Subject: Duramax Diesel Hard Start No Start P0087 P0088 P0191 P128E Or Injection Pump Replacement

Models: 2010 - 2015 Chevrolet Express and Silverado
2010 - 2015 GMC Savana and Sierra
Equipped with the 6.6L Duramax Diesel RPO codes LGH and LML

This PI was superseded to update Recommendation/Instructions. Please discard PIP4949D.

The following diagnosis might be helpful if the vehicle exhibits the symptom(s) described in this PI.

Condition/Concern
A dealer may encounter a customer concern of a hard start or a no start. DTCs P0087, P0088, P0191 or P128e may also be found.
Normal SI Diagnostics may be inconclusive or lead to Fuel Injection Pump replacement.

Recommendation/Instructions
Complete the current SI diagnostics for any symptoms or DTCs found.
If the current SI diagnostic has led to Fuel Injection Pump replacement, Fuel Pressure Regulator 1 must be inspected for magnetic metal debris.
Note: Clean the area around regulator 1 before removal. It is possible that road debris could find its way to the regulator when it is removed. A small piece of dirt does not qualify the fuel system for the repairs recommended in this PI.

Please see the pictures below for examples.

Remove the Fuel Injection Pump / Pressure Regulator 1 for inspection.
The picture above is an example of a clean Pressure Regulator 1.
If Pressure Regulator 1 is clean and there is no magnetic metal debris found, complete the SI repair procedure and replace the Fuel Injection Pump.
If Pressure Regulator 1 is contaminated with debris as shown above, complete the following repairs:

If working on a C/K Truck, it is strongly recommended to remove the engine from the vehicle and secure it to an engine stand to properly complete the repairs.

1. Replace all of the parts listed under the latest version of PIP4949 found in the Service Forms section of Global Connect.
2. Clean and flush all fuel chassis lines, filter pipes, and other engine mounted fuel system pipes not replaced.
3. The fuel filter housing should be cleaned with a new fuel filter installed.
4. The fuel tank and fuel sender should be cleaned and flushed.

**Note:** The Indirect Fuel Injector (Hydrocarbon Injector) and its fuel lines must be purged of air any time it is removed or replaced. Failure to do so may damage the injector. Perform the Diesel Particulate Filter (DPF) Regeneration Enable any time the indirect injector or its fuel lines are opened/removed or replaced. This will force regeneration as soon as conditions allow and will purge any air from the system. Refer to Diesel Particulate Filter (DPF) Regeneration Enable in SI.

**TIP:**
After repairs, the following may help with fuel system priming:
Prime fuel to the fuel filter housing.
Relieve air by opening the bleed screw at the filter housing.
Pump the priming ball again until no more air escapes and close the bleed screw
Prime until the priming ball is hard.
There should be at least 10 psi fuel pressure on the fuel system pressure gauge attached to the fuel system service port (schrader valve).
Crank the engine for up to 15 seconds
Key off for one minute.
Repeat the above steps until the engine starts. It is normal for the engine to start and then stall when the fuel system loses prime. Repeated priming will alleviate this concern.

**Note:** These fuel system components will be requested back for an engineering inspection. Completing this repair without finding the metal debris (as described in this PI) may result in a debit to the dealer.
**WARRANTY INFORMATION:**

For vehicles repaired under warranty, use:

<table>
<thead>
<tr>
<th>Labor Operation</th>
<th>Description</th>
<th>Labor Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>4080558</td>
<td>Diagnose and Clean/Repair Complete Fuel System. Includes Engine Removal from Vehicle</td>
<td>G - Van 21.0 Hours  * C - Truck (2WD) 18.0 Hours  * K - Truck (4WD) 20.0 Hours *</td>
</tr>
</tbody>
</table>

*This is a unique labor operation for this PI use only. It will not be published in the Labor Time Guide.*

Please follow this diagnostic or repair process thoroughly and complete each step. If the condition exhibited is resolved without completing every step, the remaining steps do not need to be performed.