



# Technical Service Bulletin

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Remote Mount Fuel Line Replacement Procedure: External Fuel Leaks, Fault Codes 559 and 4691

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### 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.

### Contents

#### Product Affected

- L9 CM2350 L133C
- L9 CM2450 L126B

#### Issue Summary

Symptoms:

- Fault Code 559
- Fault Code 4691
- External fuel leak
- Crank No Start
- Engine Stalls/Shutdown

Root Cause:

- The fuel line crimp can separate from the fuel line quick disconnect barb because of snagging or insufficient crimp sealing pressure. Fuel lines are prone to kinking when forced into a tight bend radius and flexing when pressurized during engine start up.

#### Verification

This issue is **only** for remote mount stage 2 fuel filter to fuel pump supply and return fuel lines. The remote mount stage 2 fuel filter is mounted off-engine. The mounting location for the fuel filter head assembly varies depending on vehicle type. Examples of possible mounting locations included in Figure 1 below.

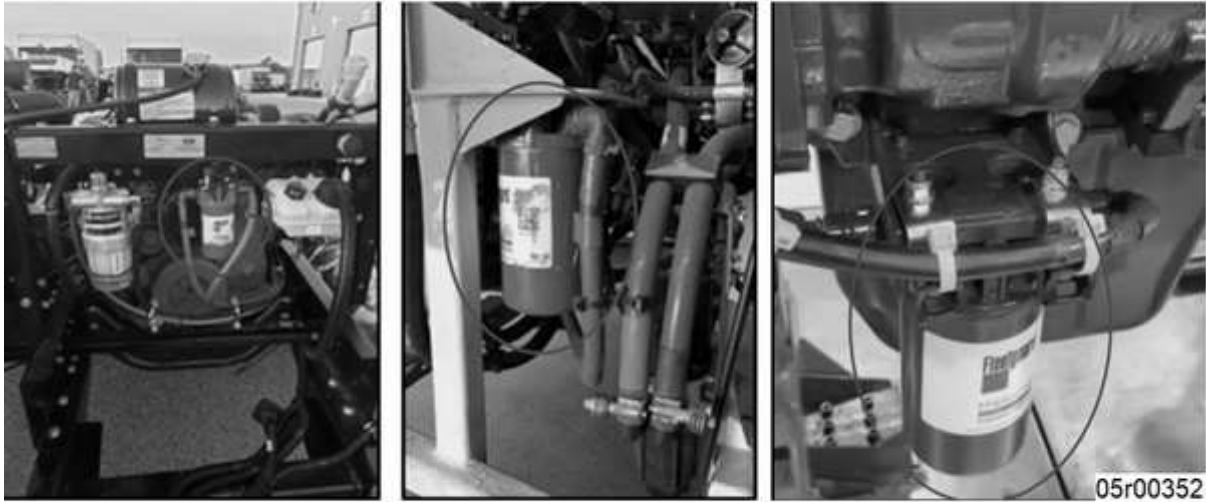


Figure 1, Example Locations of the Remote Mount Stage 2 Fuel Filter.

**⚠ CAUTION ⚠**

**Verify the fuel lines are routed and connected correctly. If the fuel lines are connected incorrectly engine damage can occur..**

Prior to installation of all fuel lines, verify both ends of the fuel lines are capped or protected from the ingress of debris. Verify the fuel lines do **not** contact the floor during any portion of the assembly process.

Identify stage 2 fuel supply and return fuel lines.

- One fuel line runs from the stage 2 fuel filter head quick connect fitting to the fuel pump inlet quick connect fitting.
- The second fuel line will run from the fuel pump outlet quick connect fitting to the stage 2 fuel filter head return quick connect fitting.
- Figure 2 below indicates the fuel pump gear pump outlet, fuel manifold, and fuel filter head inlet plumbing.
- Figure 3 below indicates the fuel filter head outlet and fuel pump inlet connection points.
- Verify the fuel lines are routed correctly between the outlet of the filter head to the inlet of the pump and outlet of pump to the fuel filter head return or premature fuel pump wear can occur.
- The location of the stage 2 fuel filter assembly varies by chassis.

