TECHNICAL MANUAL

OPERATOR'S, ORGANIZATIONAL, AND DIRECT SUPPORT MAINTENANCE MANUAL (INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST) ANTITANK MINE DISPENSING SYSTEM M57 (NSN 1095-00-169-0300)

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REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help Improve this manual. If you find any mistake or know of a way to Improve the procedures, please let us know. Mail your letter, DA Form 2028 Recommended Changes to Publications and Blank Forms), or DA Form 2028-2 located in the back of this manual direct to: Commander, US Army Armament Materiel Readiness Command, ATTN: DRSAR-MAS-MA, Dover, NJ 07801. A reply will be furnished direct to you.

Current as of 27 June 1980

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CHAPTER 1
INTRODUCTION

Section I. General

1-1. Scope

These instructions are published for the use of personnel to whom the ANTITANK mine dispensing system M57 is issued. They provide information on the operation and organizational and direct support maintenance of the system.

1-2. Forms and Records

a. Mine Laying Reports. At least three reports are mandatory for each minefield laid. These reports are the Report of Intention to Lay, the Report of Initiation of Laying, and the Report of Completion of Laying. The Report of Completion of Laying must be followed by a completed Standard Minefield Record, DA Form 1355. Refer to FM 20-32 for preparation of these reports.

b. Field Report of Accidents. Accidents or malfunctions involving the use of ammunition which occur during training or combat will be reported immediately to the qualified ammunition representative under whose supervision the ammunition for the unit involved is maintained or issued. The report will be made by the officer in charge or by the senior noncommissioned officer or enlisted man of the unit involved. AU available pertinent facts will be included in the report. It is the duty of the qualified ammunition representative to investigate thoroughly all cases of malfunction or accident observed by him or reported to him and to report all such cases as outlined in AR 75-1 and AR 385-40.

c. Maintenance Forms and Records. Maintenance forms, records, and reports which are to be used by main-tenance personnel at all maintenance levels are listed in and prescribed by TM 38-750.

Section II. DESCRIPTION AND DATA

1-3. Description and Data

NOTE

All left- and right-hand references are based on view of unit from the rear.

The Antitank Mine Dispensing System (ATMDS) consists of mine cache equipment, a set of mine containers, a mine dispenser, and an overpack kit.

a. The mine cache equipment is used for mine containerization and loading of the mine containers into the towing vehicle.

NOTE

Furnished containers are for M15 AT mines only.

b. The mine containers provide a means for safe transport of the fused, unarmed mines to the minefield. A minimum of three containers should be transported by the recommended towing vehicles (the mine container furnished is configured to hold only Ml5 AT mines). See figure 2-15 for suggested loading.

c. The mine dispenser (fig. 1-1 and 1-2) is a two-wheeled, towed vehicle with adjustable axles, tow beam, and a detachable mid and upper chute. The upper chute is attached to the dispenser during general transport of the dispenser. The dispenser contains a tool box in which tools and spare parts are stored. It is provided with two taillights and a rear service light, but has no brakes. A replaceable weak link in the tow beam allows the dispenser to break away from the towing vehicle when tensile forces of approximately 10, 000 pounds are encountered. This weak link thus prevents damage to the dispenser or towing vehicle when large obstacles are encountered by the dispenser. To aid the plow performance, a disk coulter is mounted in front of the plow side plate. A reinforced rubber stabilizing flap, stored in the dispenser tool box, is used on the rear of the moldboard to prevent mines from "turning over" when surface-dispensed.

WARNING

Early production models of the M57 antitank mine dispensing system included a drag blade assembly for the purpose of smoothing or level-ing the ground behind the plow blade as it passes over the plowed ground. This drag blade assem-bly must be removed and not used because the weight of this assembly could cause the mines that have been laid to explode.

d. The drag blade assembly (see fig. 1-2) is a large steel blade that was issued only with the early production models of the mine dispenser assembly. This assembly, when attached to the drag blade mounting bracket of the mine dispenser, smooths or levels the plowed ground covering the mines that are laid. This drag blade assembly is no longer issued as a part of the mine dispenser and should not be used with the mine dispenser.

