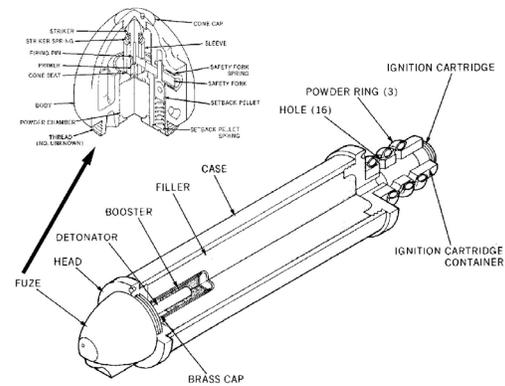
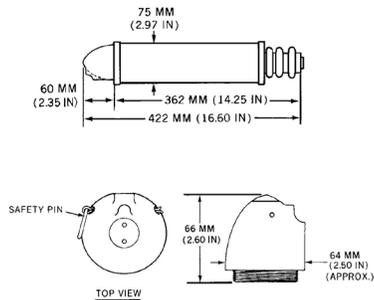


Ordnance Technical Data Sheet

U.S. CARTRIDGE, 3-INCH, STOKES, HE, MK I



Nomenclature 3-INCH, STOKES, HE, MK I

Ordnance Family Projectiles

DODIC Not Provided

Filler TNT

Filler Weight 1.01 kg

Item Weight 5.7 kg

Diameter 75.00 mm

Length 362.00 mm

Maximum Range Not Provided

Fuze Mk VI

Usage

The Stokes is a mortar-fired, high-explosive (HE) cartridge. The HE cartridge is used against personnel and material. They use a Mk VI fuze, which is a setback-armed, impact-inertia fired, all-way fuze.

Description

The HE case is painted yellow with black stenciling. The heads of all cases are stamped with the name and mark number of the case, lot number of unfilled cases, inspectors stamp, and initials or symbol of manufacturer of metal parts. The cases are stenciled to show the caliber and type, mark number, filler, lot number, and the date and place loaded. The ignition cartridge has a green case with a brass base, the bottom of which is stamped with its mark number and the manufacturer's initials

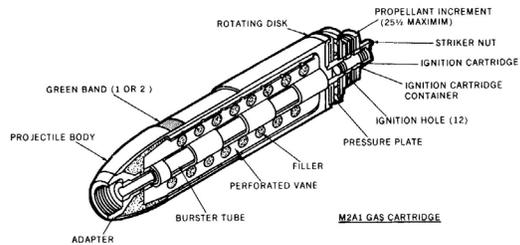
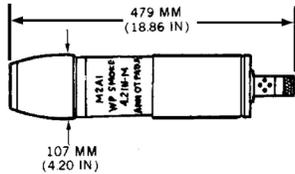
or symbol. The fuze is painted black and stamped with the manufacturer's initials or symbol of the loading plant, and month and year of loading.

Reference

ORDATA online

Ordnance Technical Data Sheet

U.S. CARTRIDGE, 4.2-INCH (107-MM), SMOKE, WP, M2, M2A1



Nomenclature 4.2-INCH (107-MM), SMOKE, WP, M2, M2A1

Ordnance Family Projectiles

DODIC Not Provided

Filler White Phosphorus

Filler Weight 3.40 kg

Item Weight 11.30 kg

Diameter 107.00 mm

Length 479.00 mm

Maximum Range Not Provided

Fuze Not Provided

Usage These are Army, spin-stabilized projectiles fired from mortars, to produce screening or spotting smoke and incendiary effects. The projectiles are filled with white phosphorus (WP), some obsolete M2-series smoke cartridges have a substitute filler of titanium tetrachloride (FM) or sulfur trioxide-chlorosulfonic acid (FS). Currently manufactured projectiles have light green projectile bodies with one yellow band and light red identification markings. Projectiles of earlier manufacture have gray bodies with one yellow band and yellow markings.

