

TECHNICAL MANUAL

**OPERATOR'S AND UNIT
MAINTENANCE MANUAL**

**TRUCK, FIREFIGHTING,
1000 GPM MULTIPURPOSE,
MODEL 2500L**

NSN 4210-01-193-3621

**This copy is a reprint which includes current pages from
Changes 1 through 8**

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TECHNICAL MANUAL

No. 5-4210-220-12

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, D.C, 30 October 1987**Operator's and Unit
Maintenance Manual****TRUCK, RREFIGHTING,
1000 GPM MULTIPURPOSE,
MODEL 2500L****NSN 4210-01-1933621****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, ATTN: AMSAT-I-MP, 4300 Goodfellow Boulevard, St. Louis, MO 63120-1798. A reply will be furnished to you.

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HOW TO USE THIS MANUAL

ARRANGEMENT. This manual is divided into four chapters. The purpose of each chapter is listed below.

Chapter 1 INTRODUCTION. Provides users with information about standard data required in all manuals. It also familiarizes users with the truck and related equipment.

Chapter 2 OPERATING INSTRUCTIONS. Presents instructions needed by the operator and crew to effectively and efficiently operate the trucks.

Chapter 3 OPERATOR MAINTENANCE INSTRUCTIONS. Presents the necessary information for the operator to help keep the truck and its components in good running order.

Chapter 4 UNIT MAINTENANCE. Presents the necessary procedures and instructions including lists of special tools to maintain the truck in good running condition.

An alphabetical subject index, located at the rear of this manual, has been included to improve reader access to required information.

EXPLANATION OF NUMBERING SYSTEM

Text. The information contained in this manual is numbered sequentially for easy access of data.

Example 2-1

First number (2) indicates the chapter

Second number (1) indicates the paragraph numbers within the chapter

The symbols a to z, (1) to (99), and (a) to (zz) indicate subparagraphs.

Page, Figure and Table Numbers. All are numbered sequentially within the chapter.

Example 3-12

First number (3) indicates the chapter

Second number (12) indicates the page number, figure number or table number within that chapter.

LOCATION OF NUMBERS

Text. Appear beside and to the left of related text.

Page. Appear at the bottom right (odd number) or the bottom left (even number) of the page.

Figure. Appear directly below the related illustration.

Table. Appear directly above the related table.

