

105MM M456A2 (HEAT-T)

TANK AMMUNITION



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 nonarmored 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 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.

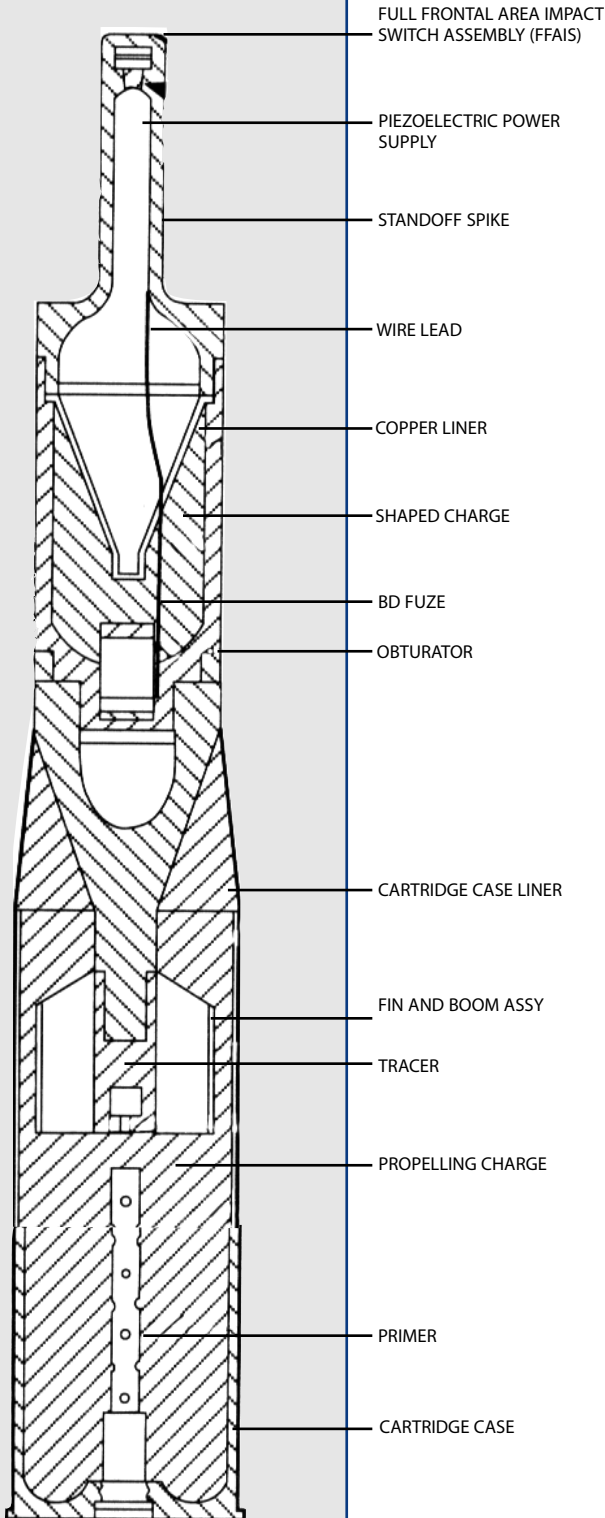


GENERAL DYNAMICS
Ordnance and Tactical Systems

11399 16th Court North, Suite 200, St. Petersburg, FL 33716 Phone: (727) 578-8100

Approved for Public Release 09/13/05

105 MM Tank Round High Explosive Anti-Tank-Trace M456A2 (HEAT-T)



105MM (HEAT-T) TANK AMMUNITION

TYPE CLASSIFICATION:

STD AMCTC 4677 dtd 1966 OBS MSR 11756003

CHARACTERISTICS:

Complete round:

- Type _____ HEAT-T
- Weight _____ 49 lb (22.2kg)
- 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

Performance

- 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 (+52.0°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}
(1163.6 x 354.0 x 214.3 mm)
- Cube _____ 3.1 cu ft (10.2cu.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