Description

Reference **ORDATA** online

Ordnance Technical Data Sheet **U.S. PROJECTILE, 20-MM, BALL, MK I**



Nomenclature 20-MM, BALL, MK I

Ordnance Family Projectiles

DODIC Not Provided

Filler None

Filler Weight Not Applicable

Item Weight Not Provided

Diameter 20.00 mm

Length Not Provided

Maximum Range Not Provided

Fuze Not Provided

Usage This gun and its ammunition are Army-designed but have been adapted as Naval equipment with the installation of the gun on Naval planes. The ammunition is distinguished from that designed for the Oerlikon gun by the extractor lip on the base of the cartridge, which is the same diameter as the rest of the case. Two series of ammunition for this gun are in use. The "Old Series" consists of unmatched rounds, some adapted from British prototypes, other designed by the Army. The "New Series" is a set of ballistically matched rounds designed by the Army to supersede those of the "Old Series". For identification of specific rounds, the projectile body is painted a specific color.

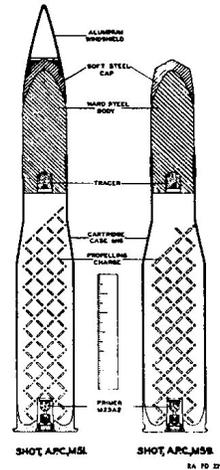
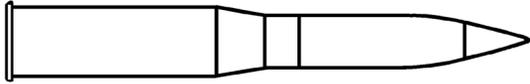
Description The projectile is Black over all.

Reference **ORDATA online**

Reference

ORDATA online

Ordnance Technical Data Sheet U.S. PROJECTILE, 37-MM, APC, M51



Nomenclature 37-MM, APC, M51

Ordnance Family Projectiles

DODIC Not Provided

Filler Tracer

Filler Weight Not Provided

Item Weight 870.91 g

Diameter 75.00 mm

Length 161.54 mm

Maximum Range Not Provided

Fuze M51

Usage This round has all of the features of an ideal armor-piercing shot, and is effective against all types of armor plate. The term A.P.C. in the nomenclature of armor-piercing projectiles stands for armor-piercing, capped.

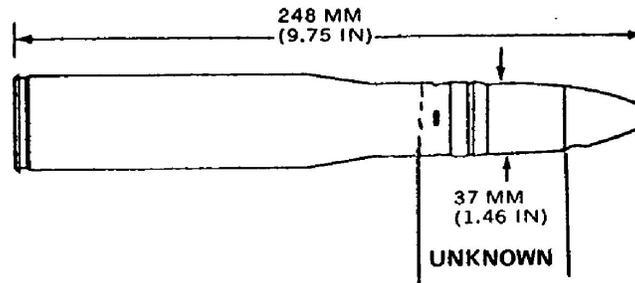
Description The model number marked on the projectile may be either M51, M51B1 or M51B2; rounds so marked are identical in functioning, the B1 or B2 designations signifying only that the projectiles are manufacturing alternatives of the M51. The complete round may be identified for the M3 and M3A1 (antitank) and M5 and M6 (tank) Guns by the length (8.75

inches) and extracting flange of the cartridge case. It can be distinguished as the A.P.C. M51 Round by the aluminum windshield or, if the windshield is not assembled, by the threads on the armor-piercing cap. The complete round is 14.53 inches long and weighs 3.41 pounds. Since the projectile is inert, it is painted black and stenciled in white.

Reference

ORDATA online

Ordnance Technical Data Sheet U.S. PROJECTILE, 37-MM, HE, GUN, M54A1



Nomenclature 37-MM, HE, GUN, M54A1

Ordnance Family Projectiles

DODIC Not Provided

Filler Tetryl

Filler Weight 45.36 kg

Item Weight 1.19 kg

Diameter 37.00 mm

Length 105.92 mm

Maximum Range Not Provided

Fuze M54, M56

Usage

These are general purpose projectiles used for blast and fragmentation effect against personnel, unarmored material targets, and aircraft. They contain a substantial HE main charge and consequently have relatively thin to medium body-wall thickness. Their fragmentation effect results from fracture of the body wall on detonation of the main charge. They are or may be fitted with a variety of fuzes for effective use in engaging different types of targets. The complete round of M54, H.E. Shell can be identified for the Antiaircraft Gun M1A2 by the extracting groove in the cartridge case. The presence of

the M56 Fuze identifies the round as H.E. M54. The only other 37-mm round for the M1A2 Gun that has a fuze is the practice round. The complete round is 12.81 inches long and weighs 2.62 pounds.

