

TECHNICAL MANUAL

USE OF MINE, ANTITANK

HE, HEAVY, M15 AS A

SUBSTITUTE FOR

CHARGE ASSEMBLY

DEMOLITION: M37 OR M183

HEADQUARTERS, DEPARTMENT OF THE ARMY

14 JUNE 1971

TECHNICAL MANUAL

No. 9-1375-200/2

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, D.C., 14 June 1971

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CHAPTER 1

INTRODUCTION

Section I. GENERAL

1-1. Scope

This manual provides operator instructions for use of excess Heavy HE Antitank Mines M15 as demolition charges and in priming techniques. Such use will prevent waste and save stocks of Demolition Charge Assemblies M37 and M183, which contain approximately the same amount of high explosive. However, mines cannot be used for all operations normally undertaken with charge assemblies.

1-2. Forms, Records and Reports

a. General. Commanding Officers of units receiving this ammunition are responsible for preparation of forms, records and reports. For reporting purposes, ammunition is identified by the following information given on the outermost packaging of the ammunition and, in most cases, on the individual item as well: The Federal Stock Number (FSN), line item number, the standard nomenclature, the lot number and date of manufacture.

For example: 1375-691-1671, M766,
Igniter, Time Blasting Fuse: M60,
Weatherproof, Lot KYC 4-12,
3-69.

b. Field Reports of Accidents. Accidents involving injury to personnel or damage to materiel are reported on DA Form 285 or DA Form 1051, in accordance with instructions in AR 385-40.

c. Malfunction Reports.

(1) *Definition of a malfunction.* A malfunction is a failure of Mine M15 to perform as expected when fired. For reporting purposes, malfunctions do not include accidents and fires resulting from negligence, malpractice and the like. However, malfunctions do include abnormal or premature functionings which occur during normal handling, maintenance, storage, transportation and tactical deployment.

(2) *Malfunctions involving standard issue.*

The procedure in AR 75-1 will be followed in reporting malfunctions which occur during the following:

(a) Training and combat missions.

(b) Tests (including comparison, safety, climatic, reliability, etc.) conducted subsequent to the acceptance test.

d. Report of Damaged or Improper Shipment

Damaged or improper shipments will be reported immediately to the forward supply unit (FSU), ammunition supply point (ASP) or depot from which the items were issued.

e. Fire Reports. As prescribed by AR 385-12, DA Form 5-2 will be used to report fires or explosions followed by fire. DA Form 5-2 will be submitted in addition to the accident reports required by AR 385-40.

f. Report of Hazardous Conditions. Reports will be submitted on all investigations concerning hazards, accidents (b above) and safety of military explosives and ammunition, in accordance with AR 385-60.

g. Forms. Forms generally applicable to the information contained in this manual are listed in the appendix. Forms prescribed for use throughout Department of the Army are listed in DA Pam 310-2. Requisitions for these forms will be submitted in accordance with AR 310-1.

1-3. Errors, Omissions and Recommended Changes

Reporting of errors, omissions and recommendations for improving this publication by the individual user is encouraged. Reports should be submitted on DA Form 2028 (Recommended Changes to Publications) and forwarded direct to the Commanding Officer, Picatinny Arsenal, Attn: SMUPA-DC5, Dover, N.J. 07801.

Section II. DESCRIPTION AND DATA

1-4. Charge Assembly, Demolition: M37

a. Description. This demolition charge assembly (fig. 1-1) consists of eight Block Demolition Charges M5A1, eight block demolition charge hook assemblies, and two Demolition Priming Assemblies M15. Block Demolition Charge M5A1, which is composed of Composition C4, is described in TM 9-1375-200. Priming Assembly M15 (fig. 1-2) consists of approximately 5 feet of detonating cord, to each end of which is attached a Priming Adapter M4A1 and a booster. The priming assembly also includes two detonating cord clips. The adapter is threaded to fit the conventional size cap well of block demolition charges and light antitank mines. The booster, which is about 1/4 inch in diameter and 2 inches in length, contains a charge of 13.5 grains of RDX. Boosters are crimped on to each end of the 5-foot detonating cord, and cemented in place. Clips, in place on the cord about 20 inches from either end of the assembly, are for forming junctions on main lines of detonating cord in a demolition system. The main lines, with their initiators, and Priming Assembly M15 comprise the firing circuit for one or more Block Demolition Charges M5A1.

b. Packing. Block Demolition Charges M5A1 are packed four together in Block Demolition Charge Bag MS. Two bags (eight charges) and two Priming Assemblies M15 are packed in Carrying Case M85. Two complete assemblies are packed in a wood box 17 1/8 inches long, 11 1/2 inches wide and 12 1/2 inches high. The gross weight of the two assemblies and packing box is 57 pounds.