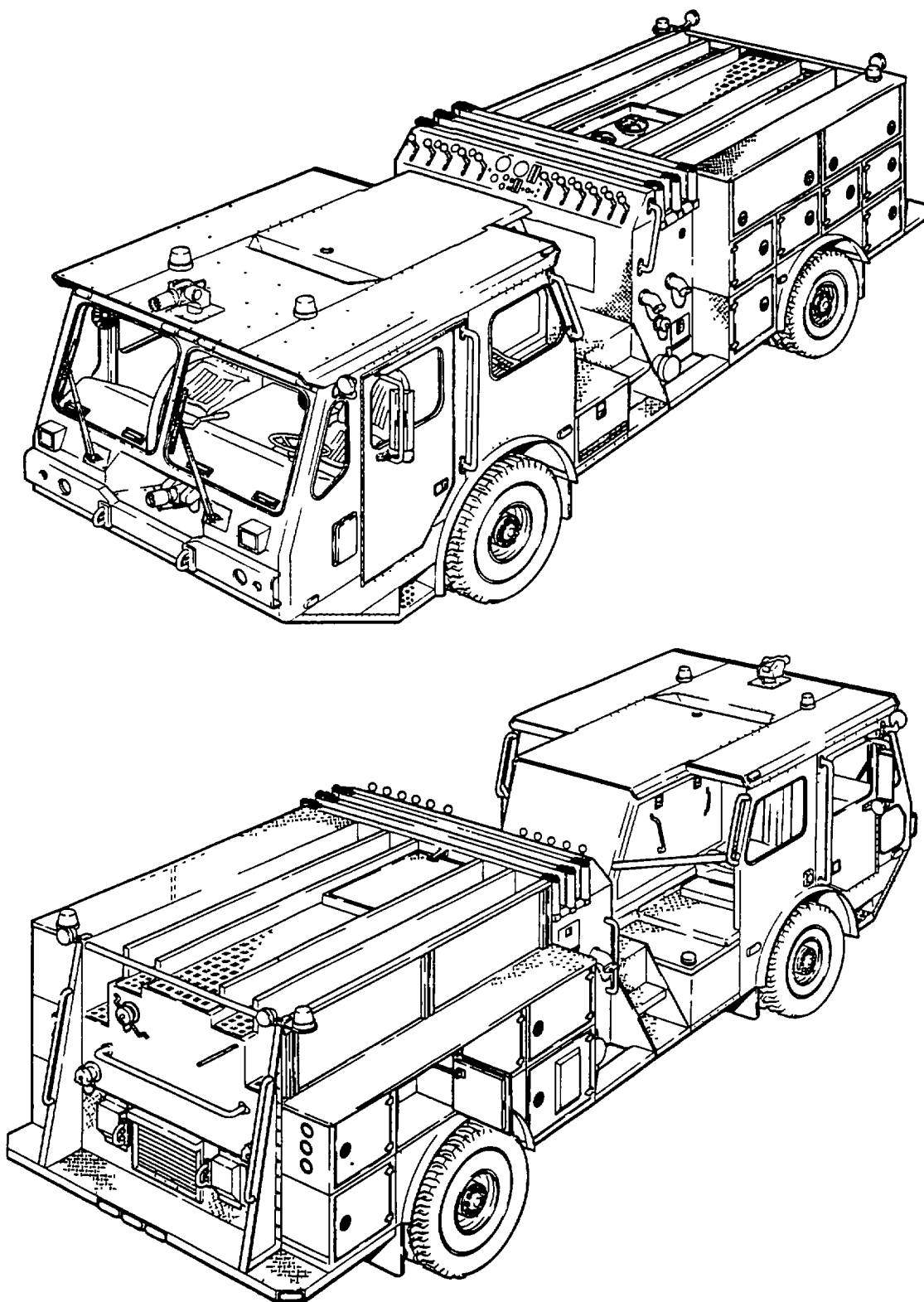


Figure 1-1. Model 2500L Firefighting Truck, NSN 4210-01-193-3621

CHAPTER 1

INTRODUCTION

Section I. GENERAL INFORMATION

1-1. SCOPE.

a. This manual provides operator instructions, and operator and unit maintenance instructions for the Model 2500L, 1000 GPM Multipurpose, Firefighting Truck NSN 4210-01-193-3621.

b. The manual includes a detailed description of the truck and its control components as well as detailed information for its operation and maintenance. Although the truck is supplied complete with firefighting equipment, only brief descriptions of this equipment are provided and no attempts are made to explain firefighting techniques.

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. REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS. If your Model 2500L Firefighting Truck, 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 SF368 (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 will send you a reply.

1-4. DESTRUCTION OF ARMY MATERIEL TO PREVENT ENEMY USE. The guidelines for destruction of Army materiel to prevent enemy use will be those prescribed in TM 751-244-3.

1-5. PREPARATION FOR STORAGE OR SHIPMENT. The procedures and requirements covering preparation for storage or shipment will be those prescribed in Chapter 4.

1-6. WARRANTY INFORMATION. The Model 2500L, 1000 GPM Multipurpose, Firefighting Trucks, are warranted by Amertek Inc. for 1 year. Warranty starts on date found in block 15, DA Form 2408-9, in the logbook. Report all defects in material or workmanship to your supervisor who will take action through your organizational maintenance shop.

1-7. USE OF ABBREVIATIONS. All abbreviations used in this manual conform to Military Standard MIL-STD-12 and its amendments

Section II. EQUIPMENT DESCRIPTION.

1-8. EQUIPMENT CHARACTERISTICS, CAPABILITIES AND FEATURES.

a. Purpose of the Model 2500L Firefighting Truck, NSN 4210-01-193-3621. This firefighting truck is designed for aircraft crash, fire, and rescue operations. The truck is also capable of fighting ground and structural fires.

b. Capabilities. The speed and constant readiness of this truck enables quick response to any emergency situation. The truck is equipped with selective two or four-wheel drive making it suitable for travel both on or off-road. For firefighting, the truck is equipped with on-board water and foam tanks and an engine driven fire pump. In aircraft crash emergencies, water and foam can be deployed with the truck stationary or in pump-and-roll mode from two discharge turrets mounted on the front of the truck. For fighting of structural fires, hose equipment connected to pressure outlets on the sides and rear of the truck may be used.

c. Features. The features characterizing the Model 2500L firefighting truck, comprise:

- (1) Low center of gravity combined with high ground clearance enabling travel on steep grades and through rough terrain.
- (2) Three-piece cab and body design to minimize stress on body components during travel in rough terrain.
- (3) Low overall vehicle height to ensure air transportability.
- (4) Skid plate and belly pan for protection of front and rear axles respectively.
- (5) Fully insulated cab providing protection from low temperatures and radiant heat from fires.
- (6) Single diesel engine providing drive for both vehicle power train and fire pump.
- (7) Automatic transmission and simple drive line system for transfer of tractive power to the drive wheels.
- (8) CFR (Crash, Fire and Rescue) firefighting system fully controlled and operated from the cab.
- (9) Raised central panel location for structural firefighting provides the operator with full 360 degree field of vision.
- (10) Winterization system to allow stand-by duty in freezing weather.
- (11) Easy access to all vital components and equipment.

