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TECHNICAL MANUAL
OPERATOR'S, ORGANIZATIONAL, DIRECT SUPPORT
AND GENERAL SUPPORT MAINTENANCE MANUAL
(INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST)

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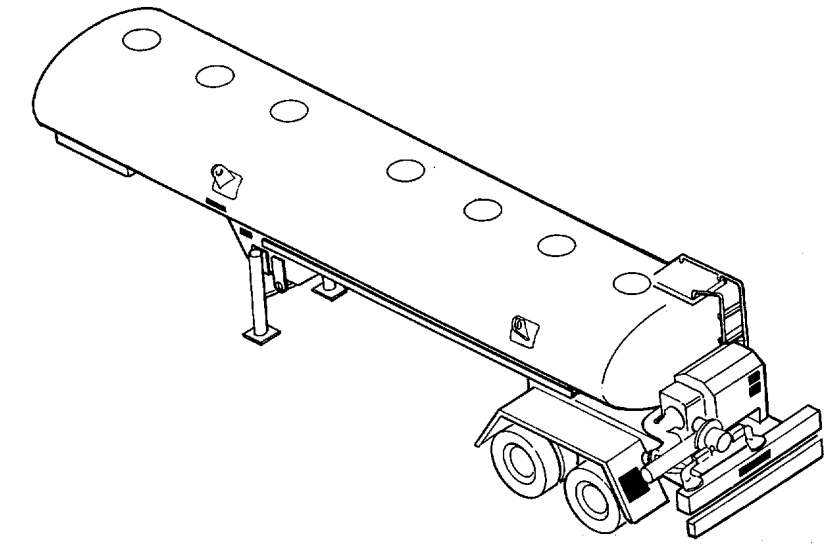

DISTRIBUTOR, WATER, SEMITRAILER MOUNTED,
6,000 GAL. CAPACITY
(NSN 3825-01-297-3357)
E.D. ETNYRE MODEL 60 PRS

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HEADQUARTERS, DEPARTMENT OF THE ARMY

30 SEPTEMBER 1991

TECHNICAL MANUAL
***TM 5-3825-229-14&P**

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington D.C., *30 September 1991*

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FOR

DISTRIBUTOR, WATER, SEMITRAILER MOUNTED, 6,000 GAL. CAPACITY (NSN 3825-01-297-3357) E.D. ETNYRE MODEL 60 PRS

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes or if you 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 back of this manual directly to Commander, U.S. Army Tank - Automotive Command, ATTN: AMSTA-MBS, U.S. Army Tank - Automotive Command, Warren, Michigan 48397. A reply will be furnished to you.

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CHAPTER 1

INTRODUCTION

Section I. GENERAL INFORMATION

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1-1. SCOPE

a. Type of Manual. Operator's, Organizational, Direct Support and General Support Maintenance Manual (Including Repair Parts and Special Tools Lists).

b. Model Number and Equipment Name. Distributor, Water, Semitrailer Mounted, 6,000 Gal. Capacity (E.D. Etnyre Model 60 PRS).

c. Purpose of Equipment. Primary intended use is for soil stabilization and soil compaction operations requiring distribution of water. The distributor can also be used for dust alleviation, fire fighting, and transport of water for emergency use. It is specifically not intended for transport or other handling of potable or drinking water.

d. Special Limitations on Equipment. Do not exceed the load and speed limitations of semitrailer. Semitrailer is designed to be towed with tank filled to its capacity of 6000 gallons (22,700 liters) over hardsurfaced roads, unimproved roads, or trails and open rolling terrain at the following maximum speeds:

Highway: 55 mph (88 km/h)
Gravel/Dirt: 30 mph (48 km/h)
Off-Road: 5 mph (08 km/h)

The semitrailer should be operated only after being serviced and equipped for existing climatic conditions.

1-2. MAINTENANCE FORMS, RECORDS AND REPORTS

Department of the Army forms and procedures used for this equipment maintenance shall be those prescribed by DA PAM 738-750, The Army Maintenance Management System (TAMMS).

1-3. DESTRUCTION OF ARMY MATERIEL TO PREVENT ENEMY USE

For destruction of Army materiel to prevent enemy use, refer to TM 750-244-6.

1-4. REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIR's)

If your semitrailer mounted water distributor needs improvement, let us know. Send us an EIR. You, the user, are the only one that can tell us what you don't like about your equipment. Let us know why you don't like the design or performance. Put it on an SF 368 (Quality Deficiency Report). Mail it to: Commander, U.S. Army Tank-Automotive Command, ATTN: AMSTA-MB, Warren, MI 48937-5000. We'll send you a reply.

1-5. PREPARATION FOR STORAGE OR SHIPMENT

For information on preparing the Water Distributor Semitrailer for storage or shipment, refer to Chapter 4, Section XII.

1-6. WARRANTY

E.D. Etnyre and Company warrants to the original purchaser, its new product to be free from defects, in material and workmanship for a period of eighteen (1 8) months after the delivery date to the original purchaser. The month and year in which the warranty period began is identified on a "Warranty" data plate that is located near landing leg on road side of trailer.

Section II. EQUIPMENT DESCRIPTION

Paragraph Number	Title	Page Number
1-7	EQUIPMENT CAPABILITIES AND FEATURES	1-2
1-8	LOCATION AND DESCRIPTION OF MAJOR COMPONENTS	1-3
1-9	EQUIPMENT DATA	1-6

1-7. EQUIPMENT CAPABILITIES AND FEATURES

a. Capabilities.

(1) Can be towed by M123A1C, M920, or M916 military truck tractors for either highway or off- road use.

(2) Can transport up to 6000 gallons of water.

(3) Can be gravity-filled through manhole in top of tank, or force-fed by pump from either a standing water supply (lake, stream or pond) or from a hydrant or other water source.