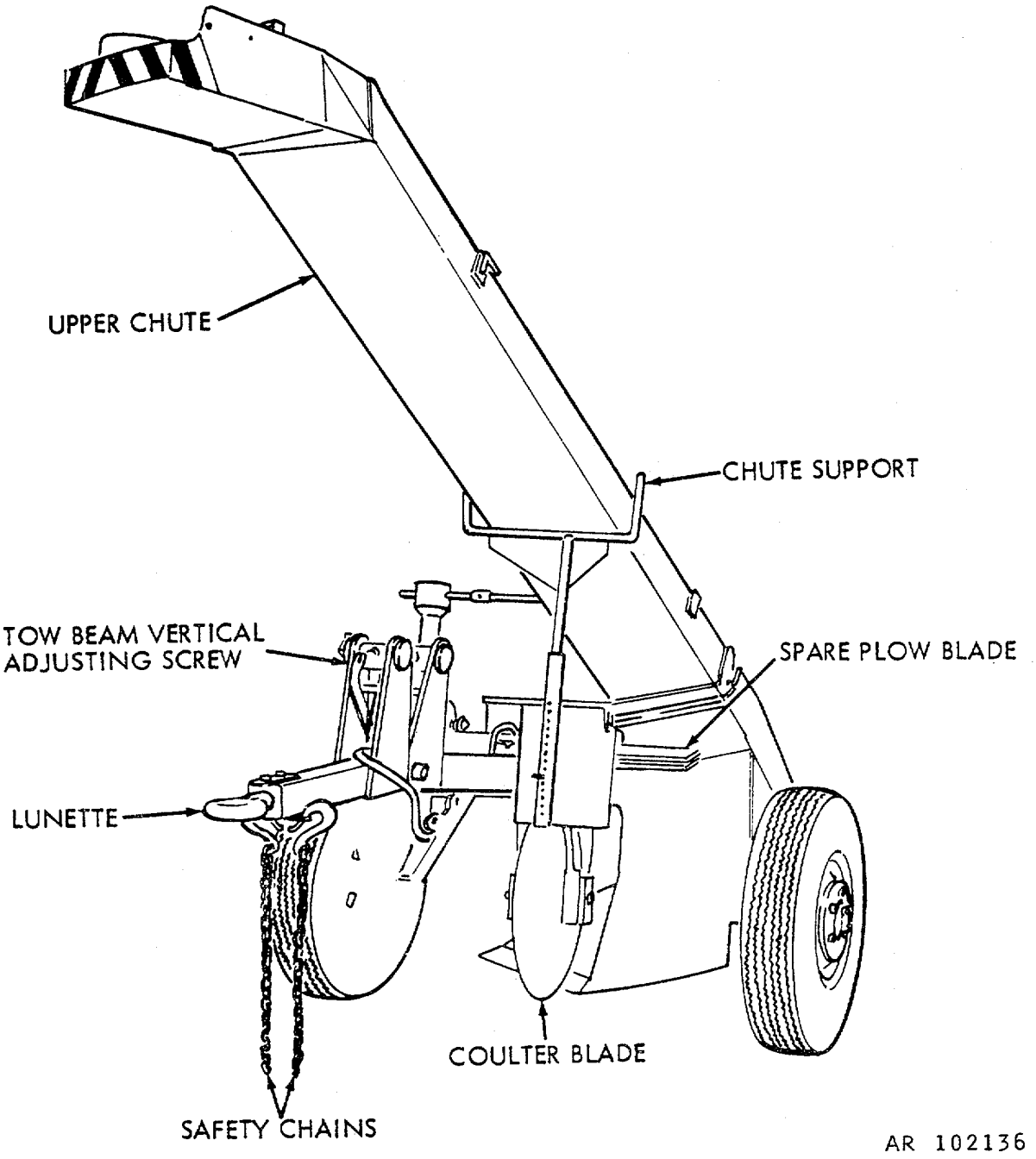

Figure 1-1. Mine dispenser, -left front view.

