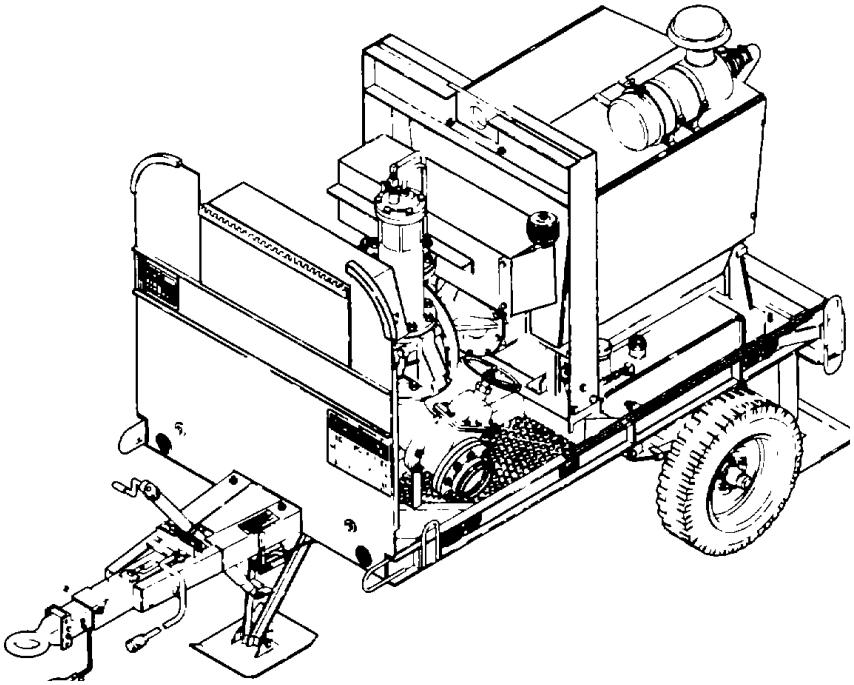
TECHNICAL MANUAL
ORGANIZATIONAL,
DIRECT SUPPORT AND GENERAL SUPPORT
MAINTENANCE MANUAL



INTRODUCTION	1-1
ORGANIZATIONAL MAINTENANCE INSTRUCTIONS	2-1
DIRECT SUPPORT MAINTENANCE INSTRUCTIONS	3-1
GENERAL SUPPORT MAINTENANCE INSTRUCTIONS	4-1
MAINTENANCE ALLOCATION CHART	B-1
TORQUE LIMITS	D-1
GLOSSARY	
ALPHABETICAL INDEX	

This copy is a reprint which includes current pages from Change 1.

PUMP UNIT, CENTRIFUGAL, HOSELINE,
DIESEL-ENGINE-DRIVEN,
600 GPM AT 150 PSI
MODEL US612ACD-1
NSN 4320-01-193-3429

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HEADQUARTERS, DEPARTMENT OF THE ARMY
29 JUNE 1987

TECHNICAL MANUAL

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HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, D.C., 29 June 1987

Organizational, Direct Support and General Support Maintenance Manual

PUMP UNIT, CENTRIFUGAL, HOSELINE, DIESEL-ENGINE-DRIVEN, 600 GPM AT 150 PSI MODEL US612ACD-1 NSN 4320-01-193-3429

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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 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 directly to: Commander, U. S. Army Troop Support Command, ATTN: AMSTR-MCTS, 4300 Goodfellow Boulevard, St. Louis, MO 63120-1798. A reply will be furnished directly to you.

			Page
CHAPTER	1	INTRODUCTION	1-1
Section	I	General Information	1-1
Section	II	Equipment Description and Data	1-2
CHAPTER	2	ORGANIZATIONAL MAINTENANCE INSTRUCTIONS	2-1
Section	I	Lubrication Instructions	2-2
Section	II	Repair Parts, Special Tools, TMDE, and Support Equipment	2-7
Section	III	Service Upon Receipt of Equipment	2-7
Section	IV	Preventive Maintenance Checks and Services	2-11
Section	V	Troubleshooting	2-25
Section	VI	Maintenance Procedures	2-33
Section	VII	Preparation for Storage or Shipment	2-189
CHAPTER	3	DIRECT SUPPORT MAINTENANCE INSTRUCTIONS	3-1
Section	I	Troubleshooting	3-1
Section	II	Maintenance Procedures	3-6
CHAPTER	4	GENERAL SUPPORT MAINTENANCE INSTRUCTIONS	4-1
Section	I	Troubleshooting	4-1
Section	II	Maintenance Procedures	4-4