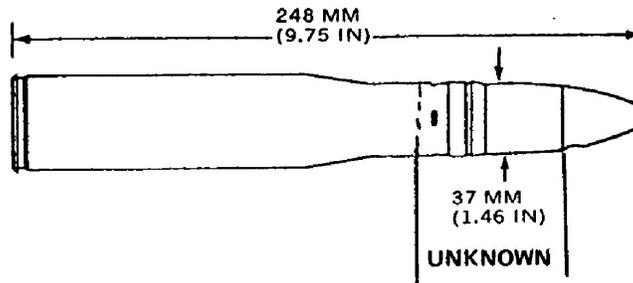
Description

The M54 is painted olive drab and stenciled in yellow.

Reference

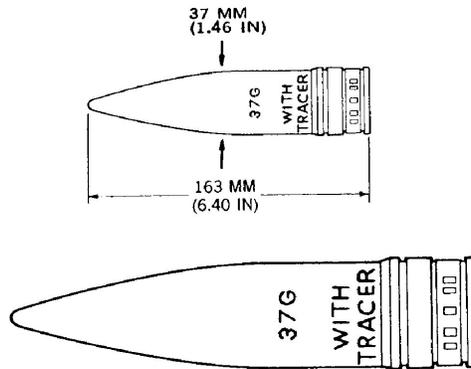
ORDATA online

Ordnance Technical Data Sheet
U.S. PROJECTILE, 37-MM, TP, GUN, M55A1



Nomenclature	37-MM, TP, GUN, M55A1
Ordnance Family	Projectiles
DODIC	Not Provided
Filler	None
Filler Weight	Not Applicable
Item Weight	Not Provided
Diameter	37.00 mm
Length	247.65 mm
Maximum Range	Not Provided
Fuze	Not Provided
Usage	These projectiles are similar in ballistic properties to service projectiles and are used for practice firing and training in marksmanship.
Description	They may be made from service projectiles or from components similar in shape to service projectiles. This round was designed to simulate the M54, HE shell for practice firing.
Reference	ORDATA online

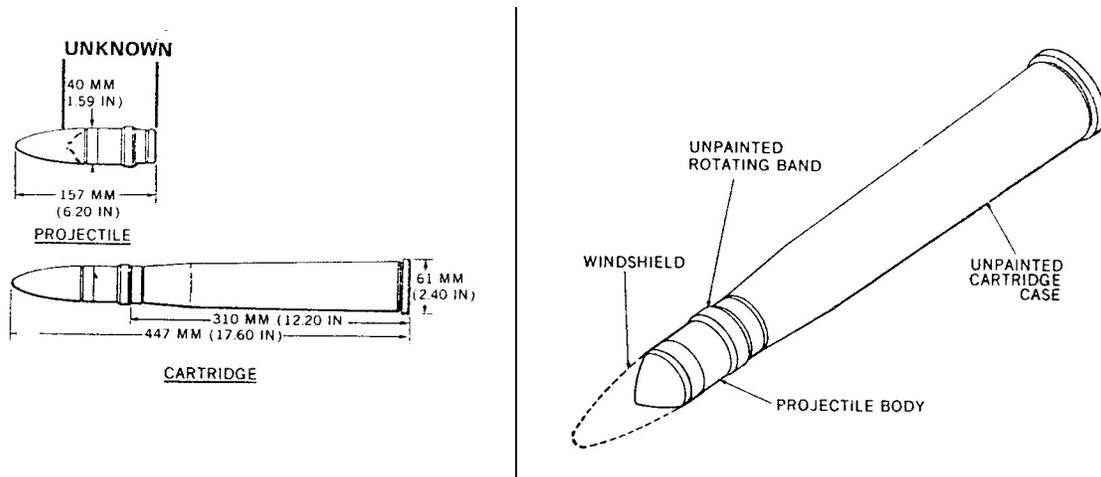
Ordnance Technical Data Sheet U.S. PROJECTILE, 37-MM, TP, GUN, M51A2



Nomenclature	37-MM, TP, GUN, M51A2
Ordnance Family	Projectiles
DODIC	Not Provided
Filler	None
Filler Weight	Not Applicable
Item Weight	Not Provided
Diameter	37.00 mm
Length	162.56 mm
Maximum Range	Not Provided
Fuze	M51
Usage	Target practice shot is for use in target practice and general field practice. The M51, T.P., Shot is listed as standard for issue and manufacture in SNL R-1. A T.P. Shot, M51A1 is also listed in SNL R-1 and is standard for issue only.
Description	Except for blue painting and white stencil, the T.P. M51 Round has the same appearance as the Service Round APC M51.
Reference	ORDATA online

Ordnance Technical Data Sheet

U.S. PROJECTILE, 40-MM, AA, AP, AND APT, M8I AND M8IAI



Nomenclature 40-MM, AA, AP, AND APT, M8I AND M8IAI

Ordnance Family Projectiles

DODIC Not Provided

Filler None

Filler Weight Not Applicable

Item Weight 2.08 kg

Diameter 40.00 mm

Length 157.00 mm

Maximum Range Not Provided

Fuze PD

Usage The figure shows the appearance and dimensions of the M8I & M8IAI Projectiles. NOTES: The M8I cartridge differs from the M8IAI in that its windshield is attached to the projectile body by an adapter.

