

IMPORTANT WARRANTY INFORMATION
AVOID SEVERE ENGINE DAMAGE & PREMATURE INJECTOR FAILURE

► **SPECIAL LB7 FUEL LINE INSPECTION PROCEDURE**

The number one cause of premature LB7 injector failure after replacement is contamination transfer between the fuel line and injector. This is the subject of GM TSB 03-06-04-036B.

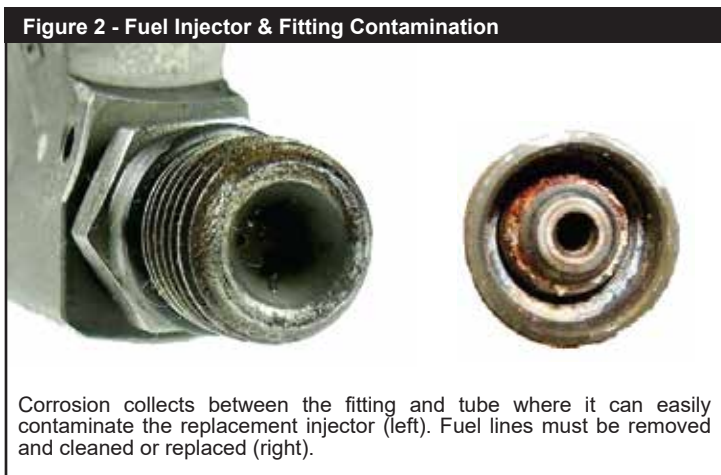
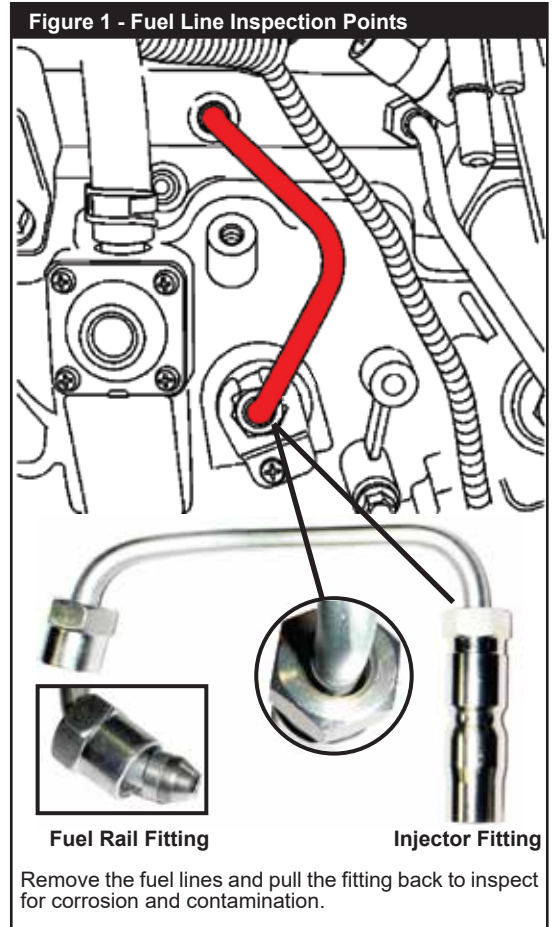
The unique design of the LB7 fuel lines that connect the high pressure rail to the injector are extremely susceptible to corrosion on the inside of the fitting that passes through the valve cover - see figure 1. Because it is exposed to underhood elements, the area between the tube and fitting can collect water and debris. Water corrodes the area between the tube and fitting and when removed the corrosion and debris is broken loose, which will enter the fuel supply inlet of the new injector.

Because the fuel line is down stream from the fuel filter on the high pressure side, the contamination enters the injector and can cause premature failure of the new injector.

Injector failure as a result of this condition is not covered by GB's limited warranty.

When replacing the fuel injectors, all fuel lines should be completely removed, inspected and cleaned or replaced. **Figure 2** shows a typical corrosion condition for the fitting on the fuel line that connects to the injector.

Injector Fuel Line Part Numbers	
Cylinders 1 & 8	GB P/N 7-005
Cylinders 2 & 7	GB P/N 7-006
Cylinders 3 & 6	GB P/N 7-007
Cylinders 4 & 5	GB P/N 7-008



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► UPDATED FUEL FILTER REPLACEMENT REQUIRED

Replacement of the fuel filter when the injectors are replaced is required for warranty coverage of GB diesel fuel injectors. GM has released an updated fuel filter for use in Duramax LB7 applications (**GM Part Number 12633243**). The new coalescer filter provides greatly improved filtering of emulsified water, improved particulate filtering and increased service life. For additional information refer to GM TSB 04-06-04-070B.

► COMBUSTION SEAL INSTALLATION

Failure to install the copper combustion seal or an improperly torqued injector can result in injector failure and engine damage. The copper combustion seal is included with GB's remanufactured injectors. (**See Figure 3.**)

Injector failure as a result of this condition is not covered by GB's limited warranty.

- Ensure the copper combustion seal is present on the injector being replaced. If the seal is missing inspect the injector bore for seal and remove prior to installing replacement injector.
- If the injector being replaced shows signs of combustion seal leakage (**Figure 4**) and the prior injector is missing the copper seal it will be necessary to replace the injector sleeve prior to installing the replacement injector. Failure to do so will result in leakage of the new combustion seal and injector failure. To clean light carbon build-up from injector bore use GM special tool EN-47909 and refer to GM TSB 05-06-04-067.
- Always inspect the injector bore for corrosion, damage or leakage prior to installing new injector.
- Ensure injector is torqued to manufacturer's specification.

Figure 3 - Injector with Copper Combustion Seal



Figure 4 - Missing Copper Combustion Seal



► TECH TIP - INJECTOR CIRCUIT DIAGNOSTIC TROUBLE CODES

If you are diagnosing injector driver diagnostic trouble codes P0201, P0202, P0203, P0204, P0205, P0206, P0207, P0208 or cylinder bank shut down codes P2146 or P2149, the cause may be related to a damaged Fuel Injection Control Module (FICM) wiring harness. The harness may come in contact with the alternator, alternator bracket or FICM harness retaining bracket. This can damage the harness resulting in diagnostic trouble codes, cylinder misfire or cylinder bank shut down. This condition could be mis-diagnosed as an injector failure. For more information and repair information consult GM TSB 09-06-04-034.

SEE FRONT SIDE FOR ADDITIONAL INFORMATION

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