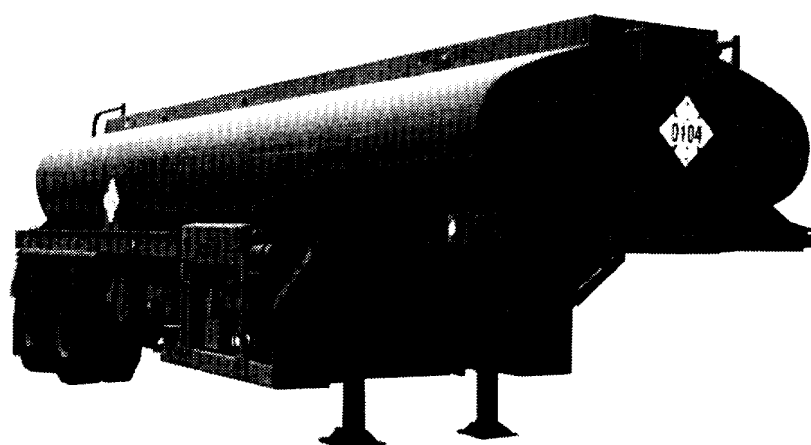

TECHNICAL MANUAL

**OPERATOR'S MANUAL
FOR
SEMITRAILER, TANK, 5000-GALLON,
FUEL DISPENSING, AUTOMOTIVE
M969A2 (NSN 2330-01-377-9337)**



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HEADQUARTERS, DEPARTMENT OF THE ARMY
June 1996

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HOW TO USE THIS MANUAL

SCOPE.

This technical manual provides you with the information you will need to operate and maintain the M969A2 Automotive Fuel Dispensing 5000-Gallon Tank Semitrailer.

The information contained in this manual is presented in three chapters and five appendixes. Each chapter is divided into sections covering operating procedures and/or other information for specific systems or components. When a reference is made to a table, figure, paragraph, or appendix, refer to that portion of the manual.

You must read and understand this manual BEFORE operating any of the semitrailers.

Throughout this manual you will frequently see the phrase "notify Unit maintenance." When instructed to notify Unit maintenance, do exactly that; Unit maintenance personnel have the tools and training to efficiently and correctly perform the next level of maintenance.

Note that the titles of publications and forms referenced anywhere in this manual are listed in Appendix A. Also, acronyms and abbreviations used in the manual are listed and spelled out on page 1-3.

INDEXING.

Four indexing procedures are used to help you locate information quickly:

- Cover Index. Lists chapters and other important parts of the manual, with corresponding page numbers. Each chapter/part listed is boxed in, with a black outer edge that is in line with the first page of that chapter/part.
- Table of contents. The table of contents starts on page i, following the summary of warnings.
- Section Indexes. Each section in a chapter starts with a numerical listing of all paragraphs in that section.
- Index. The alphabetically arranged subject index starts on page Index-1.

WARNINGS, CAUTIONS, AND NOTES.

Throughout this manual you will see WARNING, CAUTION, and NOTE headings. There are good reasons for every one of these notices.

WARNING

A warning is used to alert the user to hazardous operating and maintenance procedures, practices, or conditions that could result in injury or death. Warnings must be strictly observed.

CAUTION

A caution is used to alert the user to hazardous operating and maintenance procedures, practices, or conditions that could result in damage to, or destruction of, equipment or mission effectiveness. Cautions must be strictly observed.

WARNINGS, CAUTIONS, AND NOTES (continued).

NOTE

A note highlights an essential operating or maintenance procedure, condition, or statement.

Warnings and cautions appear immediately preceding the step to which they pertain. It is important to read and thoroughly understand the warnings and/or cautions before beginning maintenance.

Notes may precede or follow the steps to which they pertain, depending on what makes the most sense.

