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**HANDBOOK**  
**OF**  
**ENEMY AMMUNITION**

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#### LIST OF PLATES

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- II 7.92 mm. Land Service Ammunition
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- IV Rifle Grenade Cartridges, Pistol, Machine Carbine and A. tk. Rifle ammunition
- V 20 mm. Solothurn Shells
- VI 20 mm. Ammunition types

##### GUN AMMUNITION

- VII Combination of propellant Charges (Typical)
- VIII Howitzer Cartridge (Typical)
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- X Typical Q.F. Cartridges Assault and Tank Guns
- XI Typical Q.F. Cartridges (Heavy A.A./A. tk. Guns)
- XII Typical Q.F. cartridges (Heavy A. tk.)
- XIII Typical Shell (showing their markings)
- XIV Heavy and Medium Gun or How. Shell
- XV Fuze Markings Typical
- XVI Smoke Box Typical Markings
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- XVIII Code Letters on Propellant Charges and Labels

# HANDBOOK OF ENEMY AMMUNITION

## PAMPHLET No. 15

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### GERMAN AMMUNITION MARKINGS AND NOMENCLATURE

#### Introduction

The German ammunition authorities started the war with a systematic ammunition marking code, but owing to rapid development of ammunition, the introduction of substitutes and the carry over of old stocks, the system has, in some cases, been extended and become confused.

Also, there are to be found in the German service specimens of ammunition of French, Czech, Polish, Italian, etc., manufacture. These are still being used with their original markings which bear no relation to the German system and may have certain German markings added to them.

In addition, air and naval service ammunition is extensively used in the Army, the marking of which differs somewhat from that of the Army.

This pamphlet gives the marking and nomenclature that has been met in the course of examination of captured specimens and documents, and has been divided into two sections.

Section I deals with Small Arms Ammunition.

Section II deals with Gun Ammunition.

For obvious reasons Section I deals with individual types of Small Arms Ammunition whereas Section II deals with Gun Ammunition in a more general form.

There is also a note on Mortar Ammunition, and at Appendix G, a list of abbreviations used in the nomenclature of grenades.

DEMOS  
dimensione  
ridotta



## SECTION I.

### SMALL ARMS AMMUNITION

The small arms ammunition dealt with in this pamphlet is sub-divided under the following headings :—

#### SUB-SECTION A.

- (a) 7.92 mm. Rifle and M.G. ammunition (Ground use).
- (b) 7.92 mm. Rifle and M.G. ammunition (Miscellaneous).
- (c) 7.92 mm. M.G. ammunition (Aircraft guns).
- (d) 7.92 mm. Rifle Grenade Propelling Cartridges.
- (e) Pistol and Machine Carbine ammunition.
- (f) Anti-tank Rifle ammunition.

#### SUB-SECTION B.

- (a) 20 mm. (Oerlikon Flak) ammunition (2 cm. A.A. gun—Flak 28).
- (b) 20 mm. (Solothurn) ammunition (2 cm. A.A. and A. tk. and 2 cm. Tank Guns—Flak 30 and 38 and Kw.K).
- (c) 13 mm. (Solothurn) ammunition (Aircraft M.G. 131 El).
- (d) 15 mm. (Mauser) ammunition (Aircraft M.G. 151 and 151 El).
- (e) 20 mm. (Oerlikon) ammunition (Aircraft M.G.—FF and FFM).
- (f) 20 mm. (Mauser) ammunition (Aircraft M.G. 151/20 and 151/20 El).
- (g) 30 mm. (Solothurn) ammunition (3 cm. Aircraft guns—Mk. 101 and 103).
- (h) 30 mm. (Mk. 108) ammunition (3 cm. Aircraft gun—Mk. 108).

#### ABBREVIATIONS.

A list of abbreviations and their meanings, will be found at Appendix A. The list is in alphabetical order and is sufficient to assist in the identification of small arms ammunition.

#### SUB-SECTION A.

##### 1. Packing

The standard method of packing small calibre ammunition is in the following containers :—

- (a) small cardboard cartons (Faltschachtel) which vary in size according to the calibre of the round.  
packed in :—
- (b) cardboard carriers (Packhülse 88).  
packed in :—
- (c) ammunition boxes (Patronenkasten 88) or zinc lined ammunition boxes (luftdichte Patronenkasten 88).