1-5. Charge Assembly, Demolition: M183

a. Description. This demolition charge assembly consists of 16 Demolition Charges M112, 4 demolition priming assemblies and 2 bag assemblies, contained in Carrying Case M85. The priming assemblies consist of approximately 20 feet of detonating cord, 8 detonating cord clips and 8 boosters. Unlike Priming Assemblies M15 used with Charge Assembly M37, the M183's priming assemblies do not have priming adapters. Priming adapters are not needed with Explosive Charges M112 used in the M183. The 16 Explosive Charges M112 contain a total of 20 pounds of Composition C4.

b. Comparison. Demolition Charge Assembly 1-2 M183, which provides a system for general demolition work where easy and quick setups are needed, serves the same purpose as Demolition Charge Assembly M37. The former, however, is more adaptable to field conditions, primarily because of the following:

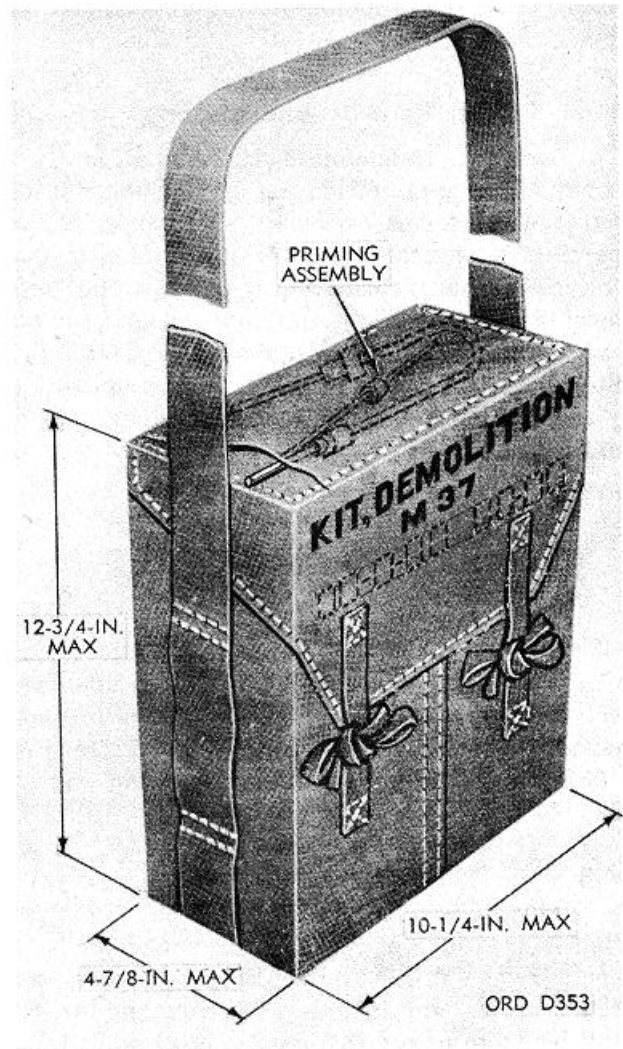


Figure 1-1. Demolition charge assembly M37.