Description Cartridges procured by the Army are painted black with identification and manufacturing information stenciled in white. Some projectiles, used for training, have a vapor-trail-producing dipcoating compound applied to the windshield. Cartridges procured by the Navy have an ammunition lot number (ALN)

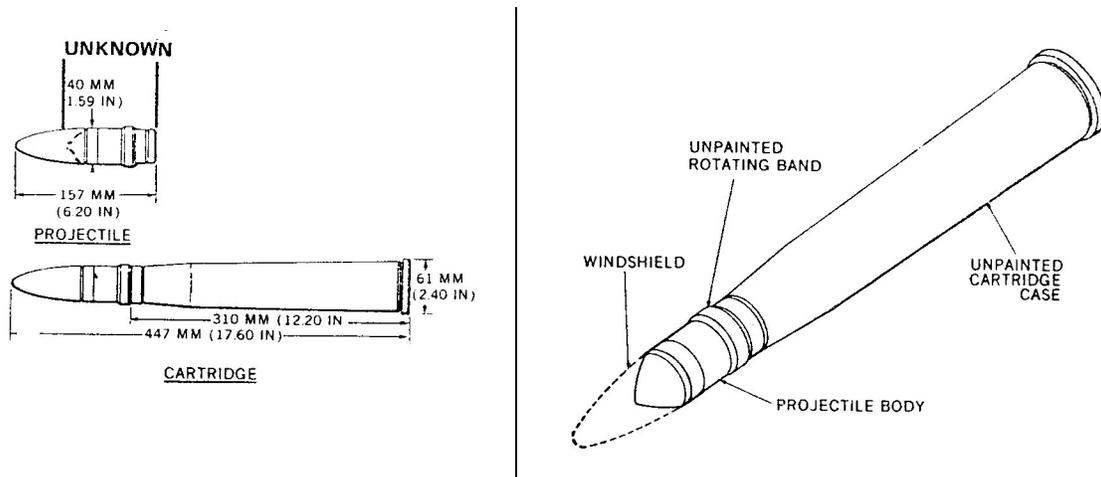
stenciled in black on the side of the case. The ALN prefixes for the AP and APT are "UC" and "UD", respectively. The AP projectiles are painted black except for the rotating band. They have white identification stenciling only if of recent manufacture. The APT projectiles additionally have a white band around the ogive, if of early manufacture, or the red letter "T" stenciled on the ogive, if of recent manufacture.

Reference

ORDATA online

Ordnance Technical Data Sheet

U.S. PROJECTILE, 40-MM, AA, AP, AND APT, M8I AND M8IAI



Nomenclature 40-MM, AA, AP, AND APT, M8I AND M8IAI

Ordnance Family Projectiles

DODIC Not Provided

Filler None

Filler Weight Not Applicable

Item Weight 2.08 kg

Diameter 40.00 mm

Length 157.00 mm

Maximum Range Not Provided

Fuze PD

Usage The figure shows the appearance and dimensions of the M8I & M8IAI Projectiles. NOTES: The M8I cartridge differs from the M8IAI in that its windshield is attached to the projectile body by an adapter.

Description Cartridges procured by the Army are painted black with identification and manufacturing information stenciled in white. Some projectiles, used for training, have a vapor-trail-producing dipcoating compound applied to the windshield. Cartridges procured by the Navy have an ammunition lot number (ALN)

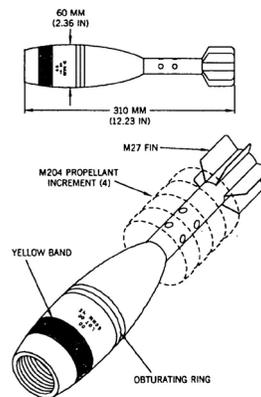
stenciled in black on the side of the case. The ALN prefixes for the AP and APT are "UC" and "UD", respectively. The AP projectiles are painted black except for the rotating band. They have white identification stenciling only if of recent manufacture. The APT projectiles additionally have a white band around the ogive, if of early manufacture, or the red letter "T" stenciled on the ogive, if of recent manufacture.