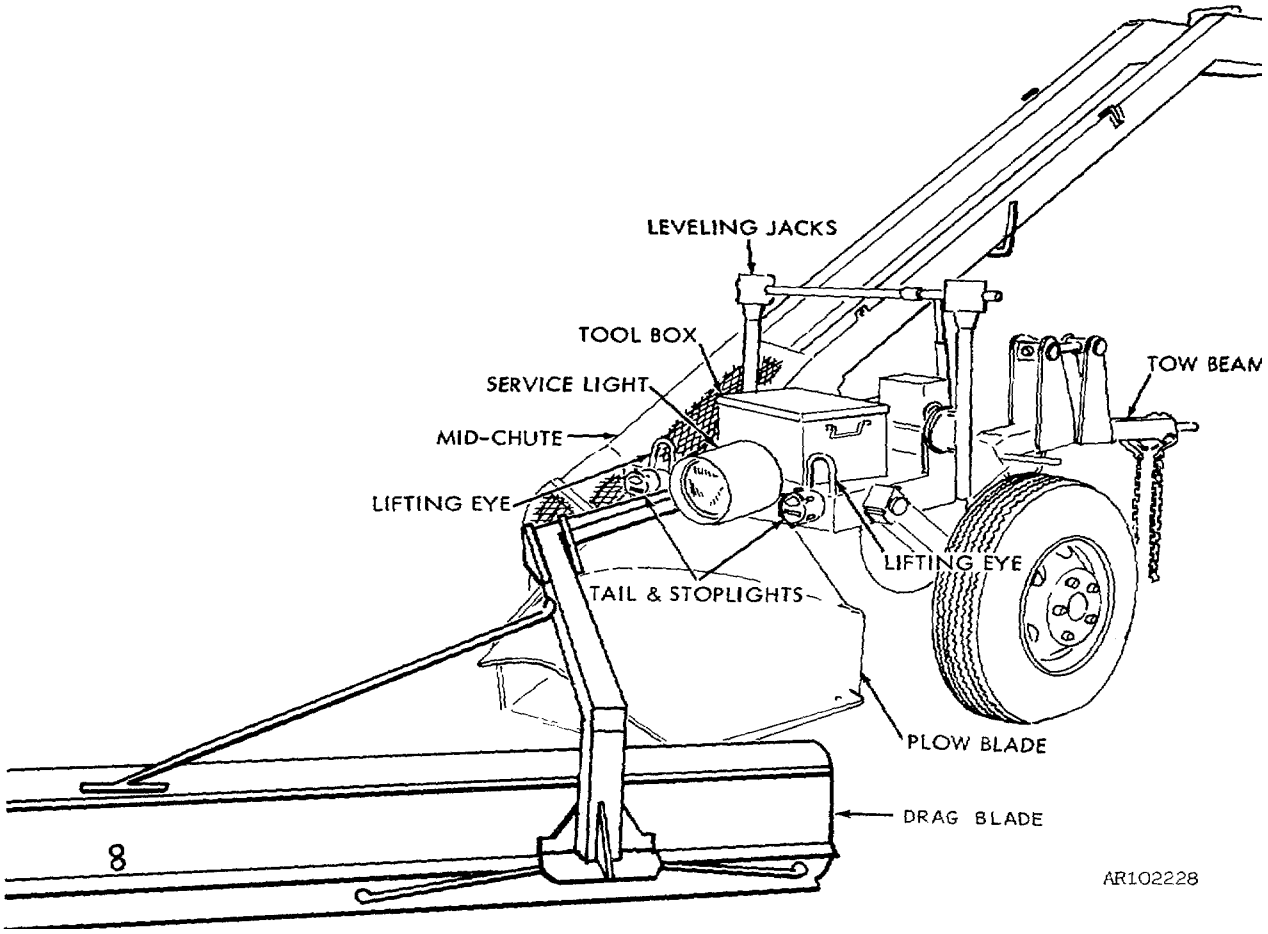

Figure 1-2. Mine dispenser showing drag blade.

1-4. Towing Vehicles

The ATMDS can be used to maximum advantage with M34, M35, M36, M41, M51, M54, MS5, M135, M211, and M656 wheeled trucks. The M548 tracked truck can also be used to full advantage as a prime mover. Ml 13 armored personnel carriers (APCs) can be used in a limited capacity with the ATMDS, but its use is not recommended.

1-5. Identification and Tabulated Data

a. Identification. The ATMDS has only one name-plate; it is located on the dispenser side board, at the left rear of the dispenser. It specifies the nomenclature, stock number, contract number, serial number, date of manufacture, manufacturer, and dispenser weight.

b. Tabulated Data.

(1) Dispenser.

Length-road towing	163 inches (max)
Height-road towing	72 inches (max)
Height-dispensing	110 inches (max)
Width	80 inches (max)
Weight	3235 pounds
Tire size	900 x 16
Tire pressure	20 psi
Road clearance	12 inches (approx)
Vehicle attachment	Standard military trailer lunette, safety chains
Electrical	Standard 24 v military trailer connector
Towing pintle height	Variable, 15 to 40 inches
Towing vehicle requirements	Dispensing, 21/2 ton (min)
Mine planting depth	Variable (surface to 6 in. below surface)
Towing speed	Road, 35 mph (max) Dispensing, 1 to 3 mph
Mine dispensing rate	Variable, to 600 mines per hour

(2) Conveyor sections (10 each furnished).

Model	RL-1 .9020-45
Length	60 inches