1-9. LOCATION AND DESCRIPTION OF MAJOR COMPONENTS.

a. Frame and Suspension.

(1) The frame consists of two side members and seven cross members bolted together. The frame serves as a mounting base for the engine, drive train, fire pump, cab, pump body, and hose body. The frame is flexible to prevent heavy stress on components during travel in rough terrain.

(2) The front bumper is mounted directly to the side frames together with two eyelets for towing purposes, (see fig. 1-2). Rear towing eyelets are also attached to the frame. The suspension leaf springs are attached to the frame with shackles and spring pins. The axles and springs are assembled with two U-bolts at each location. Spring action is dampened with heavy duty shock absorbers.

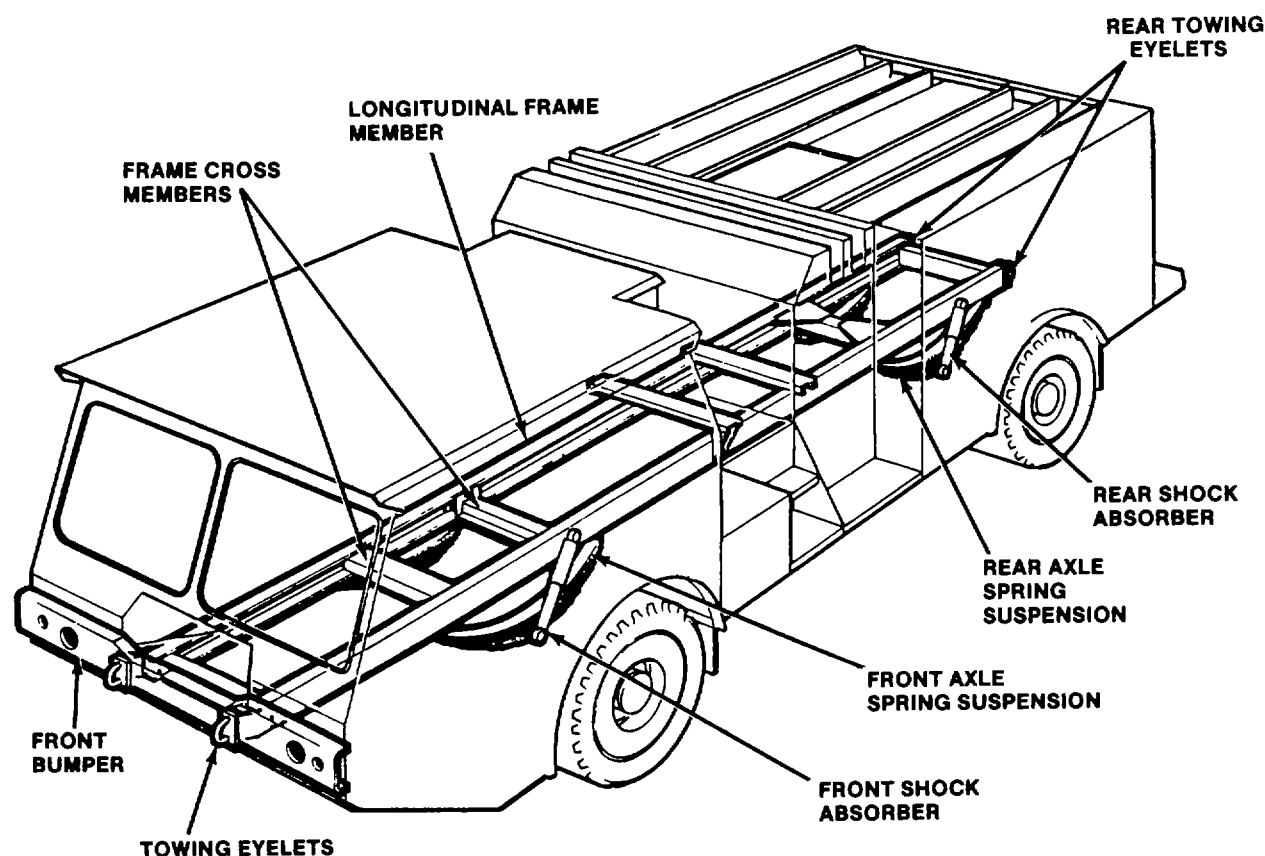


Figure 1-2 Frame and Suspension Components

b. Cab and Body.

(1) The cab and body consists of three separate assemblies each attached to the frame by means of vibration absorbing rubber mounts. The cab, pump body, and hose body (see fig. 1-3) are fabricated of aluminum and insulated against heat and cold. The cab is divided by a fire wall making the front compartment fully enclosed. The front compartment accommodates the driver and one crewmember. The rear semi-enclosed compartment contains two rear facing crew seats. All crew seats are equipped with seat belts.

