



Technical Service Bulletin

Technical Service Bulletin: tsb100025	Released Date: 09-Mar-2021
External and Internal Fuel Pump Leaks	

External and Internal Fuel Pump Leaks

Core Issue

The repair instructions are updated to include information on when to replace the fuel pump after testing for restrictions in the fuel inlet and fuel pump drain line.

This document informs the field of an issue causing fuel pump leaks on fuel lubricating fuel pumps. It is known that high fuel inlet and fuel drain line restrictions can lead to an external or internal fuel leak from the fuel lubricated fuel pump. Therefore, it is important to inspect the fuel supply and fuel drain line for signs of restriction, i.e. kinking, if an engine comes in with a fuel leak from the fuel pump week hole. If the inspections are **not** completed, and the pump is replaced, it is possible the new fuel pump will eventually exhibit the same fuel leak symptoms.

Confirmation

- B6.7 CM2350 B121B
- QSB3.3 CM2150
- QSB CM850
- B6.7 CM2450 B155B
- ISB CM850 ISB CM2100
- ISB CM2150
- ISB CM2250 ISB CM2350
- ISB/ISD6.7 CM2880 B126
- ISF2.8 CM2220
- ISF2.8 CM2220 AN
- ISF2.8 CM2220 EC

- ISF2.8 CM2220 ECF2
- ISF2.8 CM2220 F101
- ISF2.8 CM2220 F117
- ISF2.8 CM2220 F122
- ISF2.8 CM2220 F126
- ISF2.8 CM2220 F129
- ISF2.8 CM2220 IAN
- ISF3.8 CM2350 F109
- QSB CM2250
- QSB4.5 CM2350 B106
- QSB6.7 CM2350 B105
- QSB6.7 CM2350 B130
- QSF2.8 CM2880 F104
- QSF2.8 CM2880 F105
- QSF2.8 CM2880 F108
- QSF2.8 CM2880 F114
- QSF2.8 CM2880 F124
- QSF2.8 CM2880 F131
- QSF3.8 CM2350 F107
- QSF3.8 CM2350 F118
- QSF3.8 CM2350 F119
- QSF3.8 CM2350 F125

The most common symptom for this issue is an external fuel leak from the weep hole of the fuel pump, with a possible low fuel pressure fault code. It is also possible to have a fuel in oil complaint caused by the fuel pump.

If the leak is external, verify that it is coming from the fuel pump weep hole and **not** any other fittings on the fuel pump.

For fuel in oil complaints, verify that the internal fuel leak is coming from the fuel pump. Reference symptom tree t092 (Fuel in Lubricating Oil) in the TS (Troubleshooting Symptoms) Section of the appropriate manual.

Common causes of fuel pump leaks from the weep hole are either high inlet fuel line restriction or high fuel pump drain line restriction.

If the fuel inlet restriction is high, it can cause less fuel to be sent to the lip seal for lubrication. This will cause excessive wear of the lip seal leading to a fuel leak from the weep hole.

High fuel pump drain line restriction can cause the fuel pump to become overpressurized. This over pressurization can cause misalignment of the lip seals, which can lead to either an external fuel leak or an internal fuel leak into the gear housing.

Resolution

Once a fuel pump has been verified to be leaking internally or externally, inspect the fuel lines from the fuel tank to the inlet of the high pressure pump and from the fuel pump drain connection back to the fuel tank for signs of restriction (i.e. kinked or otherwise damaged fuel lines). Verify the drain restriction by following the appropriate steps in the engine's service manual. Based on the fuel lines inspection and drain restriction testing, if any fuel lines (supply or drain) are found to be causing restriction, follow the repair instructions in the appropriate service manual to correct the restriction issue before replacing the fuel pump. If no restriction issues are found, no other repairs are necessary before replacing the fuel pump.

Warranty Statement

The information in this document has no effect on present warranty coverage or repair practices, nor does it authorize TRP or Campaign actions.

Document History

Date	Details
2013-7-30	outfile
2016-9-21	Added B6.7 CM2350 B121B.
2018-2-28	Added QSB6.7 CM2350 B105.
2021-3-2	Added products. Added statement about fuel lubricated fuel pumps.

Last Modified: 09-Mar-2021
