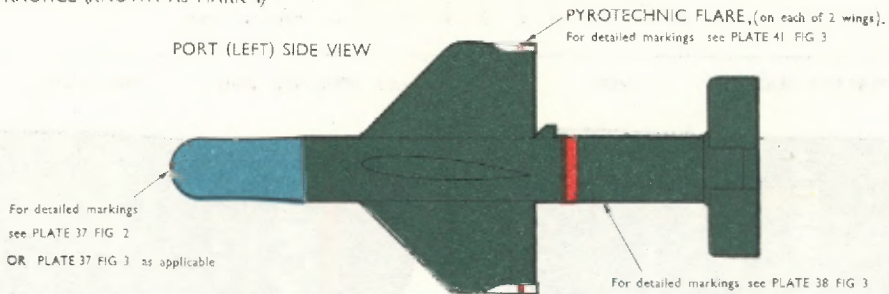


FIG.3 SERVICING

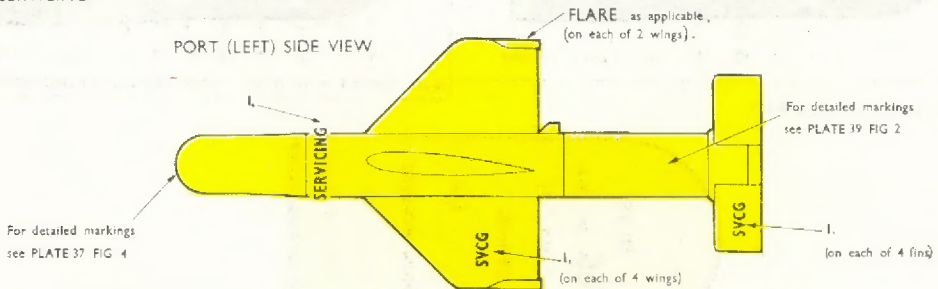
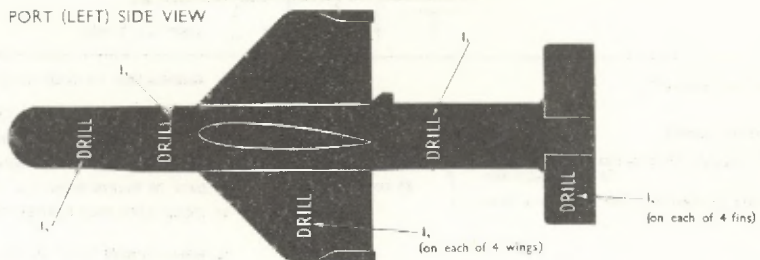


FIG.4 DRILL



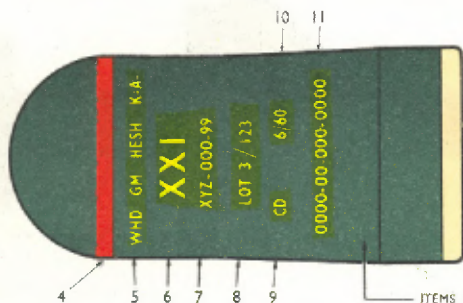
**KEY TO MARKINGS**

APPLIED BY MANUFACTURER

I, TYPE OF MISSILE

TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE **MALKARA** (SURFACE to SURFACE)  
 FOR LAND SERVICE  
 MARKINGS TO BE APPLIED BY **MANUFACTURER** AND/OR **FILLER**

FIG.1 OPERATIONAL WARHEAD



Note: Filled Warhead includes FUZE which is separately marked.  
 For detailed markings see PLATE 42 FIG 1

FIG.2 PRACTICE HEAD .....INERT

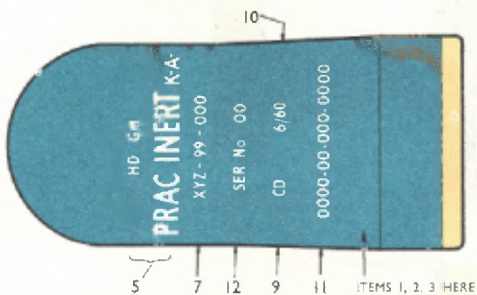
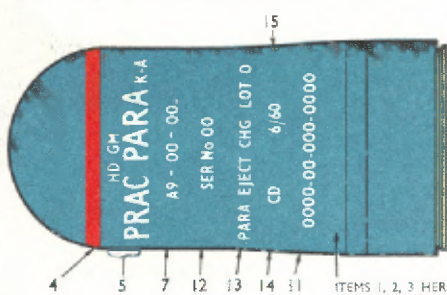
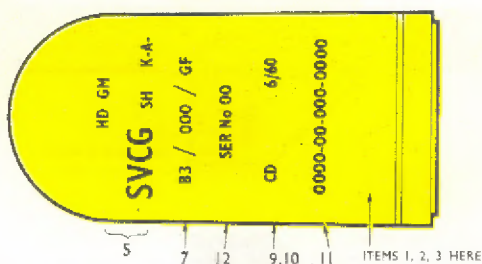


FIG.3 PRACTICE HEAD ..... PARACHUTE



Note:- ITEMS 4 & 13, 14, 15 ONLY APPLY IF CHARGE IS FITTED BEFORE ISSUE

FIG.4 SERVICING HEAD



KEY TO MARKINGS

1 SERIAL NUMBER

2 INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER

3 DATE OF MANUFACTURE (MONTH & YEAR)

STAMPED AT EMPTY STAGE AND MAY BE OVERPAINTED

4 RED FILLING RING

5 ABBREVIATED NOMENCLATURE, NATURE AND MODEL NUMBER

6 ABBREVIATION OR CODE DENOTING FILLING COMPOSITION USED

7 METHOD OF FILLING DESIGN OR DRAWING NUMBER

8 FILLED LOT NUMBER AND SERIAL NUMBER (SAME AS ITEM 1)

9 INITIALS OR RECOGNISED MONOGRAM OF FILLER

10 DATE OF FILLING (MONTH & YEAR)

11 STORES REFERENCE NUMBER OR JOINT SERVICES IDENTIFICATION NUMBER

12 SERIAL NUMBER (SAME AS ITEM 1)

13 ABBREVIATED NOMENCLATURE AND FILLED LOT NUMBER

14 INITIALS OR RECOGNISED MONOGRAM OF FILLER

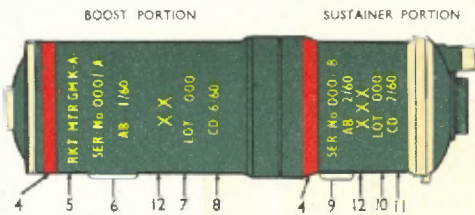
15 DATE OF FILLING (MONTH & YEAR)

OF PARACHUTE EJECTION CHARGE

# TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE MALKARA (SURFACE to SURFACE) FOR LAND SERVICE

## MARKINGS TO BE APPLIED BY MANUFACTURER, FILLER AND/OR ASSEMBLER

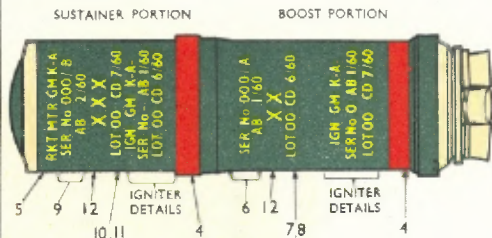
FIG. 1 ROCKET MOTOR (FOR MISSILE KNOWN AS MARK 1)



MARKING ON REVERSE FACE



FIG. 2 ROCKET MOTOR (FOR MISSILE KNOWN AS MARK 1A)



MARKING ON REVERSE FACE

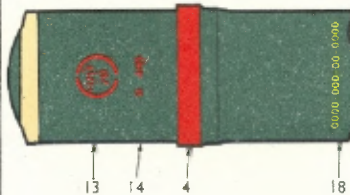
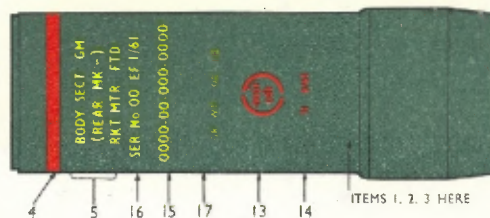


FIG. 3 REAR BODY SECTION FOR BOTH VERSIONS



AS APPLICABLE TO THE PARTICULAR STORE ASSEMBLED

### KEY TO MARKINGS

|   |                                                 |                                                          |    |                                                                                                       |                    |
|---|-------------------------------------------------|----------------------------------------------------------|----|-------------------------------------------------------------------------------------------------------|--------------------|
| 1 | SERIAL NUMBER                                   | } STAMPED AT<br>EMPTY STAGE<br>AND MAY BE<br>OVERPAINTED | 6  | SERIAL NUMBER, INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER AND DATE OF MANUFACTURE (MONTH & YEAR) | } BOOST<br>PORTION |
| 2 | INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER |                                                          | 7  | FILLED LOT NUMBER                                                                                     |                    |
| 3 | DATE OF MANUFACTURE (MONTH & YEAR)              |                                                          | 8  | INITIALS OR RECOGNISED MONOGRAM OF FILLER AND DATE OF FILLING (MONTH & YEAR)                          |                    |
| 4 | RED FILLING RING                                | } SUSTAINER<br>PORTION                                   | 9  | SERIAL NUMBER, INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER AND DATE OF MANUFACTURE (MONTH & YEAR) |                    |
| 5 | ABBREVIATED NOMENCLATURE, AND MODEL NUMBER      |                                                          | 10 | FILLED LOT NUMBER                                                                                     |                    |
|   |                                                 |                                                          | 11 | INITIALS OR RECOGNISED MONOGRAM OF FILLER AND DATE OF FILLING (MONTH & YEAR)                          |                    |
|   |                                                 |                                                          | 12 | ABBREVIATION OR CODE DENOTING FILLING COMPOSITION USED                                                |                    |
|   |                                                 |                                                          | 13 | FIRING TEMPERATURE LIMITATIONS (IF APPLICABLE)                                                        |                    |
|   |                                                 |                                                          | 14 | DATE OF EXPIRY OF SERVICE LIFE (AS APPLICABLE TO ITEM 12)                                             |                    |
|   |                                                 |                                                          | 15 | STORES REFERENCE NUMBER OR JOINT SERVICES IDENTIFICATION NUMBER OF COMPLETE ASSEMBLY                  |                    |
|   |                                                 |                                                          | 16 | SERIAL NUMBER, INITIALS OR RECOGNISED MONOGRAM OF ASSEMBLER AND DATE OF ASSEMBLY (MONTH & YEAR)       |                    |
|   |                                                 |                                                          | 17 | GROSS WEIGHT OF COMPLETE ASSEMBLY                                                                     |                    |
|   |                                                 |                                                          | 18 | STORES REFERENCE NUMBER OR JOINT SERVICES IDENTIFICATION NUMBER OF COMPLETE FILLED MOTOR              |                    |

TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE **MALKARA** (SURFACE to SURFACE)  
 FOR LAND SERVICE

MARKINGS TO BE APPLIED BY **MANUFACTURER** **FILLER** AND/OR **ASSEMBLER**

FIG. 1 SERVICING ROCKET MOTOR  
 USED ON MISSILE  
 KNOWN AS MARK 1

ALTHOUGH THE STORE MAY DIFFER SLIGHTLY IN DIMENSIONS AND CONTOUR,  
 THE MARKINGS SHOWN SHOULD BE APPLIED SIMILARLY FOR BOTH VERSIONS

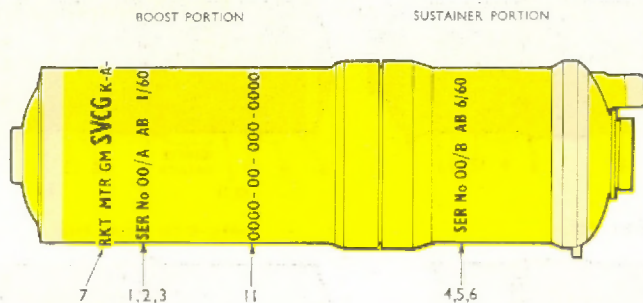
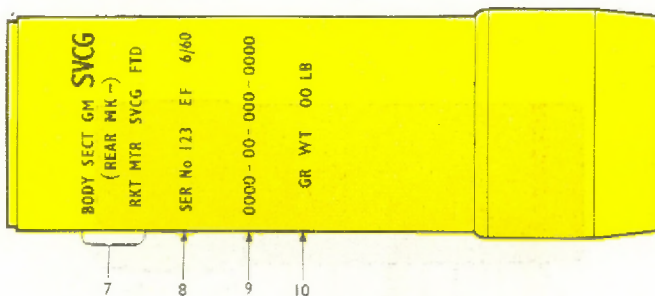


FIG. 2 SERVICING REAR BODY SECTION FOR BOTH VERSIONS



KEY TO MARKINGS

- |    |                                                                                                 |   |                   |
|----|-------------------------------------------------------------------------------------------------|---|-------------------|
| 1  | SERIAL NUMBER                                                                                   | } | BOOST PORTION     |
| 2  | INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER                                                 |   |                   |
| 3  | DATE OF MANUFACTURE (MONTH & YEAR)                                                              |   |                   |
| 4  | SERIAL NUMBER                                                                                   | } | SUSTAINER PORTION |
| 5  | INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER                                                 |   |                   |
| 6  | DATE OF MANUFACTURE (MONTH & YEAR)                                                              |   |                   |
| 7  | ABBREVIATED NOMENCLATURE, NATURE AND MODEL NUMBER                                               |   |                   |
| 8  | SERIAL NUMBER, INITIALS OR RECOGNISED MONOGRAM OF ASSEMBLER AND DATE OF ASSEMBLY (MONTH & YEAR) |   |                   |
| 9  | STORES REFERENCE NUMBER OR JOINT SERVICES IDENTIFICATION NUMBER OF COMPLETE ASSEMBLY            |   |                   |
| 10 | GROSS WEIGHT OF COMPLETE ASSEMBLY                                                               |   |                   |
| 11 | STORES REFERENCE NUMBER OR JOINT SERVICES IDENTIFICATION NUMBER OF COMPLETE FILLED MOTOR        |   |                   |

TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE **MALKARA** (SURFACE to SURFACE)  
FOR LAND SERVICE  
MARKINGS TO BE APPLIED BY **MANUFACTURER AND/OR FILLER**

IGNITERS

FIG.1 USED ON MISSILE KNOWN AS MARK I  
(For BOOST PORTION of ROCKET MOTOR)

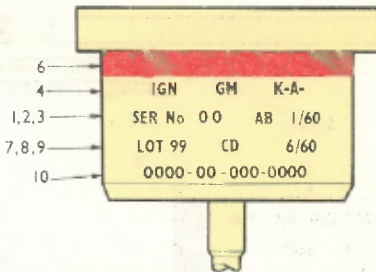


FIG.2 SERVICING (For BOOST PORTION of SERVICING ROCKET MOTOR)

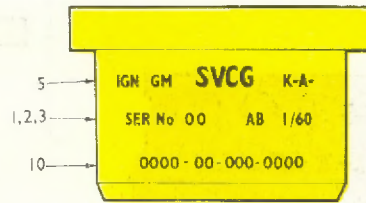


FIG.3 USED ON MISSILE KNOWN AS MARK I  
(For SUSTAINER PORTION of ROCKET MOTOR)

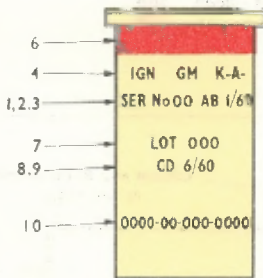
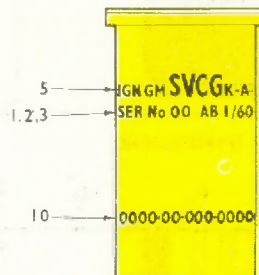


FIG.4 SERVICING (For SUSTAINER PORTION of SERVICING ROCKET MOTOR)



PRIMERS

FIG.5 USED ON MISSILE KNOWN AS MARK I

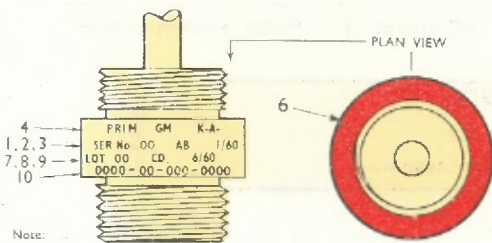
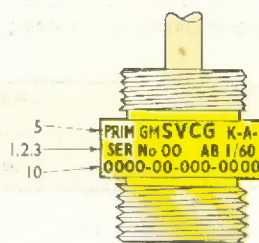


FIG.6 SERVICING



Note:  
DUE TO LIMITED SPACE THE MARKINGS ON THIS STORE MAY  
APPEAR RE-ARRANGED RIGHT ROUND CIRCUMFERENCE

KEY TO MARKINGS

- 1 SERIAL NUMBER
- 2 INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER
- 3 DATE OF MANUFACTURE (MONTH & YEAR)
- 4 ABBREVIATED NOMENCLATURE, AND MODEL NUMBER
- 5 ABBREVIATED NOMENCLATURE, NATURE AND MODEL NUMBER
- 6 RED FILLING RING
- 7 FILLED LOT NUMBER
- 8 INITIALS OR RECOGNISED MONOGRAM OF FILLER
- 9 DATE OF FILLING (MONTH & YEAR)
- 10 STORES REFERENCE NUMBER OR JOINT SERVICES IDENTIFICATION NUMBER

TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE **MALKARA** (SURFACE to SURFACE)  
 FOR LAND SERVICE  
 MARKINGS TO BE APPLIED BY **MANUFACTURER** AND/OR **FILLER**

FIG.1 AFTER - BURNER  
 USED ON MISSILE  
 KNOWN AS MARK 1

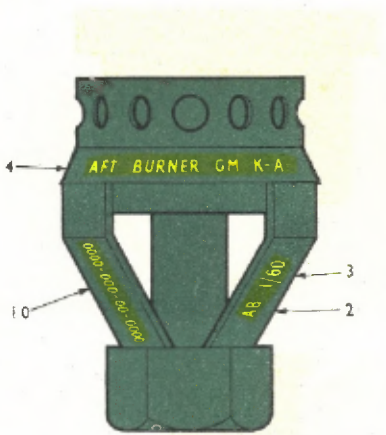


FIG.2 PARACHUTE EJECTION CHARGE

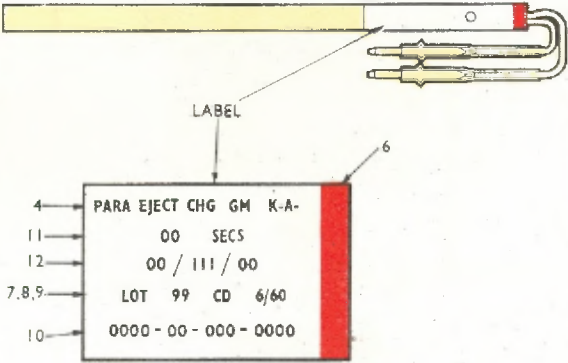


FIG.3 FLARE (PYROTECHNIC)

