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SERVICE MAJOR CALIBER PROJECTILES OF THE GERMAN NAVY

SEPTEMBER 1945.

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From: Chief, U.S. Naval Technical Mission in Europe.
To : Chief of Naval Operations (OP-16-PT).
Subject: U.S. Naval Technical Mission in Europe Technical
Report No. 393-45, Service Major Caliber Projectiles
of the German Navy - Forwarding of.
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TECHNICAL REPORT No. 393-45

SERVICE MAJOR CALIBER PROJECTILES OF THE GERMAN NAVY

SUMMARY

A compilation of the projectiles, 8" and over in size,
in service in the German Navy.

September 1945

U. S. NAVAL TECHNICAL MISSION IN EUROPE

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SERVICE MAJOR CALIBER PROJECTILES OF THE GERMAN NAVY

1. Introduction.

In Figure 1 is shown, in tabular form, the projectiles 8" and over in size which are in service in the German navy. This information was obtained from the confidential classification ammunition assembly chart (Ubersicht Uber die fur die Marinegeschosse und deren AbkK zu vermenende Munition und ihre Einzeltiele einschl Salut und Manoverladungen). This was printed in 1944 and is believed to be complete as of the first of January 1945.

It is of interest to note that, in contrast to our number of types, the German navy in their largest projectiles, the 40.6 cm. (16") and the 38 cm. (15".0), show five types of service projectiles. These types are as follows:

- (1) Armor piercing, base fuzed with windshield.
- (2) Base fuzed high explosive (equivalent to our common) with wind shield.
- (3) Nose fuzed high explosive with windshield.
- (4) High explosive projectile, nose and base fuzed, with windshield.
- (5) High explosive projectile, nose and base fuzed, with windshield.

This is an extremely high capacity projectile with a load factor or approximately 14%. Used only in coastal defense guns.

In the other major caliber sizes; 28 cm., 24 cm., 21 cm., and 20.3 cm., only the first four types above are carried as service. The 20.3 cm. (8") size however, also includes a star sheel. In projectiles which are both nose and base fuzed there is no provision made for selectivity in the nose fuzing.

Restricted letter from U.S. Naval Technical Mission in Europe to CNO (OP-16-PT) of 27 August 1945, serial 850, forwarded blueprints of starred projectiles shown in Figure 1.

Technical Report No. 191-45, from U.S. Naval Technical Mission in Europe covered the projectile fuzes listed in Figure 1 in detail.

Technical Report No. 394-45, from U.S. Naval Technical Mission in Europe covered material and placement of the rotating bands shown in Figure 1.

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Figure 1.

2. SERVICE MAJOR CALIBER PROJECTILES OF THE GERMAN NAVY

Gun	Projectile	Weight	Rotating Band	Fuze
40.6 cm SKC/34	*1-40.6 cm Psgr L/4.4 (Mhaube)	1030	40.6 KPS/B 1001	BDZ 38
40.6 cm. SKC/34	*2-40.6 cm. Spgr L/4.6 BdZ (mhb)	1030	40.6 KPS/B 1001	BDZ 38
40.6 cm SKC/34	*3-40.6 cm. Spgr L/4.8 KZ (mhb)	1030	40.6 KPS/B 1001	KZ 27
40.6 cm. SKC/34.	*4-40.6 cm. Ad.GR.L/4.2 BDZ UKZ (mhb)	600		4 Hbgr Z40 K or Dopp Z 45 S/90 & WZ 40 K
40.6 cm. SKC/34	5-40.6 cm. Spgr L/4.1 BDZ UKZ (mhb)	610	40.6 2652 FEW	5. BDZ .38 KZ.27 or ZtZS/60 or ZtZS/5.
38 cm. SKC/34	*1-38 cm. Psgr L/4.4 (mhb)	800	38 101B or 111 KPS/B	BDZ 38
38 cm. SKC/34	*2-38 cm. Spgr L/4.5 BDZ (mhb)	800	38 101B or 111	BDZ 38
38 cm. SKC/34	*3-38 cm. Spgr L/4.6 KZ (mhb)	800	38 101B or 111	KZ 27
38 cm. SKC/34	4-38 cm. SIGR L/4.5 BDZ & KZ (mhb)	495	s1 111 KPS/B	Hbgr Z 40K or Dopp Z 45 K BDZ 40K
38 cm. SKC/34	5-38 cm Spgr L/4.4 BDZ & KZ (mhb)	510	38 100 FEW	KZ 27 BDZ 38
30.5 cm. SK L/50	1-30.5 cm Psgr L/3.7	405	30.5 151 1002	BDZ 36
30.5 cm SK L/50	*2-30.5 cm Psgr L/4.9 (mhb)	415	30.5 1002 KPS/B	BDZ 38
30.5 cm SK L/50	3-30.5 cm Spgr L/3.8 BDZ	405	30.5 151 1002 KPS/B	BDZ 38
30.5 cm SK L/50	*4-30.5 cm Spgr L/4.8 KZ (mhb)	415	30.5 1002	4 - KZ 27 or ZtZS/60 or Z4Z S/5
30.5 cm SK L/50	*5-30.5 cm Spgr L/5 BDZ (mhb)	415	30.5 1002	5 - BDZ 38
30.5 cm SK L/50	*6-30.5 cm Spgr L/3.6 BDZ & KZ (mhb)	250	30.5 6 182 B 183 30.5 KPS 2050 FES	BDZ 38 6 { KZ 27 or ZtZ S/60 or ZtZ S/5

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Figure 1.

SERVICE MAJOR CALIBER PROJECTILES OF THE GERMAN NAVY (Cont'd.)

