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**OPERATOR'S MANUAL**

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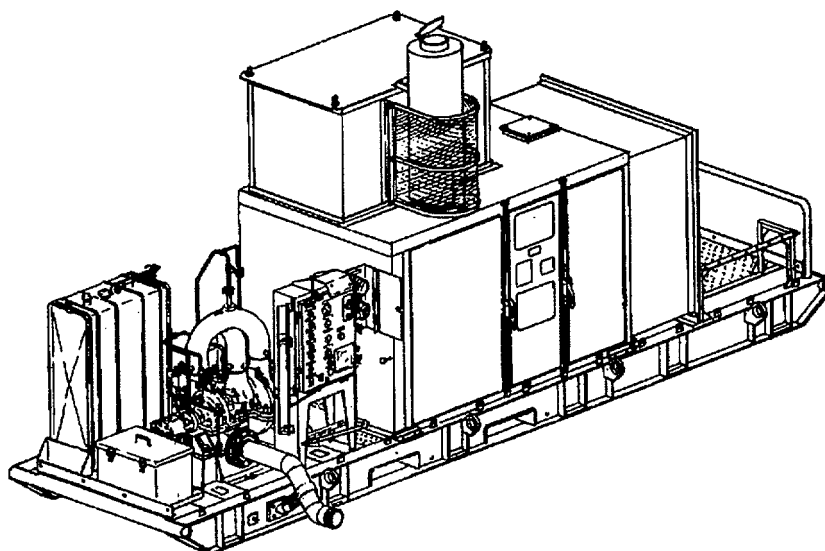
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**PUMPING ASSEMBLY (MAINLINE)  
DIESEL ENGINE DRIVEN, 800 GPM  
NSN 4320-01-193-3430**

DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.

This manual supersedes TM 5-4320-307-10, dated 14 August 1989, including all changes.

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**HEADQUARTERS, DEPARTMENT OF THE ARMY  
26 FEBRUARY 1993**

TECHNICAL MANUAL

NO. 10-4320-307-10

HEADQUARTERS  
DEPARTMENT OF THE ARMY  
WASHINGTON, D.C., 26 February 1993

**OPERATOR'S MANUAL**

**PUMPING ASSEMBLY (MAINLINE)  
DIESEL ENGINE DRIVEN, 800 GPM  
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**REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS**

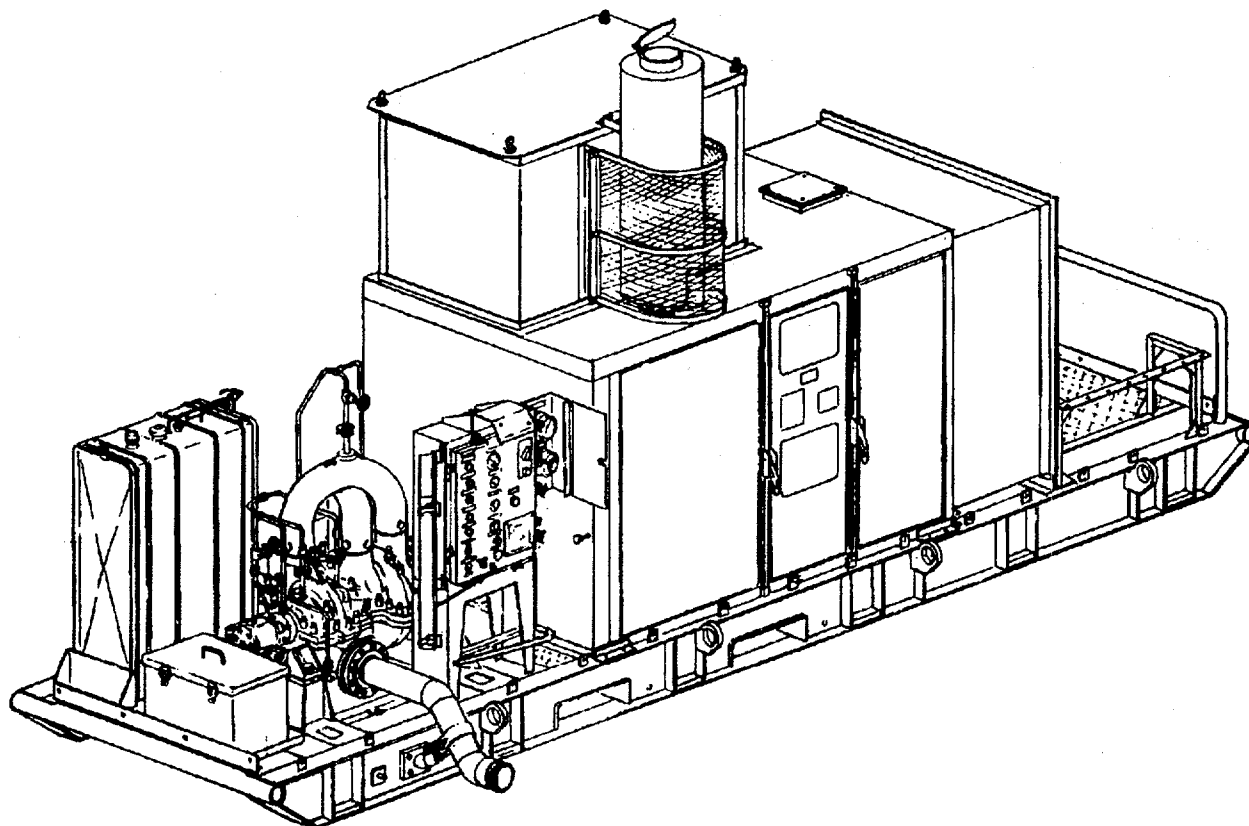
You can help improve this manual. If you find any mistakes or if you know of a way to improve these procedures, please let us know. Mail your letter or DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2 located in the back of this manual directly to: Commander, US Army Aviation and Troop Command, ATTN: AMSAT-I-MTS, 4300 Goodfellow Blvd., St. Louis, MO 63120-1798. A reply will be furnished directly to you.

