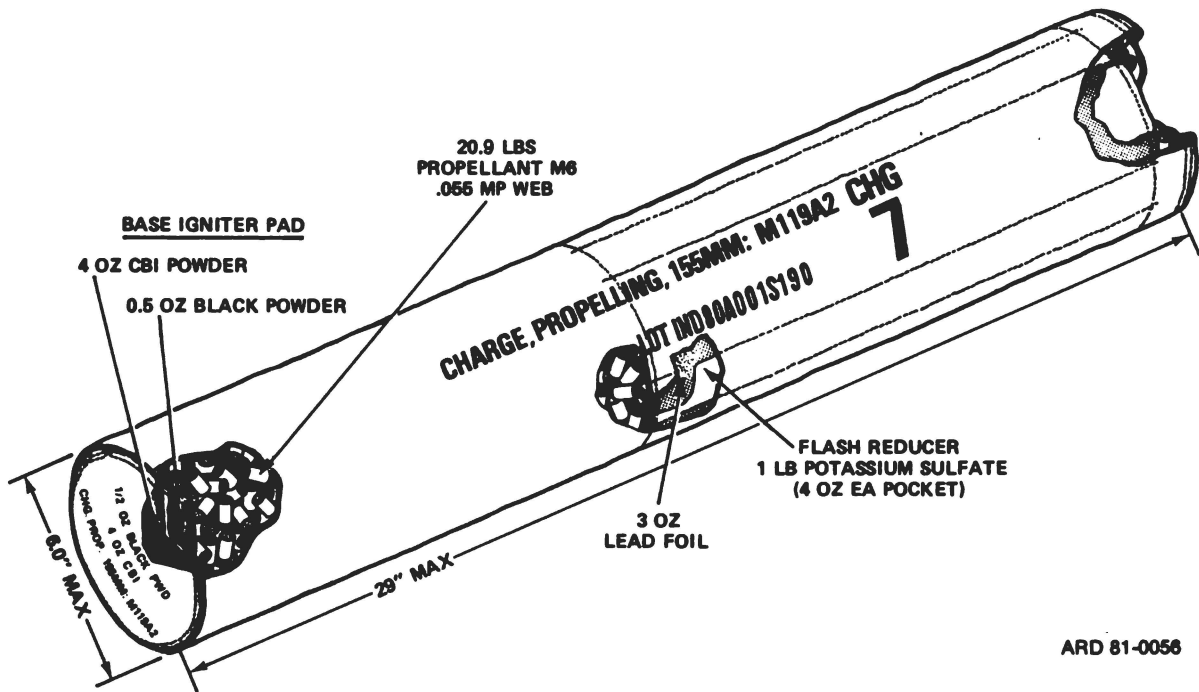


CHARGE, PROPELLING 155MM: M119A2



ARD 81-0056

Type Classification:

M119A2 STD. MSR 09806009

Use:

This propelling charge is a zone 7 red bag charge for firing in 155mm Howitzers containing M185 and M199 cannon tubes.

Description:

The M119A2 Propelling Charge is a single increment red bag charge which contains a base igniter pad with 4 oz CBI powder and a center spot of 0.5 oz of black powder. The charge is approximately 29 in. long by 6 in. in diameter and contains 20.9 lbs of M6 propellant. The

forward end of the charge has a 3 oz lead foil liner and four pockets sewn longitudinally to the circumference. Each of the four pockets contains 4 oz of potassium sulfate to act as a flash reducer.

Functioning:

Upon firing the weapon, a flash from the primer ignites the CBI powder in the base igniter pad which ignites the black powder spot. The burning of the CBI and black powder spot in turn ignites the propellant. The burning propellant generates rapidly expanding gases which propel the projectile through the barrel and up to the velocity required to reach the target. The flash reducer functions to reduce blast overpressure and flash at the muzzle of the weapon. The lead

foil liner serves to prevent copper build-up (coppering) in the weapon.

Differences between Models:

The M119A2 is base ignited and does not contain a center igniter core and tube as in the case of the M119 (M119A1). Although this charge is a zone 7 it can be used interchangeably with the M119, M119A1 zone 8 charges and like these charges the M119A2 is to be used in the M185 and M199 gun tubes only. The M119A2 does not have the outer lacing jacket that is used to wrap the M119 and M119A1 propelling charge.

Tabulated Data:

Type ----- Red bag, separate loading  
 Weight ----- 23.5 lb  
 Length ----- 29 in  
 Color ----- Red w/black markings  
 Cannon used with -- M185 (M109A1/A2/A3) M199 (M198).  
 Propellant ----- M6, 20.9 lb  
 Primer ----- M82  
 Flash reducer ----- Potassium Sulfate, 1 lb  
 Igniter ----- CBI 4 oz, black powder 0.5 oz

Temperature Limits:

Firing:  
 Lower limit ----- -40°F (-40°C)  
 Upper limit ----- +125°F (+52°C)  
 Storage:  
 Lower limit ----- -65°F (-53.8°C)  
 (for periods not more than 3 days)  
 Upper limit ----- +160°F (+71.1°C)  
 (for periods not more than 4 hr/day)

\*Packing ----- 1 propelling charge in metal container PA37A1.

\*Propelling charge container:  
 Weight ----- 44 lbs  
 Dimensions ----- 32 3/4 in long x 8 13/32 in. dia  
 Cube ----- 1.3 cu ft

\*NOTE:

Shipping and Storage Data:

Storage class/SCG ----- 1.3 C  
 DOT shipping class ----- B  
 DOT designation ----- PROPELLANT EXPLOSIVES SOLID-CLASS B  
 DODAC ----- 1320-D533  
 Assembly Dwg. No. ----- 9333954  
 Container Dwg. No. ----- 9333957

Preparation For Firing:

Igniter protector cap held in place by tie strap must be removed before firing. Tie strap is marked "Remove Before Firing".

Limitations:

N/A

Reference:

TM 9-1300-251-20  
 TM 9-1300-251-34  
 TM 9-2350-217-10N  
 TM 9-1025-211-10  
 TM 9-2350-303-10