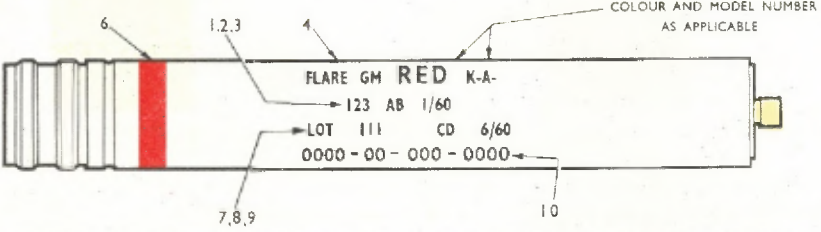
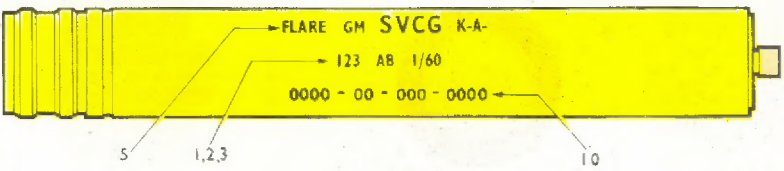


FIG.4 FLARE (PYROTECHNIC) REPLICA FOR SERVICING MISSILE ASSOCIATED WITH MISSILE KNOWN AS MARK 1



KEY TO MARKINGS

- 1 SERIAL NUMBER
- 2 INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER
- 3 DATE OF MANUFACTURE (MONTH & YEAR)
- 4 ABBREVIATED NOMENCLATURE, AND MODEL NUMBER
- 5 ABBREVIATED NOMENCLATURE, NATURE AND MODEL NUMBER
- 6 RED FILLING RING
- 7 FILLED LOT NUMBER
- 8 INITIALS OR RECOGNISED MONOGRAM OF FILLER
- 9 DATE OF FILLING (MONTH & YEAR)
- 10 STORES REFERENCE NUMBER OR JOINT SERVICES IDENTIFICATION NUMBER
- 11 TIME OF BURNING, IN SECONDS ( AS APPLICABLE)
- 12 METHOD OF FILLING DESIGN OR DRAWING NUMBER

TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE MALKARA (SURFACE to SURFACE)  
FOR LAND SERVICE

MARKINGS TO BE APPLIED BY MANUFACTURER AND/OR FILLER

FIG.1 OPERATIONAL FUZE

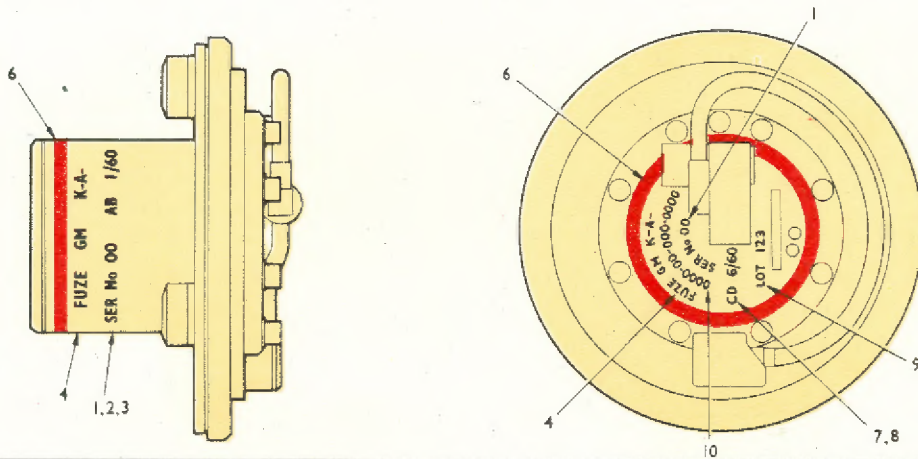
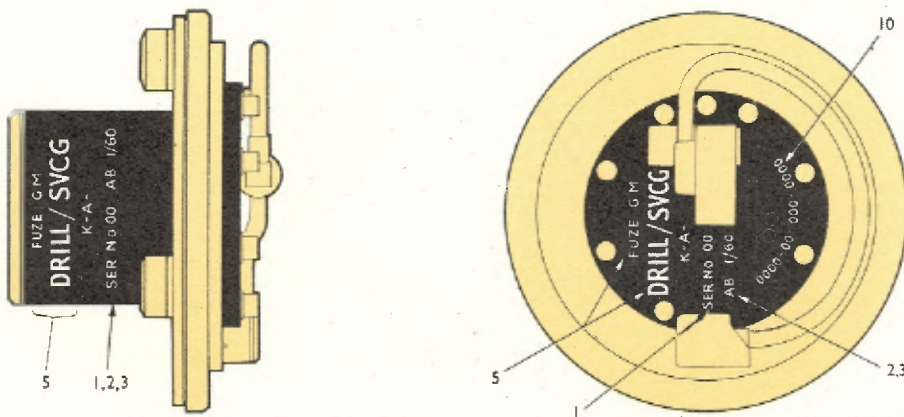


FIG.2 DRILL/SERVICING FUZE



KEY TO MARKINGS

- 1 SERIAL NUMBER
- 2 INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER
- 3 DATE OF MANUFACTURE (MONTH & YEAR)
- 4 ABBREVIATED NOMENCLATURE, AND MODEL NUMBER
- 5 ABBREVIATED NOMENCLATURE, NATURE AND MODEL NUMBER
- 6 RED FILLING RING
- 7 INITIALS OR RECOGNISED MONOGRAM OF FILLER
- 8 DATE OF FILLING (MONTH & YEAR)
- 9 FILLED LOT NUMBER
- 10 STORES REFERENCE NUMBER

TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE THUNDERBIRD (SURFACE to AIR)  
FOR LAND SERVICE

COMPLETELY ASSEMBLED MISSILES

FIG. 1 OPERATIONAL, PRACTICE & TELEMETRY

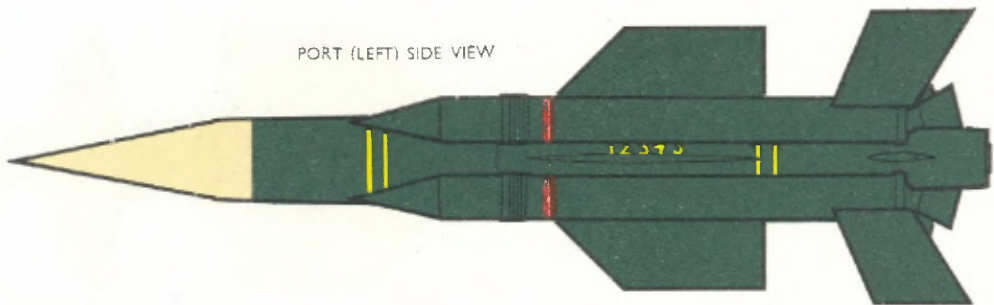


FIG. 2 SERVICING WITH DRILL/SERVICING (BOOST) MOTORS

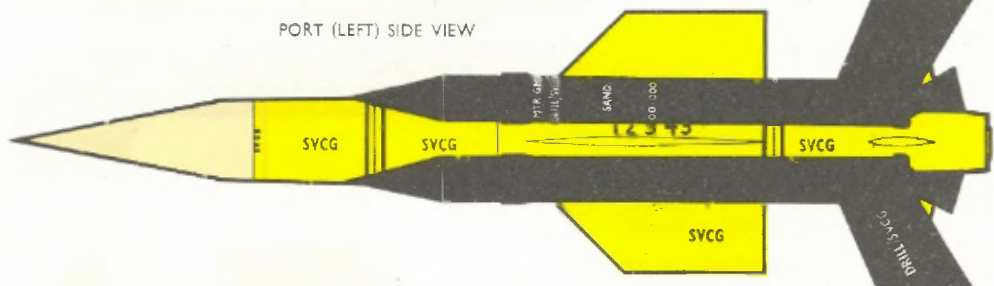
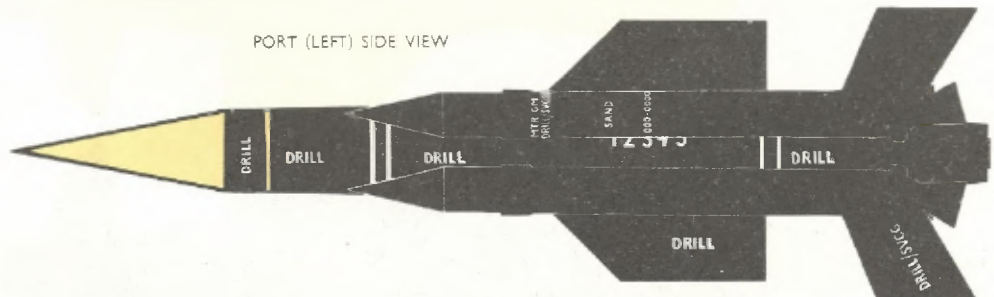


FIG. 3 DRILL WITH DRILL/SERVICING (BOOST) MOTORS



KEY TO MARKINGS

For details, see following Plates 44 to 52



**TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE THUNDERBIRD (SURFACE to AIR)  
 FOR LAND SERVICE**

**MARKINGS TO BE APPLIED BY MANUFACTURER , FILLER AND/OR ASSEMBLER**

FIG.1 OPERATIONAL, PRACTICE AND TELEMETRY MISSILES  
 WITH (BOOST) MOTORS REMOVED

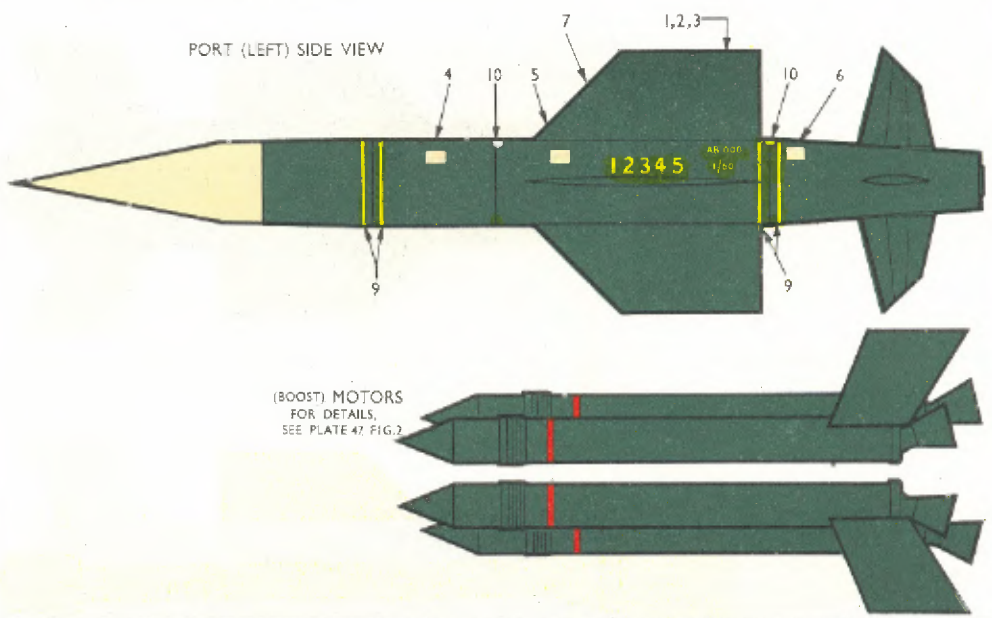


FIG.2 SERVICING MISSILE  
 WITH (BOOST) MOTORS REMOVED

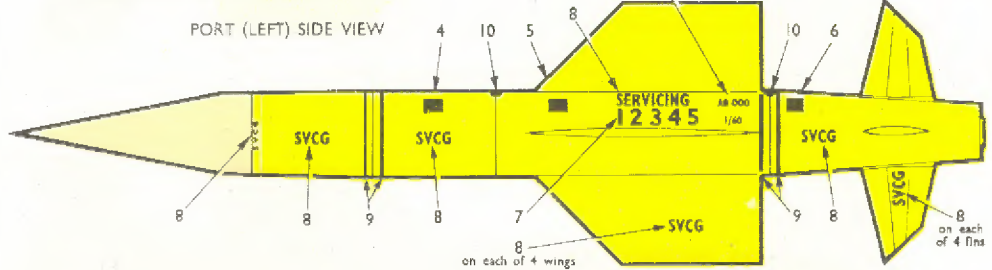
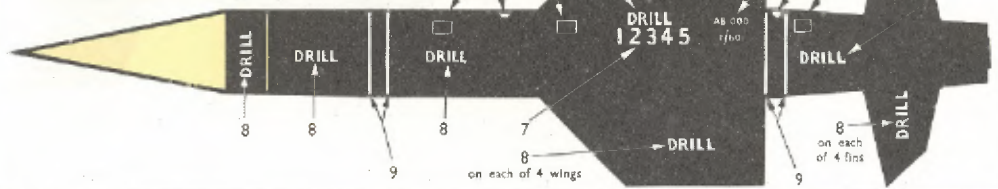


FIG.3 DRILL MISSILE  
 WITH (BOOST) MOTORS  
 REMOVED



**KEY TO MARKINGS**

- 1,2,3 INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER , SERIAL NUMBER AND DATE OF MANUFACTURE (MONTH & YEAR)
- 4,5,6 IDENTIFICATION PLATES , FOR DETAILS, SEE PLATE 52 FIGS.1 to 5 (as applicable)
- 7 MASTER SERVICE SERIAL NUMBER OF COMPLETE ASSEMBLY
- 8 TYPE OF MISSILE
- 9 LOCATING BANDS
- 10 LIFTING POINTS

TYPICAL IDENTIFICATION MARKINGS- GUIDED MISSILE THUNDERBIRD (SURFACE to AIR)  
 FOR LAND SERVICE  
 MARKINGS TO BE APPLIED BY MANUFACTURER AND/OR FILLER

FIG. 1 OPERATIONAL WARHEAD

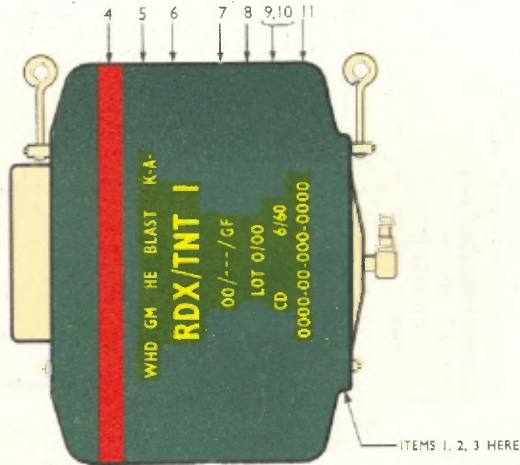


FIG. 2 PRACTICE HEAD

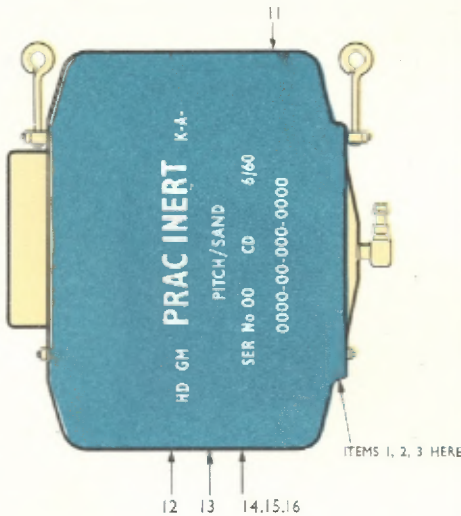
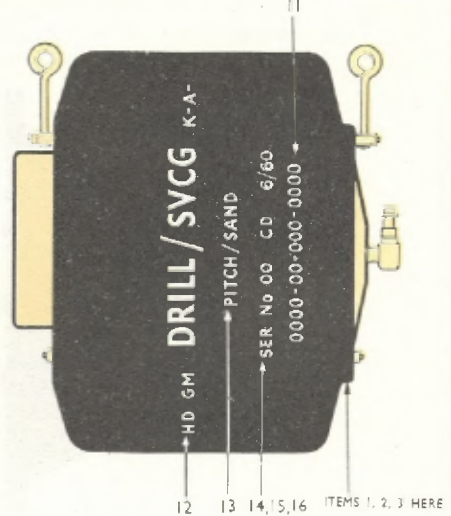


FIG. 3 DRILL/SERVICING HEAD



KEY TO MARKINGS

- |          |                                                                                                             |   |                                                     |
|----------|-------------------------------------------------------------------------------------------------------------|---|-----------------------------------------------------|
| 1        | SERIAL NUMBER                                                                                               | } | STAMPED AT<br>EMPTY STAGE AND<br>MAY BE OVERPAINTED |
| 2        | INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER                                                             |   |                                                     |
| 3        | DATE OF MANUFACTURE (MONTH & YEAR)                                                                          |   |                                                     |
| 4        | RED FILLING RING                                                                                            |   |                                                     |
| 5        | ABBREVIATED NOMENCLATURE AND MODEL NUMBER                                                                   |   |                                                     |
| 6        | ABBREVIATION OR CODE DENOTING FILLING COMPOSITION USED                                                      |   |                                                     |
| 7        | METHOD OF FILLING DESIGN OR DRAWING NUMBER                                                                  |   |                                                     |
| 8        | FILLED LOT NUMBER AND SERIAL NUMBER (SAME AS ITEM 1)                                                        |   |                                                     |
| 9,10     | INITIALS OR RECOGNISED MONOGRAM OF FILLER AND DATE OF FILLING (MONTH & YEAR)                                |   |                                                     |
| 11       | STORES REFERENCE NUMBER OR JOINT SERVICES IDENTIFICATION NUMBER                                             |   |                                                     |
| 12       | ABBREVIATED NOMENCLATURE, NATURE AND MODEL NUMBER                                                           |   |                                                     |
| 13       | FILLING COMPOSITION USED                                                                                    |   |                                                     |
| 14,15,16 | SERIAL NUMBER (SAME AS ITEM 1) INITIALS OR RECOGNISED MONOGRAM OF FILLER AND DATE OF FILLING (MONTH & YEAR) |   |                                                     |

TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE THUNDERBIRD (SURFACE to AIR)  
 FOR LAND SERVICE  
 MARKINGS TO BE APPLIED BY MANUFACTURER AND/OR FILLER