## SECTION II

### GUN AMMUNITION

#### General

German gun ammunition is named according to four different systems.

- (a) Nomenclature by calibre and type of shell (e.g. 10 cm Gr. 19).
- (b) Nomenclature by type of gun and nature of shell (e.g. F.H. Gr.).
- (c) Nomenclature by construction of the shell (e.g. 15 cm Hbgr. 16 umg.).
- (d) Nomenclature by description of the shell (e.g. 8.8 cm Sprgr. L/4.5).

In addition, the abbreviation Patr. (meaning Q.F. fixed) sometimes followed by the name of the gun which the cartridge fits is added to the nomenclature of fixed ammunition.

Of the above systems (a) and (b) are the current German army systems, (c) being obsolescent and (d) being used mainly for Naval or Air service shell.

German gun ammunition is almost all Q.F., there being only one gun of German manufacture which fires B.L. ammunition. Ammunition for Anti-Aircraft, Tank and Anti-Tank guns is in the "Q.F. fixed" class, the remainder with few exceptions (e.g. 7.5 cm FK. 38) is in the "Q.F. separate" class.

In some cases the calibre given in the nomenclature is nominal and not the actual calibre of the gun; for instance, the 10.5 cm medium gun is known as the "s.10 cm K. 18."

A list of abbreviations commonly found in the nomenclature of German ammunition together with their German and English meaning is shown in Appendix B.

The list does not include complex abbreviations used by the Germans which are built up from the simple basic abbreviations. These will be found listed under their separate parts.

For typical package labels see Plate XVII.

#### MARKINGS ON CARTRIDGE CASES AND CHARGES

(Plates VII to XII)

##### Cartridge Cases (General)

The information given on the cartridge case is in the form of stencilling on the side and base of the case and stampings on the base. The stencilling may be in black or white, except when it relates to propellant charges for use in hot climates in which case it is in red.