Reference

ORDATA online

Ordnance Technical Data Sheet

U.S. PROJECTILE, 60-MM, HE, M720, M888



Nomenclature	60-MM, HE, M720, M888
Ordnance Family	Projectile
DODIC	Not Provided
Filler	Composition B
Filler Weight	359.00 g
Item Weight	1.81 kg
Diameter	60.00 mm
Length	310.00 mm
Maximum Range	Not Provided
Fuze	Not Provided
Usage	This is an Army, fin stabilized, mortar fired projectile.
Description	The body is painted olive drab green with yellow markings.
Reference	ORDATA online

Ordnance Technical Data Sheet
U.S. PROJECTILE, 75-MM, HE, M41A1



Nomenclature	76-MM, HE, M41A1
Ordnance Family	Projectiles
DODIC	Not Provided
Filler	Cast TNT
Filler Weight	498.96 g
Item Weight	6.24 kg
Diameter	75.00 mm
Length	248.16 mm
Maximum Range	Not Provided
Fuze	Not Provided
Usage	This is a spin stabilized, high explosive projectile.
Description	Not Provided.
Reference	ORDATA online

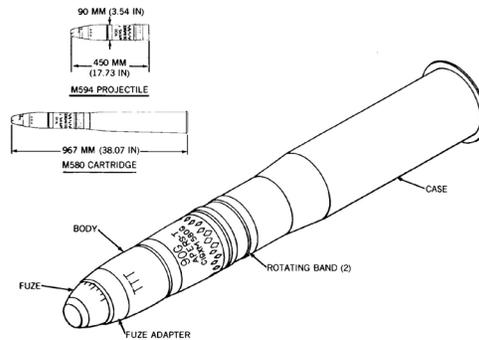
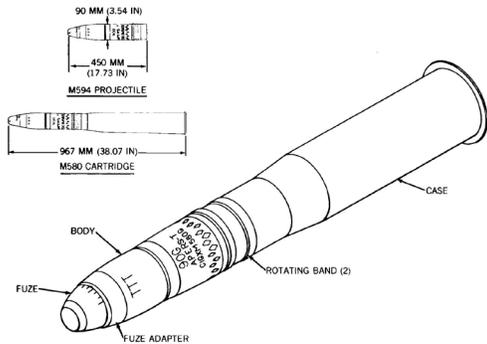
Ordnance Technical Data Sheet
U.S. PROJECTILE, 76-MM, HE, M42A1



Nomenclature	76-MM, HE, M42A1
Ordnance Family	Projectiles
DODIC	Not Provided
Filler	TNT
Filler Weight	390.10 g
Item Weight	4.76kg
Diameter	77.72 mm
Length	820.17 mm
Maximum Range	Not Provided
Fuze	Not Provided
Usage	This is a spin stabilized, high explosive projectile.
Description	The projectile is painted yellow with black markings.
Reference	ORDATA online

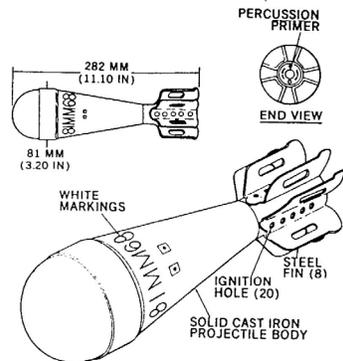
Ordnance Technical Data Sheet

U.S. CARTRIDGE, 90-MM, APERS-T, M580 WITH PROJECTILE, 90-MM, APERS-T, M594



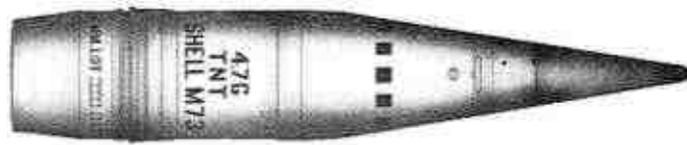
Nomenclature	90-MM, APERS-T, M580 WITH PROJECTILE, 90-MM, APERS-T, M594
Ordnance Family	Projectiles
DODIC	Not Provided
Filler	Propellant, Flake
Filler Weight	15.00 g
Item Weight	10.00 kg
Diameter	90.00 mm
Length	450.00 mm
Maximum Range	Not Provided
Fuze	Not Provided
Usage	This is a spin-stabilized, antipersonnel-with-tracer projectile containing flechettes. The projectile is fired in gun cannons for antipersonnel effect at close or long ranges and in dense foliage.
Description	The projectile body is painted olive drab, with a yellow band around the front and a staggered row of white diamonds above the rotating bands. Identification information is stenciled in white on the body, and red Ts are stenciled on the ogive.
Reference	ORDATA online