Page

APPENDIX A. REFERENCES A-1
APPENDIX B. MAINTENANCE ALLOCATION CHART B-1
APPENDIX C. EXPENDABLE SUPPLIES AND MATERIALS LIST C-1
APPENDIX D. TORQUE LIMITS D-1
APPENDIX E. WIRING HARNESS SCHEMATICS E-1
GLOSSARY ..... Glossary 1
ALPHABETICAL INDEX ..... Index 1

CHAPTER 1
INTRODUCTION

Section I. GENERAL INFORMATION

1-1. SCOPE

Type of Manual: Organizational, Direct Support, and General Support Maintenance

Model Number and Equipment Name: Pump Unit, Centrifugal, Hoseline, 600 gpm, Diesel-Engine-Driven, Model US612ACD-1

Purpose of Equipment: Pumps fuel or potable water

1-2. MAINTENANCE FORMS, RECORDS, AND REPORTS

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. DESTRUCTION OF ARMY MATERIEL TO PREVENT ENEMY USE

Refer to TM 750-244-3 for instructions.

1-4. PREPARATION FOR STORAGE AND SHIPMENT

Instructions for preparation for storage and shipment are in Chapter 2.

1-5. REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIR'S)

If your centrifugal pump unit needs improvement, let us know. Send us an EIR. You, the user, are the only one who can tell us what you do not like about your equipment. Let us know why you do not like the design or performance. Put it on an SF 368 (Quality Deficiency Report). Mail it to us at: U.S. Army Troop Support Command, ATTN: AMSTR-QX, 4300 Goodfellow Blvd., St. Louis, MO 63120-1798. We will send you a reply.

1-6. NOMENCLATURE CROSS-REFERENCE

For precise identification, simplified nomenclature has been established for clarity and is shown in the nomenclature cross-reference list.

NOMENCLATURE CROSS-REFERENCE LIST

This listing includes nomenclature cross-references used in this manual.

Common Name	Official Nomenclature
Centrifugal Pump Unit	Pump Unit, Centrifugal, Hoseline, Diesel-Engine-Driven, 6-Inch, Trailer-Mounted, 600 gpm at 150 psi
Engine	Diesel Engine
Pump	Centrifugal Pump
Starter	Starter Motor

Section II. EQUIPMENT DESCRIPTION AND DATA

1-7. EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES

- Pumping rate of 600 gpm at 150 psi
- Automatic operation - standard
- Manual operation with retrofit kit installed
- Automatic shutdown for high temperature, low oil pressure, and overspeed
- Operates independently or in a staged, multi-pump system
- Operates in surrounding temperature between +155° and -65°F (+68.3° and -53.9°C)
- Operates at altitudes between sea level and 9000 feet above sea level
- Continuous operation during periods of blowing sand
- Operator station protected by noise shield
- Ether start kit (cold weather starting aid)
- Trailer mounted for transport

1-8. LOCATION AND DESCRIPTION OF EXTERNAL COMPONENTS

CONTROL PANEL AND ELECTRICAL SYSTEM (1). Control panel assembly contains the operating and instrument panels, and the electronic engine speed controller (control box). Electrical system contains the wiring and hardware connecting the control panel components with the engine and pumping controls and sensors.

ETHER START KIT (2). Injects a mist of liquid ether into the engine air intake system to aid ignition.

DISCHARGE MANIFOLD ASSEMBLY (3). Consists of a gate valve, a check valve, an air valve, connective piping, and a victaulic coupling flange.