FIG. 1 OPERATIONAL INITIATOR

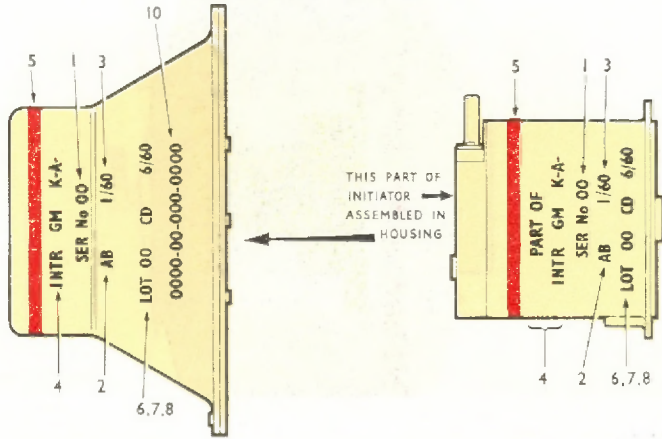
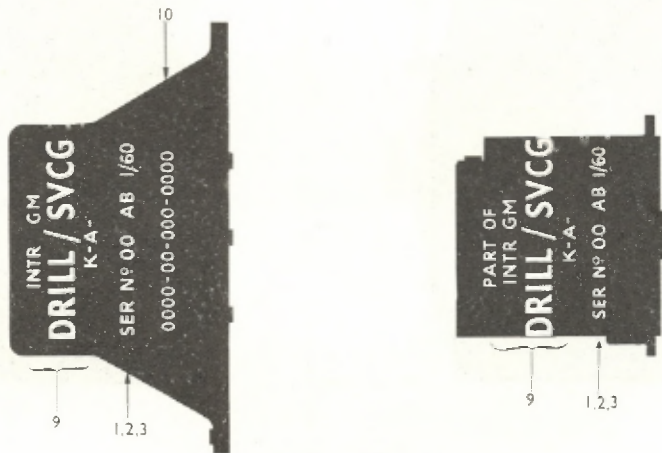


FIG. 2 DRILL/SERVICING INITIATOR



NOTE - FOR INITIATOR SIMULATOR SEE PLATE 50 fig. 3

KEY TO MARKINGS

- 1 SERIAL NUMBER
- 2 INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER
- 3 DATE OF MANUFACTURE (MONTH & YEAR)
- 4 ABBREVIATED NOMENCLATURE, AND MODEL NUMBER
- 5 RED FILLING RING
- 6 FILLED LOT NUMBER
- 7 INITIALS OR RECOGNISED MONOGRAM OF FILLER
- 8 DATE OF FILLING (MONTH & YEAR)
- 9 ABBREVIATED NOMENCLATURE, NATURE AND MODEL NUMBER
- 10 STORES REFERENCE NUMBER OR JOINT SERVICES IDENTIFICATION NUMBER

TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE THUNDERBIRD (SURFACE to AIR)  
 FOR LAND SERVICE  
 MARKINGS TO BE APPLIED BY MANUFACTURER AND/OR FILLER

FIG. 1 OPERATIONAL (SUSTAINER) ROCKET MOTOR

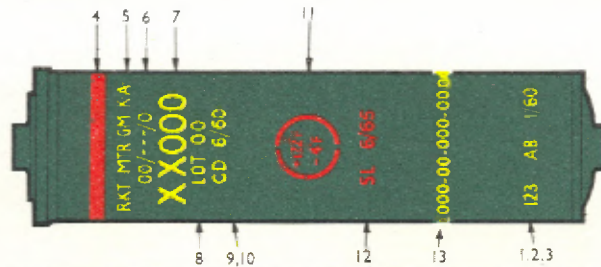


FIG. 2 OPERATIONAL (BOOST) ROCKET MOTOR

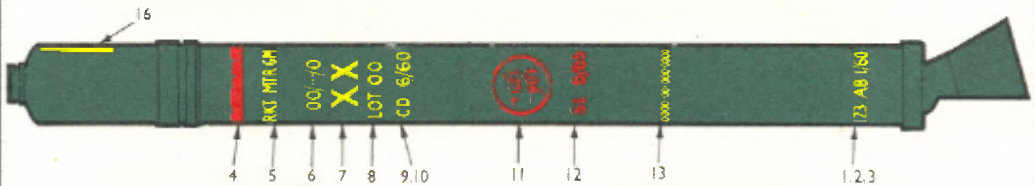


FIG. 3 DRILL/SERVICING (SUSTAINER) ROCKET MOTOR

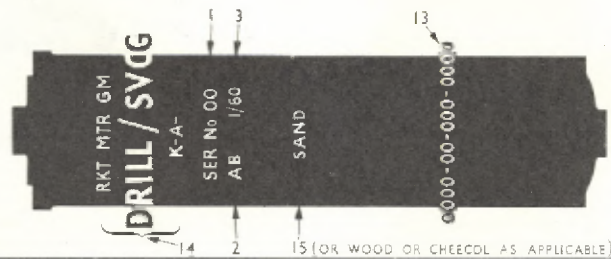
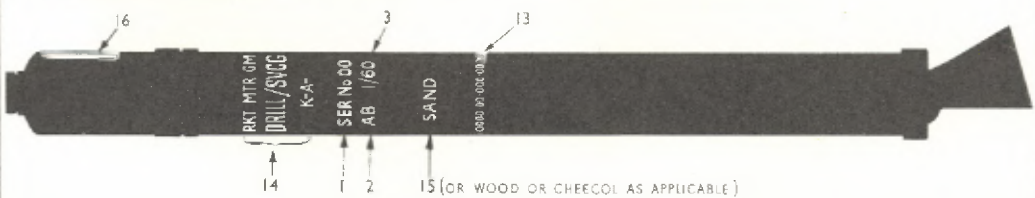


FIG. 4 DRILL/SERVICING (BOOST) ROCKET MOTOR



KEY TO MARKINGS

- |                                                   |                                                                                   |
|---------------------------------------------------|-----------------------------------------------------------------------------------|
| 1 SERIAL NUMBER                                   | 7 ABBREVIATION OR CODE DENOTING FILLING COMPOSITION USED                          |
| 2 INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER | 8 FILLED LOT NUMBER                                                               |
| 3 DATE OF MANUFACTURE (MONTH & YEAR)              | 9&10 INITIALS OR RECOGNISED MONOGRAM OF FILLER AND DATE OF FILLING (MONTH & YEAR) |
| 4 RED FILLING RING                                | 11 FIRING TEMPERATURE LIMITATIONS } (IF APPLICABLE)                               |
| 5 ABBREVIATED NOMENCLATURE AND MODEL NUMBER       | 12 DATE OF EXPIRY OF SERVICE LIFE                                                 |
| 6 METHOD OF FILLING DESIGN OR DRAWING NUMBER      | 13 STORES REFERENCE NUMBER OR JOINT SERVICES IDENTIFICATION NUMBER                |
|                                                   | 14 ABBREVIATED NOMENCLATURE, NATURE AND MODEL NUMBER                              |
|                                                   | 15 TYPE OF FILLING                                                                |
|                                                   | 16 POSITIONING STRIPE                                                             |

TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE THUNDERBIRD (SURFACE to AIR)  
 FOR LAND SERVICE  
 MARKINGS TO BE APPLIED BY MANUFACTURER AND/OR FILLER

FIG.1 OPERATIONAL IGNITER FOR (SUSTAINER) ROCKET MOTOR

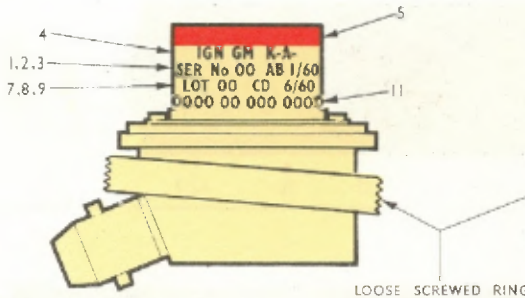


FIG.2 DRILL/SERVICING IGNITER FOR (SUSTAINER) ROCKET MOTOR

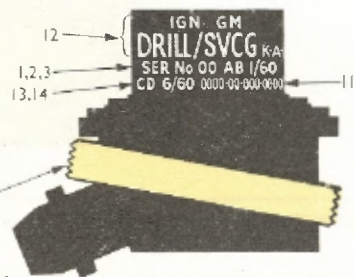


FIG.3 OPERATIONAL IGNITER FOR (BOOST) ROCKET MOTOR

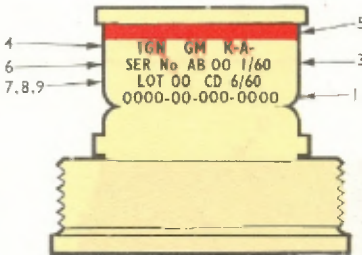


FIG.4 DRILL/SERVICING IGNITER FOR (BOOST) ROCKET MOTOR

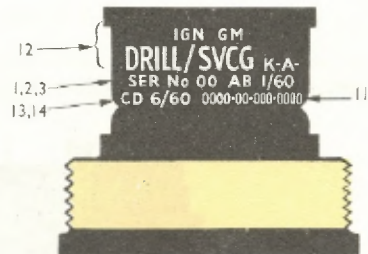


FIG.5 OPERATIONAL IGNITER FOR GAS GENERATOR

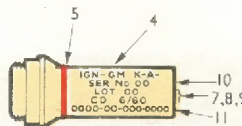


FIG.6 DRILL/SERVICING IGNITER FOR GAS GENERATOR



KEY TO MARKINGS

- 1 SERIAL NUMBER
- 2 INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER
- 3 DATE OF MANUFACTURE (MONTH & YEAR)
- 4 ABBREVIATED NOMENCLATURE, AND MODEL NUMBER
- 5 RED FILLING RING
- 6 SERIAL NUMBER PREFIXED BY INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER
- 7,8,9 FILLED LOT NUMBER, INITIALS OR RECOGNISED MONOGRAM OF FILLER, DATE OF FILLING (MONTH & YEAR)
- 10 SERIAL NUMBER OF FILLED STORE
- 11 STORES REFERENCE NUMBER OR JOINT SERVICES IDENTIFICATION NUMBER
- 12 ABBREVIATED NOMENCLATURE, NATURE AND MODEL NUMBER
- 13,14 INITIALS OR RECOGNISED MONOGRAM OF FILLER AND DATE OF FILLING (MONTH & YEAR)

TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE THUNDERBIRD (SURFACE to AIR)  
 FOR LAND SERVICE  
 MARKINGS TO BE APPLIED BY MANUFACTURER AND/OR FILLER

FIG.1 FLARE (PYROTECHNIC)

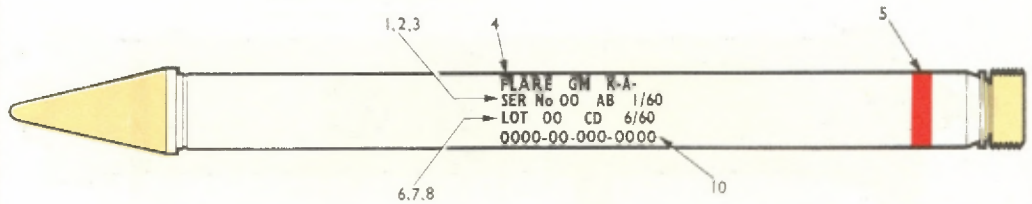


FIG.2 DRILL/SERVICING FLARE

Note: IF AND WHEN REQUIRED, DRILL/SERVICING  
 FLARE WILL BE MARKED SIMILARLY TO  
 EXAMPLE SHOWN FOR FIRESTREAK See Plate 8, Fig. 4

FIG.3 OPERATIONAL PRIMER

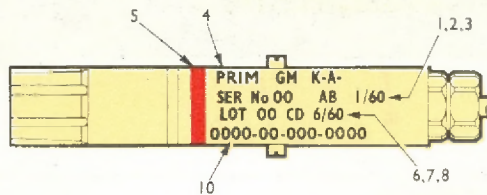
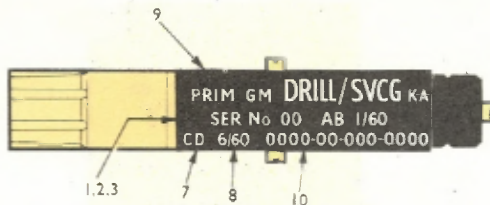


FIG.4 DRILL/SERVICING PRIMER



KEY TO MARKINGS

- 1 SERIAL NUMBER
- 2 INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER
- 3 DATE OF MANUFACTURE (MONTH & YEAR)
- 4 ABBREVIATED NOMENCLATURE, AND MODEL NUMBER
- 5 RED FILLING RING
- 6 FILLED LOT NUMBER
- 7 INITIALS OR RECOGNISED MONOGRAM OF FILLER
- 8 DATE OF FILLING (MONTH & YEAR)
- 9 ABBREVIATED NOMENCLATURE, NATURE AND MODEL NUMBER
- 10 STORES REFERENCE NUMBER OR JOINT SERVICES IDENTIFICATION NUMBER

TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE THUNDERBIRD (SURFACE to AIR)  
 FOR LAND SERVICE  
 MARKINGS TO BE APPLIED BY MANUFACTURER AND/OR FILLER

FIG. 1 OPERATIONAL GAS GENERATOR

Note: Although these stencilled details are printed BLACK, on the store they will appear GOLDEN YELLOW, except item 9 which is SIGNAL RED

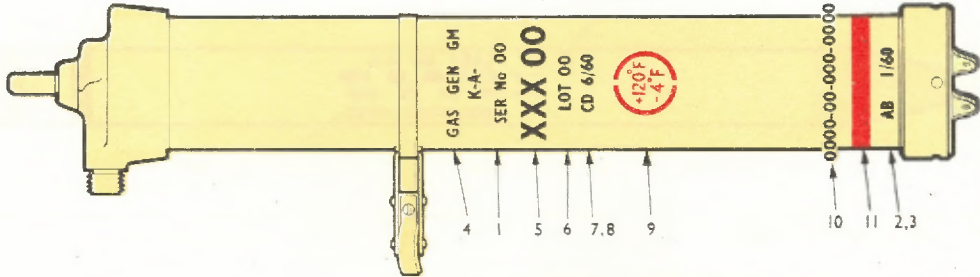


FIG. 2 OPERATIONAL NOZZLE

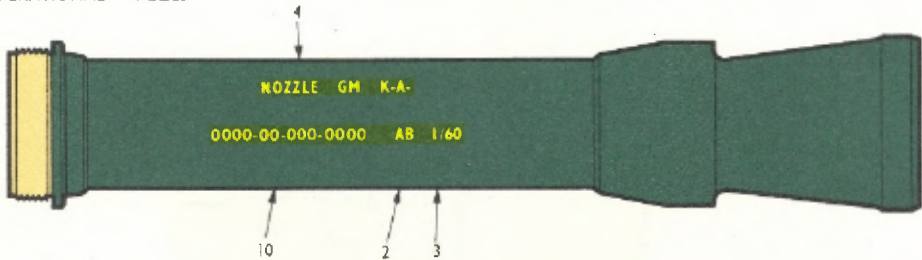
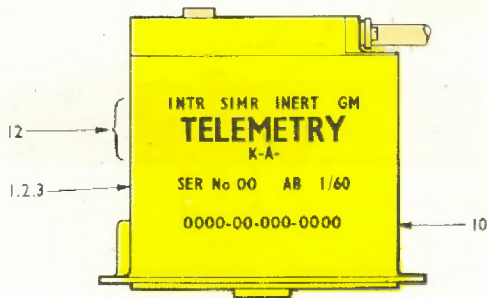


FIG. 3 TELEMETRY INITIATOR SIMULATOR



KEY TO MARKINGS

- 1 SERIAL NUMBER
- 2 INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER
- 3 DATE OF MANUFACTURE (MONTH & YEAR)
- 4 ABBREVIATED NOMENCLATURE AND MODEL NUMBER
- 5 ABBREVIATION OR CODE DENOTING FILLING COMPOSITION USED
- 6 FILLED LOT NUMBER
- 7,8 INITIALS OR RECOGNISED MONOGRAM OF FILLER AND DATE OF FILLING (MONTH & YEAR)
- 9 FIRING TEMPERATURE LIMITATIONS
- 10 STORES REFERENCE NUMBER OR JOINT SERVICES IDENTIFICATION NUMBER
- 11 RED FILLING RING
- 12 ABBREVIATED NOMENCLATURE, NATURE AND MODEL NUMBER

TYPICAL IDENTIFICATION MARKINGS- GUIDED MISSILE THUNDERBIRD (SURFACE to AIR)  
FOR LAND SERVICE

MARKINGS TO BE APPLIED BY MANUFACTURER , FILLER AND/OR ASSEMBLER

FIG. 1 BREAK - UP CHARGE CONTAINER

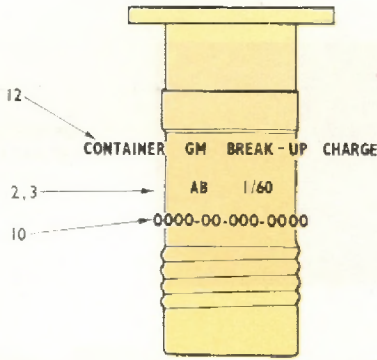


FIG. 2 BREAK - UP CHARGE EXPLODER

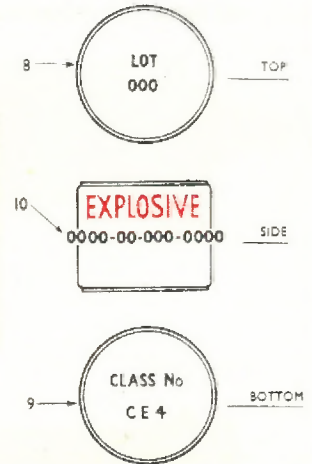


FIG. 3 SHUTTERED DETONATOR ASSEMBLY

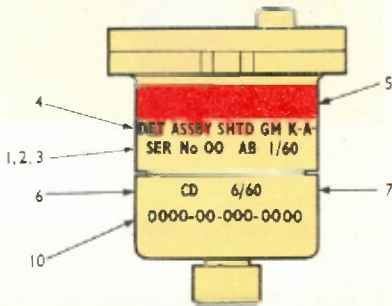
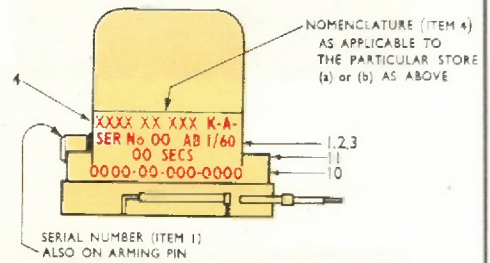


FIG. 4 (a) ARMING SWITCH for SELF BREAK - UP UNIT  
(b) FIRING SWITCH for SELF BREAK - UP UNIT



KEY TO MARKINGS

- |    |                                                                 |
|----|-----------------------------------------------------------------|
| 1  | SERIAL NUMBER                                                   |
| 2  | INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER                 |
| 3  | DATE OF MANUFACTURE (MONTH & YEAR)                              |
| 4  | ABBREVIATED NOMENCLATURE, AND MODEL NUMBER                      |
| 5  | RED FILLING RING                                                |
| 6  | INITIALS OR RECOGNISED MONOGRAM OF FILLER                       |
| 7  | DATE OF FILLING (MONTH & YEAR)                                  |
| 8  | FILLERS LOT NUMBER OF CONTENTS                                  |
| 9  | ABBREVIATION OR CODE DENOTING FILLING COMPOSITION USED          |
| 10 | STORES REFERENCE NUMBER OR JOINT SERVICES IDENTIFICATION NUMBER |
| 11 | RUNNING TIME OF MECHANISM                                       |
| 12 | ABBREVIATED NOMENCLATURE                                        |



**TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE THUNDERBIRD (SURFACE to AIR)  
FOR LAND SERVICE**

**IDENTIFICATION PLATES TO BE AFFIXED BY ASSEMBLER**

FIG.1 FOR INDICATING OPERATIONAL EXPLOSIVE COMPONENTS i.e. WARHEAD, ROCKET MOTOR, GAS GENERATOR

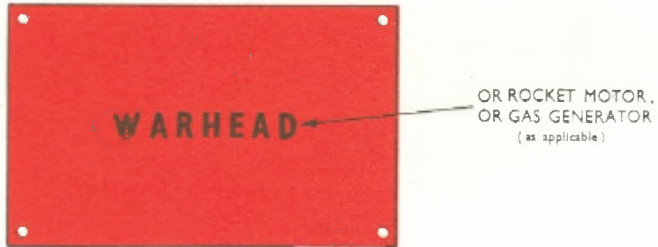


FIG.2 FOR INDICATING EXPLOSIVE PRACTICE HEADS



FIG.3 FOR INDICATING TELEMETRY BREAK-UP CHARGE



FIG.4 FOR INDICATING INERT PRACTICE HEADS

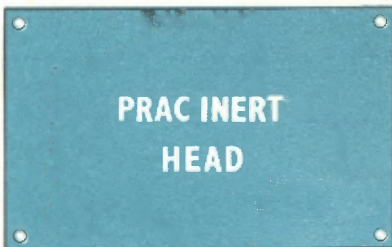
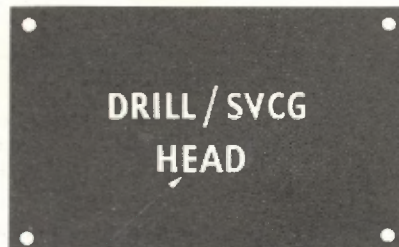


FIG.5 FOR INDICATING DRILL/SERVICING COMPONENTS  
i.e. HEAD, ROCKET MOTOR,  
GAS GENERATOR



OR ROCKET MOTOR, OR GAS GENERATOR (as applicable)

TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE **BLOODHOUND** (SURFACE to AIR)  
FOR AIR SERVICE

COMPLETELY ASSEMBLED MISSILES

FIG. 1 OPERATIONAL, PRACTICE & TELEMETRY

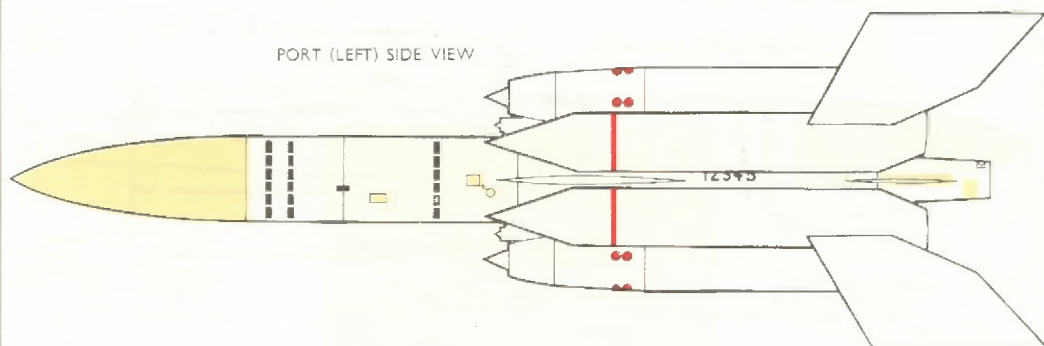


FIG. 2 SERVICING  
WITH DRILL/SERVICING (BOOST) MOTORS

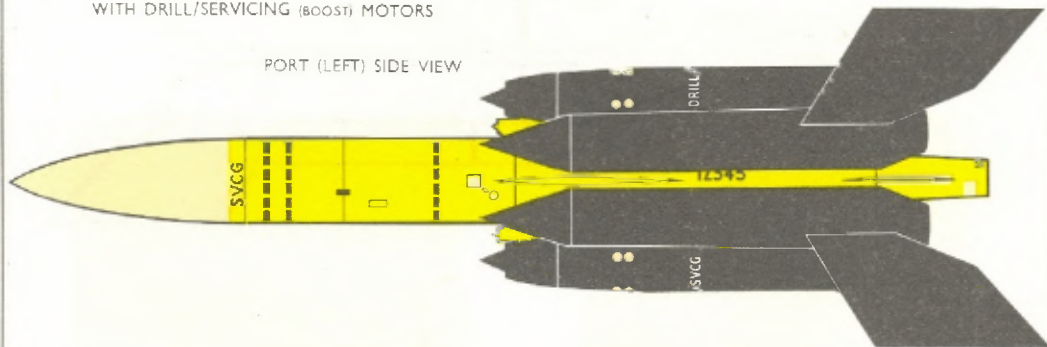
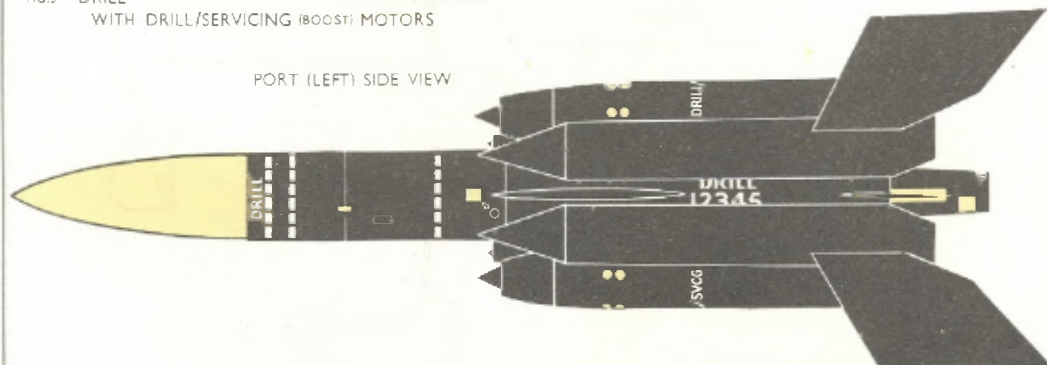


FIG. 3 DRILL  
WITH DRILL/SERVICING (BOOST) MOTORS

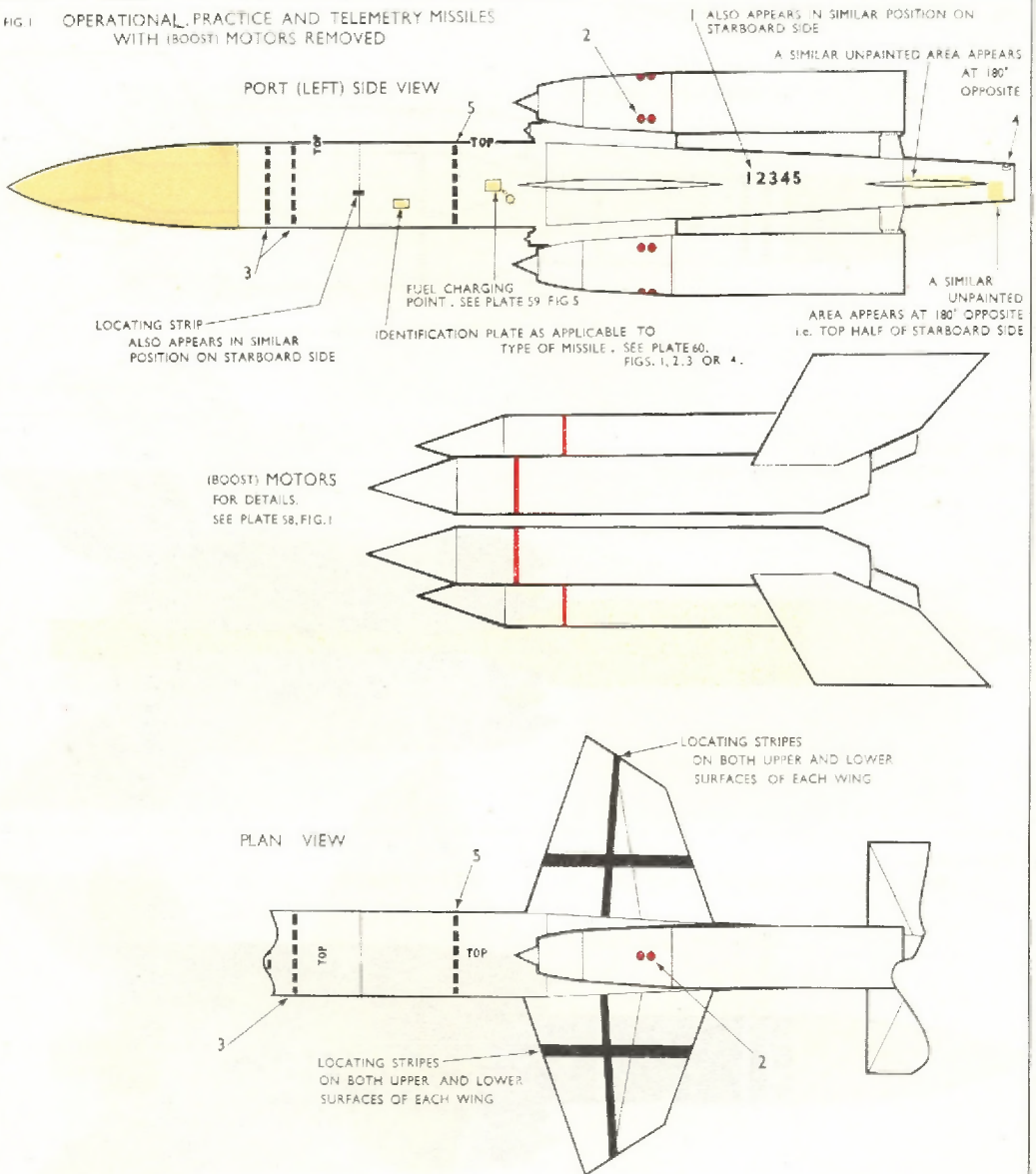


KEY TO MARKINGS

For details, see following Plates 54 to 60

TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE BLOODHOUND (SURFACE to AIR)  
 FOR AIR SERVICE  
 MARKINGS TO BE APPLIED BY MANUFACTURER, FILLER AND/OR ASSEMBLER

FIG. 1 OPERATIONAL, PRACTICE AND TELEMETRY MISSILES WITH (BOOST) MOTORS REMOVED



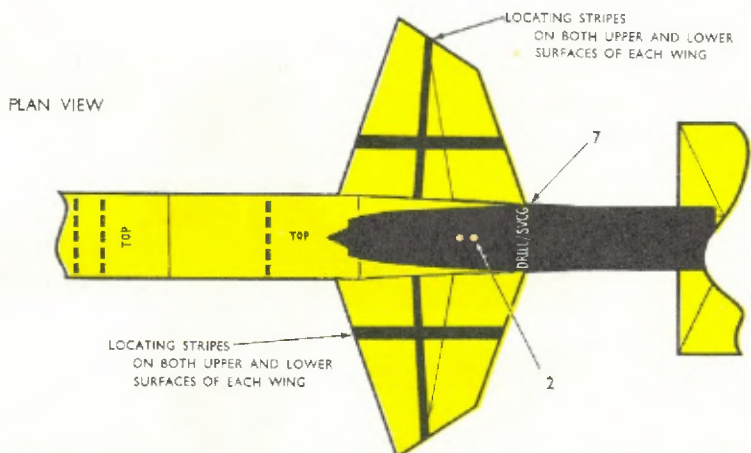
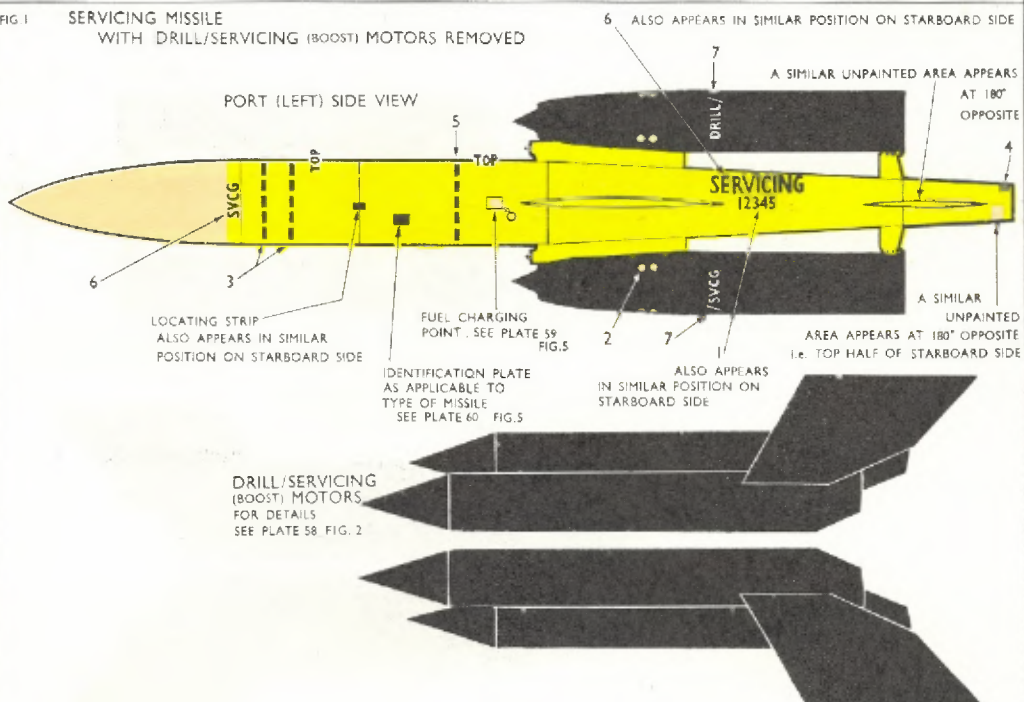
KEY TO MARKINGS

- 1 MASTER SERVICE SERIAL NUMBER
  - 2 PLUGS DENOTING LIVE IGNITERS ASSEMBLED (2 EACH AT 3 POSITIONS AT 120° ON BOTH RAMJETS)
  - 3 LIFTING BANDS FOR HANDLING FOREBODY ONLY
  - 4 LIFTING HOOK POINT
  - 5 LIFTING BAND DENOTING POSITION FOR LIFTING RING
- } FOR COMPLETE ASSEMBLY

# TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE BLOODHOUND (SURFACE to AIR) FOR AIR SERVICE

MARKINGS TO BE APPLIED BY **MANUFACTURER , FILLER AND/OR ASSEMBLER**

FIG 1 SERVICING MISSILE WITH DRILL/SERVICING (BOOST) MOTORS REMOVED

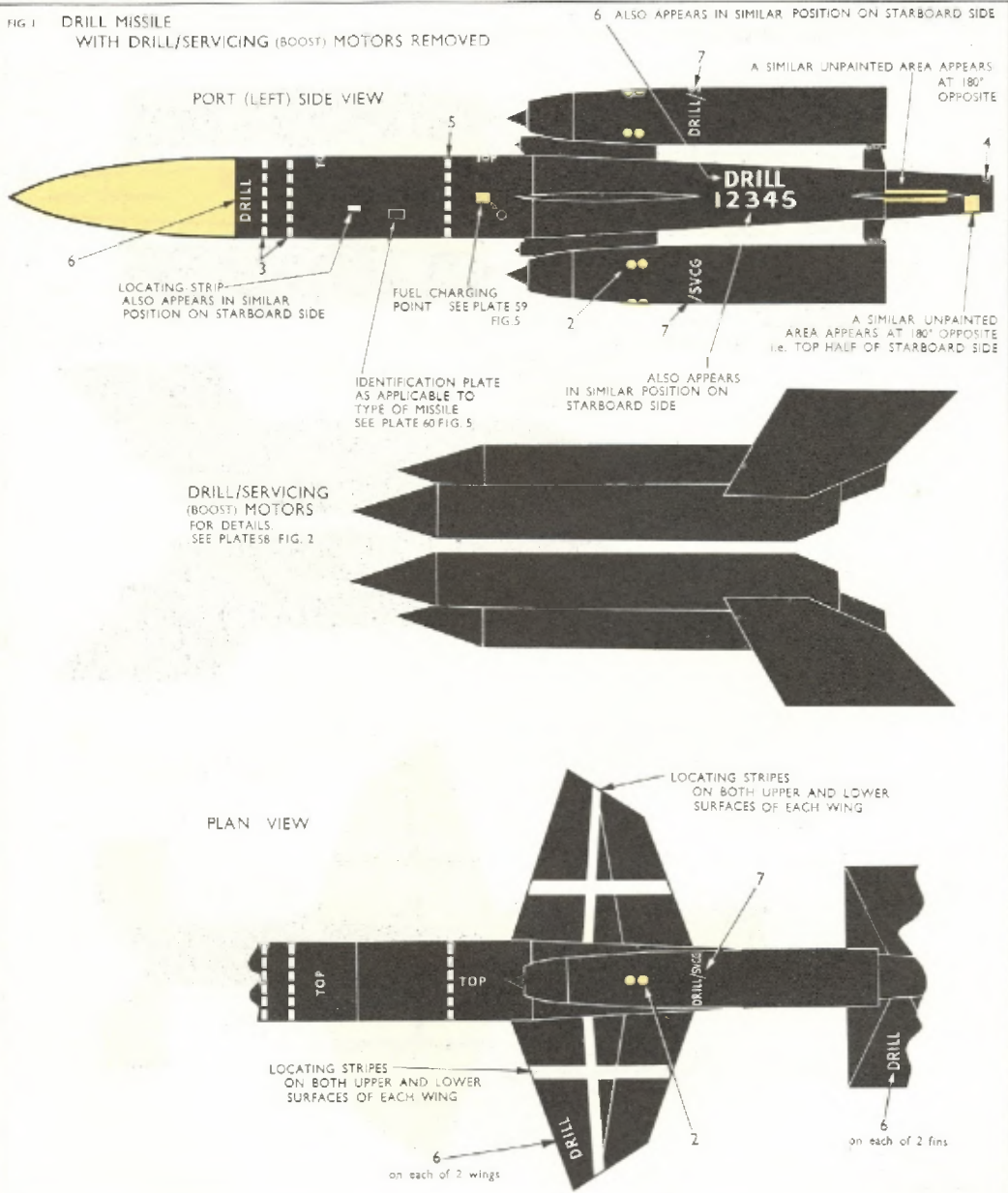


## KEY TO MARKINGS

- 1 MASTER SERVICE SERIAL NUMBER
  - 2 PLUGS PROTECTING IGNITER RECESSES (2 EACH AT 3 POSITIONS AT 120° ON BOTH RAMJET'S)
  - 3 LIFTING BANDS FOR HANDLING FOREBODY ONLY
  - 4 LIFTING HOOK POINT
  - 5 LIFTING BAND DENOTING POSITION FOR LIFTING RING
  - 6 TYPE OF MISSILE
  - 7 TYPE OF RAMJET
- FOR COMPLETE ASSEMBLY

TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE BLOODHOUND (SURFACE to AIR)  
 FOR AIR SERVICE  
 MARKINGS TO BE APPLIED BY MANUFACTURER, FILLER AND/OR ASSEMBLER

FIG. 1 DRILL MISSILE WITH DRILL/SERVICING (BOOST) MOTORS REMOVED



KEY TO MARKINGS

- 1 MASTER SERVICE SERIAL NUMBER
  - 2 PLUGS PROTECTING IGNITER RECESSES (2 EACH AT 3 POSITIONS AT 120° ON BOTH RAMJETS)
  - 3 LIFTING BANDS FOR HANDLING FOREBODY ONLY
  - 4 LIFTING HOOK POINT
  - 5 LIFTING BAND DENOTING POSITION FOR LIFTING RING
- FOR COMPLETE ASSEMBLY
- 6 TYPE OF MISSILE
  - 7 TYPE OF RAMJET

**TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE BLOODHOUND (SURFACE to AIR)  
FOR AIR SERVICE****FIG. 1 OPERATIONAL WARHEAD**

ALTHOUGH THE STORE MAY DIFFER SLIGHTLY IN DIMENSIONS AND CONTOUR,  
THE MARKINGS ON THIS STORE SHOULD BE APPLIED IN SEQUENCE, RELATIVE SIZE  
AND COLOUR, SIMILAR TO THOSE SHOWN FOR THUNDERBIRD.

