DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

OPERATOR/MAINTENANCE INFORMATION ON CARTRIDGE, 35MM: TP-T, XM968 AND IGNITOR, ELECTRIC, M63

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Headquarters, Department of the Army, Washington, DC
30 September 1989

REPORTING OF ERRORS

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SECTION I. INTRODUCTION

1. **Purpose**, The purpose of this bulletin is to provide supplemental operator/maintenance level Information on Cartridge, 35mm TP-T, XM968 and Ignitor, Electric, M63. These Items are assembled to an adaptor, which Is fired from the Tank Precision Gunnery Inbore Device (TPGID) mounted Inside the 120mm smooth bore M256 cannon. The XM968 is a German-produced ammunition item for the U.S. Army.

2. **General**. This bulletin contains data that will be Incorporated Into the following ammunition and weapon technical manuals.

a. TM 9-2350-264-10 Operator's Manual, Tank, Combat, Full-Tracked: 120mm Gun, M1A1 (ABRAMS).

b. TM 9-1300-251-20 Organizational Maintenance Manual Artillery Ammunition for Guns, Howitzers, Mortars, Recoilless Rifles, and 40mm Grenade Launcher.

c. TM 9-1300-251-34 Direct Support and General .Support Maintenance Manual, Artillery Ammunition for Guns, Howitzers, Mortars, Recoilless Rifles, and 40Omm Grenade Launchers.

d. TM 43-0001-28 Army Ammunition Data Sheets, Artillery Ammunition for Guns, Howitzers, Mortars, Recoilless Rifles, Grenade Launchers, and Artillery Fuzes.

*This TB supersedes TB 9-2350-354-14, dated 17 November 1988.

SECTION II. INFORMATION MD PROCEDURES TO BE INCORPORATED INTO OPERATOR/MAINTENANCE TECHNICAL MANUALS

3. General. The Information In the following paragraphs will be incorporated as changes to the ammunition chapter of the effected manuals.

4. Description and Tabulated Data.

a. Configuration.

(1) **Cartridge XM968**. The projectile consists of a DM1071 projectile Jacket, a DM220 dummy point-detonating fuze, a tracer, and a press-sealed steel rotating band. The projectile Is crimped to a DM1001 Steel Cartridge Case, which holds approximately 0.69 lb of B3620 single base propellant and is fitted with a DM144 percussion primer.

(2) **Ignitor M63**. The M63 Ignitor consists of a closing plug assembly, ignitor body assembly, and an Ignitor element assembly. The Ignitor element assembly is loaded with approximately 0.006 oz. of ignitor material (40% Potassium Chlorate, 32% Lead Thiocynate, 18% Charcoal, and 10% Egyptian Lacquer), and is assembled to the ignitor body. The closing plug assembly contains approximately 0.007 oz. of black powder, which is also assembled to the Ignitor body.

b. **Use**. The XM968 Cartridge (fig. 1) and the M63 Ignitor (fig. 2) are assembled to the Adapt ion Cartridge component of the weapon system. See Mauser Tank Precision Gunnery Inbore Device (TPGID) Operator's Manual for loading sequence. The XM968 cartridge is a target practice round for use In, the 35mm TPGID system, which Is mounted inside the 120mm Smooth Bore M256 Cannon. it Is designed to simulate the flight characteristics of the M830 round out to 1,800 meter.

c. **Function**. The TPCID adaption cartridge is loaded into the 120mm smooth bore cannon In the normal manner. Upon initiation of the M63 ignitor In the weapon, gases from the ignitor force the piston /firing pin mechanism to strike the percussion primer of the XM968. Functioning of the percussion primer Initiates the B3620 propellant; the resulting gases drive the projectile from the gun and Ignite the tracer. The projectile is spin stabilized during its flight to target.

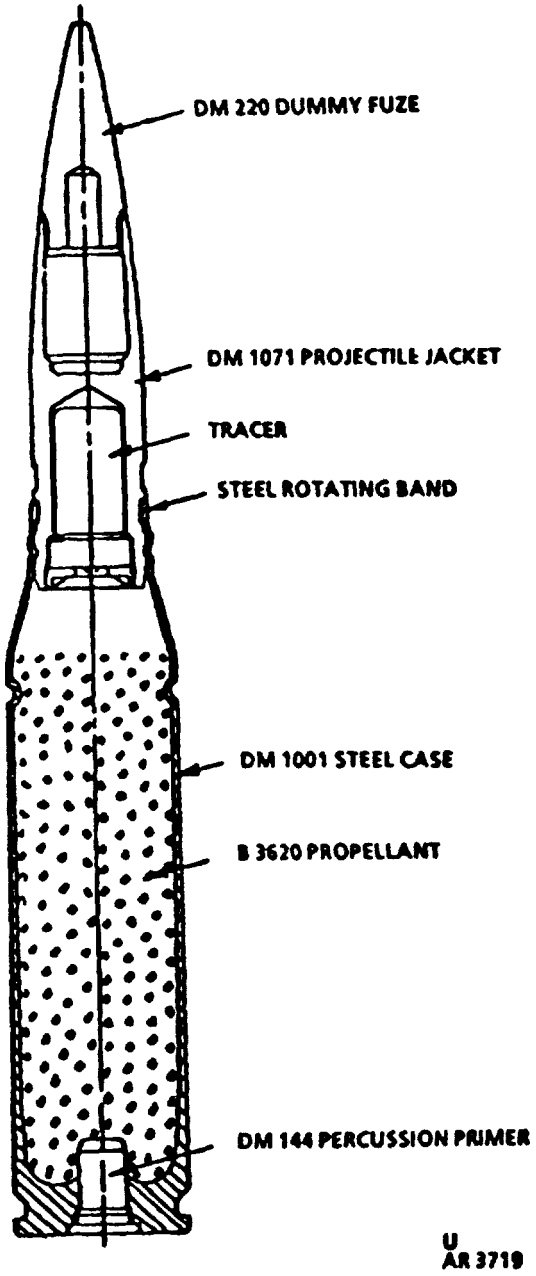

Figure 1. Cartridge, 35mm: TP-T, XM968.