**FIXED AMMUNITION**

**GERMAN FIXED Q.F. CARTRIDGES.  
TYPICAL MARKINGS.**

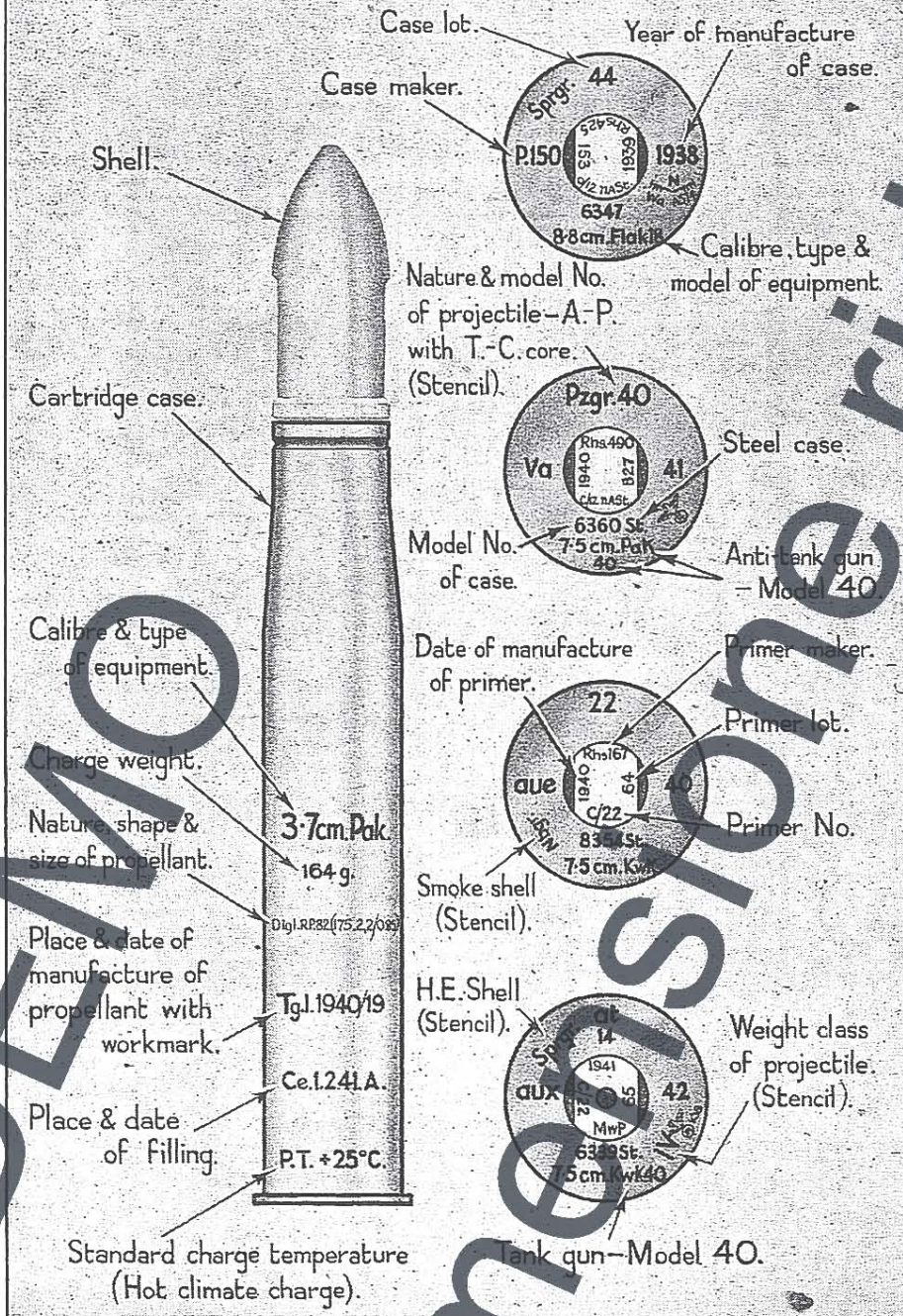


Fig. 1  
17

# MORTAR AMMUNITION.

Typical Marking.

