

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

ORGANIZATIONAL, DS, GS, AND DEPOT
MAINTENANCE MANUAL

DISTRIBUTOR, WATER
TANK TYPE
GASOLINE DRIVEN, TRUCK MOUNTED
(MACLEOD MODEL W15A)
FSN 3825-954-9033

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DISTRIBUTOR, WATER, TANK TYPE: GASOLINE DRIVEN; TRUCK MOUNTED (MACLEOD MODEL W 5SA) FSN 3825-95.9033

			Paragraph	Page
CHAPTER	1.	INTRODUCTION		
Section	I.	General	1, 2	2
	II.	Description and data.....	3-5	3
CHAPTER	2.	OPERATING INSTRUCTIONS		
Section	I.	Service upon receipt of equipment	6-10	10
	II.	Controls and instruments.....	11-32	13
	III.	Operation under usual conditions.....	33-36	17
	IV.	Operation under unusual conditions.....	37-41	19
	V.	Operation of auxiliary equipment used in conjunction with the distributor	42-44	20
CHAPTER	3.	OPERATOR AND CREW MAINTENANCE INSTRUCTIONS		
Section	I.	Special tools and lubricants.....	45-47	21
	II.	Operator and crew preventive maintenance.....	48-50	27
	III.	Troubleshooting.....	51-61	32
	IV.	Radio interference suppression.....	62-66	33
	V.	Engine cooling system.....	67-70	37
	VI.	Engine fuel system.....	71-80	41
	VII.	Engine electrical system.....	81-87	47
	VIII.	Chassis electrical system.....	88-94	51
	IX.	Controls and instruments.....	95-103	53
	X.	Engine muffler, cylinder heads and valves.....	104-108	58
	XI.	Water lines, valves and fittings.....	109-115	61
	XII.	Water tank and frame assembly.....	116-119	67
CHAPTER	4.	REPAIR AND OVERHAUL INSTRUCTIONS		
Section	I.	Overhaul and replacement standards.....	120-123	69
	II.	Water pump.....	124-127	71
	III.	Electrical system, engine	128,129	72
	IV.	Fuel system, engine.....	130	79
	V.	Engine.....	131-142	80
CHAPTER	5.	DEMOLITION, SHIPMENT AND LIMITED STORAGE		
Section	I.	Demolition of the water distributor to prevent enemy use.....	143-146	97
	II.	Shipment and limited storage	147-150	98
APPENDIX	I.	REFERENCES.....		100
	II.	MAINTENANCE ALLOCATION CHART		102
	III.	BASIC ISSUE ITEM LIST AND MAINTENANCE AND OPERATING SUPPLIES		109

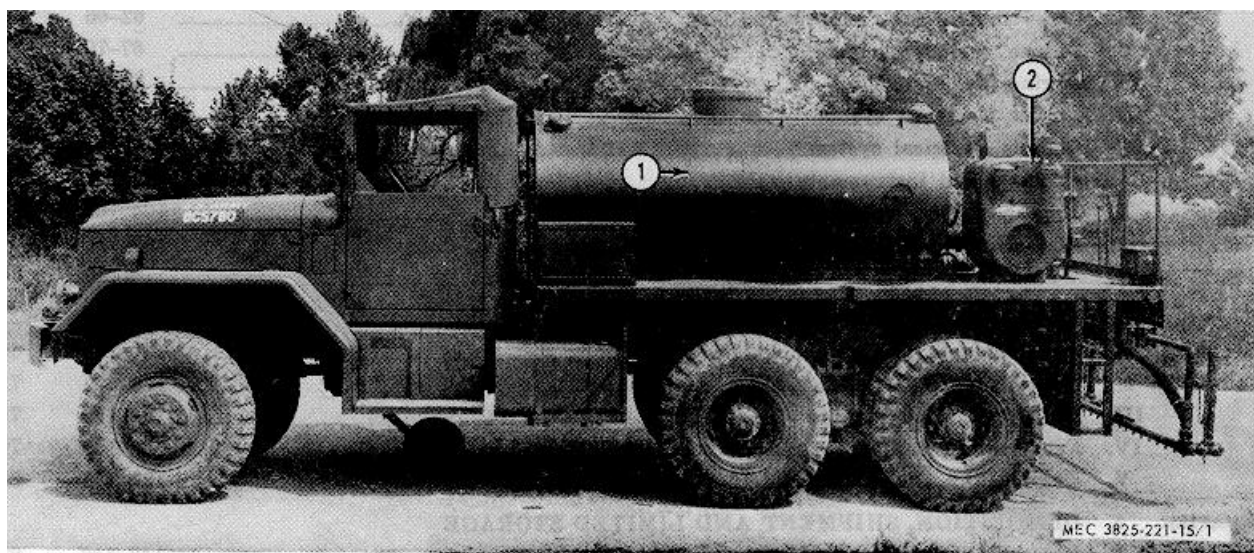
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CHAPTER 1 INTRODUCTION

