

TECHNICAL MANUAL

**OPERATOR'S, ORGANIZATIONAL AND DIRECT SUPPORT
MAINTENANCE MANUAL
(INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST)**

TRUCK, FIRE FIGHTING, 4x4,

MODEL 1350 PKP/200 AFFF

**NSN 4210-00-484-5729
ANSUL FIRE PROTECTION**

HEADQUARTERS, DEPARTMENT OF THE ARMY

29 DECEMBER 1986

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MARINETTE, WI 54143**

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ANSUL

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REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistake or if you know of a way to improve the procedures, please let us know. Mail your letter, DA Form 2028 (Recommend Changes to Publications and Blank Forms), or DA Form 2028-2 located in the back of this manual direct 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.

REPORTING EQUIPMENT IMPROVEMENTS (EIR's)

If the Fire Fighting Truck 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.

MANUAL SCOPE

This manual is intended for use with the Ansul Twin-Agent Fire Fighting Truck. Those who operate, recharge, inspect, or maintain this fire suppressing/securing vehicle should read this entire manual. Specific sections will be of particular interest depending upon one's responsibilities.

The purpose of this manual is to familiarize personnel with the operation and maintenance of the twin-agent fire fighting truck. The operator of the fire fighting truck is responsible for all minor maintenance and adjustments necessary to keep the fire suppressing/securing systems and emergency vehicle equipment in ready condition. Higher maintenance is responsible for the major maintenance, service, and repair as necessary to bring the vehicle back into the operating condition.

The information contained in this manual is limited to the fire suppressing/securing system, serial numbers 001 thru 005 and emergency equipment mounted on the International Truck Model 1854 - 4x4. This manual contains the necessary information needed to prepare for use, operate, recharge, inspect, maintain, service, and repair the fire suppressing/securing system.

The contractor warrants for a period of one year all supplies furnished under Contract DAAK01-78-C-1667 to be free from defects of design, material, and workmanship; and conforms with specifications and all other requirements of this contract.

Applicable publications include:

Federal Sign and Signal Corporation: Siracom II Siren/Control System- Model PA2100 with FN 900 Microphone and TS-100 Speaker designed to be installed in the Model 24 Light Bar Assembly.

Publications include: Dome Assembly Installation Instructions - No. 256A358; FN 900 Adaptor for PA override operation Installation Instructions - No. 256A99B; Model PA .2100 Installation and Service Instructions - No. 255A150G; Service and Parts Index - No. 256A359.

Unity Manufacturing Company: Model AG 6-inch rear decklight; No. 225 spotlight (right and left).

Publications include: Parts Sheet - No. 105-6.

H.K. Porter Incorporated: Model PK-4 Hydraulic Rescue Kit (10 ton capacity).

Publications include: Instruction Book - No. 10119; Instruction Envelope - No. ISM 200; Instruction Sheet - No. 1PF10; and Service Station Listing - No. 10120.

Hurst Performance Incorporated: Model 3620025 Rescue Tool.

Publications include: Instruction Manual - No. 159 0082.

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Sierra Company: Model CRK5 Sierra Rescue Crash Tool Kit.

Publications: None, contents listed in vendor's publication section.

International Harvester Company - Truck Division: Model 1854 Truck (4x4).

Publications include: Service Manual (3 volumes) - No. CTS2311; Parts. Catalog - No. MT- 140. -

Paratech Incorporated, Formerly Partner Industries: Model K-1200 Rescue Saw.

Publications included: Instruction Book - No. 701042; Parts List - No. 711142.

SYSTEM DESCRIPTION

The Ansul Twin-Agent Fire Fighting Truck is designed for combating fire via roof-mounted turrets or rear-mounted hand-lines which can be used together or independently.

The truck is the basic International Model 1854, 4x4 chassis with a service body attached, and an Ansul 1350 PKP/200 AFFF fire suppressing/securing system mounted on the truck bed.

The fire fighting truck also includes: a roof-mounted warning light bar with built-in speakers controlled by an indicator switch; an electric siren, public address, and radio amplifier system with foot control switch; two rear-mounted decklights; two forward-mounted spotlights; and rescue equipment packages.