Ordnance Technical Data Sheet U.S. PROJECTILE, 81-MM, TRAINING, MORTAR, M68



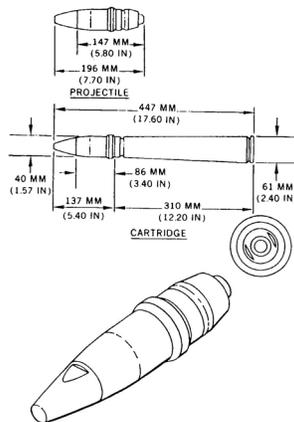
Nomenclature	81-MM, TRAINING, MORTAR, M683
Ordnance Family	Projectiles
DODIC	Not Provided
Filler	None
Filler Weight	Not Applicable
Item Weight	4.89 kg
Diameter	81.00 mm
Length	282.12 mm
Maximum Range	Not Provided
Fuze	Not Applicable
Usage	This is an Army, fin stabilized, mortar fired projectile, used for training on the loading and firing of the mortar.
Description	Currently manufactured projectiles are painted blue, earlier manufactured projectiles are painted black.
Reference	ORDATA online

Ordnance Technical Data Sheet **U.S Projectile, 4.7 IN, HE, AA, M73**



Nomenclature	4.7 IN, HQ, AA, M73
Ordnance Family	Projectiles
DODIC	Not Provided
Filler	TNT
Filler Weight	2.39 kg
Item Weight	22.68 kg
Diameter	119.13 mm
Length	611.12 mm
Maximum Range	Not Provided
Fuze	Not Provided
Usage	This projectile is used against aircraft.
Description	The projectile is painted yellow or olive drab with black or yellow markings.
Reference	ORDATA online

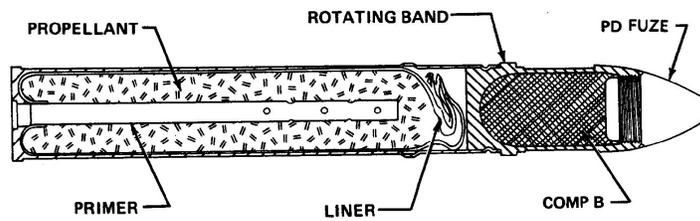
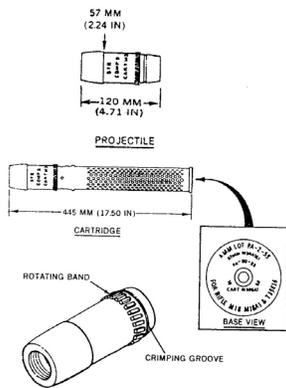
Ordnance Technical Data Sheet U.S. PROJECTILE, 40-MM, TPT, M91



Nomenclature	40-MM, TPT, M91
Ordnance Family	Projectiles
DODIC	Not Provided
Filler	Tracer Mix
Filler Weight	Not Provided
Item Weight	2.08 kg
Diameter	40.00 mm
Length	196.00 mm
Maximum Range	Not Provided
Fuze	Not Provided
Usage	These are spin stabilized, gun fired projectiles. This projectile is procured only by the Army.
Description	The projectile is painted blue with white stenciled identification markings.
Reference	ORDATA online