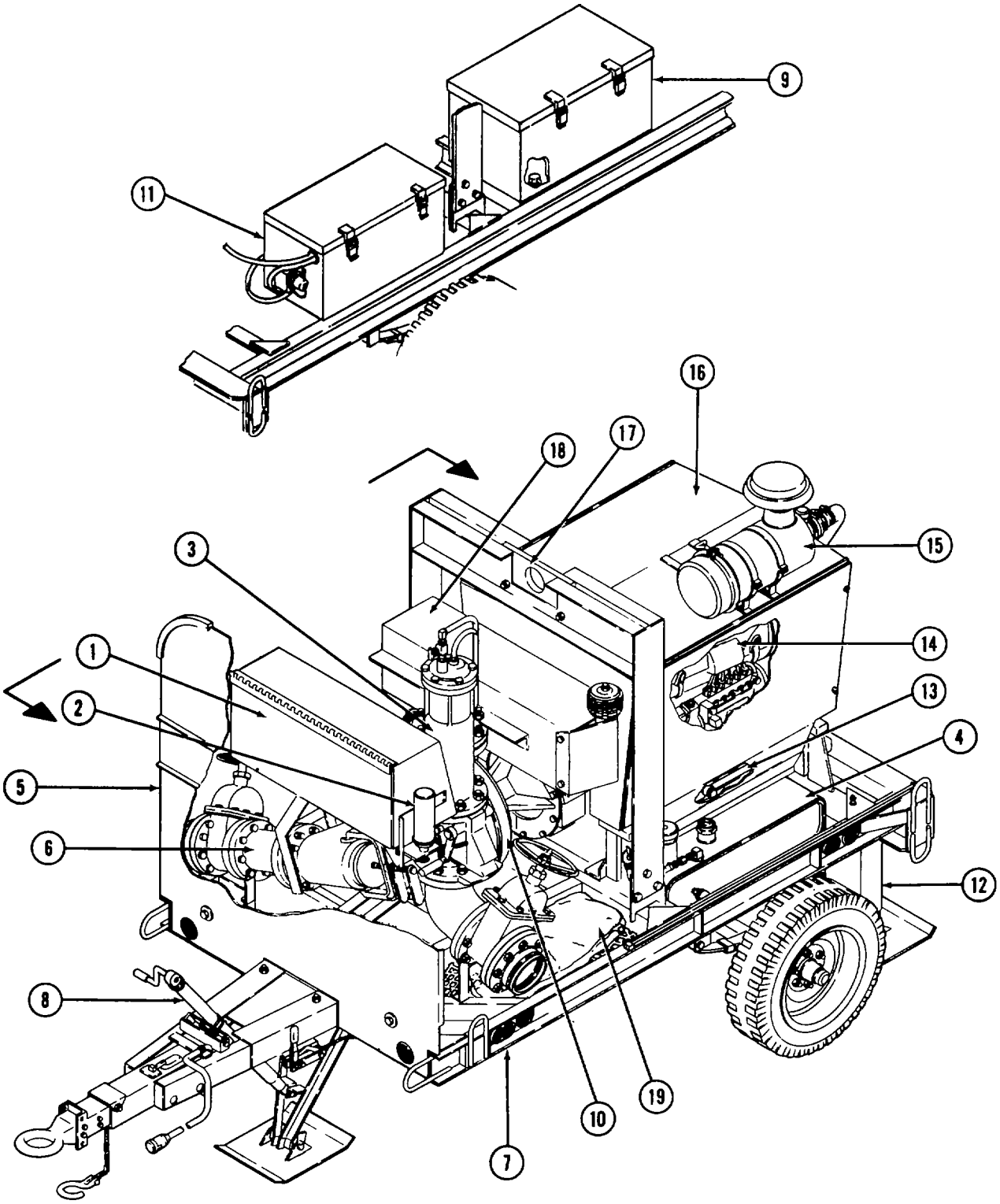
FUEL TANK (4). Contains a 20-gallon supply of diesel fuel for the engine. The tank includes a filler cap, fuel gage, and various fittings for fuel lines.

NOISE SHIELD (5). Reduces pump and engine noise at the operator's position in front of the control panel. In addition, the shield reduces vibration of the control panel and supports the front portion of the fabric cover.

SUCTION ASSEMBLY (6). Consists of a gate valve, a strainer assembly, connective piping, and a victaulic coupling flange.

TRAILER ASSEMBLY (7). Consists of a welded frame and axle assembly with a rated capacity of 5200 pounds (2360 kilograms). The two-wheeled axle assembly is attached to the trailer frame by leaf springs with shock absorbers for stability. The trailer has hydraulic inertia brakes that operate when the unit is being moved. When the trailer is parked, snap-over-center hand brakes are set by the operator. The trailer chassis is equipped with taillights, stoplights, and reflectors.

FRONT JACK ASSEMBLY (8). Crank operated tripod jack with a pad for extra support.


9
11
16
17
18
3
15
1
14
2
13
4
5
6
12
8
10
19
7