DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

OPERATOR/MAINTENANCE INFORMATION ON CARTRIDGE, 120MM: M829 (APFSDS-T), M829A1 (APFSDS-T), M830 (HEAT-MP-T), M831 (TP-T) AND M865 (TPCSDS-T)

HEADQUARTERS, DEPARTMENT OF THE ARMY,
WASHINGTON, D. C.
30 April 1992

REPORTING OF ERRORS

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		Paragraph	Page
SECTION I.	INTRODUCTION		
	Purpose	1	2
	General	2	2
SECTION II.	INFORMATION AND PROCEDURES TO BE INCORPORATED INTO OPERATOR/MAINTENANCE TECHNICAL MANUALS		
	General	3	2
	Description and tabulated data	4	2
	Authorized ammunition for 120mm gun M256	5	15
	Markings	6	16
	Unpacking procedures from metal container	7	17
	Repacking procedures	8	19
	Inspection criteria for packing (metal container)	9	20
	Inspection criteria for ammunition (nonmetallic cartridge case)	10	20
	Classification of material defects	11	21
SECTION III.	PROCEDURE FOR TOUCHING-UP 120MM COMBUSTIBLE CARTRIDGE CASES		
	General	12	23
	Touch-Up Criteria	13	23
	Preparation of Cartridge Case	14	23
	Paint Application	15	24
	Equipment and Material Requirements	16	24
SECTION IV.	PROCEDURE FOR WINDSHIELD TIP INSPECTION FOR 120MM: M829 AND M829A1		
	General	17	25
	Windshield Tip Runout Gaging/Acceptance Gage for M829	18	25
	Windshield Tip Alignment Inspection for M829A1	19	27
SECTION V.	PROCEDURE FOR USING 120MM RING GAGES		
	General	20	30
	120MM Ring Gages	21	30

***This bulletin supersedes TB 9-2350-320-14, dated 30 June 1990.**

SECTION I. INTRODUCTION

1. Purpose. The purpose of this bulletin is to provide operator/maintenance level information on Cartridge, 120mm: M829, M829A1 (APFSDS-T), M830 (HEAT-MP-T), M831 (TPT), M865 (TPCSDS-T), and M865 (TPCSDS-T, short sabot). These rounds are designed for firing by the M256 gun mounted on the MIA1 tank and associated NATO 120mm tank systems.

2. General. This bulletin contains data that will be incorporated into the following ammunition and weapons technical manuals.

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

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

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

d. TM 43-0001-28-3, Interoperable Ammunition Data Sheets for Artillery Ammunition, Guns, Howitzers, Mortars, and Artillery Fuzes.

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

WARNING

IF VEHICLE CATCHES FIRE, EVACUATE TANK, START FIRE SUPPRESSION SYSTEM AND MOVE 2000 FEET UPWIND FROM TANK (AVOID INHALING SMOKE EMITTED FROM VEHICLE).

3. General. The information in the following paragraphs will be incorporated as changes to the ammunition chapter of the affected manuals.

4. Description and Tabulated Data.

a. Description for Cartridge 120mm: APFSDS-T, M829 and M829A1 (figs. 1 and 2). The M829 and M829A1 are U.S. designed and developed 120mm APFSDS-T cartridges. The complete round contains a propulsion system consisting of a metal cartridge case base with combustible sidewall, granular propellant within a containment device to prevent spillage, M125 primer for M829, and M129 primer for M829A1, while the projectile consists of the subprojectile and aluminum sabot. The depleted uranium (DU) penetrator is a one piece design which is assembled into the sabot by means of grooves. There is a six bladed aluminum fin with tracer assembly fitted to the rear of the subprojectile and a windshield fitted to the front. The aluminum sabot is composed of four 90-degree (M829) and three 120-degree (M829A1) noninterchangeable segments with internal grooves matching those on the outer diameter of the subprojectile. The sabot has a silicone rubber seal at the rear to prevent leakage of gases.

(1) Use. The M829 and M829A1 are kinetic energy, armor-piercing antitank rounds intended for use with the 120mm smooth bore M256 cannon.

(2) Functioning. The M829 and M829A1 are loaded and fired from the 120mm tank gun in the normal manner. Upon initiation of the electric primer in the breech of the weapon, the resulting flash ignites the propelling charge and combustible case, generating gases which drive the projectile from the gun and ignite the tracer. The rear seal of the sabot prevents gas leakage between the sabot segments and the driving forces (gas) propelling the subprojectile downbore. Upon leaving the gun, aerodynamic forces cause the sabot to separate from the subprojectile allowing the subprojectile to continue on a true course to target while the sabot segments fall quickly to earth. Target penetration is affected strictly by the high kinetic energy of the subprojectile's high density core when it impacts.

