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ARMOR-PIERCING AMMUNITION

for Gun, 90-mm, M3

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TABLE OF CONTENTS

	Page		Page
Shot, Fixed, H.V., A.P.T., 90mm, T30E16			
Text.....	1	Illustration: Penetration of glacis plate of "Panther" Tank.....	11
Text.....	2	Armor Penetration Curve.....	11
Illustration of complete round.....	2		
Illustration of shot.....	3	Projectile, Fixed, A.P.C.-T., 90mm, M82	
Firing Table.....	3	Text.....	12
Illustration: Penetration of gun mantlet of "Panther" Tank.....	4	Illustration of complete round.....	13
Illustration: Penetration of glacis plate of "Panther" Tank.....	4	Illustration of projectile.....	13
Illustration: Penetration of lower nose plate of "Panther" Tank.....	5	Firing Table.....	14
Armor Penetration Curve.....	5	Firing Table.....	15
		Illustration: Penetration 2½ in. armor plate (55° obliq.).....	16
Shot, Fixed, A.P.T., 90mm, T33		Illustration: Penetration 2½ in. armor plate (55° obliq.).....	16
Text.....	6	Illustration: Penetration 1½ in. armor plate (55° obliq.).....	16
Illustration of complete round.....	7	Armor Penetration Curve.....	17
Illustration of shot.....	7		
Firing Table.....	8	General	
Firing Table.....	9	Illustration: Comparison of complete rounds.....	17
Illustration: Penetration of glacis plate of "Panther" Tank.....	10	Aiming Data Chart 90-B-1.....	18
		Aiming Data Chart 90-C-3.....	18

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SHOT, FIXED, H.V., A.P.-T., 90mm, T30E16.

DESCRIPTION. The Shot, H.V., A.P.-T., 90mm, T30E16 is issued as a fixed complete round for the Gun, 90mm, M3 mounted in Gun Motor Carriage, M36 or M36B1 and Heavy Tank, T26E3. The shot is a light weight projectile, consisting of a tungsten carbide core, aluminum body with nose plug and windshield and steel base tracer loaded.

Length:

Shot.....13.20 in.
Complete Round.....35.90 in.

Weight:

Shot.....16.70 lb.
Complete Round.....36.00 lb. (Approx.)

Muzzle Velocity.....3,350 f/s

PURPOSE. *This is a special hyper-velocity, armor piercing round for attack of heavily armored vehicles. It gives greatly increased penetrative performance up to 2,000 yards range over the standard A.P.C.-T., Projectile, 90mm, M82. It is especially effective at shorter ranges. Since tungsten carbide is a critical material these projectiles should be used sparingly and only when the situation requires increased armor penetration. This shot will penetrate all plates of the German*

Pz Kpfw V "Panther" and "King Tiger" Tanks. IT WILL DEFEAT THE GLASS PLATE OF THE "PANTHER" AT RANGES UP TO 450 YARDS AND OF THE "KING TIGER" AT 100 YARDS RANGE. UP TO RANGES OF 800 YARDS THE SHOT WILL PENETRATE THE GUN MANTLET AND TURRET FRONT OF BOTH THE "PANTHER" AND "KING TIGER" TANKS.

FIRING DATA. a. Aiming data charts are provided for use with the fire control instruments on the Gun Motor Carriages, M36 and M36B1 and Heavy Tank, T26E3. The use of these charts provides direct fire with the following rounds:

Shot, A.P.-T., T33 Projectile, A.P.C.-T., M82
Shot, H.V., A.P.-T., T30E16 Shell, H.E., M71

b. The following aiming data charts are contained in this brochure:

A.D.C. 90-B-1, 90mm Gun, (with muzzle brake) M3 on Heavy Tank, T26E3 with Coaxial Telescope, M71C and Periscope Telescopes, M77F and M80D.

A.D.C. 90-C-3, 90mm Gun, (without muzzle brake) M3 on Gun Motor Carriage, M36 or M36B1 with Coaxial Telescope, M76F.

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c. Firing Tables are included in this booklet.