Ordnance Technical Data Sheet

U.S. PROJECTILE, 57-MM, HE, M306 & M306A1



Nomenclature 57-MM, HE, M306 & M306A1

Ordnance Family Projectiles

DODIC Not Provided

Filler TNT

Filler Weight 227.00 g

Item Weight 2.48 kg

Diameter 57.00 mm

Length 120.00 mmd

Maximum Range Not Provided

Fuze Not Provided

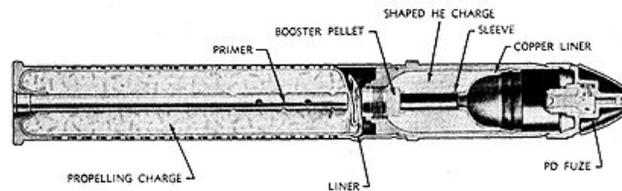
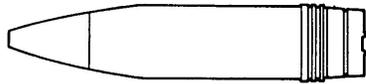
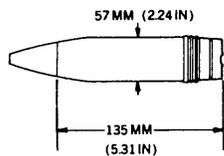
Usage The M306 differs from the M306A1 only in the design of the crimping groove. The HE cartridge M306A1 consists of a perforated cartridge case containing a plastic liner and percussion primer. The propelling charge is loosely loaded into the liner. The cartridge case is crimped to a high-explosive projectile with a square base, a short internally threaded ogive and integral, pre-engraved rotating band.

Description The projectile is olive drab with yellow markings.

Reference

ORDATA online

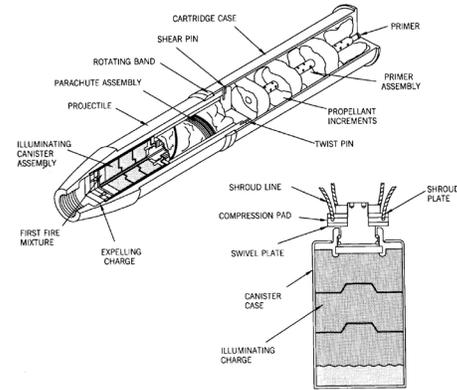
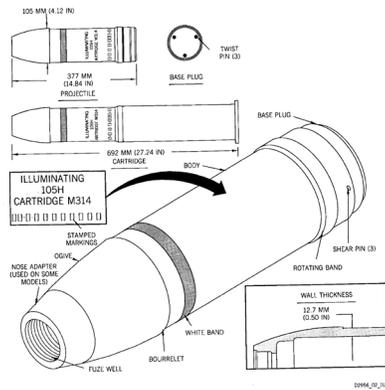
Ordnance Technical Data Sheet U.S. PROJECTILE, 57-MM (GUN), HE, M307A1



Nomenclature	57-MM (GUN), HE, M307A1
Ordnance Family	Projectiles
DODIC	Not Provided
Filler	Composition B
Filler Weight	170.10 g
Item Weight	Not Provided
Diameter	57.00 mm
Length	135.00 mm
Maximum Range	Not Provided
Fuze	PD
Usage	This is a spin stabilized, recoilless fired, high explosive anti-tank projectile.
Description	The projectile is painted olive drab with yellow markings.
Reference	ORDATA online

Ordnance Technical Data Sheet

U.S. CARTRIDGE, 105-MM, LLUMINATING, M314, M314A1, M314A2, & M314A3



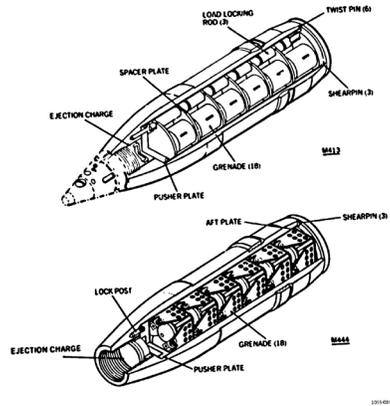
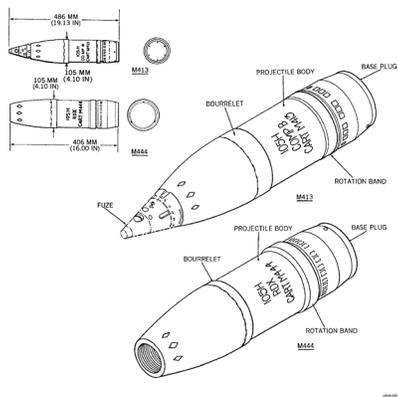
Nomenclature	105-MM, LLUMINATING, M314, M314A1, M314A2, & M314A3
Ordnance Family	Projectiles
DODIC	Not Provided
Filler	Black Powder
Filler Weight	1.40 kg
Item Weight	17.70 kg
Diameter	105.00 mm
Length	377.00 mm
Maximum Range	Not Provided
Fuze	M 565, M577, M724, or M501
Usage	These are howitzer-fired base-ejection cartridges with a parachute-retarded illuminating canister installed. The M314A3 projectile uses the M565, M577, or the M724 fuzes. The M314, M314A1, & M314A2 use the M501 series fuze.
Description	The M314-series projectile could have a gray body with white band and white marking, or a white body with black markings. The caliber, shell designation, lot number, and date of manufacture are stamped into the projectile bodies, just forward of the rotating band.

