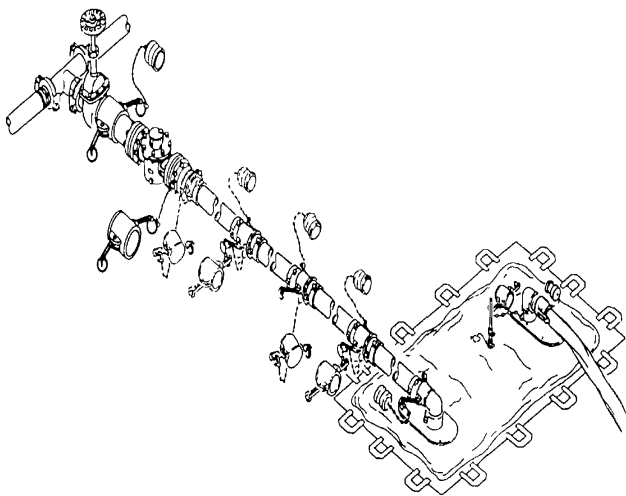
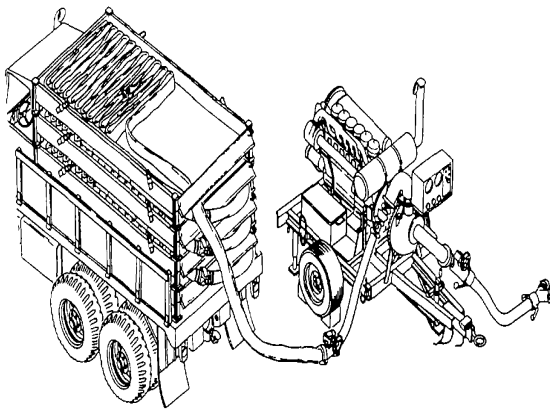


TECHNICAL MANUAL
OPERATOR'S, UNIT, DIRECT SUPPORT
AND GENERAL SUPPORT
MAINTENANCE MANUAL
FOR
TACTICAL WATER DISTRIBUTION
SYSTEM
MODEL TWDS20
NSN: 4320-01-361-9232



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Distribution Statement A: Approved for public release; distribution is unlimited.

TECHNICAL MANUAL

NO: 10-4320-345-13

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, D.C., 14 May 1993

**OPERATOR'S, UNIT, DIRECT SUPPORT
AND
GENERAL SUPPORT MAINTENANCE MANUAL
for
TACTICAL WATER DISTRIBUTION SYSTEM
MODEL TWDS20
NSN: 4320-01-361-9232**

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 direct to Commander, U S Army Aviation and Troop Command, ATIN: AMSAT-I-MP, 4300 Goodfellow Blvd., St Louis, Mo 63120-1798.

In either case, a reply will be furnished directly to you.

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HOWTO USE THIS MANUAL

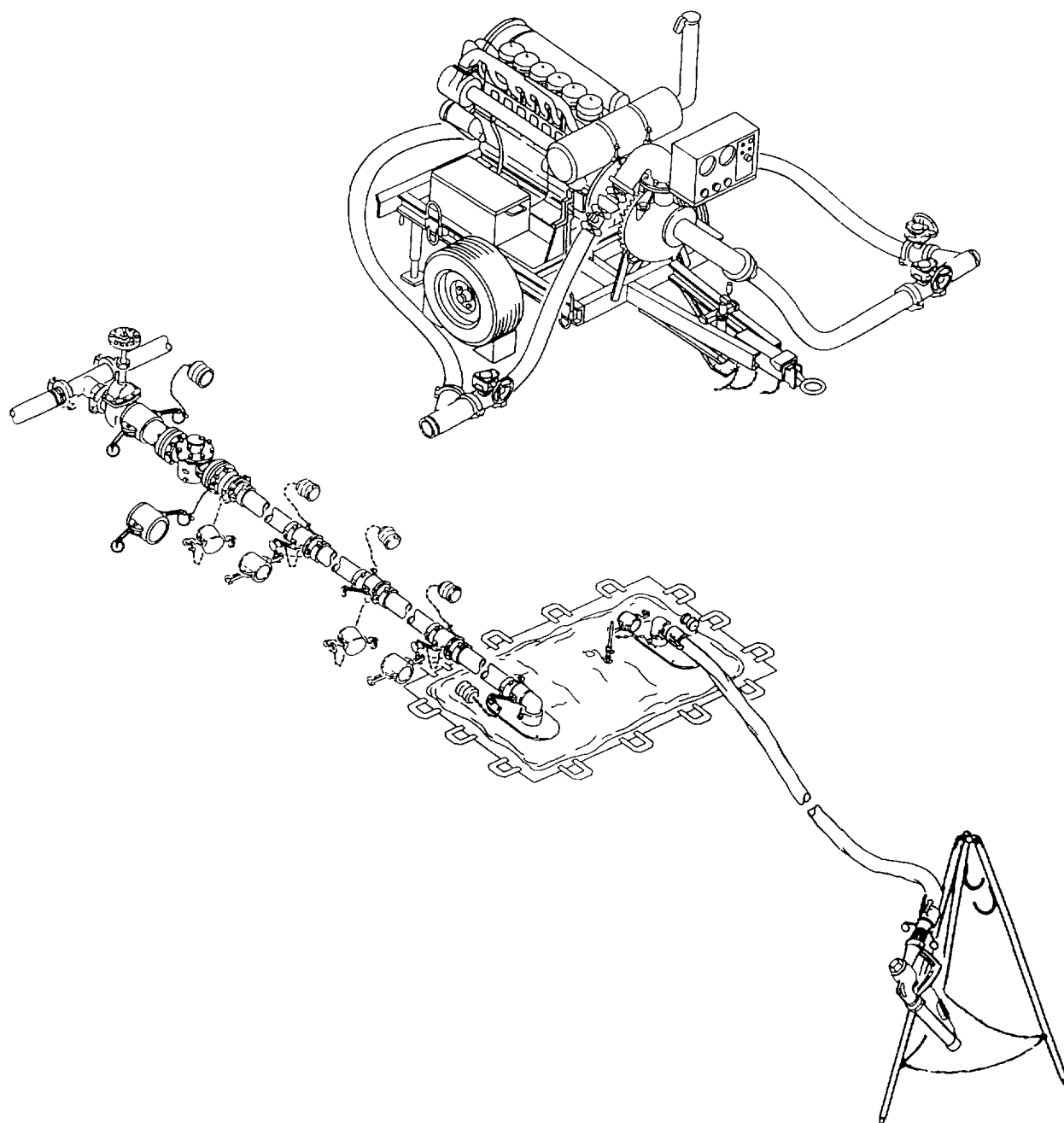
Be sure to read all Warnings before using your equipment