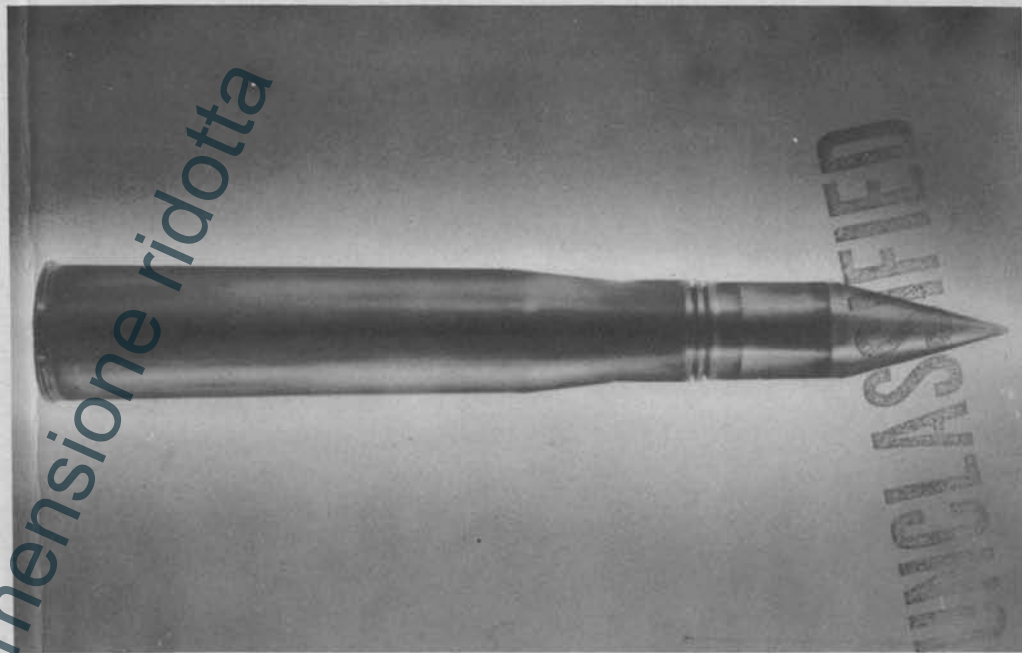
ACCURACY. Accuracy firings from the M3 Gun with the rounds loaded for a MV of 3,400 f/s have been conducted with the T30 type shot at a vertical target over a range of 2,100 yards. The extreme horizontal dispersion was 17 inches and the extreme vertical dispersion 30 inches.

PENETRATION. A curve showing the comparison of penetration vs. range of Projectile, A.P.C.-T., M82 and Shot, H.V., A.P.-T., T30E16 when fired against homogeneous armor plate at 20° and 30° obliquity is contained in this report. Illustrations are included indicating results obtained with this shot against the "Panther" tank.

MARKING. Special markings appear on each cartridge case, container and box in red paint.

HYPERVELOCITY
MV 3350 F/S

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Shot, fixed, H.V., A.P.-T., T30E16 for Gun, 90mm, M3.



Shot, H.V., A.P., 90mm, T30E16.

**GUN, 90MM, M3. SHOT, H.V., A.P.-T., T30E16. MUZZLE VELOCITY, 3350 F/S.
WEIGHT, 16.7 LBS. C₇, 1.109.**

Range	Elev.	Time of Flight	Max. Ord.	Terminal Velocity	Range	Elev.	Time of Flight	Max. Ord.	Terminal Velocity
yards	mils	seconds	feet	f/s	yards	mils	seconds	feet	f/s
0	0.0	0.00	0	3350	1800	9.4	1.84	14	2580
100	0.4	0.09	0	3305	1900	10.0	1.96	15	2540
200	0.9	0.18	0	3260	2000	10.7	2.08	17	2500
300	1.3	0.27	0	3216	2100	11.3	2.20	20	2461
400	1.8	0.36	1	3171	2200	12.0	2.32	22	2422
500	2.3	0.46	1	3127	2300	12.7	2.45	24	2383
600	2.8	0.56	1	3083	2400	13.4	2.57	27	2345
700	3.3	0.66	2	3039	2500	14.1	2.70	29	2307
800	3.8	0.76	2	2996	2600	14.8	2.83	32	2269
900	4.3	0.86	3	2953	2700	15.6	2.96	36	2232
1000	4.8	0.96	4	2910	2800	16.3	3.09	39	2195
1100	5.3	1.06	5	2868	2900	17.1	3.23	42	2159
1200	5.9	1.17	6	2826	3000	17.9	3.37	46	2123
1300	6.4	1.28	7	2784	3100	18.7	3.51	50	2087
1400	7.0	1.39	8	2742	3200	19.6	3.66	54	2052
1500	7.6	1.50	9	2701	3300	20.4	3.80	59	2017
1600	8.2	1.61	10	2660	3400	21.3	3.95	64	1982
1700	8.8	1.73	12	2620	3500	22.2	4.11	69	1948

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