

# VAPORLESS CERTIFICATION TEST

## For Installing and Replacing **Vaporless** Mechanical Line Leak Detectors.

Please Provide the Following Information with the completed test form.

Technician's Name: \_\_\_\_\_

Company Name: \_\_\_\_\_

Successful completion of this test certifies you to install **Vaporless** leak detectors. It does not certify you to test **Vaporless** leak detectors for the annual catastrophic performance test (3 GPH @ 10 PSI). Refer to "Operation of the **Vaporless LDT-890(VAF)** Leak Detector Tester for Catastrophic Leak Test" for leak detector annual testing certification.

*\*\*Reference Material For The Certification Test For Installing and Replacing Vaporless Leak Detectors\*\**

### Select the Correct Answer or Answers

1. Before installing or replacing a leak detector you should identify and shut off (tag-out lock-out) circuit breakers associated with appropriate submersible pumps.

- True
- False

2. A safe alternative to tag-out lock-out is to lock down the dispenser handles.

- True
- False

3. If there is no shut-off valve immediately downstream of the leak detector, the product line should be purged of air before installation of a **VMI 99 LD-2000** or **99 LD-2200**.

- True
- False

4. After installation of a leak detector, the system should be checked to insure the leak detector is opening and full pump pressure is achieved.

- True
- False

5. The vent of the leak detector may be plugged if no appropriate fitting is available to connect the vent.

- True
- False

6. **VMI** mechanical leak detectors may be used with

- A. Gasoline
- B. Diesel
- C. Ethanol/Methanol
- D. Biodiesel
- E. Aviation Fuel
- F. All of the above

7. Which **VMI** mechanical line leak detector does not have an integrated check valve / pressure relief?

- A. 99 LD-3000
- B. 99 LD-2200
- C. 99 LD-2000

8. The leak detector vent line should be unobstructed, leak tight and connected to headspace of tank, not to be subjected to pressure or vacuum.

- True
- False

9. The vent line should be connected to the

- A. tank test port of the submersible
- B. line test port of the submersible
- C. siphon port of the submersible

10 All **VMI** leak detectors must be installed in the vertical position.

- True
- False

11. The **99 LD-3000** leak detector is shipped with the piston in the open position to allow fast purging of the product line. Having purged the line of air, what must you do to allow the leak detector to function properly?

- A. remove the hold-open screw from the top of the leak detector
- B. install the **LDT-890(VAF)** leak detector tester at the nearest dispenser
- C. install the **LDT-890(VAF)** leak detector tester at the farthest dispenser

12. The ball valve on the discharge of the submersible must be closed before removing a leak detector from the turbine.

- True
- False

13. Apply a "UL Classified" (QLSR) pipe joint sealing compound (for use with petroleum products) to all threads before final assemble.

- True
- False

14. Teflon tape may be applied to the threads of the leak detector during installation.

- True
- False

15. After installation of the leak detector, check all threads to assure there are no leaks.

- True
- False

16. Upon completion of installation, all mechanical line leak detectors must be tested by certified tester to assure they find a catastrophic leak.

- True
- False

17. An anti-siphon valve or normally closed solenoid valve should be installed between the submersible and the leak detector housing (tee) of the piping coming out of the submersible on above ground storage tank installations with a leak detector.

- True
- False

18. After installing a new **VMI** leak detector you should fill out the warranty registration card and return it to the factory.

- True
- False

19. A **VMI** 2-inch mechanical leak detector is warranted for

- A. 1 year from date of invoice
- B. 18 months from date of installation
- C. 2 years from date of installation

20. A **VMI** 3-inch mechanical leak detector is warranted for

- A. 1 year from date of invoice
- B. 18 months from date of installation
- C. 2 years from date of installation

21. A **VMI** leak detector may be used with variable and non-variable speed submersibles.

- True
- False

22. After completion of installations of a leak detector, it must be tested to assure it will find a catastrophic leak before the station is put into service.

- True
- False

23. With a mechanical line leak detector installed, there is no way the submersible can start without human authorization, potentially spraying fuel on the installer.

- True
- False

24. A leak detector can take longer than 3 seconds to step through to full flow for the following reasons:

- A. Thermal contraction
- B. Leak in the line system
- C. Large amount of bleed-back
- D. Thermal expansion
- E. Fuel running through the vent line in a steady stream
- F. A, B, C, & E
- G. All of the above

25. When installing a **99 LD-2000** into a fuel system with an Ethanol or Methanol concentration over 20%, a Biodiesel concentration over 5%, or any Aviation Fuel, what modification is necessary?

- A. Installation of stainless steel fittings and tubing
- B. No modification necessary
- C. **99 LD-2000** not compatible with these fuels

**Please make sure you have answered every question.**