Gun	Projectile	Weight	Rotating Band	Fuze
28 cm. SK L/40	*1-28 cm Pser L/2.6	240	28 28 169 Z 1003 KPS	BDZ 36
28 cm SK L/40	2-28 cm Sper L/2.9 BDZ	240	28 28 169 Z 1003 KPS	BDZ 36
28 cm SK L/40	*3-28 cm Sper L/4.4 BDZ & KZ (mhb)	284	28 191 Z	BDZ 36 & KZF Sper (mhb) or Deppo Z 160 AZ
28 cm SK L/40 in PRH/1901	*1-28 cm Pser L/2.6			
28 cm SK L/40 in PRH/1901	2-28 cm Sper L/2.9 BDZ			
28 cm SK L/40 in PRH/1901	3-28 cm Sper L/4.3 BDZ (mhb)	240	28 28 169 Z or 1003 KPS	BDZ 36 KZ 27
28 cm SK L/40 in PRH/1901	4-28 cm Sper L/4.1 KZ (mhb)	240	28 28 166 Z or 1003 KPS	
28 cm SK L/45 & SK L/50	*1-28 cm Pser L/3.2	302	28 28 181 or 1002 KPS	BDZ 36
"	2-28 cm Sper L/3.6 BDZ	302	28 28 181 or 1002 KPS	BDZ 36
"	*3-28 cm Sper L/4.4 BDZ & KZ (mhb)	-	-	-
28 cm SKC/28 in Pr LC/28	*1-28 cm Pser L/3.7 (mhb)	300	28 28 215 or 2136	BDZ 38
"	2-28 cm Sper L/4.2 (mhb) BDZ	300	28 or 28 1001 KPS 2052 FEW	BDZ 38
"	3-28 cm Sper L/4.2 (mhb) KZ	300	28 or 28 1001 KPS 2052 FEW	KZ 27
28 cm SKC/34 in Prn LC/34	*1-28 cm Pser L/4.4 (mhb)	336	28 28 213 B or 1001 KPS	BDZ 38
"	2-28 cm Sper L/4.4 (mhb) BDZ	315	28 28 213 a or 1001 KPS	BDZ 38
"	*3-28 cm Sper L/4.5 (mhb) BDZ	315	28 28 213 a or 1001 KPS	BDZ 38

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Figure 1. SERVICE MAJOR CALIBER PROJECTILES OF THE GERMAN NAVY (Cont'd.)

Gun	Projectile	Weight	Rotating Band	Fuze
28 cm SKC/34 in	4-28 cm Spgr L/4.4 (mhb) BDZ	315	28 213 a or 1001 KPS	KZ 27
24 cm SK L/40	1-24 cm Spgr L/2.6	146	24 265 Z, 1003 KPS	BDZ 36
"	2-24 cm Spgr L/4.1 BDZ	151	24 162 1661 KPS, 2051 FEW	BDZ 36
"	3-24 cm Spgr L/4.2 BDZ & KZ (mhb)	148.5	24 191 B, 1602 KPS, 2051 FEW	KZ 27 BDZ 36
"	*4-24 cm Spgr L/4.2 BDZ & KZ (mhb)	146	-	-
24 cm SK L/50	1-24 cm Spgr L/2.6	148.5	-	-
"	2-24 cm Spgr L/4.2 BDZ & KZ (mhb)	148.5	-	-
"	3-24 cm Spgr L/4.2 BDZ & KZ (mhb)	108	21 166 Z	BDZ 36
21 cm SK L/45	1-21 cm Spgr L/2.9	113.5	21 167 Z	BDZ 36, KZ Spgr (mhb) or Dopp Z 160AZ
"	2-21 cm Spgr L/4.3 BDZ & KZ (mhb)	113.5	21 166 Z	BDZ 36, KZ 27 or ZZS/60 na
"	3-21 cm Spgr L/4.3 BDZ & KZ (mhb)	122	20.3 101a 102 KPS 2054 FEW	BDZ 36 KV
20.3 cm SKC/34	*1-20.3 cm Spgr L/4.4 (mhl)	122	20.3 101a 102 KPS 2054 FEW	BDZ 36 KV
"	*2-20.3 cm Spgr L/4.7 (mhl) BDZ	122	20.3 101a 102 KPS 2054 FEW	BDZ 36 KV
"	*3-20.3 cm Spgr L/4.7 KZ	124	20.3 101a 102 KPS 2054 FEW	KZ 27-ZZS/60
"	4-20.3 cm Spgr L/4.7 (mhl) BR	163	20.3 101a 102 KPS 2054 FEW	KZ 27-ZZS/60
"	5-20.3 cm Lg. L/45	122	20.3 101a 102 KPS 2054 FEW	ZZ S/60 or ZZ S/60 na

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3. Glossary of Terms:

Psgr	Panzer granate	Armor piercing projectile.
Spgr	Spreng granate	High explosive projectile.
Lg	Leucht geschoss	Star shell.
(mhb)	mit haube	with wind shield.
BdZ	Boden Zunder	Base Fuze.
KZ	Kopf Zunder	Nose Fuze.
KPS	Krupp Spar Fuhrung	Bimetallic (Iron and Copper) rotating band.
FES	Sinter Eisen	Sintered iron rotating band.
FEW	Weich Eisen	Soft or Ingot Iron rotating band
L/4.2, L/4.5	Lange/4.2/4.5 etc.	The length of the projectile in calibers.
Si Gr	Sigfried Granate	Round for 38 cm. Sigfried gun.
Ad Gr	Adolph Granate	Round for 40.6 cm. Adolph gun.

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