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HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, DC, 12 February 1993

**OPERATOR/MAINTENANCE INFORMATION ON
CARTRIDGE, 120MM: M829 (APFSDS-T), M829A1 (APFSDS-T),
M830 (HEAT-MP-T), M831 (TP-T) AND M865 (TPCSDS-T)**

TB 9-2350-320-14, 30 April 1992, is changed as follows:

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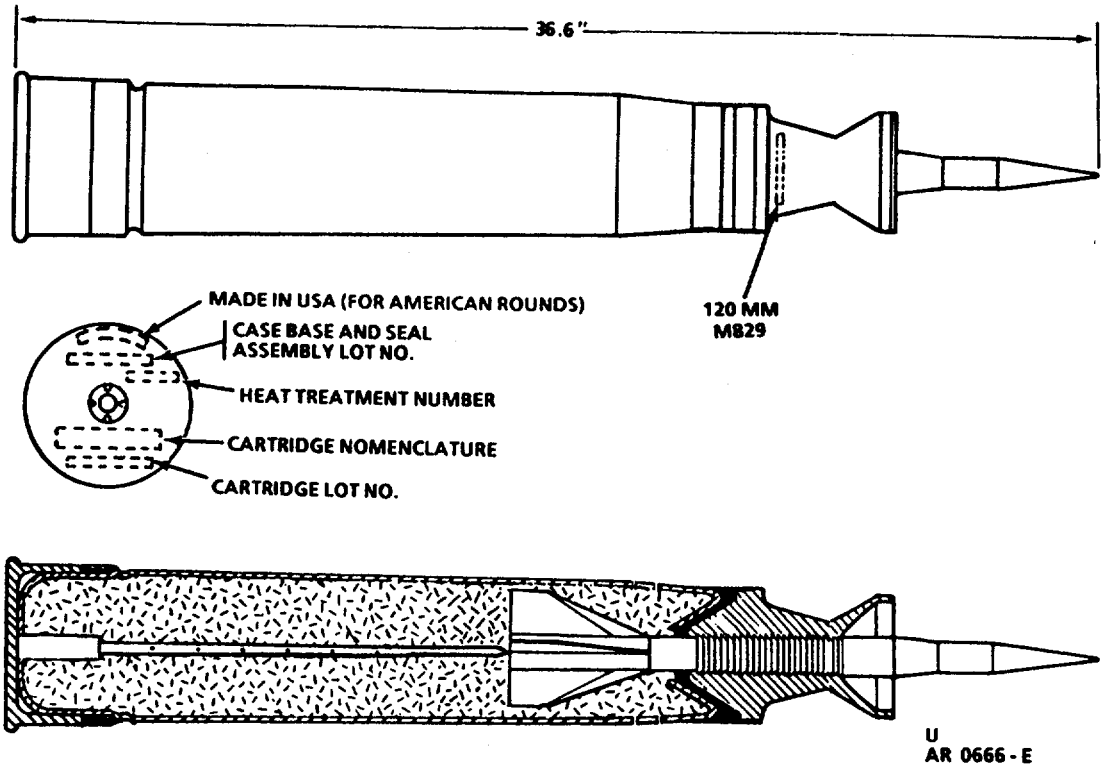

Figure 1. Cartridge, 120mm: APFSDS-T, M829.

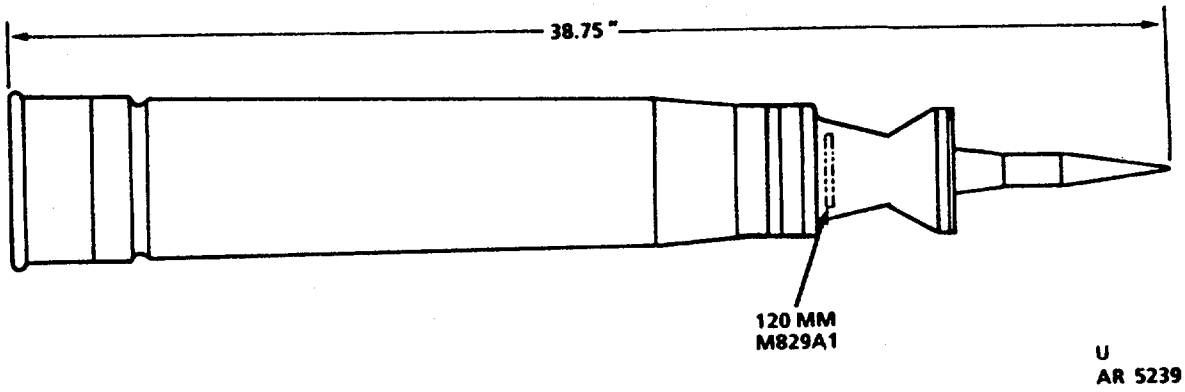

Figure 2. Cartridge, 120mm: APFSDS-T, M829A1.