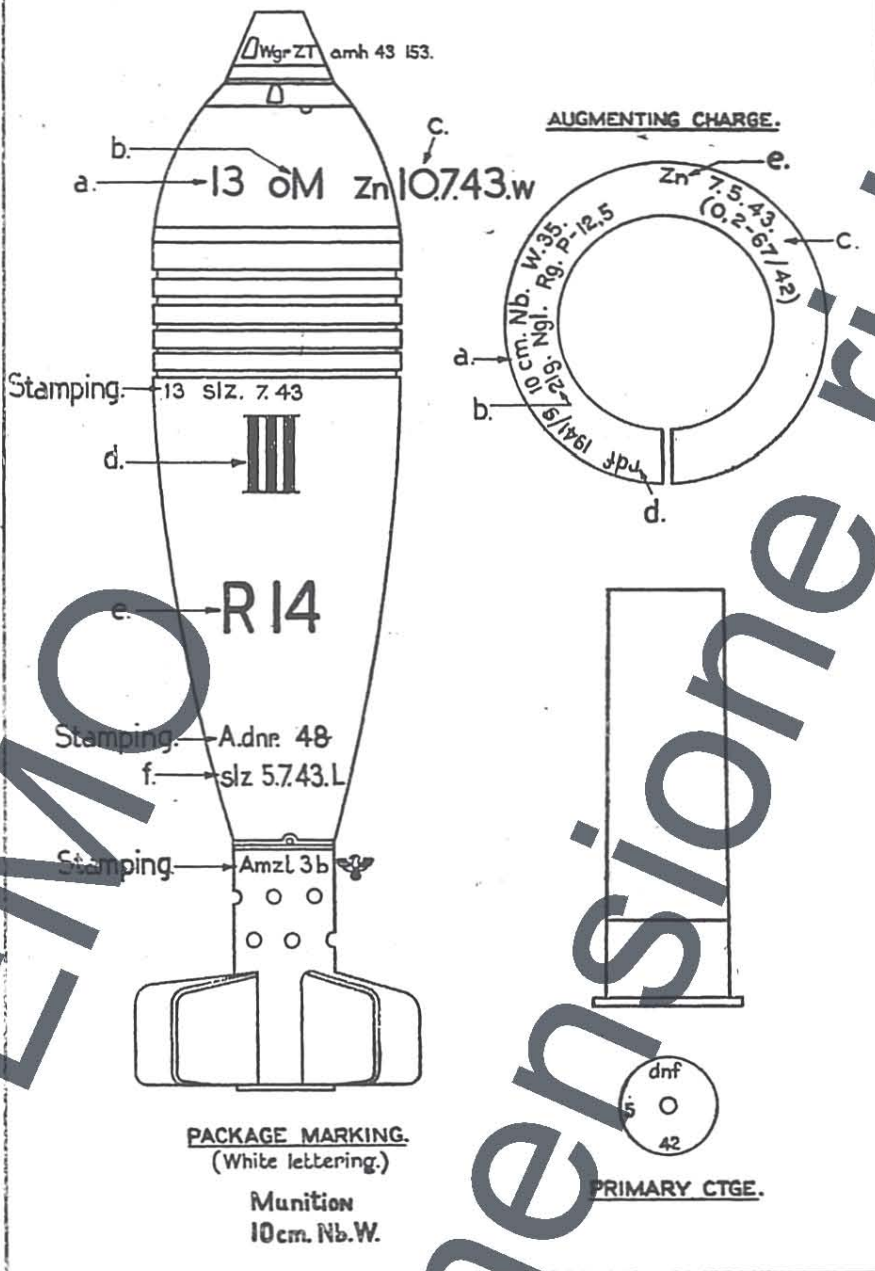


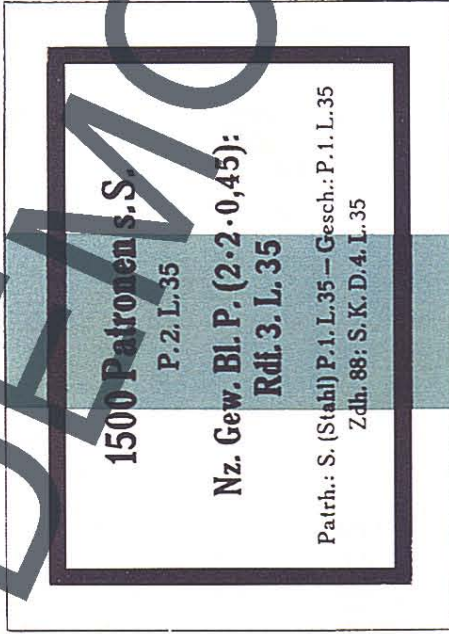
Fig. 9

DEMO

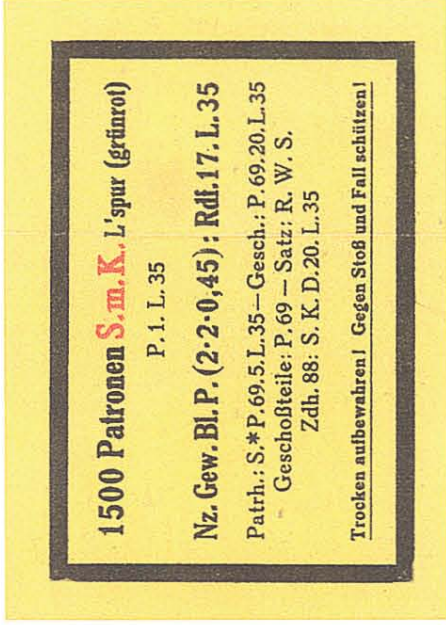
dimensione ridotta



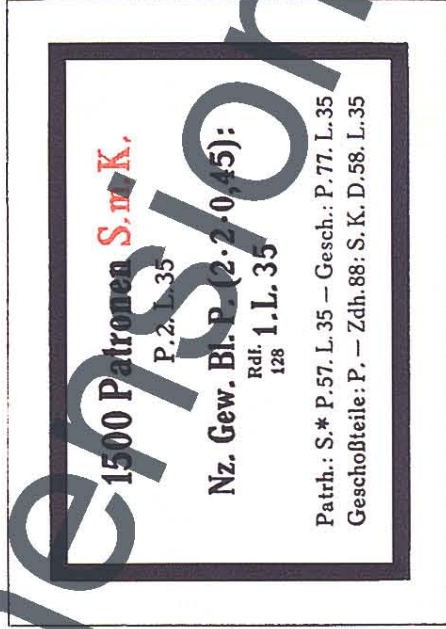
TYPICAL GERMAN S.A.A. PACKAGE LABELS.