SEE PLATE 45 FIG. 1

**FIG. 2 PRACTICE HEAD**

ALTHOUGH THE STORE MAY DIFFER SLIGHTLY IN DIMENSIONS AND CONTOUR,  
THE MARKINGS ON THIS STORE SHOULD BE APPLIED IN SEQUENCE, RELATIVE SIZE  
AND COLOUR, SIMILAR TO THOSE SHOWN FOR THUNDERBIRD.

SEE PLATE 45 FIG. 2

**FIG. 3 DRILL/SERVICING HEAD**

ALTHOUGH THE STORE MAY DIFFER SLIGHTLY IN DIMENSIONS AND CONTOUR,  
THE MARKINGS ON THIS STORE SHOULD BE APPLIED IN SEQUENCE, RELATIVE SIZE  
AND COLOUR, SIMILAR TO THOSE SHOWN FOR THUNDERBIRD.

SEE PLATE 45 FIG. 3

**FIG. 4 OPERATIONAL INITIATOR**

ALTHOUGH THE STORE MAY DIFFER SLIGHTLY IN DIMENSIONS AND CONTOUR,  
THE MARKINGS ON THIS STORE SHOULD BE APPLIED IN SEQUENCE, RELATIVE SIZE  
AND COLOUR, SIMILAR TO THOSE SHOWN FOR THUNDERBIRD.

SEE PLATE 46 FIG. 1

**FIG. 5 DRILL/SERVICING INITIATOR**

ALTHOUGH THE STORE MAY DIFFER SLIGHTLY IN DIMENSIONS AND CONTOUR,  
THE MARKINGS ON THIS STORE SHOULD BE APPLIED IN SEQUENCE, RELATIVE SIZE  
AND COLOUR, SIMILAR TO THOSE SHOWN FOR THUNDERBIRD.

SEE PLATE 46 FIG. 2

**FIG. 6 TELEMETRY INITIATOR SIMULATOR**

ALTHOUGH THE STORE MAY DIFFER SLIGHTLY IN DIMENSIONS AND CONTOUR,  
THE MARKINGS ON THIS STORE SHOULD BE APPLIED IN SEQUENCE, RELATIVE SIZE  
AND COLOUR, SIMILAR TO THOSE SHOWN FOR THUNDERBIRD.

SEE PLATE 50 FIG. 3

TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE BLOODHOUND (SURFACE to AIR)  
FOR AIR SERVICE  
MARKINGS TO BE APPLIED BY MANUFACTURER AND/OR FILLER

FIG.1 OPERATIONAL (BOOST) ROCKET MOTOR

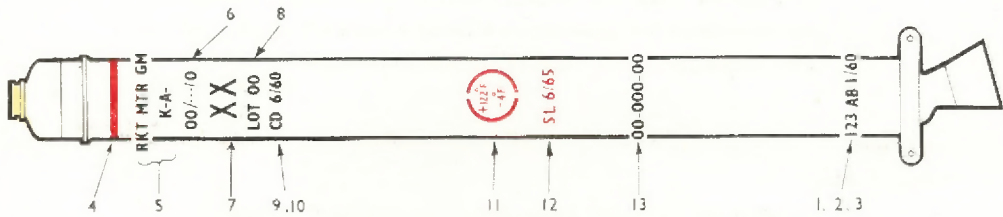


FIG.2 DRILL/SERVICING (BOOST) ROCKET MOTOR

ALTHOUGH THE STORE MAY DIFFER SLIGHTLY IN DIMENSIONS AND CONTOUR,  
THE MARKINGS ON THIS STORE SHOULD BE APPLIED IN SEQUENCE, RELATIVE SIZE  
AND COLOUR, SIMILAR TO THOSE SHOWN FOR THUNDERBIRD.

SEE PLATE 47 FIG. 4

FIG.3 OPERATIONAL IGNITER FOR RAMJET

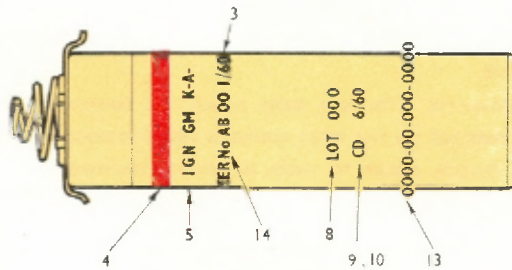


FIG.4 OPERATIONAL IGNITER FOR (BOOST) ROCKET MOTOR

ALTHOUGH THE STORE MAY DIFFER SLIGHTLY IN DIMENSIONS AND CONTOUR,  
THE MARKINGS ON THIS STORE SHOULD BE APPLIED IN SEQUENCE, RELATIVE SIZE  
AND COLOUR, SIMILAR TO THOSE SHOWN FOR THUNDERBIRD.

SEE PLATE 48 FIG.3

FIG.5 DRILL/SERVICING IGNITER FOR (BOOST) ROCKET MOTOR

ALTHOUGH THE STORE MAY DIFFER SLIGHTLY IN DIMENSIONS AND CONTOUR,  
THE MARKINGS ON THIS STORE SHOULD BE APPLIED IN SEQUENCE, RELATIVE SIZE  
AND COLOUR, SIMILAR TO THOSE SHOWN FOR THUNDERBIRD.

SEE PLATE 48 FIG. 4

## KEY TO MARKINGS

- |                                                           |                                                                                     |
|-----------------------------------------------------------|-------------------------------------------------------------------------------------|
| 1. SERIAL NUMBER                                          | 8. FILLED LOT NUMBER                                                                |
| 2. INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER        | 9, 10. INITIALS OR RECOGNISED MONOGRAM OF FILLER AND DATE OF FILLING (MONTH & YEAR) |
| 3. DATE OF MANUFACTURE (MONTH & YEAR)                     |                                                                                     |
| 4. RED FILLING RING                                       | 11. FIRING TEMPERATURE LIMITATIONS                                                  |
| 5. ABBREVIATED NOMENCLATURE AND MODEL NUMBER              | 12. DATE OF EXPIRY OF SERVICE LIFE                                                  |
| 6. METHOD OF FILLING DESIGN OR DRAWING NUMBER             | 13. STORES REFERENCE NUMBER OR JOINT SERVICES IDENTIFICATION NUMBER                 |
| 7. ABBREVIATION OR CODE DENOTING FILLING COMPOSITION USED | 14. SERIAL NUMBER PREFIXED BY INITIALS OR RECOGNISED MONOGRAM OF MANUFACTURER       |

TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE **BLOODHOUND** (SURFACE to AIR)  
FOR AIR SERVICE

FIG.1 FLARE (PYROTECHNIC)

ALTHOUGH THE STORE MAY DIFFER SLIGHTLY IN DIMENSIONS AND CONTOUR,  
THE MARKINGS ON THIS STORE SHOULD BE APPLIED IN SEQUENCE, RELATIVE SIZE  
AND COLOUR, SIMILAR TO THOSE SHOWN FOR THUNDERBIRD.

SEE PLATE 49 FIG.1

FIG.2 BREAK - UP CHARGE CONTAINER  
BREAK - UP CHARGE EXPLODER

ALTHOUGH THE STORE MAY DIFFER SLIGHTLY IN DIMENSIONS AND CONTOUR,  
THE MARKINGS ON THIS STORE SHOULD BE APPLIED IN SEQUENCE, RELATIVE SIZE  
AND COLOUR, SIMILAR TO THOSE SHOWN FOR THUNDERBIRD.

SEE PLATE 51 FIGS 1 & 2

FIG.3 SHUTTERED DETONATOR ASSEMBLY

ALTHOUGH THE STORE MAY DIFFER SLIGHTLY IN DIMENSIONS AND CONTOUR,  
THE MARKINGS ON THIS STORE SHOULD BE APPLIED IN SEQUENCE, RELATIVE SIZE  
AND COLOUR, SIMILAR TO THOSE SHOWN FOR THUNDERBIRD.

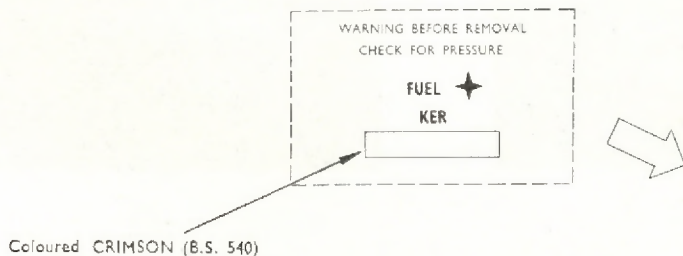
SEE PLATE 51 FIG. 3

FIG.4 ARMING SWITCH for SELF BREAK - UP UNIT  
FIRING SWITCH for SELF BREAK - UP UNIT

ALTHOUGH THE STORE MAY DIFFER SLIGHTLY IN DIMENSIONS AND CONTOUR,  
THE MARKINGS ON THIS STORE SHOULD BE APPLIED IN SEQUENCE, RELATIVE SIZE  
AND COLOUR, SIMILAR TO THOSE SHOWN FOR THUNDERBIRD.

SEE PLATE 51 FIG. 4

FIG.5 MARKERS FOR FUEL CHARGING POINTS



NOTE. FOR ADDITIONAL RELEVANT INFORMATION FOR SIMILAR MARKERS SEE SECTION 11 (PART 1)



TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILE **BLOODHOUND** (SURFACE to AIR)  
FOR LAND SERVICE

**IDENTIFICATION PLATES TO BE AFFIXED BY ASSEMBLER**

FIG.1 FOR INDICATING OPERATIONAL EXPLOSIVE COMPONENTS i.e. WARHEAD,



FIG.2 FOR INDICATING EXPLOSIVE PRACTICE HEADS



FIG.3 FOR INDICATING TELEMETRY BREAK - UP CHARGE



FIG.4 FOR INDICATING INERT PRACTICE HEADS

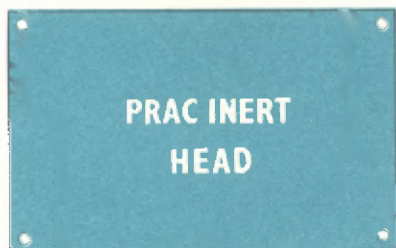
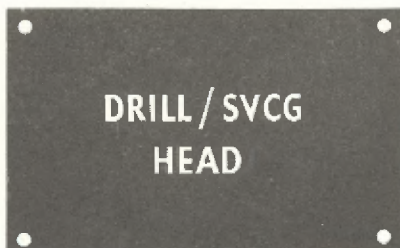
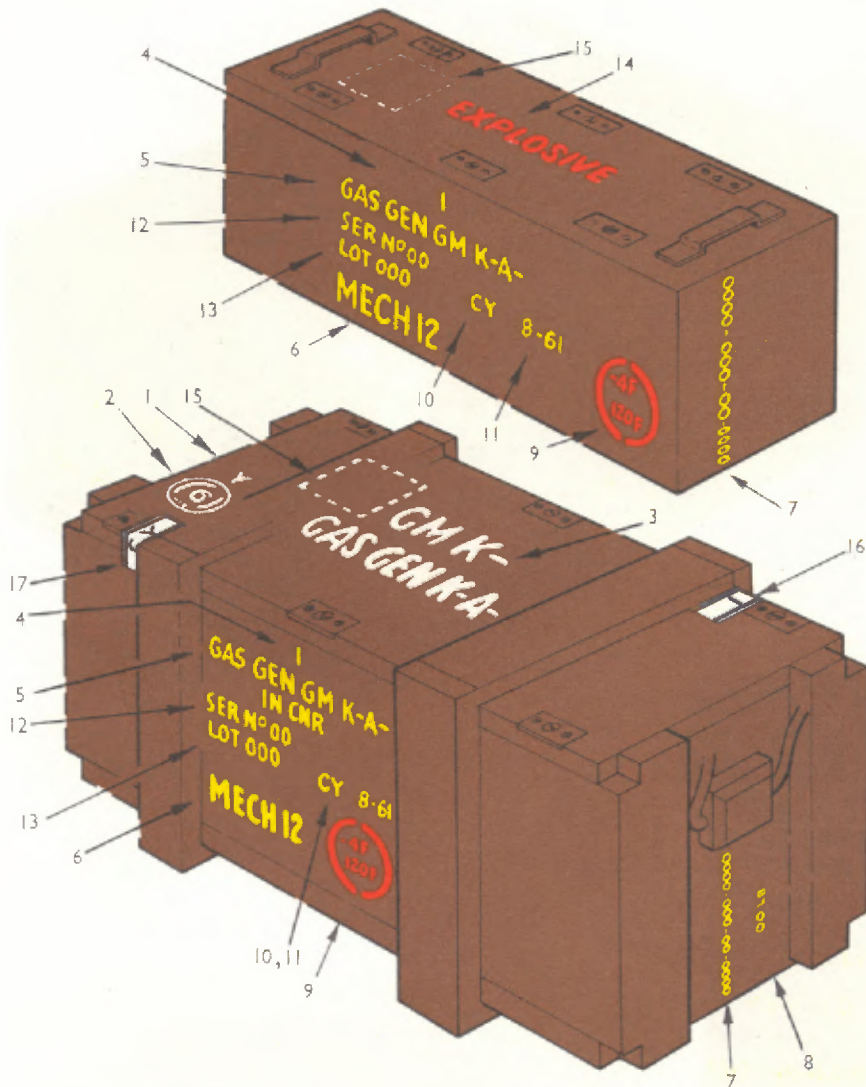


FIG.5 FOR INDICATING DRILL/SERVICING COMPONENTS  
i.e. HEAD,



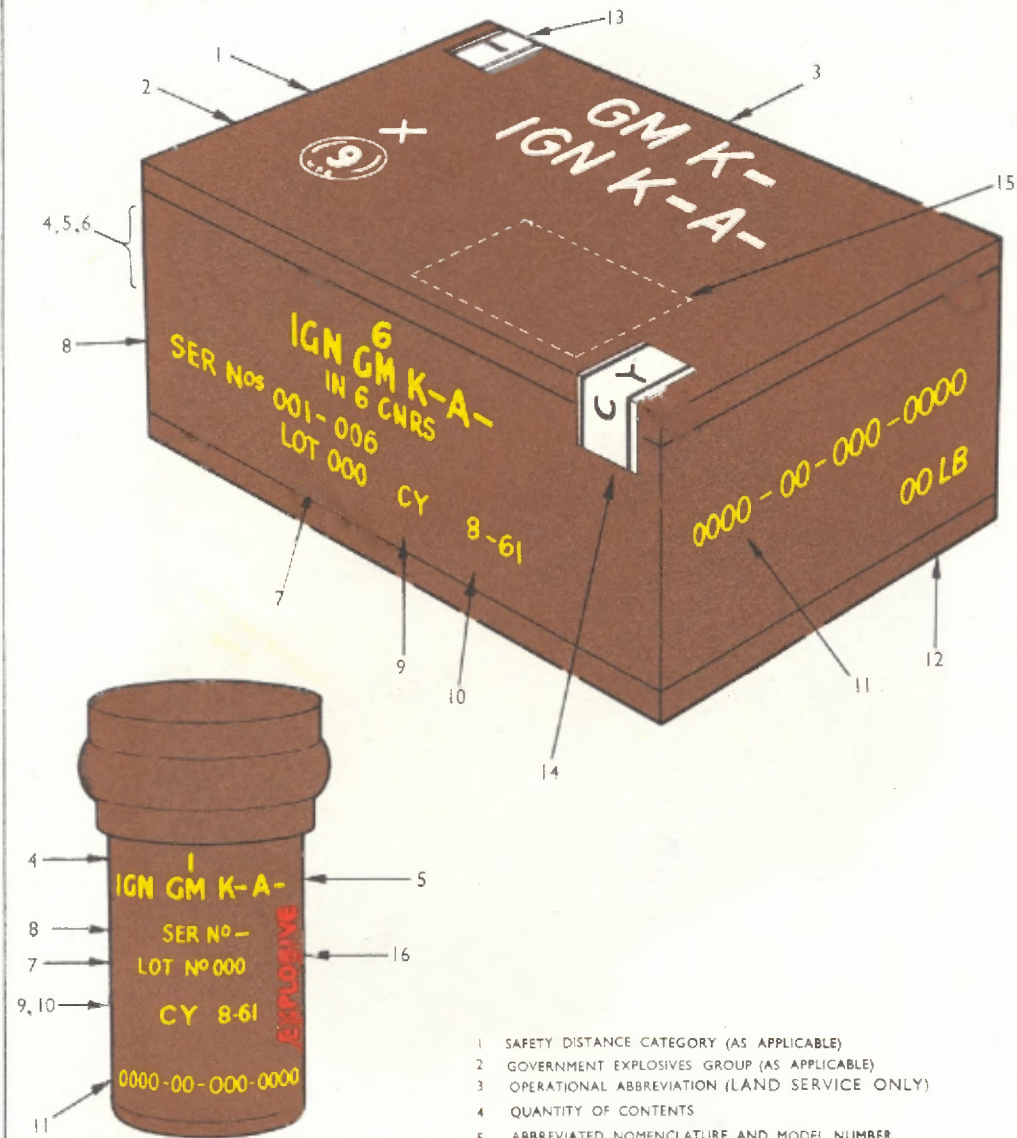
## TYPICAL PACKAGE MARKINGS FOR GUIDED MISSILES

EXAMPLE - GAS GENERATOR IN INNER METAL AND OUTER WOODEN CONTAINERS.