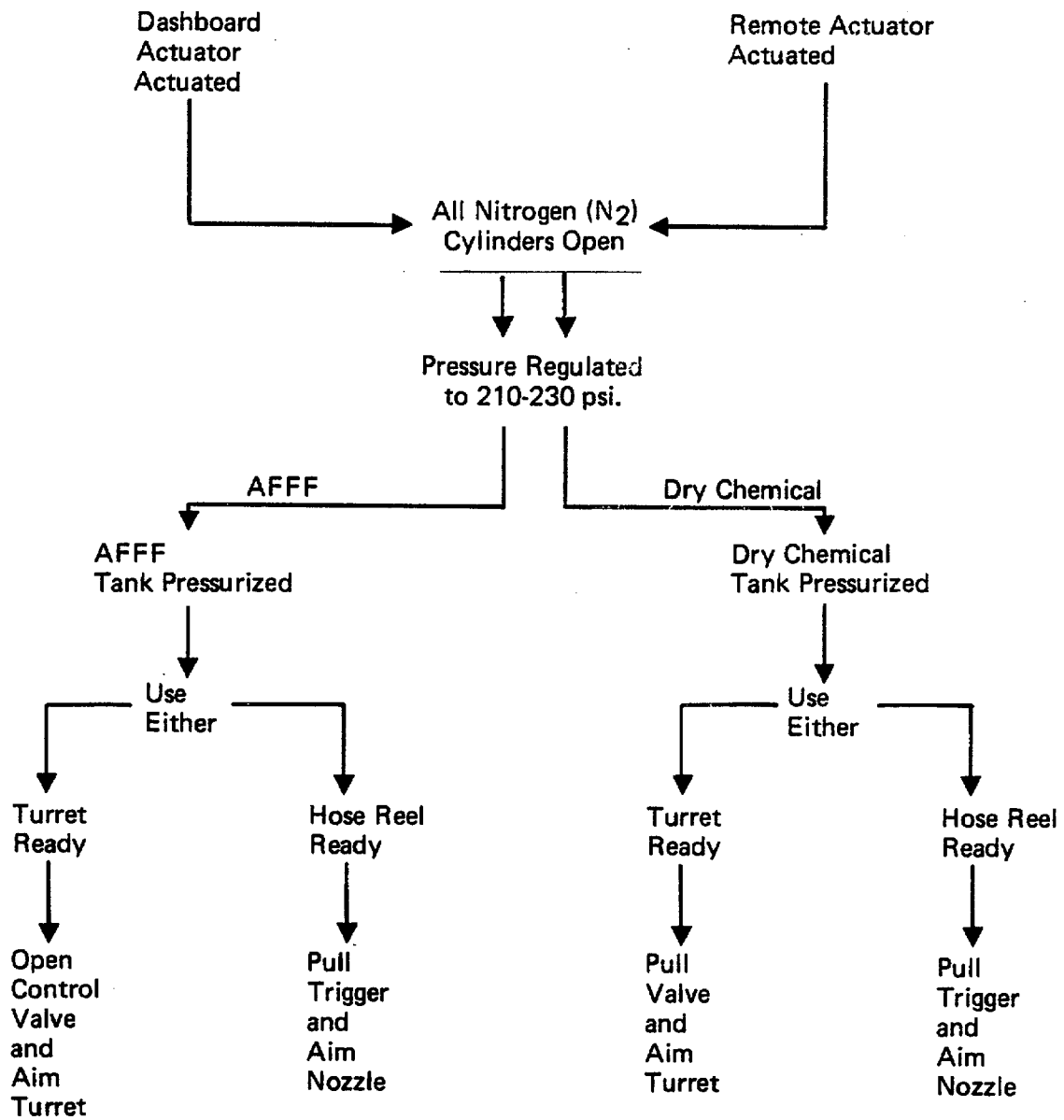
The truck is a completely self-contained fire fighting vehicle. The dry chemical fire suppression system uses 'Purple-K' as the fire extinguishing agent and nitrogen as the expellant gas. The AFFF system uses AFFF (aqueous film-forming foam) as the extinguishing agent and nitrogen as the expellant gas. Both systems can be actuated simultaneously by using either the remote actuator (located at the hose reel) or the dashboard actuator (located in the truck cab). The twin-nozzles and twin-turrets can be used either independently or simultaneously.

The dry chemical system can be used on Class B and Class C fires only. It provides rapid knockdown of Class A fires, but must be used in combination with the AFFF agent.

The AFFF (aqueous film-forming foam) system is designed for use on Class A and B fires only. It must not be used on Class C fires which involve energized electrical equipment.

CAUTION: The AFFF solution is a mixture of Ansulite AFFF Concentrate and water. It will freeze at 32°F.

The following chart illustrates the sequence of operating events and the options available with this system:



INTRODUCTION

TRUCK EQUIPMENT AND ACCESSORIES

Warning Light: The light bar is mounted on the roof of the cab and includes a built-in public address speaker. The light can be operated by means of a separate switch on the dashboard instrument panel. The switch contains a red indicator light which is activated when the warning light is in use.

Electronic Siren, Public Address, and Radio Amplifier System: The system contains selector controls for siren, public address, or radio amplification through an external speaker mounted in the warning light bar assembly. The amplifier, its controls, and the microphone are mounted in the cab in a location accessible to the driver or passenger. The siren can be operated by either the floor-mounted switch or the standard horn actuator.

Spotlights: Two decklights are mounted at the rear of the truck on top of the service body. Two spotlights are mounted on the side of the truck cab. The rear lights are operated by a switch located at the bottom of each light. The cab-mounted lights can be operated from switch/handle assemblies inside the truck cab.

Rescue Equipment: A hydraulic rescue kit, aircraft rescue crash tool kit, and rescue saw are located in the service body compartments for easy access during rescue operations. To use, follow manufacturer's instructions provided with equipment.

FIRE SUPPRESSING/SECURING SYSTEM

Dry Chemical Fire Suppression System: The dry chemical system can be used on Class B and Class C fires and is very effective for exterior running and flowing Class B fires. It provides rapid knockdown of Class A fires, but must be used in combination with the AFFF agent to avoid fire reignition. The dry chemical system is mounted on the center of the truck bed behind the AFFF system.

The components of the dry chemical system include: a 1350 lb. dry chemical tank with control valves and associated piping, three 400 cu. ft. nitrogen cylinders with pressure regulators, a twin-agent hose reel serving both the dry chemical and AFFF system, a dry chemical discharge nozzle, and a dry chemical turret with pneumatic control valve.

AFFF Fire Suppressing/Securing System: The AFFF (aqueous film-forming foam) system is designed for use on Class A and B fires only. It must not be used on Class C fires which involve energized electrical equipment.

CAUTION: The AFFF solution is a mixture of Ansulite AFFF Concentrate and water.
It will freeze at 32°F.

The AFFF system is mounted behind the truck cab in front of the dry chemical system

The components of the AFFF system include: a 200 gal. solution tank with control valves and associated piping, two 400 cu. ft. nitrogen cylinders with pressure regulators, a twin-agent hose reel serving both the dry chemical and AFFF system, a AFFF discharge nozzle, and an AFFF turret with pneumatic control valve.