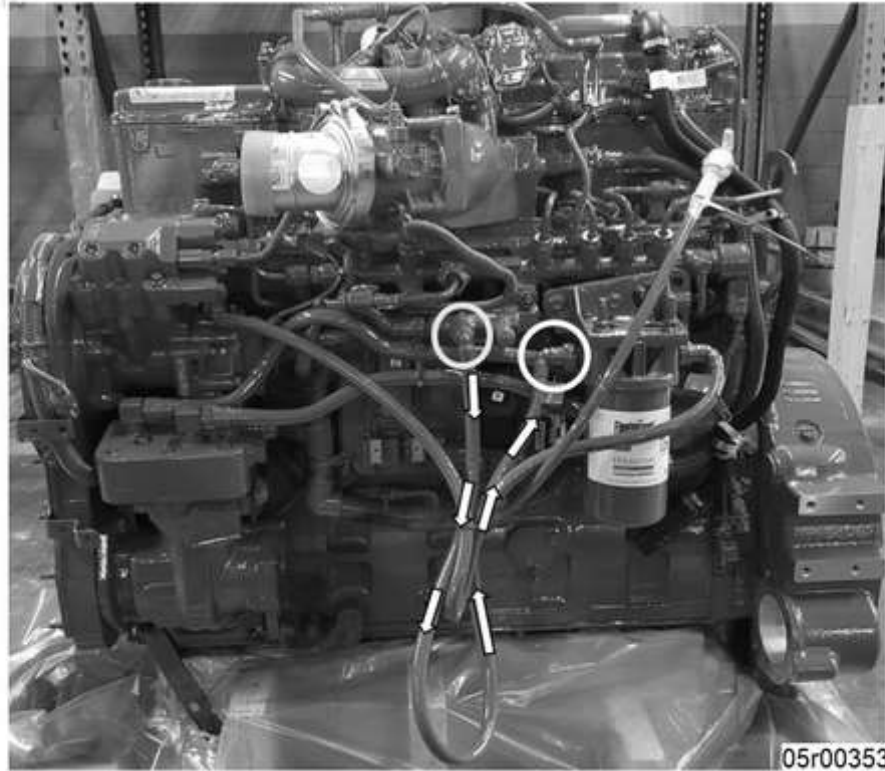


Figure 2, Indication of Fuel Pump Gear Pump Outlet, Fuel Manifold, and Fuel Filter Inlet Quick Connect Fitting Locations.



Figure 3, Indication of Fuel Filter Outlet and Fuel Pump Inlet Connection Points.

### Resolution

- A revised fuel line has been released for service.
- See corresponding Service Manual. Reference 006-024 in Section 6 for guidance on the initial checks, preparatory steps, and instructions on removing the fuel line quick disconnects.
- As part of the fuel line removal process, support clips, clamps, or ties. Additionally, the removal of adjacent components may be required to route the fuel line appropriately. See equipment manufacturer service information for the component(s) in question prior to such removal.
- Replace the low-pressure fuel supply and return lines with the appropriate new fuel lines. Table 1 indicates the existing fuel line part numbers and the new fuel line part numbers.
- Install new fuel lines in the same routing and orientation as the existing lines and verify all support and tie locations are installed appropriately.
- Fuel lines should be routed such that fuel could **not** leak onto hot piping under any operating conditions.
- Fuel lines **must** be run at least 5 cm [ 2 in ] from hot components.
- Fuel supply lines are to be routed as directly as possible from the tank to the engine, avoiding both upward and downward loops. Upward loops can act as air traps, which can cause erratic engine operation, and downward loops can act as water traps, which can freeze and block fuel flow.
- The fuel lines **must** be routed to avoid kinking.
- After completing the fuel line replacement, see corresponding Service Manual. Reference procedure 006-024 in Section 6 for finishing steps.

<b>Table 1, Service Parts</b>		
<b>Obsolete Part Number</b>	<b>New Part Number</b>	<b>Line Length Meters [ feet ]</b>
5563641	6316754, 5717302	1.22 meter [4 ft ]
5563642	5717303	1.83 meter [ 6 ft ]
5563643	5717304	.69 meter [ 2.25 ft ]

### Document History

<b>Date</b>	<b>Details</b>
2021-8-20	Module Created
2023-8-25	Non-Product Problem Solving (PPS)

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**Last Modified: 25-Aug-2023**

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