TS 1033014 Fuel Leak Found at High Pressure Fuel Pump Weep Hole for Heavy Duty DD Engines

Summary: Occasionally we see trucks come in with fuel leaking from the high pressure fuel pump weep hole. This is NOT a defect in the pump and further diagnostics need to be performed to find the root cause.

Generally the unit will come in with a complaint of a fuel leak at the fuel pump. You may also have fault codes for fuel filter replacement (94/15 and or 94/16). Check to see if fuel is leaking from the weep hole underneath the high pressure fuel pump. (As shown to the right)

The fuel lip seal in the high pressure pump can fail when low side fuel pressures are extremely high. High fuel pressure is caused from a restriction on the return side of the fuel system.

Visually inspect the OEM return fuel lines from the fuel filter module back to the tanks. Look for any severe bends or kinks in the line. The photo to the right shows where the return fuel line was kinked when it was connected to a fuel cooler. Make any repairs needed.

The high pressure fuel pump will need to be replaced as the seal is not serviceable. After the pump has been replaced run the engine at idle and check fuel pressure with a mechanical gauge. Avoid running the engine at a higher rpm so the new pump seal isn't damaged in case the restriction is still present.

Refer to PSL for normal fuel system pressures.

https://extranet-ddc.freightliner.com/power_service/literature/Index/PSLindex.asp

GHG17 workshop manual section 9.1.3
EPA 07/10/GHG14 fuel system manual section 2.1.4 two filter
EPA 07/10/GHG14 Fuel system manual section 3.1.4 three filter

If fuel pressure is higher than spec you will need to find the source of the restriction. Possible cause outside of the OEM fuel system are:

-Two stage valve stuck closed
- Plugged high pressure fuel flange

Once fuel pressures are within the normal range and the pump has been replaced the unit can be released. Make sure any warranty claims are filed correctly depending on the primary failed part.	