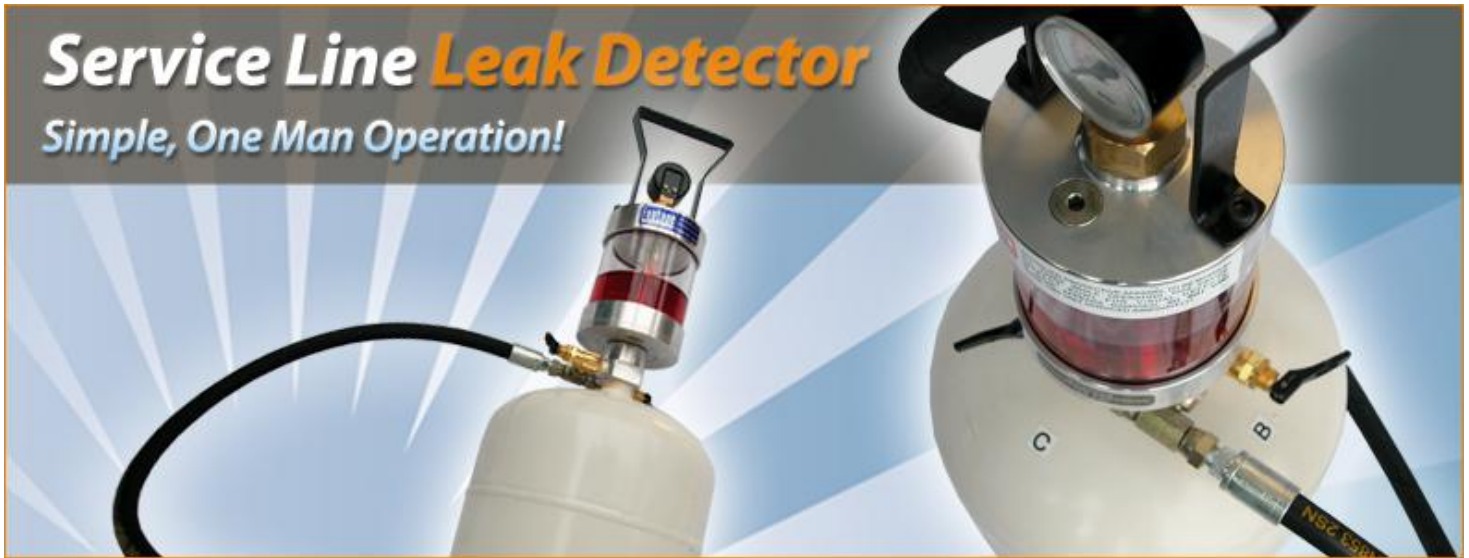


Owners Manual



Service Line Leak Detector
Simple, One Man Operation!

