WHEELED UNIT - FIRE EXTINGUISHER
MAINTENANCE AND RECHARGE
SERVICE MANUAL

MODEL M100

AFFF Foam Fire Extinguisher

*** RECHARGE EXTINGUISHERS IMMEDIATELY AFTER USE ***

All fire extinguishers should be installed and maintained in accordance with the relevant standards (AS 2444 and AS 1851) and the requirements of all authorities that have jurisdiction in relation to fire extinguishers.

When maintenance is indicated, it should be performed by trained persons using proper equipment. Fire extinguishers are pressure vessels and must be treated with respect and handled with care. They are mechanical devices and require periodic maintenance to be sure that they are ready to operate properly and safely.

Extinguishers should be serviced only with original and genuine spare parts – the use of substitute parts constitutes the void of any warranty covering the equipment.

PREPARING YOUR NEW EXTINGUISHER FOR USE

1. Examine the extinguisher for evidence of shipping damage – Notify the supplier immediately if any damage is discovered.
2. Remove all wrappings and straps.
3. Check to ensure that the hose connection to the operating valve and nozzle are tight.
4. Check that the safety seal is intact.
5. Check that the gauge is showing pressure, and that the pressure is in the “Green” zone on the gauge. Note slight pressure variances may be found if the extinguisher has been subjected to extremes of heat or cold. When in doubt, condition the extinguisher to 22°C for several hours to obtain more accurate pressure readings.

INSTALLATION

DO NOT place this extinguisher close to a potential fire hazard. We recommend locations no less than 15meters distance from the hazard while leaving an unobstructed access. Avoid placing the unit in an extremely hot or cold place. The extinguisher should be adequately protected if extreme temperatures are expected in the location. Keep the extinguisher clean and free from dirt, ice, chemicals, and any contaminants which may interfere with its proper operation.

DO NOT functionally test the estinguisher.

OPERATION

Persons expected to use this extinguisher should be trained in initiating its operation and the proper fire fighting technique.

1. Move extinguisher to within approximately 15 meters of the fire site. Keep extinguisher upright. This extinguisher must be operated in the upright position.
2. Pull Travel Pin. Open cylinder discharge valve by rotating the handle in an anticlockwise direction. The hose is now pressurised with agent.
3. Remove the Nozzle from its holder, be careful to not squeeze the trigger as this will discharge the agent.
4. Unroll the hose completely.
5. Stand back 10 meters fro the fire and aim the nozzle at the base of the flames nearest you. Squeeze the trigger on the nozzle.
6. Sweep from side to side across the base of the fire and past both edges. Progressively follow up until fire is extinguished. Work the fire away from you while being alert for any flashbacks.
7. When the fire is out, evacuate and ventilate the area immediately. The fumes and smoke from any fire may be deadly.

RECHARGE EXTINGUISHERS IMMEDIATELY AFTER USE

TROUBLE SHOOTING GUIDE

Warning : Determine the source of a leak before the extinguisher is depressurized. The extinguisher must be completely depressurized before any attempt is made to devalve it to correct any leakage problem. To depressurize hold the extinguisher in an inverted position, hold discharge nozzle and squeeze the discharge handle, be careful a small amount of agent will be discharged. Thoroughly clean all valve parts after depressurizing and valve removal.

Problem	Corrective Action
Leak at Collar O-Ring	Remove valve assembly, clean wing nut thoroughly and install new collar O-Ring. Lubricate O-Ring with Visilox V-728.
Leak through Valve	Install new valve stem assembly. Check valve seat for scratches or foreign matter.
Leak around Gauge threads	Remove Gauge and reinstall using Teflon tape on Gauge threads.
Defective Gauge	Remove defective Gauge and install new Gauge using Teflon tape on the Gauge threads.
Leak in Cylinder	Discard and Replace cylinder

INSPECTING THE EXTINGUISHER

This extinguisher should be inspected at regular intervals (Monthly or more often if circumstances dictate) to insure that it is ready for use. Inspection is a quick check that an extinguisher is available and will operate. Inspection is completed by seeing that the extinguisher is located in its designated place and has not been actuated or tampered with, and that there is no obvious physical damage or condition to prevent operation.