1-9. LOCATION AND DESCRIPTION OF MAJOR COMPONENTS. - Continued

b. Cab and Body. - Continued

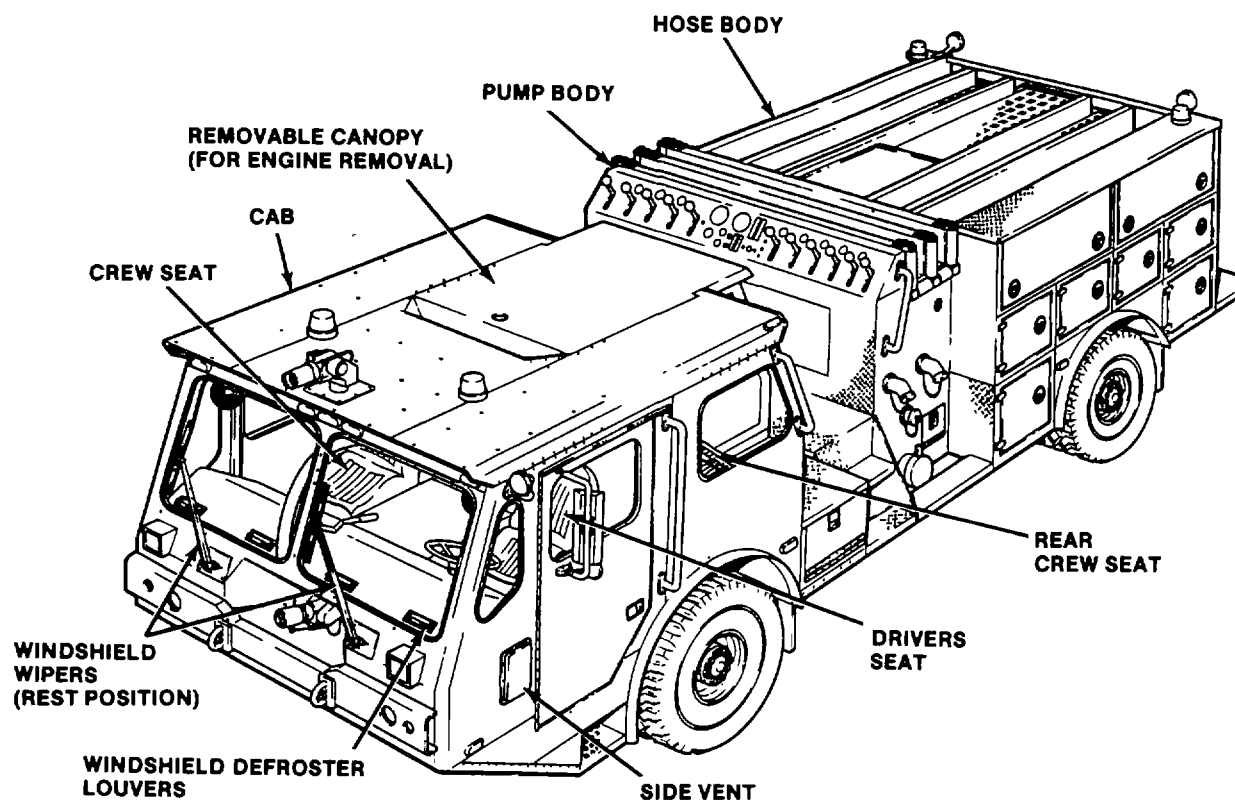


Figure 1-3 Cab and Pump Body Components - Left Side View

(2) The cab is equipped with side windows of tempered safety plate glass and windshields of laminated glass. Each windshield is provided with a pantograph-type wiper and washer assembly capable of maintaining 75% of the glass area clear. To remove grime, cleaning fluid is sprayed into the wiper blade path from washer nozzles located on the wiper arms. Windshield washer fluid is contained in two reservoirs located inside the cab. The wiper motors are air driven with infinite speed control.

(3) The cab is provided with a fluid-to-air heat exchanger mounted on the right hand side floor of the cab. Two fans direct fresh air through the heater and air ducts to the windshield defroster louvers and/or floor outlets. Fluid to the heater core is provided from the engine cooling system. Two fans mounted near the top of the windshield provide air circulation in the cab.

(4) Controls and indicators to operate the truck and firefighting systems are located inside the cab. Their arrangement prevents interference with driver/crewmember entrance or exit from the cab. Refer to Chapter 2 for operating details of the controls and indicators.

(5) The lower left and right rear corners of the cab contain the battery compartment and fuel tank respectively. The fuel tank compartment is equipped with a blower to cool the tank when firefighting in structural mode.