D001-A1 Leak Detector

Operating Instructions

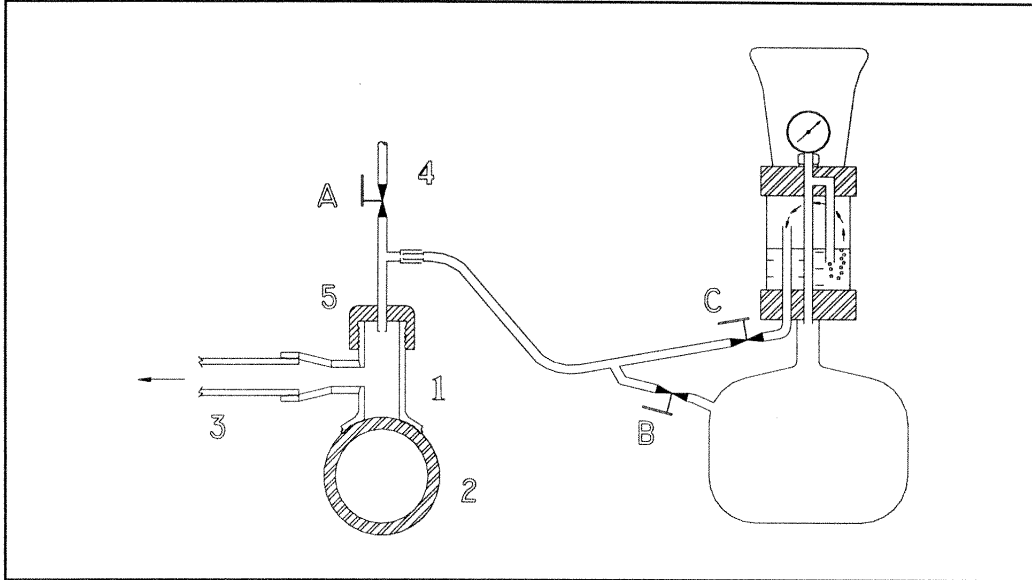
Leak Detector System

ENG-OM-002
Rev. B
Date 16JL04

Prepared by: N. Neag

Reviewed by: M. Degasperis

Approved by: D. Ferguson



A service punch tee (1) is first fused to the main (2) using a saddle fusion machine. Make all necessary connections to the service and fuse the service line (3) to the outlet of the service punch tee. Do not tap into the main at this time. Carefully inspect leak detector bowl for crazing or cracks and the tank for dents. Make sure hoses and fittings are clean and in working order. The safety rupture disk must be intact. Should there be any defects return the entire unit to your distributor for servicing.

WARNING – PROTECTIVE EYEWEAR MUST BE WORN AT ALL TIMES WHILE OPERATING THIS TOOL

To perform the test, a leak detector, test connection and test cap must be selected. The test cap (5) is selected according to the size and type of service punch tee being tested. The test connection threads into the top of the test cap. The test cap is installed onto the top of the service punch tee. The leak detector hose is connected to the test connection using the quick-connect coupling. Open valve C to drain all pressure from unit then close valve "C".

1. Make sure that all toggle valves (A, B, C) are closed at this time. An air supply (4) is now connected to the test fitting.
2. Open valve "B". This results in the tank and the system under test being one system rather than two isolated systems.
3. Open valve "A" and introduce test medium. Watch the pressure gauge until the desired test pressure is reached then close valve "A". (Max. pressure 150 PSI)

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4. Disconnect the hose used to pressurize the system. Soap test all test apparatus connections and fittings for leaks.

5. Let the temperature and pressure stabilize for 5 minutes with valve "B" open. This may have to be lengthened depending on climatic conditions.

6. Close Valve "B" and then open valve "C" to begin test. This creates two isolated systems (the tank and the service line). If there is a pressure loss in the service line (3), the pressure in the tank will try to equalize with the pressure in the bowl. This pressure equalization will appear in the form of air bubbles coming from the plastic tube end suspended below the surface of the oil in the clear bowl. If no leakage occurs the service connection and tee have been properly fused. Monitor the fluid level in the dip tube and check for bubbles for 10 minutes. If there is no leak and the test medium in the tank is held at a constant temperature, the fluid should settle at a level. If there is a leak, bubbles will appear in the fluid. This completes the actual test.

7. To disengage unit close valve "C" and then open valve "A" to depressurize tested service line. The unit is now disconnected from the test cap at the quick release fitting. The unit is now ready to be used on the next test. For overnight storage or for transportation open valve "C" to completely depressurize Leak Detector tank.

Note: Bubbles will also be created in the test medium if the temperature in the tank rises. The leak detector system is very sensitive to the smallest pressure changes. It is important to note that direct sunlight or heat to the steel tank will cause the pressure to rise and therefore cause bubbles to appear in the fluid. If you suspect the bubbles are caused by a temperature rise in the tank, open and close Valve "B" and monitor the fluid level in the dip tube for an additional 10 minutes.

The leak detector uses transmission fluid as a test medium. This fluid is ideal for visually observing small bubbles being released from the tank.

It is required that the leak detector be serviced after two years when purchased new, and every year after that . The acrylic bowl will be replaced and the entire unit will be pressure tested at this time. For further information, please contact Footage Tools.

Leak Detectors are date tagged prior to shipment by Footage Tools, either when new or after servicing. This allows for easier on-site date inspection without the benefit of any other documentation.

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FLUID RECOVERY PROCEDURE

Attach supply pressure to the service and leak detector by our special 3 valve system. All valves must be closed. With supply regulator set at desired pressure open valves "A" and "B".

Pressure will equalize in the leak detector and service. Close valves "A" and "B" and open valve "C" for test. Allow a few seconds for the pressure to stabilize. A drop of pressure in the service due to a leak, or increase in pressure in the detector due to direct sunlight or heat will cause a movement of the supply medium from the tank to the service and bubbles will appear in the fluid in the bowl.

Important

If the fluid in the bowl is too low to give a clear indication, turn the leak detector upside down under pressure and open valve "C" until the bowl approximately half full. If bowl is over-filled excess fluid will return in the tank if valve "B" is open and valve "C" is closed while the unit is under pressure.

NOTE: VALVE "A" IS ATTACHED TO THE TEST CONNECTION.