Section I. GENERAL

1. Scope

- a. These instructions are published for the use of the personnel to whom the Macleod Company Model W15A Water Distributor is issued. Chapters 1 through 5 provide information on the operation, preventive maintenance services, and organizational maintenance of the equipment, accessories, components, and attachments. Chapter 4 provides information for direct and general support and depot maintenance. Also included are descriptions of main units and their functions in relationship to other components.
- b. Appendix I contains a list of publications applicable to this manual. Appendix II contains the maintenance allocation chart. Appendix III contains the list of basic issue items authorized the operator of this equipment and the list of maintenance and operating supplies required for initial operation.
- c. The direct reporting by the individual user, of errors, omissions, and recommendations for improving this manual is authorized and encouraged. DA Form 2028 (Recommended Changes to DA Publications) will be used for reporting these improvements. This form will be completed in triplicate using pencil, pen, or typewriter. The original and one copy will be forwarded direct to Commanding General, U. S. Army Mobility Equipment Center, ATTN: SMOME-MMP, Post Office Drawer 58, St. Louis, MO 63166. One information copy will be provided to the individual's immediate supervisor (e.g., officer, noncommissioned officer, supervisor, etc.).



1 Water tank

2 Wisconsin engine

Figure 1. Water Distributor.

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- d. Report all equipment improvement recommendations as prescribed by TM 38-750.
- e. "Left" and "Right" as used herein, in regard to Macleod Water Distributor will be used in the same sense as when referring to the carrier on which is mounted, when operational. "Left" therefore, will mean the driver's side. "Operator" as used herein, will refer to the Macleod Water Distributor operator. "Driver" will refer to the operator of the carrier on which the distributor is mounted. "Carrier" as used herein, will refer to the unit on which the distributor is mounted.