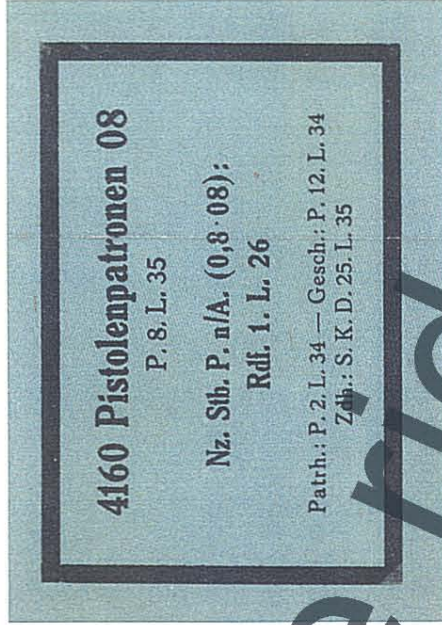
(7-92 BALL)



(7-92AP/T)



(7-92 A.P.)



9mm.(PARABELLUM) PISTOL AMMUNITION.

The above labels are reduced in size for smaller packages.

L. 5525-48239, 2490, 19000, 6/45.

Malby & Sons, Lith.

dimensio.rootta



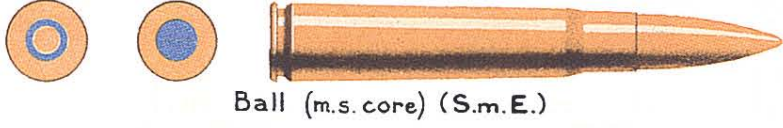
# GERMAN 7.92 mm. S.A.A.

This amm. is interchangeable with British Besa and vice versa.

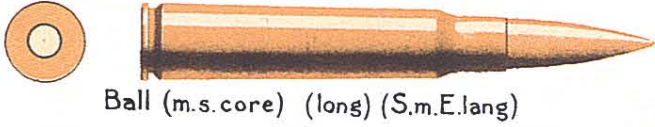
## (a) GROUND USE.



Ball (s.S.)



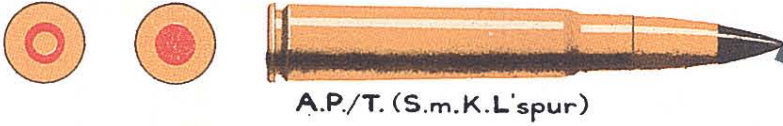
Ball (m.s. core) (S.m.E.)



Ball (m.s. core) (long) (S.m.E.lang)



A.P. (S.m.K.)



A.P./T. (S.m.K.L'spur)



Low Velo: Ball (Nahpatrone)

## (b) MISCELLANEOUS



A.P. (Tungsten) (S.m.K.H.)



Explosive Incendiary (B-)

(Earlier marking chromium tip.)



Practice Ball (e.S.)



Practice Tracer (e.S.L'spur)