- |                                                     |                                              |
|-----------------------------------------------------|----------------------------------------------|
| 1 SAFETY DISTANCE CATEGORY (AS APPLICABLE)          | 10 INITIALS OR RECOGNISED MONOGRAM OF FILLER |
| 2 GOVERNMENT EXPLOSIVES GROUP (AS APPLICABLE)       | 11 DATE OF FILLING (MONTH AND YEAR)          |
| 3 OPERATIONAL ABBREVIATION (LAND SERVICE ONLY)      | 12 SERIAL NUMBER OF CONTENTS                 |
| 4 QUANTITY OF CONTENTS                              | 13 LOT NUMBER                                |
| 5 ABBREVIATED NOMENCLATURE AND MODEL NUMBER         | 14 CAUTIONARY WARNING                        |
| 6 ABBREVIATION OR CODE INDICATING NATURE OF FILLING | 15 PACKER'S LABEL (UNDER LID)                |
| 7 JOINT SERVICES IDENTIFICATION NUMBER OF CONTENTS  | 16 INSPECTION SEALING LABEL                  |
| 8 GROSS WEIGHT (LB)                                 | 17 STATION SEALING LABEL                     |
| 9 FIRING TEMPERATURE LIMITATION (AS APPLICABLE)     |                                              |

TYPICAL PACKAGE MARKINGS FOR GUIDED MISSILES  
 EXAMPLE - IGNITERS IN INNER AND OUTER METAL CONTAINERS

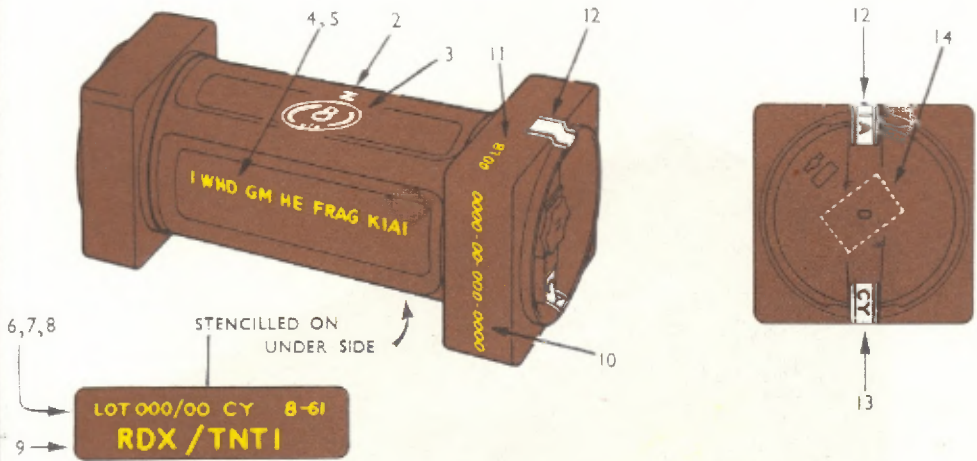


- 1 SAFETY DISTANCE CATEGORY (AS APPLICABLE)
- 2 GOVERNMENT EXPLOSIVES GROUP (AS APPLICABLE)
- 3 OPERATIONAL ABBREVIATION (LAND SERVICE ONLY)
- 4 QUANTITY OF CONTENTS
- 5 ABBREVIATED NOMENCLATURE AND MODEL NUMBER
- 6 QUANTITY OF INNER CONTAINERS
- 7 LOT NUMBER OF CONTENTS
- 8 SERIAL NUMBER(S) OF CONTENTS
- 9 INITIALS OR RECOGNISED MONOGRAM OF FILLER
- 10 DATE OF FILLING (MONTH AND YEAR)
- 11 JOINT SERVICES IDENTIFICATION NUMBER OF CONTENTS
- 12 GROSS WEIGHT (LB)
- 13 INSPECTION SEALING LABEL
- 14 STATION SEALING LABEL
- 15 PACKER'S LABEL (UNDER LID)
- 16 CAUTIONARY WARNING

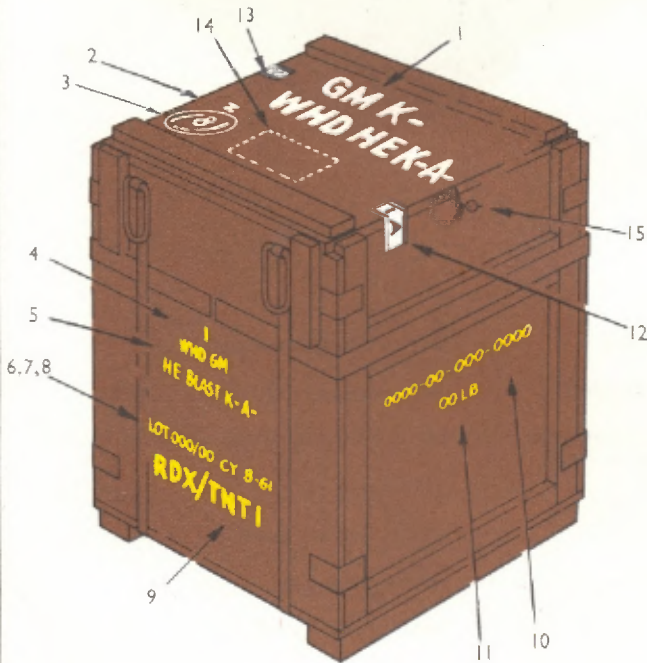


TYPICAL PACKAGE MARKINGS FOR GUIDED MISSILES

EXAMPLE - WARHEAD IN METAL CONTAINER



EXAMPLE - WARHEAD IN WOODEN CONTAINER



- 1 OPERATIONAL ABBREVIATION (LAND SERVICE ONLY)
- 2 SAFETY DISTANCE CATEGORY (AS APPLICABLE)
- 3 GOVERNMENT EXPLOSIVES GROUP (AS APPLICABLE)
- 4 QUANTITY OF CONTENTS
- 5 ABBREVIATED NOMENCLATURE AND MODEL NUMBER
- 6 LOT AND SERIAL NUMBER(S) OF CONTENTS
- 7 INITIALS OR RECOGNISED MONOGRAM OF FILLER
- 8 DATE OF FILLING (MONTH AND YEAR)
- 9 ABBREVIATION OR CODE INDICATING NATURE OF FILLING
- 10 JOINT SERVICES IDENTIFICATION NUMBER OF CONTENTS
- 11 GROSS WEIGHT (LB)
- 12 INSPECTION SEALING LABEL
- 13 STATION SEALING LABEL
- 14 PACKER'S LABEL (UNDER LID)
- 15 SEALFAST

LABELS FOR AMMUNITION PACKAGES

FIG.1 "RETURN" PACKAGE LABEL

|                                             |            |
|---------------------------------------------|------------|
| <h1>EMPTY</h1> <p>(FREE FROM EXPLOSIVE)</p> |            |
| SIGNATURE OF EXAMINATION OFFICER .....      |            |
| MONOGRAM OF STATION .....                   | DATE ..... |

BLACK LETTERING ON WHITE LABEL

FIG.2 INSPECTION LABELS

LAND AND AIR SERVICES

|              |
|--------------|
| <b>I. A.</b> |
|--------------|

NAVAL SERVICE

|                            |
|----------------------------|
| <small>C.I.N.O. 66</small> |
| <b>I. N. O.</b>            |

FIG.3 STATION LABELS

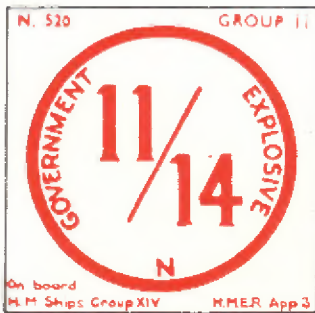
LAND AND AIR SERVICES

|                       |
|-----------------------|
| <small>L. 603</small> |
| <b>R. G.</b>          |

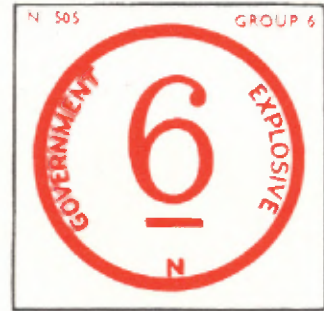
NAVAL SERVICE

|                       |
|-----------------------|
| <small>N. 303</small> |
| <b>D. P.</b>          |

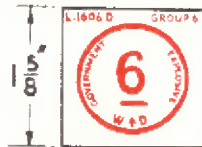
TYPICAL GOVERNMENT EXPLOSIVE GROUP LABELS



NAVAL SERVICE COMPOSITE  
(LARGE)



NAVAL SERVICE (LARGE)



LAND SERVICE  
(SMALL)



LAND SERVICE (LARGE)



LAND SERVICE - SAFETY CLASS  
(LARGE)



AIR SERVICE (LARGE)

## TYPICAL GOVERNMENT EXPLOSIVE GROUP LABELS &amp; STENCIL

NEW DESIGN - 1963

BLACK LETTERING ON WHITE LABEL



NAVAL SERVICE COMPOSITE



LAND SERVICE

SIZES OF DIMENSION 'A'

STANDARD — 4 INCHES

SMALL — 2½ INCHES

STENCIL

BLACK STENCILLING ON  
LIGHT BACKGROUNDSWHITE STENCILLING ON  
DARK BACKGROUNDS



SPECIAL SYMBOLS

FIG.1 NATO DESIGN MARK (STANAG 2320)

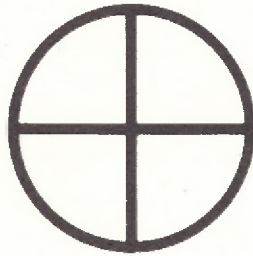


FIG.2 NATO SYMBOL OF INTERCHANGEABILITY (STANAG 2315)



FIG.3 U.S./U.K. SYMBOL DENOTING STANDARDIZED DESIGN



TYPICAL MARKINGS - METAL IDENTIFICATION PLATES  
AIRCRAFT BOMBS.

FIG.1 MODIFICATION PLATE

NATURAL FINISH MATERIAL  
(see text Part I, para. 5)

| A.W. MODIFICATION NUMBERS |  |  |  |  |
|---------------------------|--|--|--|--|
|                           |  |  |  |  |
|                           |  |  |  |  |
|                           |  |  |  |  |
|                           |  |  |  |  |

TO BE AFFIXED INTERNALLY IN PARTS OF AIRCRAFT BOMBS.  
(WHERE MAJOR ASSEMBLIES FORM PART OF THE EXTERNAL CONTOUR OF BOMB)

FIG.2

NATURAL FINISH MATERIAL  
(see text Part I, para. 5)

|                             |                      |
|-----------------------------|----------------------|
| IDENT. CODE & MARK          | <input type="text"/> |
| SERIAL No.                  | <input type="text"/> |
| STORES REF. No.             | <input type="text"/> |
| EXPIRY DATE<br>SERVICE LIFE | <input type="text"/> |
| INSP. STAMP                 | <input type="text"/> |

FIG.3 PRACTICE

|                    |                      |
|--------------------|----------------------|
| IDENT. CODE & MARK | <input type="text"/> |
| <b>PRACTICE</b>    |                      |
| SERIAL No.         | <input type="text"/> |
| STORES REF. No.    | <input type="text"/> |
| INSP. STAMP        | <input type="text"/> |

FIG.4 PRACTICE - INERT

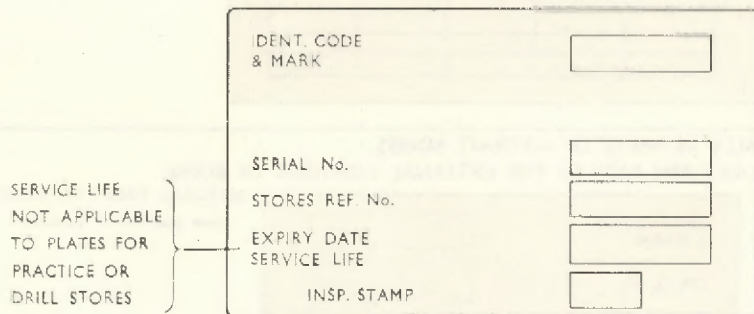
|                         |                      |
|-------------------------|----------------------|
| IDENT. CODE & MARK      | <input type="text"/> |
| <b>PRACTICE - INERT</b> |                      |
| SERIAL No.              | <input type="text"/> |
| STORES REF. No.         | <input type="text"/> |
| INSP. STAMP             | <input type="text"/> |

FIG.5 DRILL

|                    |                      |
|--------------------|----------------------|
| IDENT. CODE & MARK | <input type="text"/> |
| <b>DRILL</b>       |                      |
| SERIAL No.         | <input type="text"/> |
| STORES REF. No.    | <input type="text"/> |
| INSP. STAMP        | <input type="text"/> |

TYPICAL MARKINGS - METAL IDENTIFICATION PLATES  
AIRCRAFT BOMBS.

FIG.1 TYPICAL IDENTIFICATION PLATE FOR EXTERNAL FIXING ON PARTS OF AIRCRAFT BOMBS, WHERE SUCH PARTS ARE HOUSED IN OUTER COVERING OR FAIRING. (MAY ALSO BE AFFIXED EXTERNALLY ON SECTION OF OUTER COVERING OR FAIRING)



TYPICAL COLOUR MARKINGS TO BE APPLIED TO ABOVE PLATE TO IDENTIFY THE FOLLOWING STORES :-

FIG.2 HE FILLED STORES



FIG.3 HE/R/A FILLED STORES



FIG.4 "LIVE" FILLED PRACTICE STORES



FIG.5 "INERT" FILLED PRACTICE STORES

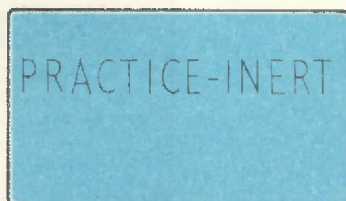
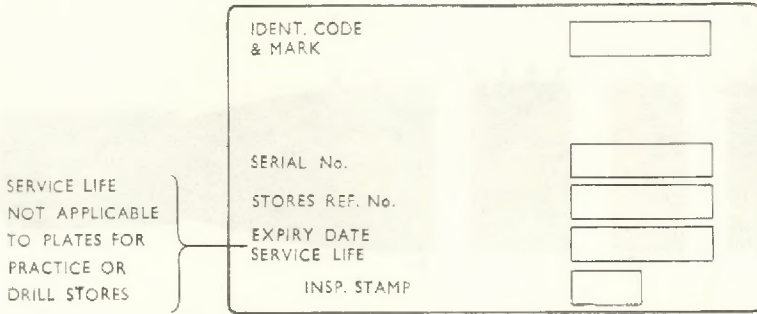


FIG.6 DRILL STORES



TYPICAL MARKINGS - METAL IDENTIFICATION PLATES  
GUIDED MISSILES

FIG.1 TYPICAL IDENTIFICATION PLATE TO BE AFFIXED BY BECKETS TO WARHEADS AND HEADS, WHICH ARE HOUSED INTERNALLY IN THE MISSILE ON ASSEMBLY. (see para.54 of text)



TYPICAL COLOUR MARKINGS TO BE APPLIED TO ABOVE PLATE

OPERATIONAL

FIG.2

LAND SERVICE



FIG.3

NAVAL & AIR SERVICES



PRACTICE ALL SERVICES

FIG.4

"LIVE" FILLED PRACTICE



FIG.5

"INERT" FILLED PRACTICE

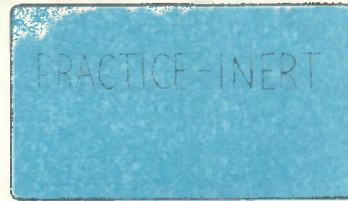
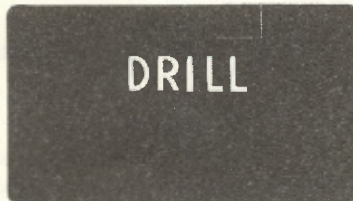


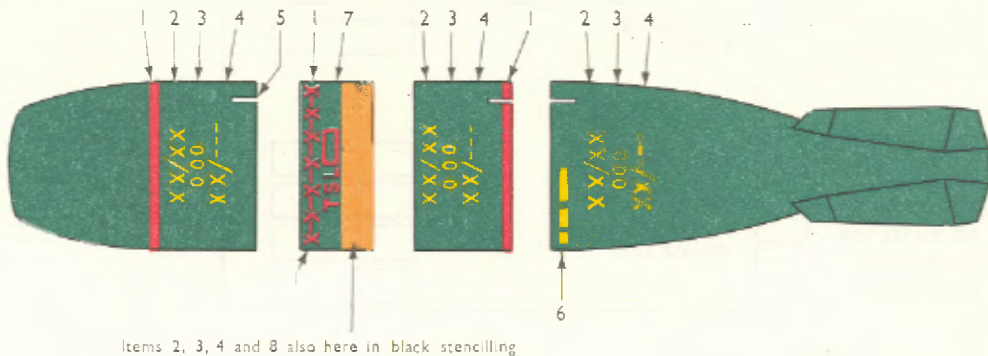
FIG.6

DRILL ALL SERVICES



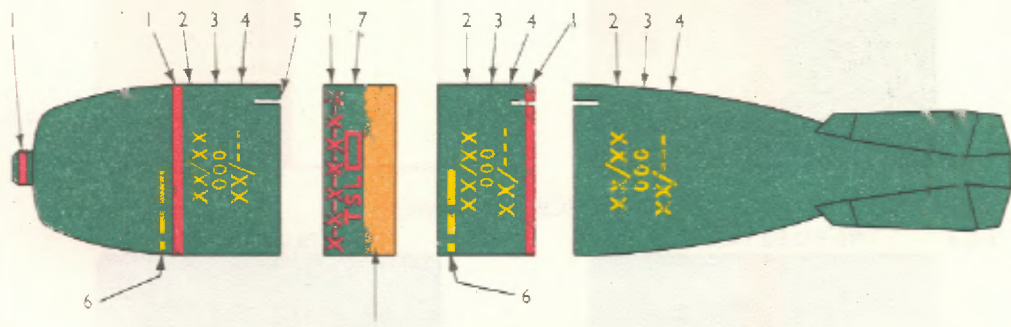
TYPICAL IDENTIFICATION MARKINGS - AIRCRAFT BOMBS  
(WHERE ASSEMBLIES FORM THE EXTERNAL CONTOUR)