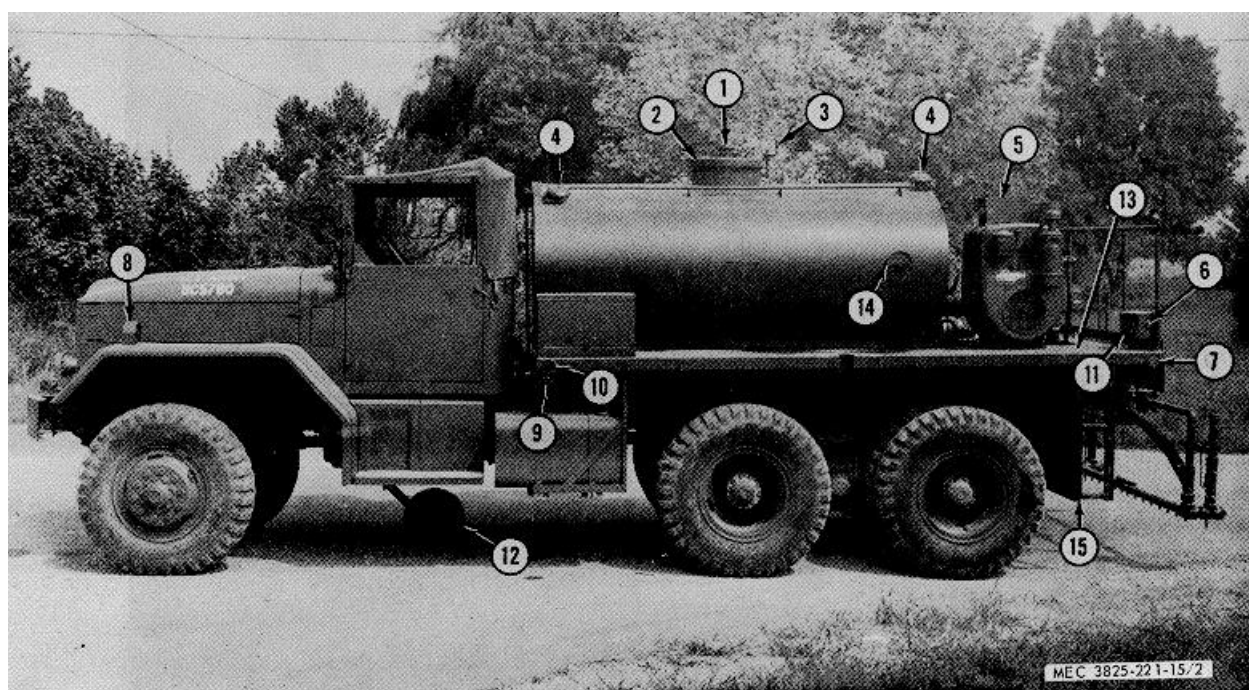
2. Record and Report Forms

- a. 'DA Form 2258 (Depreservation Guide of Engineer Equipment).
 - b. For other record and report forms applicable to operation, crew and organizational maintenance, refer to TM 38-750.
- Note.* Applicable forms, excluding Standard Form 46 which is carried by the operator, will be kept in a canvas bag mounted on the equipment.

Section II. DESCRIPTION AND DATA

3. Description

a. *General.* The water distributor (fig. 1) Macleod Company Model W15A, is a truck mounted unit consisting of a 1,000-gallon water tank (1), a Marlow pump Model 4D2 (6, fig. 4) powered by a Wisconsin gasoline engine Model MVF4D (2, fig. 1), and the necessary piping, controls, and instruments to" permit complete and proper operation with a truck carrier. For information relating to the truck, using and maintenance personnel should refer to TM 9-2320-211-10 and TM 9-2320-211-20. The distributor normally is operated by a crew of two men, a driver in the truck cab and an operator on the operator's platform. (13, fig. 2). Some of the uses and functions of the Macleod Model W15A Water Distributor are as follows:



- | | | |
|--------------------------|-------------------------|------------------------|
| 1 Manhole cover assembly | 6 Marker light | 11 Light bracket, rear |
| 2 Hinge bolt | 7 Reflector | 12 Bitumeter wheel |
| 3 Keeper crank | 8 Turn signal guard | 13 Operator's platform |
| 4 Signal gong | 9 Marker light | 14 Water gage |
| 5 Muffler shield | 10 Light bracket, front | 15 Step stringer |

Figure 2. Water distributor, left side.

