

Chapter 3
INSTRUCTIONS FOR USE

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GENERAL

1. The instructions contained in this chapter deal with the operation of the light water/foam fire extinguishing system.

STANDBY

2. When the airfield crash rescue truck is on standby, the reservoir tank should be full and all valves in their closed position. If the truck is operating in low ambient temperature conditions, a 240V a.c. mains supply should be connected via the snatch socket to the plug at the rear of the truck. The supply cable should be anchored so that the truck may be driven off with the supply still connected.

WARNING...

- (1) THE A.C. MAINS MUST BE SUPPLIED VIA AN EARTH LEAKAGE TRIP SWITCH.
- (2) IF THE TRUCK IS SUPPLIED FROM A GENERATOR, AN EARTH SPIKE MUST BE CONNECTED AT THE WINGNUT ON THE CHASSIS.

CRASH ALARM

CAUTION...

If the earth spike is in use it must first be disconnected at the wingnut on the chassis.

- 3. The truck may be driven off without disconnecting the electrical supply as the snatch plug and socket will separate under tension.
- 4. Position the truck such that one or both hoses can be run out forward of the vehicle.

OPERATION

5. The light water/foam extinguishing system is brought into operation as follows:-

(1) Release the rubber strap(s) which secures both the branch pipe(s) and hose rack flap(s). Lift the branch pipe(s) from its bracket and ensure that the hose rack flap(s) drops fully open.

NOTE...

The quick-release hermaphrodite couplings used to terminate the hoses allow them to be quickly coupled in series to provide one 200ft hose run.

(2) Open the hose isolating valve by turning the operating lever to ON.

(3) Release the spring catch securing the main foam valve remote operating lever and push the lever forward (OPEN) until it rests on the floor mounted stop.

(4) Engage the pump drive as follows:-

(a) Start the engine and allow to idle.

(b) Depress the clutch pedal.

(c) Select neutral position on the transfer box gear lever (red knob).

(d) Pull the power take off operating lever forward until the notch in the shaft engages with the heel board. The green PUMP RUNNING lamp should now be illuminated.

(e) Select 4th gear with the main gear lever.

(f) Slowly release the clutch pedal to start the pump rotating.

(5) Run with the branch pipe to the site of the fire.

(6) Use the hand throttle to increase the engine speed until the indicated pump pressure 150 lb/in^2 . The hose becomes pressurised rapidly and will eject itself from its rack.

CAUTION...

The engine speed must not exceed 4100 rev/min.

(7) To select a jet of water, push forward the lever on the adjustable deflector jaws on the branch pipe.

(8) To select a spray of water pull the lever on the adjustable deflector jaws on the branch pipe, to the rear.

(9) Control the foam discharge by using the trigger-operated valve at the rear of the branch pipe.

(10) On completion of pumping operations, proceed as follows:-

- (a) Close the engine hand throttle control.
- (b) Disengage the pump drive as follows:-
 - (i) Depress the clutch pedal.
 - (ii) Select neutral gear with the main gear lever.
 - (iii) Lift the power take off operating lever and push it fully to the rear.
 - (iv) Release the clutch pedal.
- (c) Pull the main foam valve operating lever to the rear and lock in the vertical (CLOSED) position using the spring catch.
- (d) Turn the hose isolating valve operating lever to OFF (FLAKED HOSE).
- (e) Carry out the flushing operations detailed in para. 6 and 7.

FLUSHING

6. It is essential that any premixed solution remaining in the pump and pipework installation is removed as soon as possible after pumping operations are complete. The system should be flushed through with clean water under pressure from the pump. The 2½ in. instantaneous connector mounted in the left-hand side hose rack compartment allows the pump and pipework to be connected to a hydrant water supply.

7. To flush the system, position the truck near a fire hydrant and proceed as follows:-

- (1) Ensure that both hoses are fully withdrawn from their hose racks.
- (2) Connect the hydrant supply hose to the 2½ in. instantaneous connector.
- (3) Ensure that the main foam valve operating lever is in the vertical (CLOSED) position.
- (4) Engage the pump drive as follows:-
 - (a) Start the engine and allow to idle.
 - (b) Depress the clutch pedal.
 - (c) Select neutral position on the transfer box gear lever (red knob).
 - (d) Pull the power take-off operating lever forward, until the notch in the shaft engages with the heel board. The green PUMP RUNNING lamp should now be illuminated.
 - (e) Select 4th gear with the main gear lever.
 - (f) Slowly release the clutch pedal to start the pump rotating.
- (5) Open the hydrant supply valve.

- (6) Set the lever on the flushing water intake valve to ON.
- (7) Set the levers on both hose isolating valves to ON.
- (8) Increase the engine speed to obtain an indicated pump delivery pressure of 40 lb/in².
- (9) Operate the trigger control on each branch pipe and continue pumping until clear water is discharged through both branch pipes.
- (10) On completion of flushing operations, the system should be closed down as follows:-
 - (a) Close the engine throttle.
 - (b) Disengage the pump drive as follows:-
 - (i) Depress the clutch.
 - (ii) Select neutral gear with the main gear lever.
 - (iii) Lift the power take-off operating lever and push it fully to the rear.
 - (iv) Release the clutch pedal.
 - (c) Close the hydrant supply valve and disconnect the hose at the instantaneous connector.
 - (d) Set the operating levers on the hose isolating valves and the flushing water intake isolating valve to OFF.
 - (e) Open the pump casing drain valve.
 - (f) Make-up the hoses as detailed in para. 8.
 - (g) Close the pump casing drain valve.

MAKE-UP

8. To make-up (stow) a hose proceed as follows:-

- (1) Make-up the hose in folds in the rack. Mount the branch pipe in its bracket on top of the hose rack.
- (2) Close the flap on the hose rack and use the rubber strap to secure the branch pipe in its bracket and to hold the hose rack flap closed.

FILLING THE TANK (Chap.2, fig.4)

9. The tank is filled through the hole at the base of the expansion dome. To fill the tank proceed as follows:-

- (1) Release the toggle catch securing the tank lid and open the lid.

Note...

The lid may be reached by standing on the tread board lowered onto

the rear crewman's seat, with the roller blind fully retracted.

(2) Pour the required quantity of light water or protein foam (see para.10) into the tank.

(3) Top up the tank with clean water until the mixture is half-way up the expansion dome.

Note...

Filling is made easier if a 1 in. bore supply hose is used and fed through the 2 in. hole in the base of the expansion dome.

(4) Close the tank lid and retain in position with the toggle catch.

Contents

10. The contents of the tank is a premixed solution of either light water and water, or protein foam and water. A solution of 6% (by volume) of light water or protein foam (6 gallons to 94 gallons of water) is normally used but the ratio may be varied according to the expansion ratio required.