(4) Two spray nozzles mounted at rear of semitrailer each produce a fan-like spray which spreads water over a width of approximately 35 feet or more, depending on pressure. The maximum combined area covered by both nozzles is approximately 70 feet wide.

1-7. EQUIPMENT CAPABILITIES AND FEATURES (cont)

b. Features.

(1) The engine and electrically controlled spray nozzle valves are operated from either of two control panels. One control panel is permanently mounted in a cabinet on right rear fender. The other panel is connected by a cable for remote control from cab of tractor. The remote control panel is stored in the cabinet when not in use. Both control panels are equipped to allow for starting and stopping engine, controlling engine speed (and thus water pressure and flow), and turning on or off the two sprinkler nozzles.

(2) Diesel engine driven, self-priming pump with four-inch suction and discharge ports.

(3) Four-inch suction hose for filling tank from standing water sources such as ponds or streams.

(4) Fifty-foot (1-1/2" diameter) fire hose with adjustable nozzle that can be adjusted for no flow, straight stream, or fog.

(5) The pump can discharge water from several different points:

(a) Through one or both of a pair of spray nozzles located at rear of semitrailer.

(b) Through a fifty-foot fire hose.

(c) Through a three-inch line and valve to the tank (for filling tank).

1-8. LOCATION AND DESCRIPTION OF MAJOR COMPONENTS

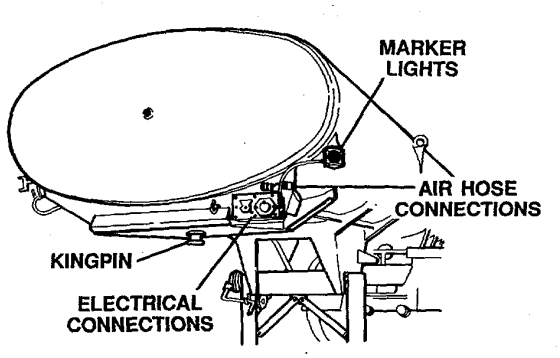
a. Front View.

(1) Kingpin - Connects semitrailer to fifth wheel of truck tractor.

(2) Air Hoses Connections - Service and emergency hoses connect to towing vehicle to provide air pressure for brake actuation and for primary operation of the electrically controlled spray nozzle valves.

(3) Electrical Connections - Connect to towing vehicle. Provide electrical power for brake and clearance lights.

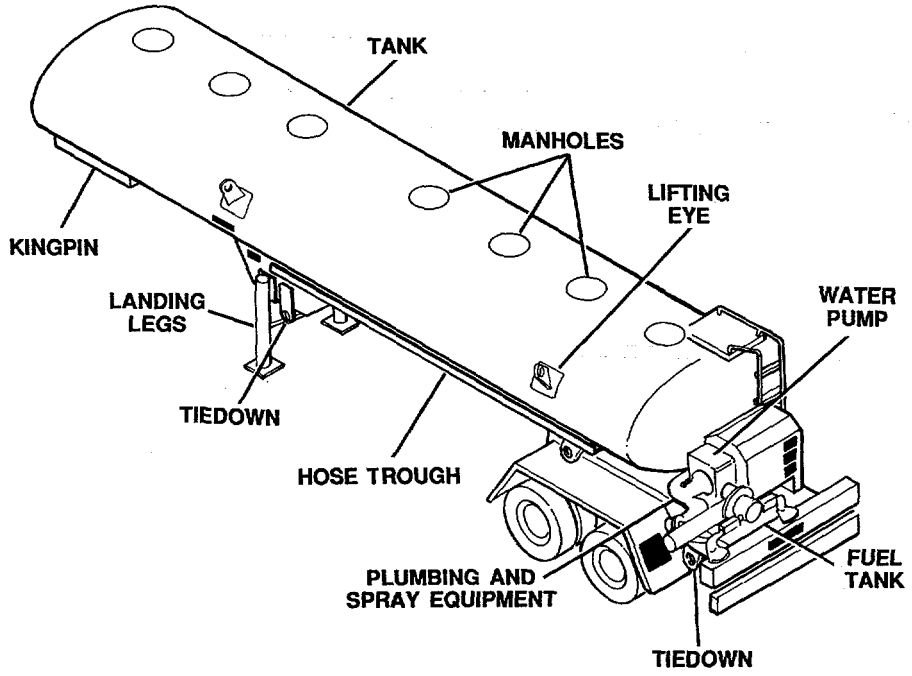
(4) Front Marker Lights - Mark front of semitrailer.



Front View

1-8. LOCATION AND DESCRIPTION OF MAJOR COMPONENTS (cont)

b. Roadside View.



Roadside View

(1) Tank - Fabricated steel tank with internal baffles. Includes manholes, access ladder, and lifting eyes.

(2) Landing Legs - Support load of semitrailer (loaded or unloaded) when it is not coupled to a truck-tractor. Manually extended and retracted. Two-speed gear box for ease of handling.

(3) Hose Trough - Storage area for suction hoses.

(4) Lifting Eyes - Four lifting eyes evenly spaced around center of gravity of unit. Provide lifting points for empty unit. 12,880 lb (5855 kg) capacity (each eye).

(5) Tiedowns - Six tiedown. One on each side of bogie frame behind rear axle, one on each side of the bogie frame ahead of the rear axle, and one on each side of landing legs. 16,000 lb (7273 kg) capacity.

(6) Manholes - Provide access to inside of tank for cleaning or repair.

(7) Pump - Self-priming, centrifugal-type pump with four-inch suction and discharge ports.

(8) Plumbing and Spray Equipment - Includes all valves, piping, hoses and nozzles for suction and discharge of water.

(9) Fuel Tank - 24-gallon tank supplies fuel for water distributor engine.