



105MM M456A2 HEAT-T

High Explosive Anti-Tank-Trace



Purpose: This cartridge is a high explosive antitank cartridge and is intended for use in 105mm guns against armored targets. It has a dual role capability in killing dismounted infantry by blast and fragmentation and in destroying lightly armored and non-armored vehicles and bunkers.

Description: The steel body projectile is fitted with a plastic obturator, a threaded standoff spike assembly, a fin and boom, and a PIBD fuze. A funnel-shaped copper liner within the body shapes the explosive charge of Comp B. A piezoelectric element retained in a nose cap is fitted to the spike assembly and is connected to the BD fuze in the body. The fin is threaded to receive a tracer.

Operation: The electrically initiated primer ignites the propelling charge. Gases produced by the burning propellant propel



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the projectile from the gun and ignite the tracer, which burns for a minimum of 2.5 seconds. On impact, fuze functioning detonates the projectile and cone collapses, creating a high-velocity focused shock wave and a jet of metal particles that penetrates the target.

Difference Among Models: The two models in the M456 series differ in the use of an impact switch assembly.

The addition of the impact switch assembly provides for a higher functioning reliability in that initiation can occur upon contact with any part of the standoff spike assembly, i.e., improved performance on irregular surfaces and graze functioning.

Characteristics

Type Classification	STD AMCTC 4677 dtd 1966 OBS MSR 11756003
Complete round: Type	HEAT-T
Weight	49 lb (22.2 kg)
Length	39.6 in (1005.8 mm)
Cannon used with	M68 and L7
Projectile: Body material	Steel
Color	Black w/yellow markings
Filler and weight	Comp B 2.14lbs.
Components: Cartridge case	M148A1B1
Propellant	M30
Primer	M83
Tracer	M13
Fuze	PIBD-M509A1

Ballistics

Muzzle velocity	1173 mps (3850 fps)
Maximum range	8200 m (8975 yd)

Temperature Limits

Firing: Lower limit	-40°F (-40°C)
Upper limit	+125°F (52°C)
Storage: Lower limit	-65°F (-53.8°C)
Upper limit	+145°F (+63°C)

Packing

1 round per fiber container; 2 containers per wooden box:	
Packing Box: Weight	141 lb (64 kg)
Dimensions	45 ^{13/16} x 13 ^{15/16} x 8 ^{7/16}
Weight	124.0 lb
Dimensions	47 ^{7/16} X 13 ^{5/16} X 7 ^{1/16} in.
Cube	3.1 cu ft (10.2 cu.m.)
Drawing	9312816

Shipping & Storage Data

Storage Class/SCG	(12) 1.2E
DOT shipping class	A
DOT designation	Ammunition for cannon with explosive projectiles
DODAC	1315-C508

GENERAL DYNAMICS
Ordnance and Tactical Systems