MAINTENANCE PROCEDURE

Fire Extinguishers need to be maintained in accordance with the relevant standards AS 1851. Maintenance is a thorough check of the extinguisher. It includes a thorough physical examination and any necessary repair or replacement.

1. Clean Extinguisher to remove dirt, grease or any foreign material. Check to make sure that the instruction Label is securely fastened and legible. Inspect the cylinder for corrosion, abrasion, dents or weld damage. If damage is found to cylinder hydrostatic testing of the cylinder should be carried out to determine if it can continue to be in service or if replacement is necessary. Note: when cleaning avoid the use of solvents around the face of the pressure gauge. They could seriously damage the plastic gauge face.
2. Inspect the extinguisher for damaged, missing or substitute parts. Only genuine parts are approved for use.
3. Check the date when last recharged. The foam charge (Part No. L-5002) must be replaced in accordance with AS 1851 with the proper charge. If the extinguisher is to be Hydro tested, do not reuse the charge even if within the three year cycle.
4. Check the date of manufacture on the extinguisher. Extinguisher must be hydrostatically tested every 5 years to the test pressure indicated on the label.
5. Visually inspect the pressure gauge :
    a. If bent, damaged or improper gauge, depressurize and replace.
    b. If pressure is low, check for leaks.
    c. If over pressurized (overcharged), reduce to correct pressure and check for leaks.
6. Remove ring (safety) pin and check for freedom of movement, replace if movement difficult.
7. Inspect discharge lever for freedom of movement. Inspect carrying handle for proper installation. If lever, handle or rivets are damaged – replace.
8. Remove hose assembly. Inspect hose gasket (O-Ring), hose and nozzle, assembly for damage – replace as necessary. Blow air through hose and nozzle to ensure passage is clear of foreign material.
9. Install hose and nozzle assembly.
10. Install ring pin and new tamper seal and record service data on the extinguisher inspection tag.
11. Replace the extinguisher in the proper location.

RECHARGE PROCEDURE

Recharging is the replacement of the extinguishing agent and also includes the expellant.

Warning :
A. Before attempting to recharge be sure this extinguisher is completely depressurized.
B. Use a regulated pressure source (either air or nitrogen)
C. Check and calibrate regulator gauge at frequent intervals, the regulator gauge should be used to determine when the intended charging pressure has been reached, do not use the extinguisher gauge for this purpose.
D. Never leave an extinguisher connected to a regulator of a high pressure source for an extended period of time. A defective regulator could cause the cylinder to rupture due to excessive pressure.

1. Complete the Maintenance Service Procedure Steps 1 to 8
2. Empty extinguisher of all remaining pressure and extinguishing agent.
3. Remove valve assembly and disassemble by removing downtube, spring and valve stem assembly. Remove any collar O-Ring from the valve from the cylinder.
4. Thoroughly rinse all parts with clean water and wipe dry with a soft cloth. Blow the valve out with air or nitrogen. Inspect the collar O-Ring, valve stem, and spring – replace as necessary. Lubricate the collar O-Ring, and small O-Ring on the valve stem assembly with Visolox V-728. Do not lubricate the valve stem seal. Inspect the downtube. If it is cracked, deformed or does not have a threaded brass spring retainer – replace. Inspect downtube O-Ring – replace if necessary.
5. Rinse the cylinder with clean water and inspect the interior following the visual inspection standard.
6. Fill extinguisher with 90% OF THE DESIRED AMOUNT OF clean water. Slowly add Foam Charge (Part No L-5002) then fill with water. The foam change must equate to 6% of the amount of water. The add the rest of the water.
7. Install valve assembly to the cylinder. Caution – hand tighten valve – over tightening will damage the valve.
8. Pressurize with 1000kPa of air or nitrogen.
9. Check for leaks using leak detection fluid or a solution of soapy water.
10. Install hose and nozzle assembly.
11. Install ring pin and new tamper seal. Record recharge date and attach new recharge tag.
12. Install the extinguisher in its proper location.

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