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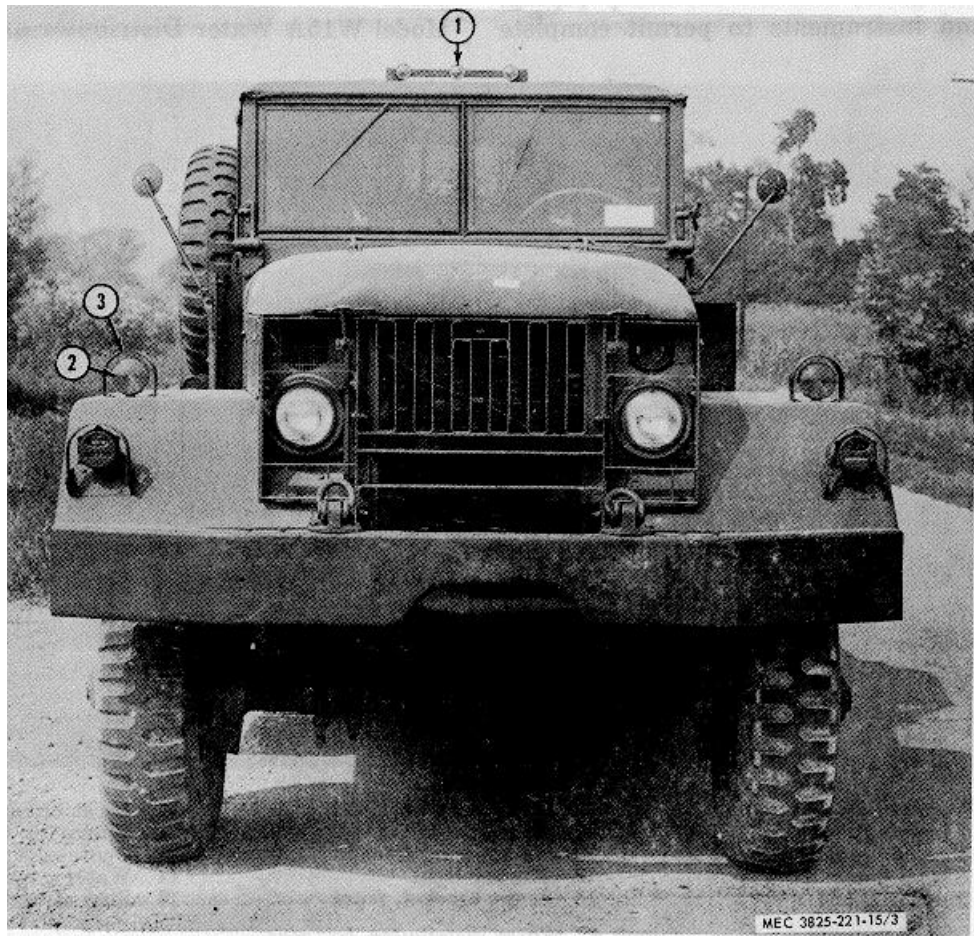
Spraying-----To uniformly apply a quantity of water measured in gallons per square yard over surface.

Transfer-----To transfer water from one outside source to another without water entering the tank.

Auxiliary fire-----To extinguish or control fires with one or more discharge hoses.
fighting

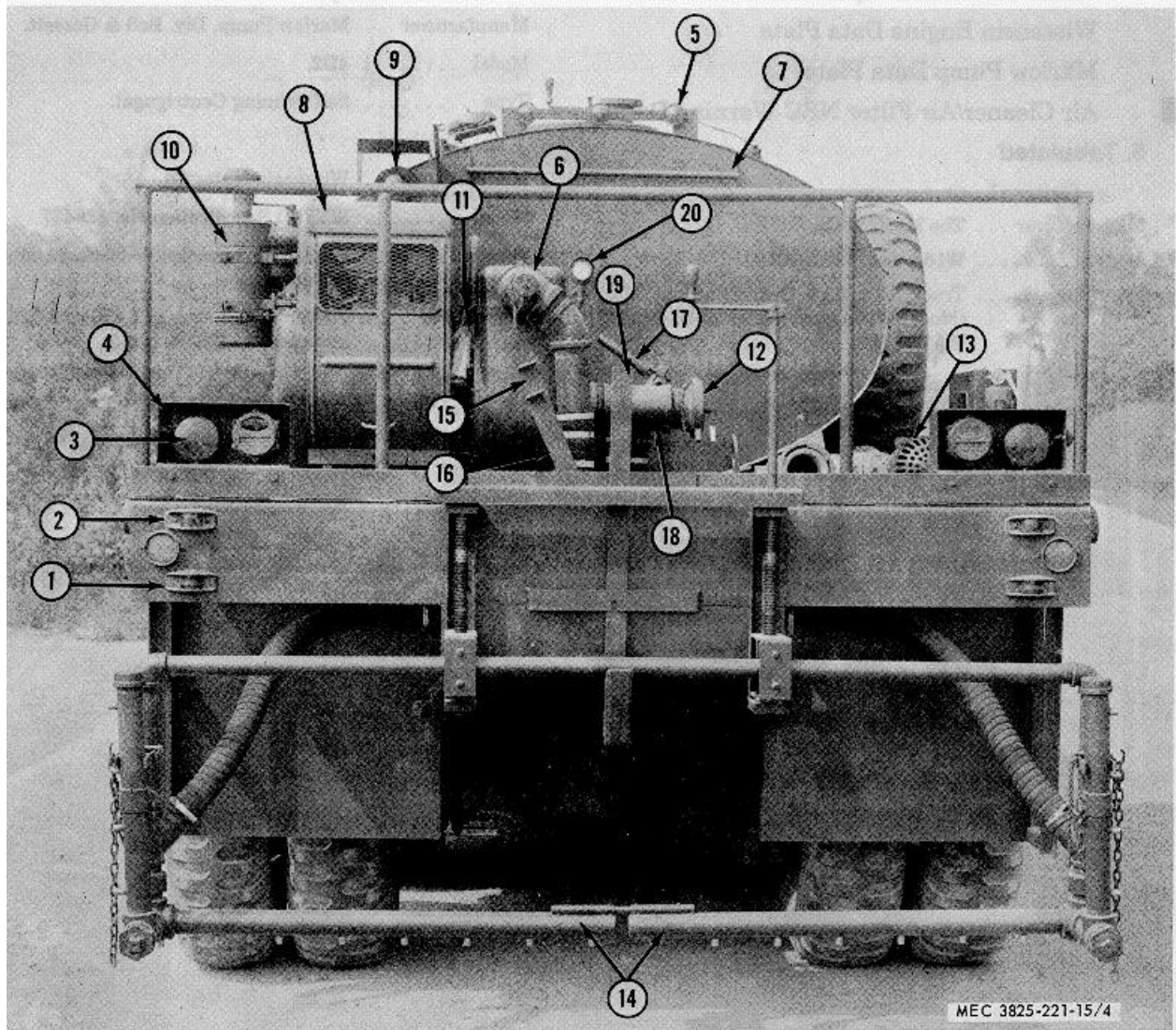
Pumping service--Used for draining surface water ditches, barges, boats or for any other pumping or washing service where a large volume of water is to be handled quickly.

