

TECHNICAL MANUAL

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

FOR

**TRUCK, FIREFIGHTING, MINI-PUMPER
18,000 GVW
NSN 4210-01-026-2567**

Approved for public release; distribution is unlimited

**HEADQUARTERS, DEPARTMENT OF THE ARMY
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CHAPTER 1. INTRODUCTION

Section I. General

1. PURPOSE

- A. This manual contains instructions for the operation and maintenance of fire fighting, mini-pumper model AWW1037 through 1043 equipped with 250 GPM pump. Manufactured by Almont Welding Works, Inc. 4091 Van Dyke, Almont, Michigan 48003. Vendor code.
- B. Apparatus components are described in this manual. Additional maintenance information referenced below must be used in conjunction with this publication.
 - 1. International service manual and parts manual
 - 2. Hale fire pump manual CBP-4

2. ENGINE OPERATING PRECAUTIONS

- A. Internal combustion gases are poisonous.
- B. Visual inspection of exhaust systems for possible gas leaks should be performed at least once monthly.

WARNING

Engine must not be operated within a completely enclosed area unless adequate means of extracting exhaust fumes have been provided such as forced -air ducts, or a gas-tight muffler tail pipe extension discharging into exhaust ducts or directly out-of-doors.

Section II. DESCRIPTION AND DATA

1. DESCRIPTION

- A. Almont Welding Works, Inc. model AWW 1037 through 1048 is a commercial type 4 x 4 International cab and chassis powered by a 400 cubic inch V8 gasoline engine. The fire truck is equipped with a PTO driven 250 GPM booster pump, 300 gallon booster tank and 30 gallon foam tank.

- B. The fire truck is capable of satisfactory performance in any ambient temperature from 125° F to -20° F. The truck will deliver the following rated pumping capacities at any elevation from sea level to 3,000 feet at the above stated temperatures:

GALLONS PER MINUTE	PRESSURE P.S.I.
250	150
175	200
125	250

2. COMPILED DATA**A. Fire Truck**

National Stock Number	4210-01-026-2567
Serial Number Range	1037 - 1047
Registration Number	CH9911 - CH9922
Manufacturer	Almont Welding Works, Inc.
Model	AWW1037 - 1047
Contract Number	DAAJ09-80-C-5156
Truck Length	245"
Truck Width	92"
Truck Height	108"
Capacity or Payload	17,000 lbs.
Shipping Weight	13,460 lbs.
Cube	1614 cubic feet

B. Chassis

Manufacturer	International
Model	1824S
Wheel Base	140"

C. Engine

Manufacturer	International
Model	404 - V8
Fuel	Gasoline

D. Water Pump (Fire Fighting)

Manufacturer	Hale Fire Pump Co.
Model	CBP-4
Capacity	250 GPM @ 150 PSI

Complied Data (cont)

E. Capacities

Water Tank	300 gallons
Foam Tank	30 gallons
Fuel Tank	37 gallons
Cooling System	23 quarts
Crankcase	8 quarts
Pump Gear Case	1 quarts
Pump Priming Tank	1 gallon
Tire Pressure	N/A

CHAPTER 2. CONTROLS AND INSTRUMENTS

Section 1

Pump and Accessory Controls

1. General

This section identifies and describes the function of controls and indicators used in operating this fire fighting equipment.

Note

All control valves are, pull to open and push close, and are located at the operator's pump control panel.

2. Control Valves

- A. #1 crosslay. (20, Fig. 3) used to control #1 - 1 1/2" crosslay discharge.
- B. #2 crosslay. (21, Fig. 3) used to control #2 - 1 1/2" crosslay discharge.
- C. Pressure relief valve. (22, Fig. 3) used to control pump pressure by turning handle CW to increase CCW to decrease. The relief valve is used in conjunction with engine throttle control (16, Fig. 3).
- D. Water to proportioner valve. (23, Fig. 3) used in conjunction with the foam to proportioner (37, Fig. 3) to control water supply to foam proportioner.
- E. Tank to pump valve. (24, Fig. 3) used to open or close tank to pump line.
- F. Tank fill valve. (25, Fig. 3) use to fill 300 gallon tank.
- G. Hose reel valve. (26, Fig. 3) used to control water discharge to hose reel.
- H. Auxiliary suction valve. (27, Fig. 3) used to control auxiliary suction at rear of truck.
- I. #1 discharge valve. (28, Fig. 3) used to control 2 1/2" #1 discharge (29, Fig. 3).

- J. Suction manifold valve. (31, Fig. 3) used to control 2 1/2" suction manifold (30, Fig. 3).
- K. Pump primer. (32, Fig. 3) used to control primer to draft water.
- L. #1 discharge drain. (33, Fig. 3) used to drain #1 discharge manifold.
- M. Engine cooler. (34, Fig. 3) used to supply water to engine heat exchanger, CCW to open.
- N. Proportioner control. (36, Fig. 3) used to meter the amount of foam to enter water supply.
- O. Pump flush valve. (35, Fig. 3) used to flush foam from pump.
- P. Foam to proportioner valve. (37, Fig. 3) used to control foam supply to proportioner.
- Q. Pump drain. (38, Fig. 3) used to drain water from pump.

3. Gauges and Meters

- A. Oil pressure gauge. The oil pressure gauge (18, Fig. 3), located on the left side operator's pump control panel, is a dial-type gauge graduated from 0 to 80 pounds per square inch that indicates the engine oil pressure.
- B. Tachometer. The tachometer (15, Fig. 3), located on the left side operator's pump control panel, is a dial type gauge graduated from 0 to 6. Each graduation indicates 1000 revolutions per minute. The tachometer measures the revolutions per minute of the fire truck engine.
- C. Water temperature gauge. The water temperature gauge (19, Fig. 3), located on the left side operator's pump control panel, is a dial-type graduated from 600F to 2400F that indicates the engine water temperature.
- D. Master pump discharge pressure gauge. The pump discharge pressure gauge (1, Fig. 3), located on the left side operator's pump control panel, is a dial-type gauge graduated from 0 to 600 pounds per square inch of pressure and 0 to 30 inches of mercury. It indicates the maximum discharge pump pressure.

- E. Vacuum gauge. The vacuum gauge (9, Fig. 3), located on the left side operator's pump control panel, is a dial-type graduated from 0 to 600 scale indicates the amount of pressure in the intake side of the pump, the 0 to 30 scale indicates the vacuum developed in the intake side of the pump.
- F. Discharge gauges. (2,3,4, Fig. 3), #2, Monitors #1 2 1/2" discharge, #3 monitors #1 1 1/2" crosslay discharge, #4 monitors #2 1 1/2" crosslay discharge.

Section 2. DRIVER's OPERATING CONTROLS

1. VEHICLE CONTROLS

For detailed information on all controls necessary for operation of the fire truck chassis and engine, refer to the International service and parts manual included with each vehicle.

2. PUMP ENGAGE CONTROL

The road-to-pump shift control is located on the cab floor. To operates (1) engage service brakes; (2) engage the truck transmission in drive; (3) to engage the power take-off, pull the pump shift control up; (4) for stationary pumping, put the truck transmission back to neutral position-and engage parking brake; (5) for pump & roll, leave the truck transmission engaged in 1st gear or 2nd gear.