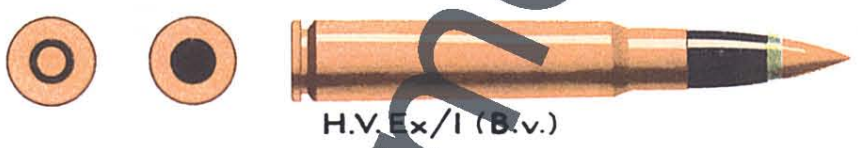
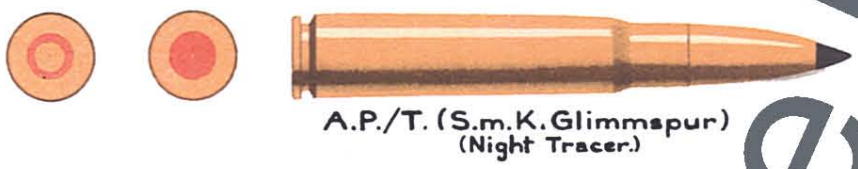
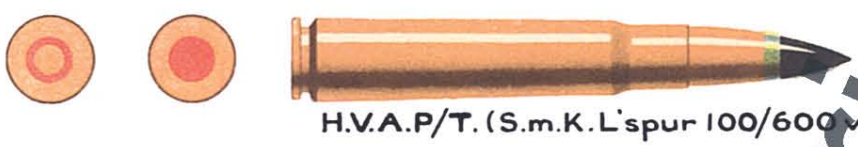
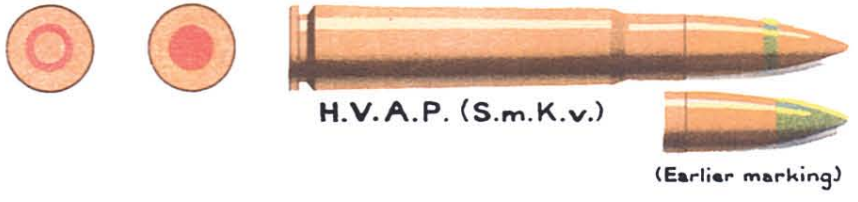


Bulleted Blank Wood.

DEMO

dimensione ridotta

(c) FOR USE IN AIRCRAFT GUNS ONLY.



DEMO

dimensione ridotta



(d) RIFLE GRENADE PROPELLING CARTRIDGES



(e) PISTOL and MACHINE CARBINE AMMUNITION



(f) ANTI-TANK RIFLE AMMUNITION



GERMAN 2cm. SOLOTHURN SHELLS.

H.E./T. (S.D.)



2cm. Sprgr-Patr L'spur (gelb)

H.E./T. (S.D.) STREAMLINED.



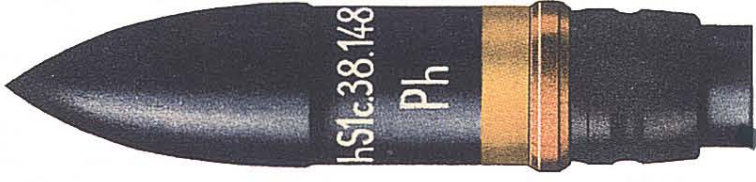
2cm. Sprgr-Patr L'spur (rot)W

H.E./I/T. STREAMLINED.



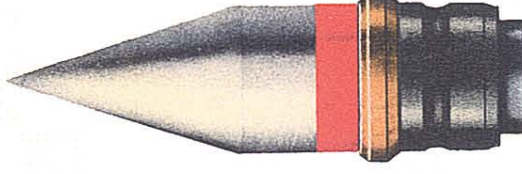
2cm. Br-Sprgr-Patr L'spur W

A.P./I/T. (PHOSPHORUS.)



2cm. Pzgr-Patr L'spur

A.P./T.(TUNGSTEN CARBIDE CORE).



2cm. Pzgr-Patr-40 L'spur



DEMO dimensione ridotta



TYPICAL Q.F. CARTRIDGES (LIGHT ANTI-TANK GUNS).

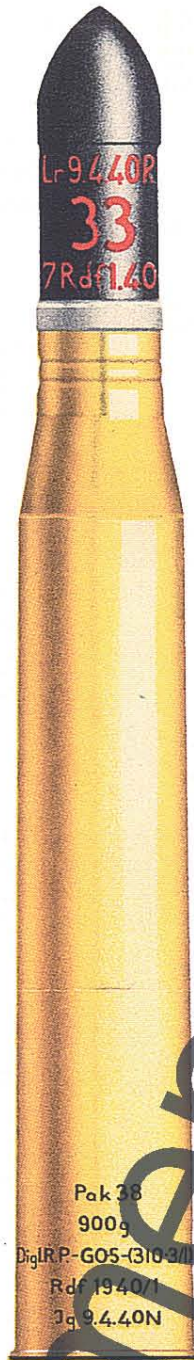
L. 2525.

H.E. SHELL.



Sprgr. Patr.