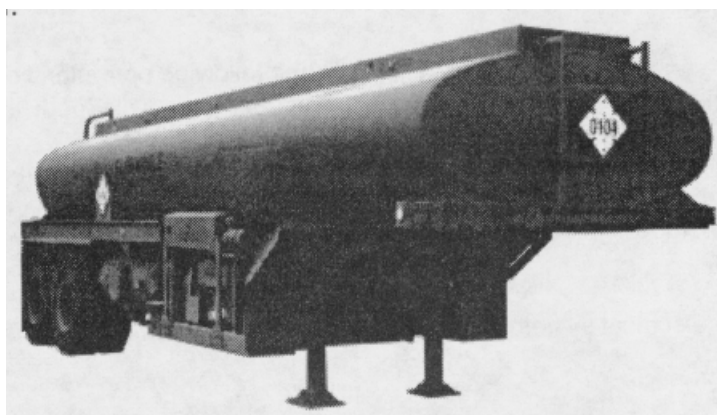
CHAPTER 1 INTRODUCTION

Section I. GENERAL INFORMATION

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1-1. SCOPE.

This manual contains operation and maintenance instructions for the M969A2 Automotive Fuel Dispensing 5000- Gallon Tank Semitrailer.



Throughout the manual, the terms "right side" or "curb side" and "left side" or "road side" are used to describe views of the semitrailer as viewed from the rear.

The operation and maintenance of any fuel-hauling semitrailer can be hazardous due to the flammable and explosive nature of the load.

Read and become familiar with all WARNINGS in the warning summary at the front of this manual. Throughout this manual, WARNINGS are placed as they pertain to specific operational or maintenance procedures. Read these warnings and follow them exactly.

The following is a summary of safety regulations that **MUST** be strictly observed when operating or maintaining the M969A2 semitrailers. Personnel who fail to follow these regulations endanger the mission, equipment, and their lives and the lives of bystanders.

- a. Refer to FM 10-20, FM 10-68, FM 10-69, and FM 10-71 to become familiar with safe fuel-handling procedures.
- b. Personnel engaged in the operation and maintenance of the semitrailer must not wear clothing that generates static electricity. **DO NOT** wear nylon, silk, rayon, or other similar materials. Remove all contents from pockets. Wear rubber boots and gloves during fuel loading and unloading.

1-1. SCOPE (continued).

- c. Before loading or unloading fuel or purging tank on semitrailer, connect all bonding and grounding connections (para 2-16b).
- d. Never climb on the semitrailer without first touching a grounding stud to discharge static electricity from your body.
- e. Under normal circumstances, perform all maintenance on the semitrailer outdoors, away from buildings, and with the tank empty. The semitrailer tank should be checked to make sure it is free of vapors that could ignite during maintenance activities.
- f. If circumstances require that maintenance be performed inside a building, the semitrailer tank must be thoroughly drained and purged and the exterior of the semitrailer must be steam cleaned. After purging, the combustible gas indicator must read in the SAFE zone. Even if the semitrailer has tested SAFE with a combustible gas indicator set, the semitrailer **MUST** be retested prior to starting work each day and at regular intervals throughout the day. This test can be accomplished by authorized Unit or Direct Support maintenance personnel with a military occupational specialty (MOS) of 77F or the equivalent (see FM 10-20).
- g. Hearing protection is required for personnel within 50 feet (15.25 m) of the semitrailer when the pump engine is running.
- h. To reduce the risk of fire and explosion, **DO NOT** perform the following operations on the semitrailer unless the tank has been drained and purged and the exterior has been steam cleaned:
 - Replace any component that communicated with the inside of the tank and therefore came in contact with fuel or vapors; these components include the manhole, the jet level sensor and tubing, the emergency valve, vapor collection system components, vent caps, the sump drain, and the piping assembly.
 - Troubleshoot the electrical system with any test device other than the ohms scale of a multimeter.
 - Weld or solder.
 - Cut with acetylene torch or chisel and hammer.
 - Drill (except aluminum).
- i. Follow these rules if working inside a purged tank:
 - Always provide adequate forced air ventilation with air directed inside to the compartment where work is being performed.
 - **NEVER** work alone inside a tank; a second person must be stationed at the manhole opening. A third person must be close by to provide aid and/or assistance in case of an emergency. The person inside the tank must have on a safety line and harness for rescue operations in case of emergency.
 - If the person inside the tank encounters any difficulties, the person stationed at the manhole must summon assistance **IMMEDIATELY**. **DO NOT** attempt a rescue until assistance has arrived.