This manual contains operating and maintenance instructions for operation and maintenance of the Tactical Water Distribution System (TWDS)

- Chapter 1 Introduces you to the equipment and gives you information such as weight, height, length, generally used abbreviations and information on how the system works The chapter is preceded by a full page illustration of the equipment
- Chapter 2 Provides information necessary to identify and use the equipment's operating controls Operating instructions in this chapter tell you how to use the equipment in both usual and unusual weather conditions In addition, preventive maintenance instructions provide information needed to inspect and service the Tactical Water Distribution System
- Chapter 3 Provides operator troubleshooting procedures for identifying equipment malfunctions and maintenance instructions for performing operator maintenance tasks
- Chapter 4 Provides unit maintenance personnel with troubleshooting procedures for identifying equipment malfunctions and maintenance instructions for repairing defective equipment
- Chapter 5 Provides direct support maintenance personnel with maintenance instructions for performing repairs on equipment as authorized by the maintenance allocation chart
- Appendix A Provides a list of frequently used forms and publications referenced or used in this manual.
- Appendix B The Maintenance allocation chart identifies repairable components and the maintenance level authorized to perform the repairs.
- Appendix C Lists components that are not mounted on the equipment, but are required to make the unit functional All components in the Components of End Item and Basic Issue Items Lists are illustrated for easy identification.
- Appendix D Lists additional equipment authorized for your unit for use with the water system, but are not supplied as part of system This equipment list may include fire extinguishers, buckets, protective clothing etc.
- Appendix E Provides you with information about expendable supplies such as sealants, lubricants, chemicals etc that are used when operating or maintaining the equipment.
- Appendix F Contains lubrication instructions that are required to keep the equipment in good working condition.

HOWTO USE THIS MANUAL cont.

- Appendix G Provides a list of items and instructions on how to make certain tools and devices required to perform some of the maintenance tasks contained in this manual.
- Appendix II Provides a table of torque values for various sizes of nuts and bolts.
- Appendix I Lists parts that must be replaced when performing maintenance on components of the water system This list includes such things as gaskets, lock washers and seals.



CHAPTER 1

INTRODUCTION

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Section I. GENERAL INFORMATION

1-1. SCOPE.

This manual contains Operating instructions and Unit Direct Support and General Support maintenance instructions required to operate and maintain the Tactical Water Distribution System (TWDS) 10-mile Segment Model TWDS20. The TWDS provides distribution of potable water to a 300K and/or 800K water storage and distribution system or another TWDS system. The TWDS is intended for potable water use only and should not be operated using contaminated or brackish 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. CORROSION PREVENTION AND CONTROL.

- a. Corrosion Prevention and Control (CPC) of Army Materiel is a continuing concern. It is important that any corrosion problems with this item be reported so that the problem can be corrected and improvements can be made to prevent the problem in future items.

1-3. CORROSION PREVENTION AND CONTROL - cont.

- b. While corrosion is typically associated with rusting of metals, it can also include deterioration of other materials, such as rubber and plastic. Unusual cracking, softening, swelling or breaking of the materials may be a corrosion problem.
- c. If a corrosion problem is identified, it can be reported using Standard Form 368, Product Quality Deficiency Report Using key words such as "rust", "deterioration", or "cracking" will insure that the information is identified as a CPC problem. The form should be submitted to the address specified in DA Pam 738-750.

1-4. DESTRUCTION OF ARMY MATERIEL TO PREVENT ENEMY USE.

Methods and procedures for destruction of Army materiel to prevent enemy use are covered in TM 750-244-3.

1-5. REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIRs).

If your TWDS 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 Commander, U S Army Aviation and Troop Command, ATTN AMSAT-I-MDO, 4300 Goodfellow Boulevard, St Louis, MO 63120-1798. We'll send you a reply.

1-6. NOMENCLATURE CROSS REFERENCE LIST.

Common Name
Water Tank

Official Nomenclature
20,000 Gallon Collapsible Fabric Tank

1-7. LIST OF ABBREVIATIONS. |

Abbreviation
K
°F
TWDS
Gpm
300K WSDS

800K WSDS

TRICON

Nomenclature
Kilo (Thousand)
Degrees Fahrenheit
Tactical Water Distribution System
Gallons Per Minute
300,000 Gallon Water Storage and
Distribution System
800,000 Gallon Water Storage and
Distribution System
Triple Container

1-8. GLOSSARY.

Term
Hypochlorination

Description
Purification of water by combining water
with a solution made from calcium
hypochlorite powder