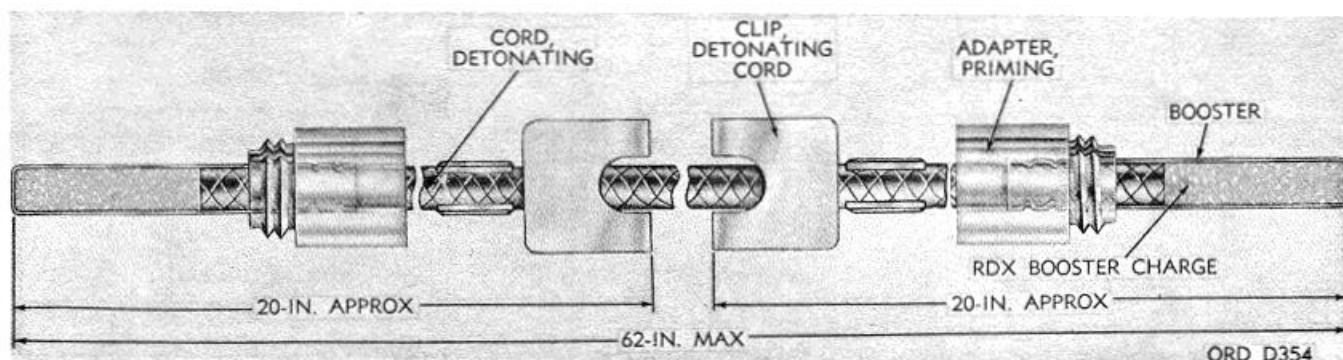


Figure 1-2. Demolition priming assembly M15.

(1) Handier size of Explosive Charges M112, compared to M5A1.

(2) Self-adherence of Block M112, compared to attaching M5A1 to an item.

(3) Block M112 may be easily quartered or cut into smaller fragments to meet requirements of the user.

c. *Packing.* Packing of the M183 is similar to that of Charge Assembly M37.

1-6. Mine, Antitank: HE, Heavy, M15

a. *General.* This high-capacity mine (fig. 1-3 and 1-4) is intended for use against heavy tanks. A minimum force of 250 to 400 pounds on the fuze is required in normal operation to initiate this mine. Therefore, it will not ordinarily be initiated by foot troops. This mine is intended to do its job of incapacitating heavy tanks by a straight blast effect. Figure 1-5 shows the packing box.

b. *Description.* Mine M15 is a disk-shaped device 13 1/8 inches in diameter and 4 7/8 inches in height. Its 22-pound explosive charge of Composition B is contained in a steel case painted olive drab. In normal operation, AT Mine Fuze M603 is installed by the operator when the mine is planted. In addition to the large fuze well in the center of the top of the mine (used for AT Mine Fuze M603 (fig. 1-6) normally issued with AT Mine M15) there are two smaller, secondary fuze wells (fig. 1-4). They are normally used for installation of booby traps to discourage tampering with the mine after it is emplaced. Booster M120 is permanently installed in the main fuze well. The secondary fuze wells, covered with tape to keep threads clean, contain only a cardboard shipping plug. Because the mine uses a relatively insensitive explosive, a booster charge is necessary to initiate it through a secondary fuze well. The mines are issued with such a booster: AT Mine

Activator M1. A complete description of the arming and installation techniques for normal operations will be found in TM 9-1345-200. For use of the mine as a demolition charge, AT Mine Fuze M603 will not normally be installed.

1-7. Activator, Antitank Mine: M1

a. *General.* This activator is essentially a detonator-booster. It may be used with any one of several kinds of firing devices (usually the pull type or pull-release type), to supply an antitank mine with a secondary fuze for antilift or booby-trapping purposes. The activator performs the

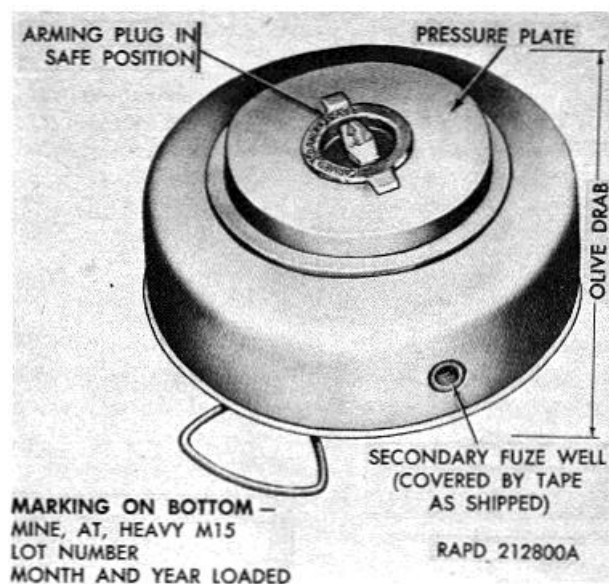


Figure 1-3. Heavy HEAT mine M15.