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Operation and Maintenance Manual

Fuel Pod

2 Components

3 Operation

One of the most important areas to inspect when diagnosing a potential problem with the diaphragm pump is the seals/connections areas between sections. It is critical to maintain proper seals. Inspect all “O” rings for damage or deterioration. Check all bolts for proper tightness. *Do not* over tighten bolts beyond their recommended torque values (refer to previous pages and manufacture's operating manual for torque values) .

pump troubleshooting

Pump Troubleshooting

Product discharged from the exhaust outlet (vent stack):

- Check for diaphragm rupture.
- Check tightness of (6) diaphragm washers.

Air bubbles in product discharge:

- Check connections of suction plumbing (from fuel cell).
- Check “O” rings between intake manifold and inlet side fluid caps.
- Check tightness of (6) diaphragm washers.

Motor blows air or stalls:

- Examine check valve for damage or wear [located behind valve block body, (6) M6x1 screws must be removed to remove valve block].
- Check for restrictions in valve/exhaust.

Low output volume, erratic flow, or no flow:

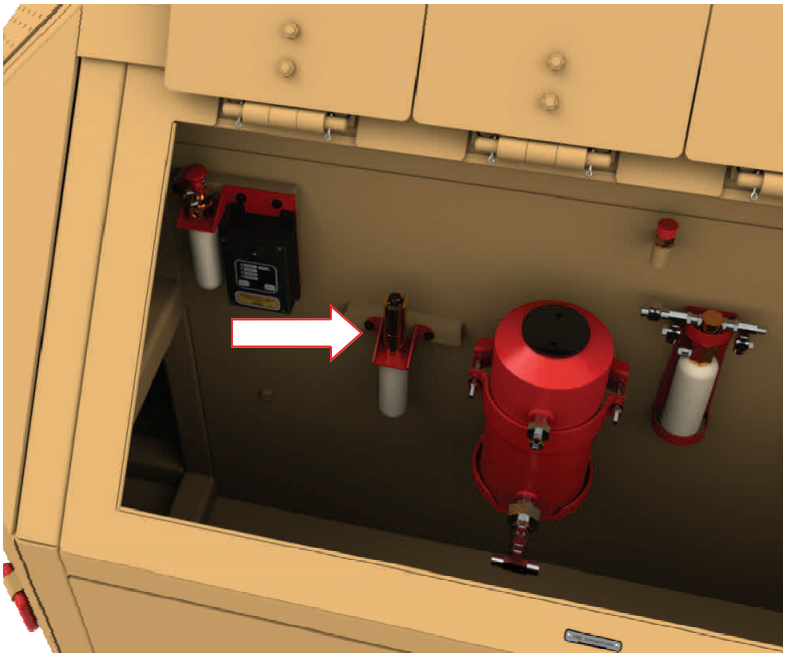
- Check air supply.
- Check for plugged outlet hose.
- Check for kinked (restrictive) outlet material hose.
- Check for kinked (restrictive) or collapsed inlet material hose.
- Check for pump cavitation - suction pipe should be sized at least as large as the inlet thread diameter of pump for proper flow if high viscosity fluids are being pumped. Suction hose must be a non-collapsing type, capable of pulling a high vacuum.
- Check all joints on the inlet manifolds and suction connections. These must be air tight.
- Inspect the pump for solid objects lodged in the diaphragm chamber or the seat area.

CHECKFIRE MP-N maintenance

The CHECKFIRE MP-N should have the following maintenance performed every six months (or sooner depending on operating environment).

1. Check all mounting bolts for tightness or corrosion.
2. Remove the LT-10R cartridge from the manual/automatic actuator, install shipping cap, and set aside in a safe location. **Cartridge must be removed before continuing with the following steps or accidental system actuation will take place when gas motor is actuated.**
3. Remove the connector lead from the gas motor.[Located on the Left Side wall, to the lower right hand side of the CHECKFIRE module] (See **Fig.25**)

Fig.25 Gas motor location



4. Hand tighten the lead connector onto the test module.
5. Inspect the detection and interconnecting wiring as follows. First, check for wear due to vibration at penetrations, around corners, etc. Second, check for damage from direct impact or other abuse. Then, check for tightness at points that are secured. Make certain fasteners have not come loose which would allow the wire to sag or shift.
6. If thermal detectors are used, check that they are securely mounted and have not corroded or been damaged.