FIG.1 OPERATIONAL No.1



Items 2, 3, 4 and 8 also here in black stencilling

FIG.2 OPERATIONAL No.2

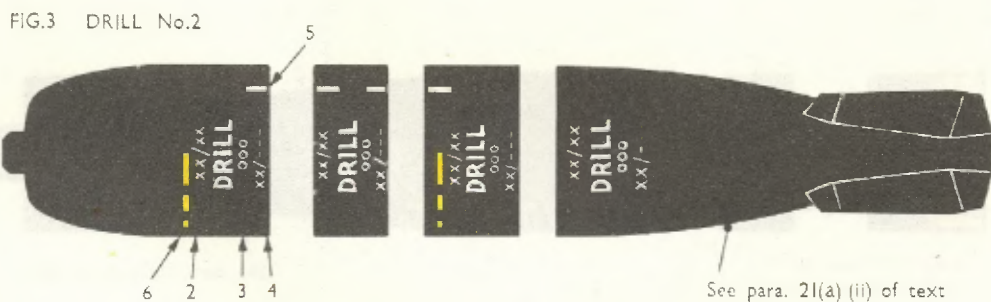
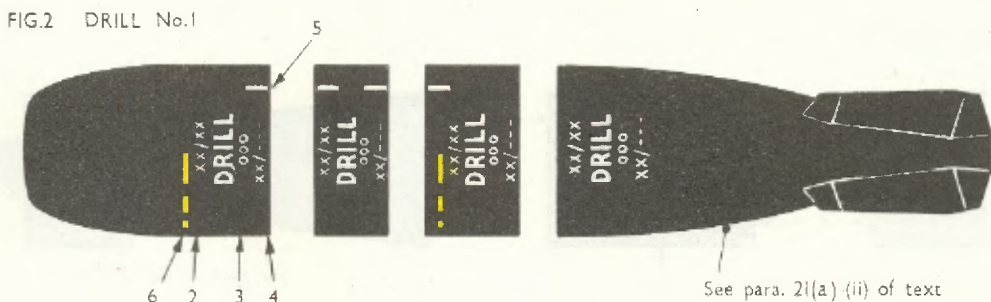
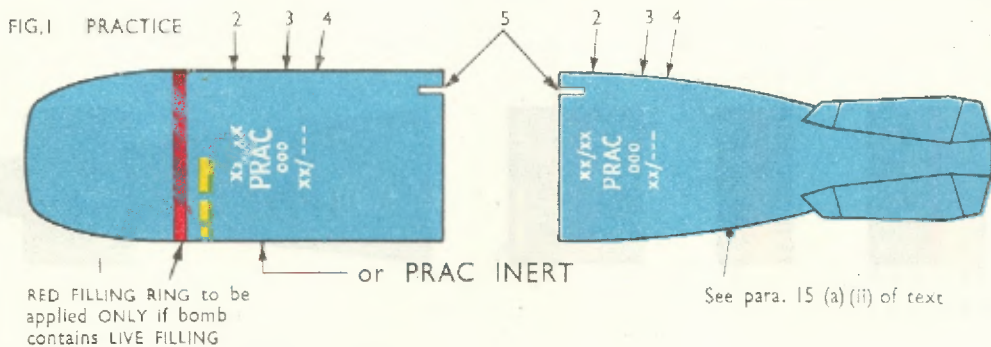


Items 2, 3, 4 and 8 also here in black stencilling

- 1... RED FILLING RING (TYPE AS APPLICABLE)
- 2... ABBREVIATED NOMENCLATURE AND MARK OR IDENTIFICATION CODE AND MARK
- 3... SERIAL NUMBER
- 4... STORES REFERENCE NUMBER
- 5... ASSEMBLY LOCATING STRIPES (WHITE STRIPES)
- 6... LIFTING OR HANDLING SYMBOLS (BROKEN YELLOW STRIPES)
- 7... TEMPERATURE LIMITATIONS (in degrees F)
- 8... EXPIRY DATE OF SERVICE LIFE (if applicable)

NOTE:- METAL IDENTIFICATION PLATES (see Plate I, Figs. 1 and 2) ARE REQUIRED TO BE AFFIXED, IN AN APPROVED POSITION, INTERNALLY IN EACH SECTION OR PART.

TYPICAL IDENTIFICATION MARKINGS - AIRCRAFT BOMBS  
 (WHERE ASSEMBLIES FORM THE EXTERNAL CONTOUR)



- 1... RED FILLING RING (TYPE AS APPLICABLE)
- 2... ABBREVIATED NOMENCLATURE AND MARK OR IDENTIFICATION CODE AND MARK
- 3... SERIAL NUMBER
- 4... STORES REFERENCE NUMBER
- 5... ASSEMBLY LOCATING STRIPES (WHITE STRIPES)
- 6... LIFTING OR HANDLING SYMBOLS (BROKEN YELLOW STRIPES)

NOTE:- METAL IDENTIFICATION PLATES (see Plate I, Fig 1 and also Figs.3, 4 and 5, as applicable) ARE REQUIRED TO BE AFFIXED, IN AN APPROVED POSITION, INTERNALLY IN EACH SECTION OR PART.

TYPICAL IDENTIFICATION MARKINGS - AIRCRAFT BOMBS  
(WHERE ASSEMBLIES FORM THE EXTERNAL CONTOUR)

FIG.1 OPERATIONAL

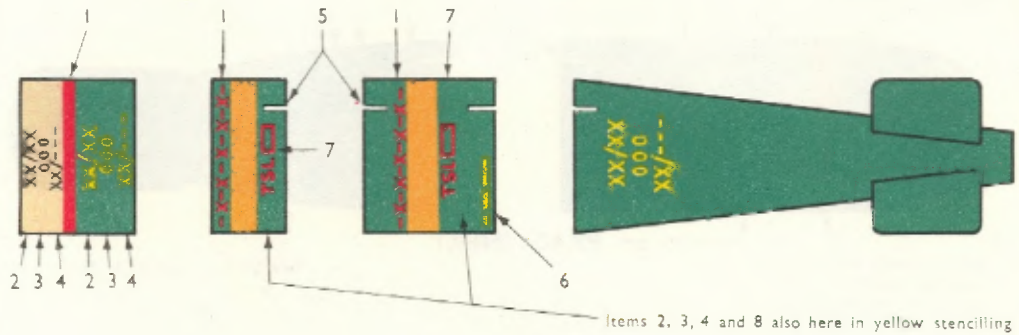


FIG.2 PRACTICE

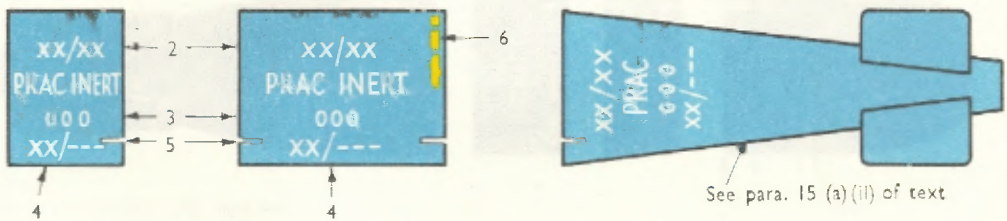
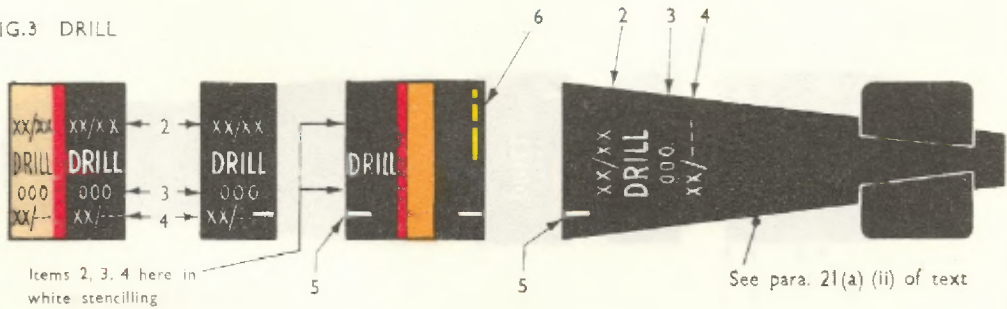


FIG.3 DRILL



- 1... RED FILLING RING (TYPE AS APPLICABLE)
- 2... ABBREVIATED NOMENCLATURE AND MARK OR IDENTIFICATION CODE AND MARK
- 3... SERIAL NUMBER
- 4... STORES REFERENCE NUMBER
- 5... ASSEMBLY LOCATING STRIPES (WHITE STRIPES)
- 6... LIFTING OR HANDLING SYMBOLS (BROKEN YELLOW STRIPES)
- 7... TEMPERATURE LIMITATIONS (in degrees F)
- 8... EXPIRY DATE OF SERVICE LIFE (if applicable)

NOTE:- METAL IDENTIFICATION PLATES (see Plate 1, Fig.1 and also Figs.3, 4 and 5, as applicable) ARE REQUIRED TO BE AFFIXED, IN AN APPROVED POSITION, INTERNALLY IN EACH SECTION OR PART.

TYPICAL IDENTIFICATION MARKINGS - AIRCRAFT BOMBS  
 (WHERE EXPLOSIVE ASSEMBLIES ARE HOUSED IN AN OUTER COVERING OR FAIRING)

FIG.1 OPERATIONAL

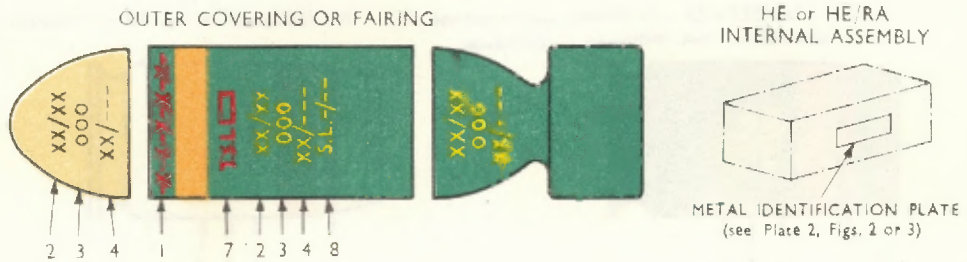


FIG.2 PRACTICE

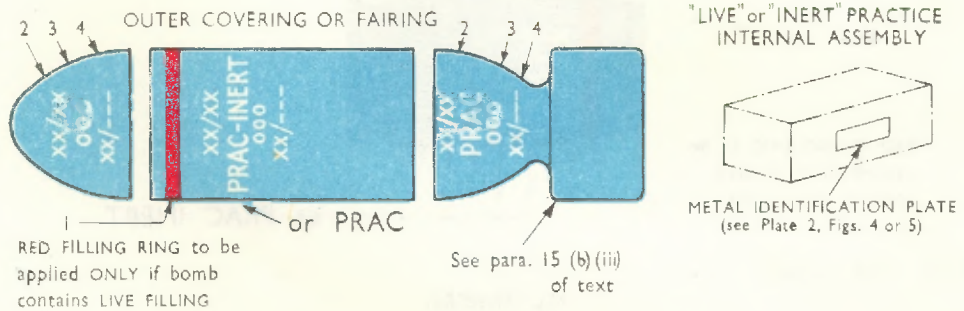
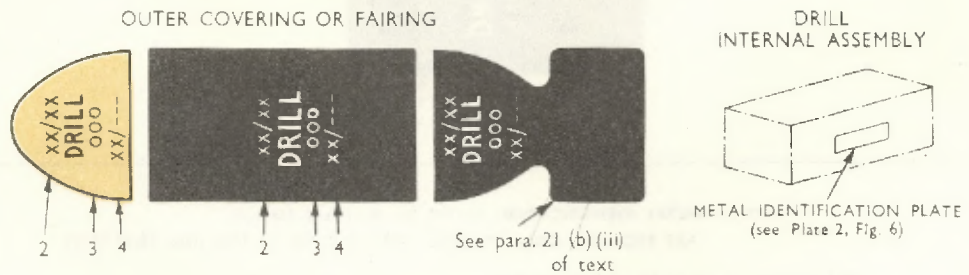


FIG.3 DRILL



- 1... RED FILLING RING (TYPE AS APPLICABLE)
- 2... ABBREVIATED NOMENCLATURE AND MARK OR IDENTIFICATION CODE AND MARK
- 3... SERIAL NUMBER
- 4... STORES REFERENCE NUMBER
- 5... ASSEMBLY LOCATING STRIPES (WHITE STRIPES)
- 6... LIFTING OR HANDLING SYMBOLS (BROKEN YELLOW STRIPES)
- 7... TEMPERATURE LIMITATIONS (in degrees F)
- 8... EXPIRY DATE OF SERVICE LIFE (if applicable)



TYPICAL IDENTIFICATION MARKINGS - GUIDED MISSILES

FIG.1 OPERATIONAL WARHEADS (INTERNAL OR EXTERNAL)

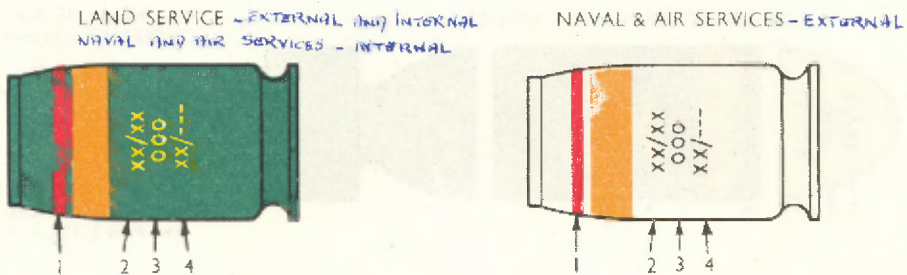


FIG.2 PRACTICE HEADS

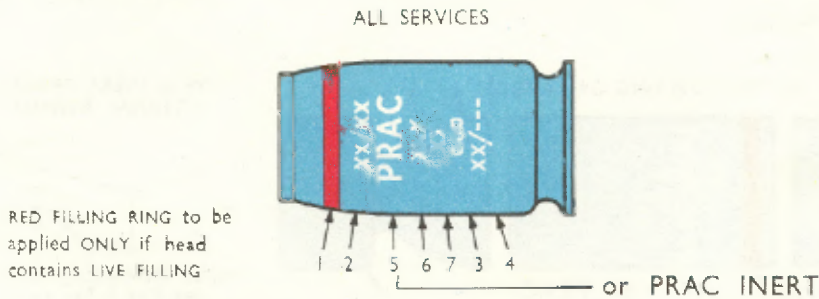
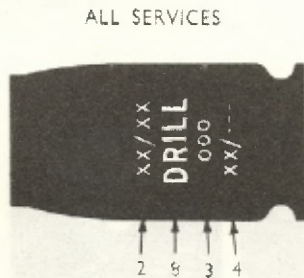


FIG.3 DRILL HEADS



NOTE:- METAL IDENTIFICATION PLATES (see illustrated Plate 3)  
 ARE REQUIRED TO BE PACKED WITH THE HEADS (see para.56 of text)

- 1... RED FILLING RING (TYPE AS APPLICABLE)
- 2... ABBREVIATED NOMENCLATURE AND MARK OR IDENTIFICATION CODE AND MARK
- 3... LOT AND/OR SERIAL NUMBER
- 4... STORES REFERENCE, PART NUMBER OR JOINT SERVICES CAT. NUMBER
- 5... PRAC (UNLESS ALREADY INCLUDED IN ITEM 2)
- 6... NATURE OF FILLING (COL. SMOKE, FLARE, HE SUB etc)
- 7... ABBREVIATED CODE DENOTING NATURE OF FILLING COMPOSITION USED
- 8... DRILL (UNLESS ALREADY INCLUDED IN ITEM 2)

TYPICAL IDENTIFICATION MARKINGS - SHELL

FIG.1 OPERATIONAL

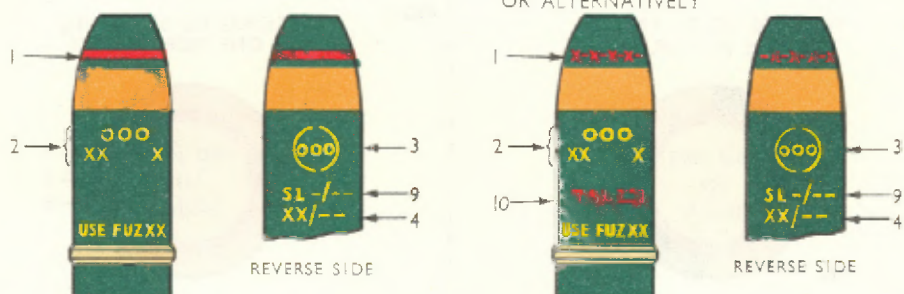


FIG.2 PRACTICE

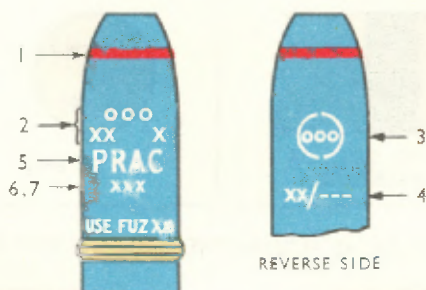
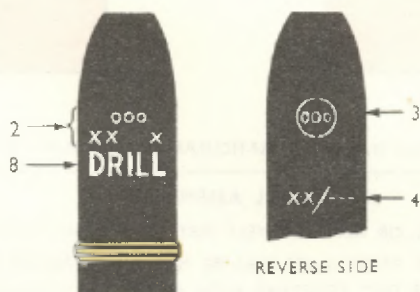


FIG.3 DRILL



- 1... RED FILLING RING (TYPE AS APPLICABLE)
- 2... ABBREVIATED NOMENCLATURE AND MARK OR IDENTIFICATION CODE AND MARK
- 3... LOT AND/OR SERIAL NUMBER
- 4... PART NUMBER OR JOINT SERVICES CAT. NUMBER
- 5... PRAC (UNLESS ALREADY INCLUDED IN ITEM 2)
- 6... NATURE OF FILLING (COL SMOKE, FLARE, HE SUB etc)
- 7... ABBREVIATED CODE DENOTING NATURE OF FILLING COMPOSITION USED
- 8... DRILL (UNLESS ALREADY INCLUDED IN ITEM 2)
- 9... EXPIRY DATE OF SERVICE LIFE (if applicable)
- 10... TEMPERATURE LIMITATIONS (in degrees F) (if applicable)

TYPICAL IDENTIFICATION MARKINGS - HE/RA and RA ASSEMBLIES

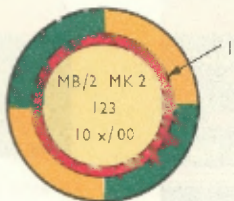
OPERATIONAL

HE/RA

RA

FIG.1

MARKING TO BE APPLIED ON ONE SIDE OR END



OR ALTERNATIVELY

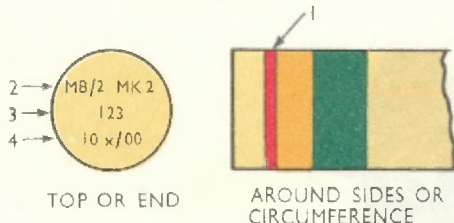
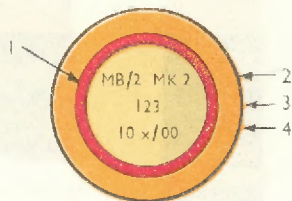


FIG.2

MARKING TO BE APPLIED ON ONE SIDE OR END



OR ALTERNATIVELY

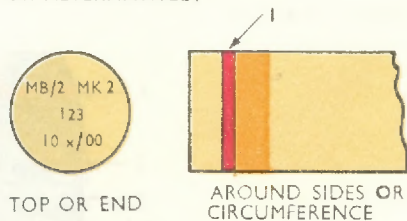


FIG.3

IN ADDITION, OR AS ALTERNATIVE, THIS TAG MAY BE AFFIXED



HE/RA



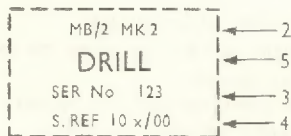
RA

IDENTIFICATION MARKINGS PARTICULARS TO CONFORM TO PLATE 3, FIG.1

FIG.4

DRILL ASSEMBLIES

BODY PAINTED BLACK, OR ALTERNATIVELY MAY BE LEFT IN NATURAL FINISH MATERIAL. THE FOLLOWING PARTICULARS WILL BE MARKED IN WHITE STENCILLING ON ONE SIDE OR END, TOGETHER WITH ADDITIONAL LEGEND "DRILL" ON ONE OTHER SIDE.