Reference

ORDATA online

Ordnance Technical Data Sheet

U.S. PROJECTILE, 105-MM, HOWITZER, HE, M413



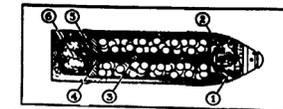
Nomenclature	105-MM, HOWITZER, HE, M413
Ordnance Family	Projectiles
DODIC	Not Provided
Filler	Composition B
Filler Weight	514.00 g
Item Weight	15.00 kg
Diameter	105.00 mm
Length	486.00 mm
Maximum Range	Not Provided
Fuze	Not Provided
Usage	These are Army, howitzer-fired antipersonnel projectiles which dispense grenades during flight. The M413 contains M35 grenades.
Description	The projectiles are painted olive drab. There is a row of yellow diamonds 35 millimeters (1.38 inches) from the base of the fuze. Markings (stenciled in yellow) include nomenclature and type of filler. The M413 projectile was previously marked I05 H, COMP B, SHELL T-377E1 and did not have the antipersonnel identification marking.

Reference

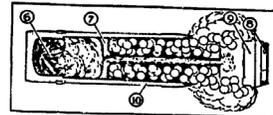
ORDATA online

Ordnance Technical Data Sheet

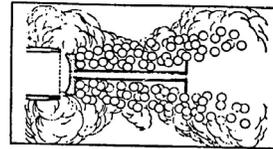
U.S. PROJECTILE, 75-MM, SHRAPNEL, MK 1(I)



ACTION OF FLAME THROUGH CENTRAL TUBE AND IGNITION OF BASE CHARGE



ACTION OF BASE CHARGE AND FORMATION OF SMOKE BALL FROM MATRIX



ACTION OF BASE CHARGE COMPLETED. SMOKE BALL AUGMENTED BY BASE CHARGE. SHRAPNEL BALLS SPREADING TO FORM CONE.

DA PD 1294

Nomenclature 75-MM, SHRAPNEL, MK 1(I)

Ordnance Family Projectiles

DODIC Not Provided

Filler Black Powder

Filler Weight 85.05 g

Item Weight Not Provided

Diameter 75.00 mm

Length Not Provided

Maximum Range Not Provided

Fuze Not Provided

Usage This round is an example of a very early type of artillery ammunition, having been developed in 1784 by Lieutenant Shrapnel, a British officer. Its use against troops in the open has been fulfilled by high-explosive shell which has been found to serve this same purpose more efficiently by reason of the large number of jagged steel fragments which they scatter in all directions at a high velocity.

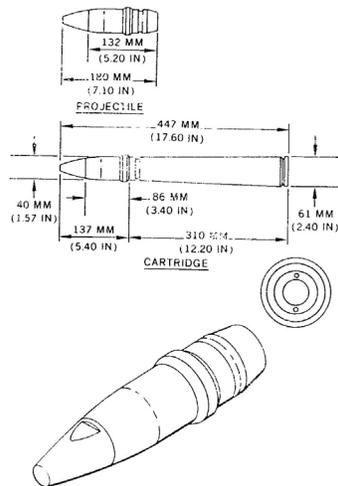
Description Shrapnel and low-explosive shells are painted red. This

indicates that they contain a charge of low explosive.

Reference

ORDATA online

Ordnance Technical Data Sheet
U.S. PROJECTILE, 40-MM, TP, MK I MOD I THRU 24; MK 2 MODSI THRU 36; & TPT, M9I



Nomenclature	40-MM, TP, MK I MOD I THRU 24; MK 2 MODSI THRU 36; & TPT, M9I
Ordnance Family	Projectiles
DODIC	Not Provided
Filler	Tracer Mix
Filler Weight	Not Provided
Item Weight	Not Provided
Diameter	40.00 mm
Length	180.00 mm
Maximum Range	Not Provided
Fuze	Not Provided
Usage	This is a spin stabilized, gun fired, target practice projectile.
Description	The TPT projectiles are painted blue with white stenciled identification markings. Others of recent manufacture are

painted olive drab with yellow identification markings.

Reference

ORDATA online