1-2. MAINTENANCE FORMS AND PROCEDURES.

Department of the Army forms and procedures used for equipment maintenance will be those prescribed by (as applicable) DA Pam 738-750 or AR 700-138.

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

Refer to TM 750-244-6 for procedures on the destruction of military vehicles to prevent enemy use.

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

If your semitrailer 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 Form 368 (Product Quality Deficiency Report). Mail it to the address specified in DA Pam 738-750.

1-5. CORROSION PREVENTION AND CONTROL (CPC).

Corrosion prevention and control (CPC) of Army materiel is a continuing concern. It is important that any corrosion problems with the semitrailers be reported so that the problems can be corrected and improvements can be made in order to prevent the problems in future semitrailers.

While corrosion is typically associated with the rusting of metals, it can also include deterioration of other materials, such as rubber and plastic. Unusual cracking, softening, swelling, or breaking of these materials may be a corrosion problem. If a corrosion problem is identified (refer to TB 43-0213), it can be reported using an SF Form 368. The use of key words, such as "corrosion," "rust," "deterioration," or "cracking," will ensure that the information is identified as a CPC problem. The form should be submitted to the address specified in DA Pam 738-750 for corrective maintenance. If the problem persists, notify Unit maintenance.

1-6. LIST OF ABBREVIATIONS AND ACRONYMS.

A	annually
AAL.....	Additional Authorization List
BII.....	Basic Issue Items
CAGEC.....	Commercial and Government Entity Code
CARC	chemical agent resistant coating
Class.....	classification
COEI.....	Components of End Item
cp.....	candle power
DA.....	Department of the Army
DOD.....	Department of Defense
E	empty
EIR.....	equipment improvement recommendation
GAA.....	grease, automotive and artillery
H	hour
IAW.....	in accordance with
JTA	Joint Table of Allowances

1-6. LIST OF ABBREVIATIONS AND ACRONYMS (continued).

L.....	liter- low
LED.....	light-emitting diode
M.....	monthly
MOS	military occupational specialty
MTOE	Modification Table of Organization and Equipment
NBC	nuclear, biological, and chemical
NSN	national stock number
OC	on condition
p.....	page
para	paragraph
PMCS	preventive maintenance checks and services
Qty. Recm.....	quantity recommended
Qty. Rqr	quantity required
S	semiannually
S/N.....	serial number
TAMMS.....	The Army Maintenance Management System
TDA	Table of Distribution and Allowances
TOE	Table of Organization and Equipment
U/M.....	unit of measure
V dc	volts, direct current
W/	with
W/O	without

1-7. WARRANTY DATA.

There is no warranty on the M969A2 semitrailer.

Section II. EQUIPMENT DESCRIPTION AND DATA

Paragraph Number	Paragraph Title	Page Number
1-8	Equipment Characteristics. Capabilities, and Features.....	1-5
1-9	Location and Description of Major Components.....	1-6
1-10	Equipment Data	1-8
1-8. EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES.		

The entire M969A2 semitrailer is constructed of welded stainless steel. Semitrailers have a stainless steel. single-compartment tank of 5000-gallon capacity, plus 3 percent capacity for product expansion. The chassis is constructed of welded steel and is equipped with full floating tandem axles and manually operated landing gear.

The semitrailer is designed to be towed by a truck tractor equipped with a fifth wheel. Authorized 5-ton truck tractors are the M818. M931, M931A1, M931A2, M932, M932A1, M932A2, and M1088. When driving on hard surface highways only, the 10-ton military -adapted commercial 6 x 4 truck tractors (the M915, M915A1, and M915A2) are also authorized.

The M969A2 semitrailer can be loaded through the bottom or the top fill opening. The four-cylinder diesel engine and pump assembly provide self-load/unload capability.

The semitrailer is equipped with pressure and vacuum vents, hose troughs, a sealed manhole, a vapor recovery system, bulk fuel hoses, a portable grounding rod, a static reel, and a spare tire. A ladder is provided at the rear of the M969A2 semitrailer for access to the top manhole.

1-9. LOCATION AND DESCRIPTION OF MAJOR COMPONENTS.