A.P. SHELL.  
(FILLED H.E.)



Pzgr. Patr.

A.P. SHOT.  
(WITH T.C. CORE)



Pzgr. Patr. 40 m HK.

DEMO

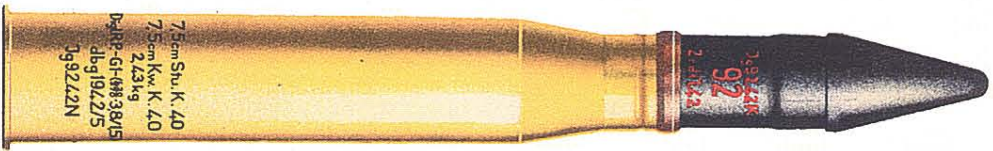
Malby & Sons, Lith.

dimensione ridotta

PLATE IX

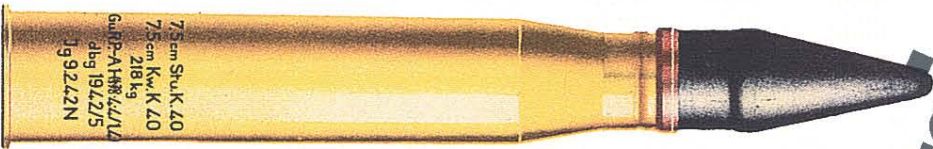
TYPICAL Q.F. CARTRIDGES (ASSAULT & TANK GUNS)

A.P. B.C. SHELL.  
(Filled shell)



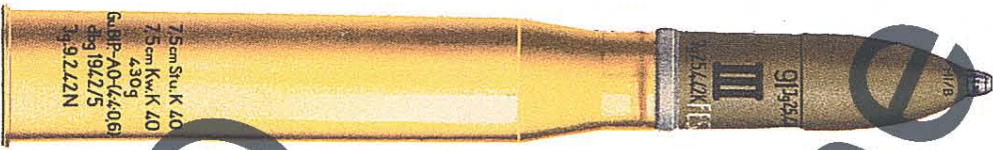
Pagr. Patr. 39

A.P. SHOT.  
(T.C. case)



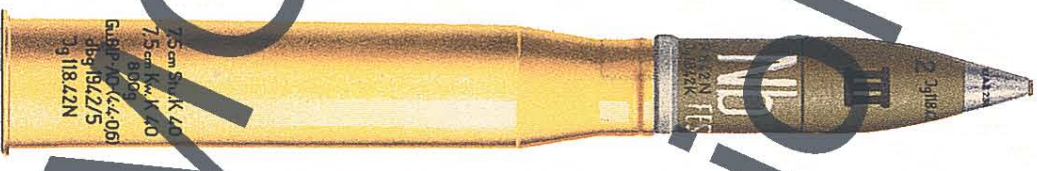
Pagr. Patr. 40

H.E. HOLLOW CHARGE SHELL (Type B)  
with D.A. Fuze



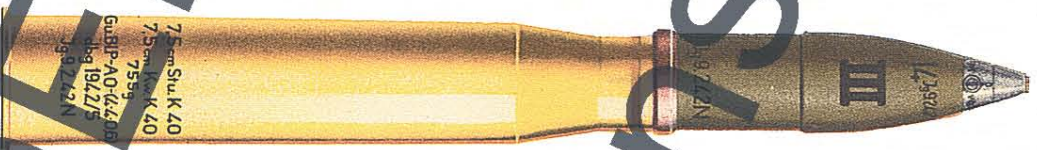
Sprgr. Patr. H/18

SMOKE SHELL.  
(with small D.A. fuze)



Nbgr. Patr.

NORMAL H.E. SHELL.  
(with D.A. Delay action fuze)



Sprgr. Patr.



TYPICAL Q.F. CARTRIDGES (HEAVY AA/ATK.GUNS)

H.E. SHELL  
(with time fuze)

A.P.C.B.C. SHELL



Sprgr. Patr.