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\*This manual supersedes TM 5-4320-307-10, dated 14 August 1989, including all changes.

Pumping Assembly, Mainline, 800 GPM, Diesel Engine Driven, PN 0053009500



## CHAPTER 1 INTRODUCTION

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### SECTION I. GENERAL INFORMATION

#### 1-1 SCOPE.

- a. Type of Manual: Operator's Manual
- b. Model Number and Equipment Name: Pumping Assembly, Mainline, 800 GPM, Diesel Engine Driven, Part Number 0053009500.
- c. Purpose of Equipment: Pumps petroleum-based fuels or water with specific gravities between 0.72 and 1.0.

**1-2 MAINTENANCE FORMS AND RECORDS.** Department of the Army forms and procedures used for equipment maintenance will be those prescribed by DA PAM 738-750, The Army Maintenance Management System (TAMMS).

**1-3 REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIR'S).** If your pumping assembly needs improvement, let us know. Send us an EIR. You, the user, are the only one who 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 us at U.S. Army Aviation and Troop Command, ATTN: AMSAT-I-MDO, 4300 Goodfellow Blvd., St. Louis, MO 63120-1798. We'll send you a reply.

**1-4 WARRANTY INFORMATION.** The pumping assembly is warranted by S. P. A. Termomeccanica Italiana, C/O The Crenshaw Company, 1199 North Fairfax Street, Alexandria, VA 22314 for a period of 2 years. It starts on the date found in block 23, DA Form 2408-9, in the logbook Report all defects in material or workmanship to your supervisor who will take appropriate action.

**1-5 NOMENCLATURE CROSS-REFERENCE LIST.** This listing includes nomenclature cross-references used in this manual.

| <u>Common Name</u> | <u>Official Nomenclature</u>                              |
|--------------------|-----------------------------------------------------------|
| Engine             | Engine Assembly, Dual Turbocharged Diesel, NTTA-855-P450  |
| Gear Box           | Speed Increaser w/Clutch, PN 0053020200                   |
| Power Takeoff      | Speed Increaser w/Clutch, PN 0053020200                   |
| Pump               | Pump Assembly, PN 0053000100                              |
| Pumping Assembly   | Pumping Assembly, Mainline, Diesel Engine Driven, 800 GPM |

#### 1-6 LIST OF ABBREVIATIONS.

|       |                                       |
|-------|---------------------------------------|
| AR    | Army Regulation                       |
| °C    | Degree Celsius                        |
| cm    | Centimeter                            |
| cu ft | Cubic feet                            |
| cu m  | Cubic meter                           |
| dc    | Direct current                        |
| DED   | Diesel-Engine-Driven                  |
| EIR   | Equipment Improvement Recommendations |
| °F    | Degree Fahrenheit                     |
| ft    | Foot; feet                            |
| gal   | Gallon                                |

## 1-6 LIST OF ABBREVIATIONS (CONT).

|       |                                            |
|-------|--------------------------------------------|
| gpm   | Gallons per minute                         |
| hp    | Horsepower                                 |
| in.   | Inch                                       |
| kg    | Kilogram                                   |
| kPa   | Kilopascal                                 |
| L/min | Liters per minute                          |
| lb    | Pound                                      |
| m     | Meter                                      |
| mm    | Millimeter                                 |
| NBC   | Nuclear, Biological and Chemical           |
| NPT   | National pipe thread                       |
| PAM   | Pamphlet                                   |
| PMCS  | Preventive maintenance checks and services |
| psi   | Pounds per square inch                     |
| qt    | Quart                                      |
| rpm   | Revolutions per minute                     |
| TAMMS | The Army Maintenance Management System     |
| V     | Volts                                      |

## 1-7 GLOSSARY

|                 |                                                                                                                                                                                                                                                   |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Abraded         | To wear away due to rubbing action.                                                                                                                                                                                                               |
| Abrasion        | A scraped or scuffed area. A hose may become abraded if an unshielded portion of it rubs against a piece of bracket or another hose.                                                                                                              |
| Acoustical      | Sound deadening.                                                                                                                                                                                                                                  |
| Actuate         | To cause an action. When electric power is applied to a solenoid, it actuates a valve, causing a part in the valve to move.                                                                                                                       |
| Align           | To arrange in a line vertically and/or horizontally.                                                                                                                                                                                              |
| Ambient         | The temperature surrounding an object.                                                                                                                                                                                                            |
| Approved        | Permitted to be used for a specific purpose by the person or group who is authorized to grant approval.                                                                                                                                           |
| Assembly        | A combination of parts that may be taken apart without destruction, which has no application or use of its own but is needed for the completeness of a more complex item with which it is combined, or to which it is attached.                   |
| Capacity        | The volume, amount, or quantity that can be held or contained.                                                                                                                                                                                    |
| Carbon Monoxide | A poisonous gas that is made while a fuel is burning, especially if there is not quite enough air. The gas is colorless, odorless, and tasteless, but it can cause illness or death. See the warnings on the Warning page at the front of manual. |