FUEL PUMP PRESSURE CHECK AND SERVICE

Instructions

1. Disconnect power to heater.
2. Remove air compressor hose to ensure heater will not run in full output during test.
3. Remove fuel outlet hose from fuel pump.

**WARNING**

To avoid the risk of shock, ensure to disconnect power to heater unit during disassembly/reassembly.

**WARNING**

Fire Hazard. DO NOT place any flammable items around the heater and exhaust pipe.

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4. Remove ‘T’ fitting from test gauge PK0060.

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Figure A.

Figure B.
5. Install test gauge PK0060 on fuel pump outlet.

**NOTICE**
Calibrate gauge before each use see www.proheat.com/PDFs/990614.pdf for more information.

6. Switch the PROHEAT on and read the fuel pressure on test gauge. A reading of 5 – 10 PSI is normal and no further action is required.

**NOTICE**
It is normal to get a Start Error Code 1 or a Flame out Code 2 during the test. The Compressor/Fuel pump motor will only run for the first 60 seconds during this test. See Service Manual for operating sequence.

**IF READING IS ABOVE 10 PSI**

1. Locate the pressure relief valve cap and remove with a slot screwdriver. Be careful not to lose any of the internal components that may fall out.
2. Remove the spring and brass ball guide from the cavity.
3. Carefully separate and discard the brass ball guide from the pressure relief valve spring. DO NOT stretch or damage the spring.
4. Remove the ball bearing from the cavity.
5. Inspect and clean all components.
6. Inspect and clean the cavity. Pay close attention to the center hole in the cavity for any debris or a damaged edge. The edge of the hole should be smooth with no nicks, DO NOT use any tool that may damage the edge as this will cause loss of fuel pressure.
7. Place ball bearing back in cavity on the center hole.
8. Place spring back in hole on top of ball bearing.
10. Install pressure relief valve cap and torque relief valve to 22 ±2 in-lbs (2.5 ±0.2 Nm)
11. Re-test the fuel pressure.
12. If fuel pressure is still above 10 PSI replace relief valve assembly or fuel pump assembly.

**IF READING IS BELOW 5 PSI**

1. Check that there is fuel in the fuel tank.
2. Check the fuel filter for contamination.
3. Check fuel lines, connections and routing back to the fuel tank for kinks, loose fittings, stiff lines or cuts.

4. Check pressure relief valve. Locate the pressure relief valve cap and remove with a slot screwdriver. Be careful not to lose any of the internal components that may fall out.

5. Remove the spring and brass ball guide from the cavity.

6. Remove the ball bearing from the cavity.

Figure F.

Figure G.
7. Inspect and clean all components.
8. Inspect and clean the cavity. Pay close attention to the center hole in the cavity for any debris or a damaged edge. The edge of the hole should be smooth with no nicks, DO NOT use any tool that may damage the edge as this will cause loss of fuel pressure.
9. Place ball bearing back in cavity on the center hole.
10. Place spring back in hole with brass ball guide on top of ball bearing.
11. Lubricate O-ring with diesel fuel.
12. Install pressure relief valve cap and torque relief valve to 22 ±2 in-lbs (2.5 ±0.2 Nm)
13. Re-test the fuel pressure.
14. If fuel pressure is still below 5 PSI replace relief valve or fuel pump assembly.

Reassembly

1. Remove test gauge PK0060K.

Figure H.
2. Reconnect fuel line to fuel pump outlet.
3. Reconnect air hose at compressor.

4. Run heater for a full cycle and inspect for proper operation.