- b. *Water Tank.* The water tank (1, fig. 1) is a 1,000-gallon welded steel unit, oval in cross section, and equipped with a manhole and cover (1, fig. 2) and a water level gage (14).
- c. *Engine.* The gasoline engine (2, fig. 1) is a Wisconsin Model MVF4D four-cylinder, four-cycle air cooled unit. It is mounted on the operator's platform of the distributor and coupled to the pump (6, fig. 4).
- d. *Water Pump.* The water pump assembly (6) is a Marlow Model 4D2 centrifugal pump coupled directly to the engine crankshaft. The pump and engine are mounted at the center of the operator's platform. This pump normally operates within the pressure range of 10 to 30 pounds per square inch during the spraying operation.
- e. *Spraybar Assembly.* The spraybar assembly (14) is made up of a framework of discharge lines and a number of spraybar sections which are attached to the vertical lift frame assembly at the rear of the carrier frame (fig. 4). Auxiliary extensions of spraybar are stowed in the tool box (fig. 12) on the distributor. In the bottom of the spraybars are nozzles where the water is discharged. These spraybars may be used in various combinations which will cover any desired width from 4 feet to 16 feet in increments of 1 or 2 feet.



1 Clearance light 2 Turn signal light 3 Turn signal guard

Figure 3. Water distributor, front.



- | | | | | | |
|---|--------------------------|----|-------------------------|----|-----------------------------|
| 1 | Blackout clearance light | 8 | Engine | 15 | Spraybar valve lever, left |
| 2 | Clearance light | 9 | Muffler | 16 | Spraybar valve lever, right |
| 3 | Turn signal-stop light | 10 | Air cleaner | 17 | Suction valve lever |
| 4 | Guard | 11 | Primer control | 18 | Suction tee |
| 5 | Clearance light | 12 | Suction cap | 19 | Lateral adjustment lever |
| 6 | Water pump | 13 | Foot valve and strainer | 20 | Discharge pressure gauge |
| 7 | Water tank | 14 | Spraybar assembly | | |

Figure 4. Water distributor, back.

f. *Bitumeter Assembly.* The bitumeter assembly consists of a frame (9, fig. 29) wheel assembly (18), lifting rod (3, fig. 5), and a tachometer head (1) which is located on the instrument panel of the carrier. The bitumeter drive is mounted on a frame (9, fig. 29), and attached to the tachometer by the tachometer cable (6, fig. 5) coming through the floor board of the truck.

4. Identification

Identification of the various components of the water distributor, and detailed specifications regarding these components are provided by various identification and data plates consisting of the following:

Corps of Engineers Identification Plate.

Shipping Dimensions.

Lifting Attachment Diagram.