Pzgr. Patr. 39

DEMO

dimensione ridotta

# TYPICAL Q.F. CARTRIDGES (HEAVY ANTI-TANK GUNS)

H.E. SHELL

APC.B.C. SHELL

A.P. SHOT  
T.C. CORE

HOLLOW CHARGE SHELL

L. 2525



88 mm KwK43(L/7)  
88 mm Pak 43(L/7)  
88 mm Pak 43/1(L/7)  
88 mm Pak 43/2(L/7)  
88 mm Pak 43/3(L/7)  
88 mm Pak 43/4(L/7)  
340Kg  
Gu P-60-(788-8/6)  
1943/1  
20.143K

88 mm KwK43(L/7)  
88 mm Pbk 43(L/7)  
88 mm Pbk 43/1(L/7)  
88 mm Pbk 43/2(L/7)  
88 mm Pbk 43/3(L/7)  
88 mm Pbk 43/4(L/7)  
680Kg  
Gu P-61,5-(788-5/)  
1943/1  
20.1.43K

88 mm KwK43(L/7)  
88 mm Pak 43(L/7)  
88 mm Pak 43/1(L/7)  
88 mm Pak 43/2(L/7)  
88 mm Pak 43/3(L/7)  
88 mm Pak 43/4(L/7)  
580Kg  
Gu P-61,5-(788-46)  
1943/1  
25.3.43K

88 mm KwK43(L/7)  
88 mm Pak 43(L/7)  
88 mm Pak 43/1(L/7)  
88 mm Pak 43/2(L/7)  
88 mm Pak 43/3(L/7)  
88 mm Pak 43/4(L/7)  
680Kg  
Gu P-60-(788-7/6)  
1943/1  
20.1.43K

Sprgr. Patr. 43

Pzgr. Patr. 39/43

Pzgr. Patr. 40/43

Gr. Patr. 39/43HL

Malby & Sons, Lith.

PLATE XII



TYPICAL SHELL (SHOWING THEIR MARKINGS)

SMOKE SHELL

BURSTING TYPE.

(WITH SMALL DIRECT ACTION PERCUSSION FUZE.)

SMOKE SHELL

BASE EJECTION TYPE.

(WITH MECH T&P FUZE)

INCORP: COLOURED SMOKE.

(WITH MECH: T&P FUZE)

NORMAL.

(WITH MECH: T&P FUZE)

HIGH EXPLOSIVE SHELL.

HOLLOW CHARGE

(WITH D.A. FUZE)

ARMOUR PIERCING

WITH BALLISTIC CAP.  
(WITH BASE FUZE & TRACER)



(F.H.Gr 38Nb)

L.2625.



(F.H.Gr 40Nb)



F.H.Gr...Deut



(F.H.Gr 38 Stg)



Gr...H/C



(Pzgr 39)

Malby & Sons, Lith



# HEAVY & MEDIUM GUN OR HOW. SHELL.

## H.E. SHELL.

WITH DELAY ACTION PERCUSSION  
FUZE AND N° 9 SMOKE BOX.

L. 2825.



(K.Gr.18.mit A Z 23v(0,15))

## ANTI-CONCRETE SHELL.

THIS SHELL HAS A BASE FUZE WITH  
MARKINGS SIMILAR TO THAT SHOWN  
IN PLATE XV OF THIS PAMPHLET.



(Gr.19. rot Be mit Bd.Z)

Malby & Sons, Lith.

PLATE XIV



FUZE MARKINGS (TYPICAL.) -

<p><u>MECHANICAL TYPE.</u></p> <p><u>TIME &amp; PERCUSSION.</u></p>	<p><u>FUZES WITHOUT DELAY SETTING MECHANISM.</u></p> <p><u>SELF DESTROYING NOSE FUZE.</u></p>	<p><u>PERCUSSION TYPE.</u></p> <p><u>NOSE FUZES WITH OPTIONAL DELAY ACTION.</u></p>
<p><u>BASE FUZES WITH OPTIONAL DELAY ACTION.</u></p> <p><u>TWO DELAY SETTINGS (LONG &amp; SHORT).</u></p> <p><u>ONE DELAY SETTING.</u></p>		
		<p><u>BASE FUZES.</u></p> <p><u>THIS FUZE HAS A SAFE SETTING MARK +.</u></p>

DEMO G. P. S. I. O. N. E. R. I. D. O. T. T. A