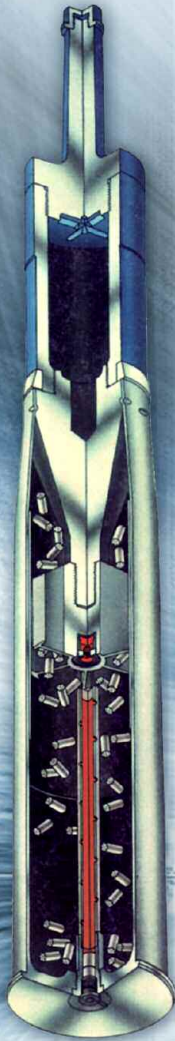


# **105MM M490 (HEAT) TANK TRAINING AMMUNITION TP-T**



**Purpose:** This cartridge is for use in 105mm gun cannons for training in marksmanship.

**Description:** The cartridge is similar in external appearance and ballistically similar to the HEAT-T cartridge M456 series. The projectile consists of a steel body, an aluminum standoff spike, and a boom and fin assembly with tracer. The cartridge case is filled with loosely packed propellant and is fitted with an electronic primer.

**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.



**GENERAL DYNAMICS**  
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Approved for Public Release 09/13/05

# 105MM (HEAT-T) TANK TRAINING AMMUNITION

TYPE CLASSIFICATION:  
Std AMCTC 1103 afd 1963

**CHARACTERISTICS:**

Complete round:

Type \_\_\_\_\_ TP-T  
Weight \_\_\_\_\_ 45 lb (20.4 kg)  
Length \_\_\_\_\_ 39.0 (990.6 mm)  
Cannon used with \_\_\_\_\_ M68

Projectile:

Body material \_\_\_\_\_ Steel  
Color \_\_\_\_\_ Blue w/white marking

Components:

Cartridge case \_\_\_\_\_ M148A1B1, M148A1  
Propelling charge \_\_\_\_\_ M30  
Primer \_\_\_\_\_ M83  
Tracer \_\_\_\_\_ M13

Performance

Maximum range \_\_\_\_\_ 8,207 m (8,975 yd)  
Muzzle velocity \_\_\_\_\_ 1,170 mps (3,850 fps)

Temperature Limits:

**FIRING:**

Lower limit \_\_\_\_\_ -40°F (-40°C)  
Upper limit \_\_\_\_\_ +125°F (+52.0°C)

Storage:

Lower limit \_\_\_\_\_ -80°F (-62.2°C) (for period  
not more than 3 days)  
Upper limit \_\_\_\_\_ +160°F (+71.1°C)  
(for period not more than 4 hr/day)

**PACKING:**

1 round per fiber container; 2 containers per wooden box:

Packing Box:

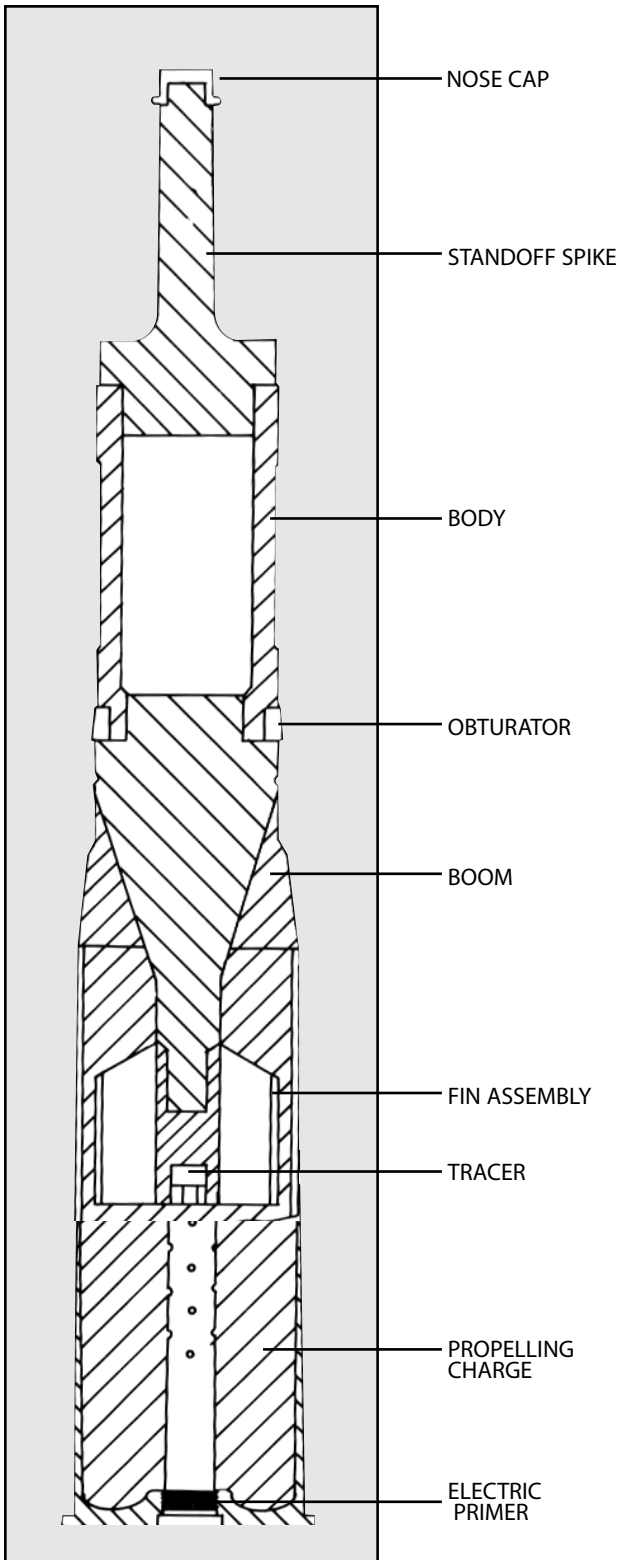
Weight \_\_\_\_\_ 132 lb (59.9 kg)  
Dimensions \_\_\_\_\_ 45<sup>7</sup>/<sub>8</sub> x 14<sup>1</sup>/<sub>2</sub> x 8<sup>3</sup>/<sub>4</sub> in.  
(1165.1 x 368.3 x 222.3 mm)  
Cube \_\_\_\_\_ 3.3 cu ft (.09 cu m)

**SHIPPING & STORAGE DATA:**

Storage class/SCG \_\_\_\_\_ (08) 1.2C  
DOT shipping class \_\_\_\_\_ B  
DOT designation \_\_\_\_\_ AMMUNITION FOR CANNON WITH  
EMPTY PROJECTILES  
DODAC \_\_\_\_\_ 1315-C511  
Drawing number \_\_\_\_\_ 8865533

**LIMITATIONS:**

Cartridge M490 manufactured prior to January 1967 have a cartridge case liner that utilizes a low-melt wax. Do not fire cartridges that have been tank transported at temperatures above +120°F (+49°C)



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