- 1... RED FILLING RING (TYPE AS APPLICABLE)
- 2... ABBREVIATED NOMENCLATURE AND MARK OR IDENTIFICATION CODE AND MARK
- 3... SERIAL NUMBER
- 4... STORES REFERENCE NUMBER
- 5... DRILL (UNLESS ALREADY INCLUDED IN ITEM 2)

TYPICAL IDENTIFICATION MARKINGS — PACKAGES  
HE STORES

FIG.1 INNER CONTAINER

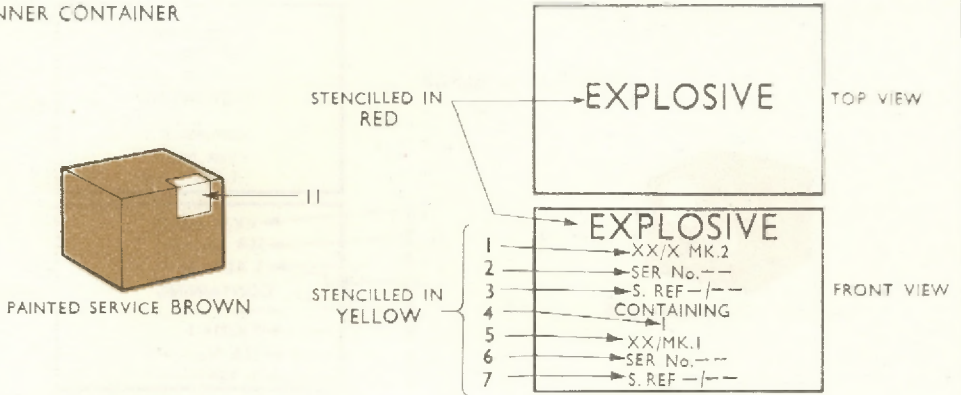
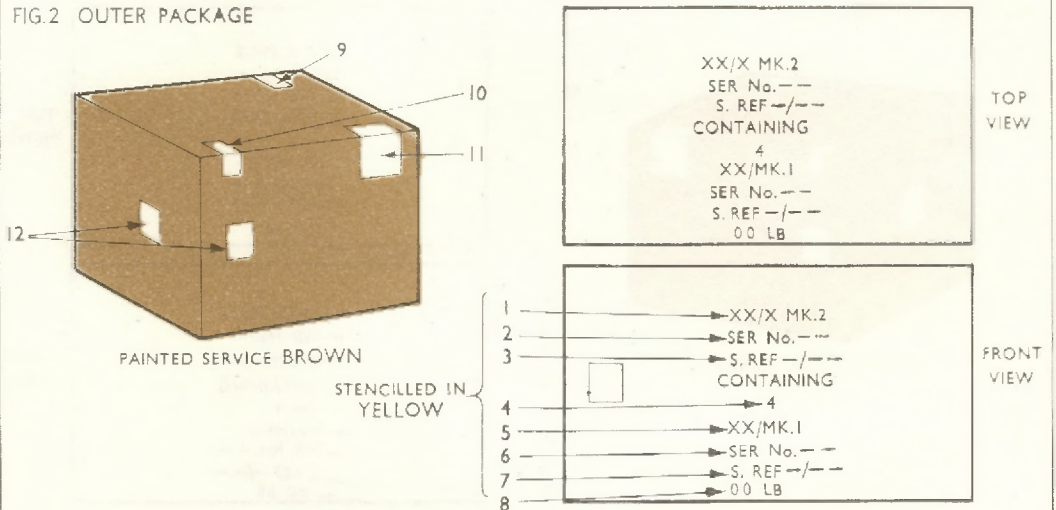


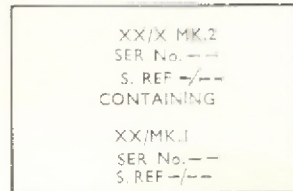
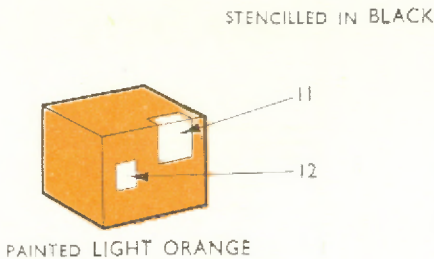
FIG.2 OUTER PACKAGE



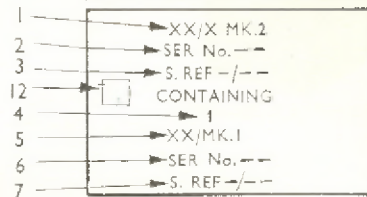
- 1...IDENTIFICATION CODE AND MARK OF EMPTY CONTAINER OR PACKAGE
- 2...SERIAL NUMBER OF EMPTY PACKAGE
- 3...STORES REFERENCE NUMBER OF EMPTY CONTAINER OR PACKAGE
- 4...QUANTITY OF ITEMS PACKED
- 5...ABBREVIATED NOMENCLATURE AND MARK OR IDENTIFICATION CODE AND MARK OF CONTENTS
- 6...LOT AND/OR SERIAL NUMBER OF CONTENTS
- 7...STORES REFERENCE NUMBER(S) OF CONTENTS
- 8...GROSS WEIGHT OF PACKAGE (in lbs)
- 9...INSPECTION LABEL
- 10...STATION SEALING LABEL
- 11...EMPTY LABEL (see Plate 5, Fig.3) TO BE AFFIXED OVER JUNCTION OF BODY AND LID, WHEN ALL CONTENTS HAVE BEEN REMOVED AND PRIOR TO RETURN
- 12...GOVERNMENT EXPLOSIVE CLASSIFICATION GROUP LABEL

TYPICAL IDENTIFICATION MARKINGS -- PACKAGES  
RA STORES

FIG.1 INNER CONTAINER

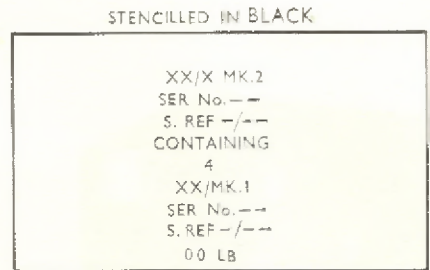
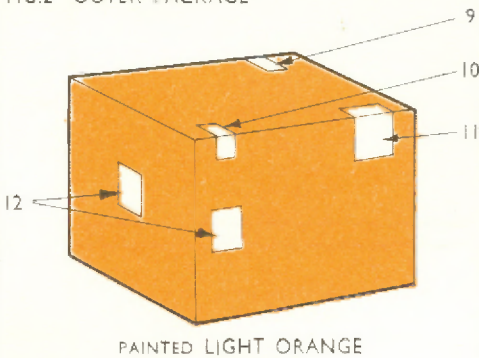


TOP VIEW

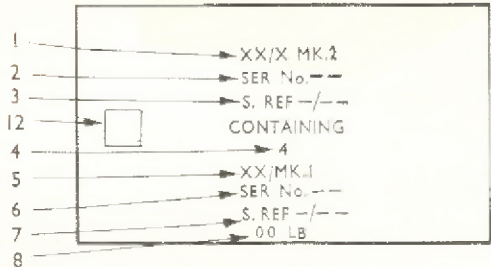


FRONT VIEW

FIG.2 OUTER PACKAGE



TOP VIEW



FRONT VIEW

- 1...IDENTIFICATION CODE AND MARK OF EMPTY CONTAINER OR PACKAGE
- 2...SERIAL NUMBER OF EMPTY PACKAGE
- 3...STORES REFERENCE NUMBER OF EMPTY CONTAINER OR PACKAGE
- 4...QUANTITY OF ITEMS PACKED
- 5...ABBREVIATED NOMENCLATURE AND MARK OR IDENTIFICATION CODE AND MARK OF CONTENTS
- 6...LOT AND/OR SERIAL NUMBER OF CONTENTS
- 7...STORES REFERENCE NUMBER(S) OF CONTENTS
- 8...GROSS WEIGHT OF PACKAGE (in lbs)
- 9...INSPECTION LABEL
- 10...STATION SEALING LABEL
- 11...EMPTY LABEL (see Plate 5, Fig.3) TO BE AFFIXED OVER JUNCTION OF BODY AND LID, WHEN ALL CONTENTS HAVE BEEN REMOVED AND PRIOR TO RETURN
- 12...RADIOACTIVE SUBSTANCE SYMBOL OR LABEL (see Plate 7)

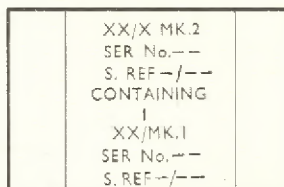
TYPICAL IDENTIFICATION MARKINGS — PACKAGES  
HE/R/A STORES

FIG.1 INNER CONTAINER

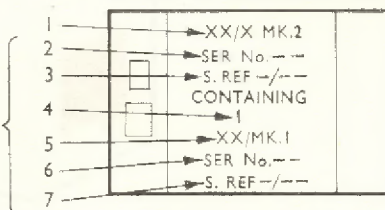
PAINTED LIGHT ORANGE AND SERVICE BROWN



STENCILLED IN YELLOW

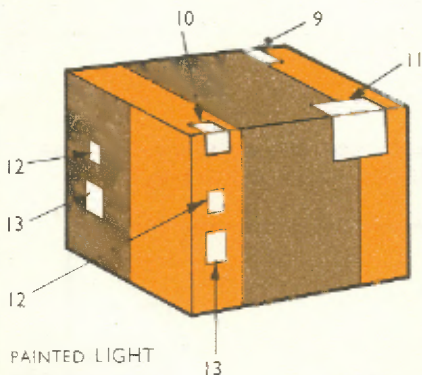


TOP VIEW



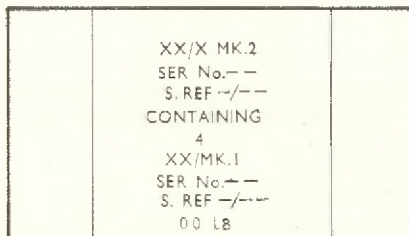
FRONT VIEW

FIG.2 OUTER PACKAGE

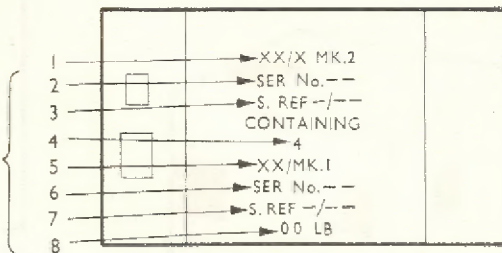


PAINTED LIGHT ORANGE AND SERVICE BROWN

STENCILLED IN YELLOW



TOP VIEW



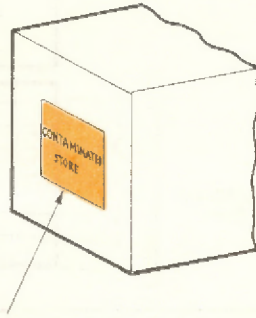
FRONT VIEW

- 1...IDENTIFICATION CODE AND MARK OF EMPTY CONTAINER OR PACKAGE
- 2...SERIAL NUMBER OF EMPTY PACKAGE
- 3...STORES REFERENCE NUMBER OF EMPTY CONTAINER OR PACKAGE
- 4...QUANTITY OF ITEMS PACKED
- 5...ABBREVIATED NOMENCLATURE AND MARK OR IDENTIFICATION CODE AND MARK OF CONTENTS
- 6...LOT AND/OR SERIAL NUMBER OF CONTENTS
- 7...STORES REFERENCE NUMBER(S) OF CONTENTS
- 8...GROSS WEIGHT OF PACKAGE (in lbs)
- 9...INSPECTION LABEL
- 10...STATION SEALING LABEL
- 11...EMPTY LABEL (see Plate 5, Fig.3) TO BE AFFIXED OVER JUNCTION OF BODY AND LID, WHEN ALL CONTENTS HAVE BEEN REMOVED AND PRIOR TO RETURN
- 12...RADIOACTIVE SUBSTANCE SYMBOL OR LABEL (see Plate 7)
- 13...GOVERNMENT EXPLOSIVE CLASSIFICATION GROUP LABEL

### TYPICAL IDENTIFICATION MARKINGS — PACKAGES

FIG.1 CONTAMINATED INERT STORES

BASIC BODY COLOUR AND OTHER MARKINGS  
TO REMAIN IN THEIR ORIGINAL STATE

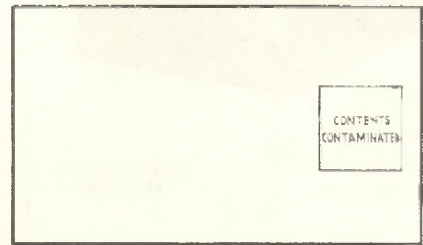
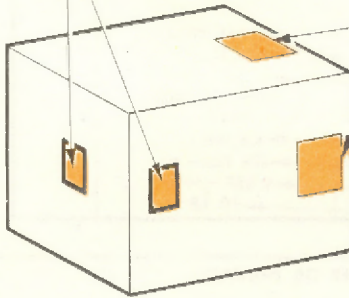


LABEL MARKED "CONTAMINATED STORE" TO BE  
AFFIXED IN PROMINENT POSITION (see Plate 5, Fig.4)

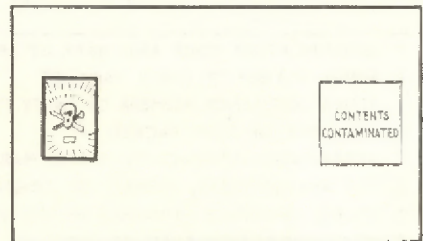
FIG.2 CONTAINER OR PACKAGE IN WHICH  
CONTAMINATED INERT STORES ARE PACKED

RADIOACTIVE SUBSTANCE SYMBOL  
OR LABEL (see Plate 7)

LABEL MARKED "CONTENTS CONTAMINATED" TO BE  
AFFIXED IN TWO PLACES (see Plate 5, Fig 5)



TOP  
VIEW



FRONT  
VIEW

BASIC BODY COLOUR TO REMAIN AS ORIGINAL.  
STENCILED DETAILS TO BE AMENDED, AS NECESSARY,  
TO COMPLY WITH DETAILS OF CONTENTS

TYPICAL IDENTIFICATION MARKINGS—LABELS FOR AMMUNITION PACKAGES

FIG.1 INSPECTION LABEL

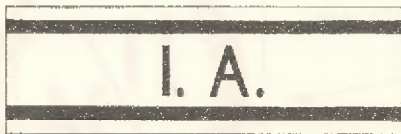
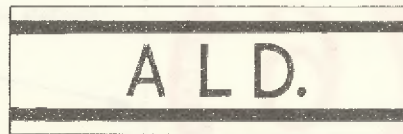
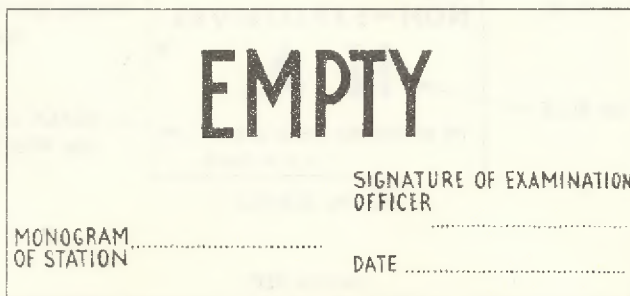


FIG.2 STATION LABEL



"RETURN" PACKAGE LABELS

FIG.3



BLACK LETTERING  
ON WHITE LABEL

FIG.4



BLACK LETTERING  
ON  
LIGHT ORANGE  
LABEL

FIG.5





TYPICAL IDENTIFICATION MARKINGS  
 GOVERNMENT EXPLOSIVE GROUP CLASSIFICATION LABELS

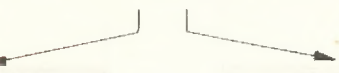


NAVAL SERVICE (LARGE)



NAVAL SERVICE - COMPOSITE (LARGE)

PRINTED RED ON WHITE LABEL



NAVAL SERVICE

PRINTED BLUE

BLACK LETTERING ON WHITE LABEL



LAND SERVICE (LARGE)

PRINTED RED ON WHITE LABEL



3 3/4"



LAND SERVICE (SMALL)

5/8"



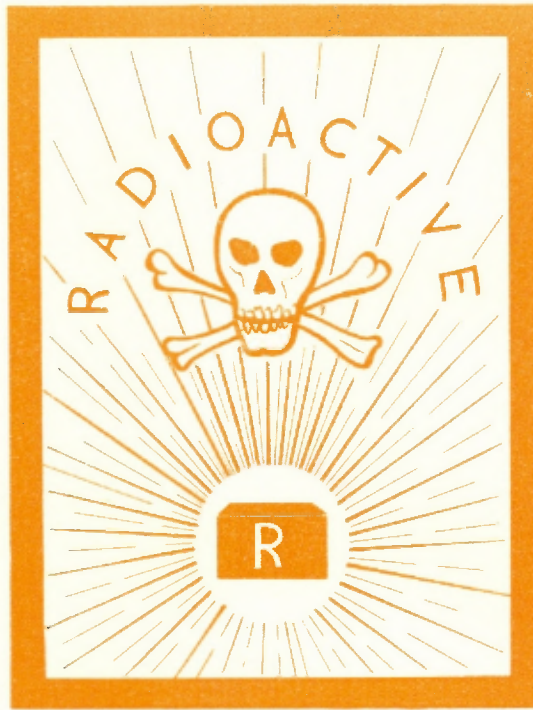
LAND SERVICE - SAFETY CLASS (LARGE)



AIR SERVICE (LARGE)

TYPICAL IDENTIFICATION MARKINGS - RADIOACTIVE SUBSTANCES  
SYMBOL OR LABEL

Size 148 X 210 mm.  
or 74 X 105 mm.



LIGHT ORANGE ON WHITE BACKGROUND