



Service Bulletin

TECHNICAL

Subject: Duramax Diesel Hard Start, No Start, DTCs P0087, P0088, P0191, P128E or Injection Pump Replacement

Brand:	Model:	Model Year:		VIN:		Engine:	Transmission:
		from	to	from	to		
Chevrolet	Express, Silverado 2500/3500	2010	2016			Diesel (RPOs LML or LGH)	
GMC	Savana, Sierra 2500/3500						

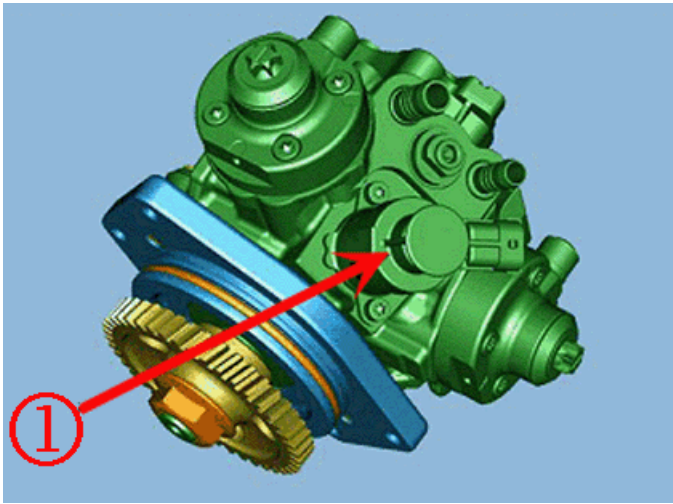
Involved Region or Country	North America, Israel
Condition	A dealer may encounter a customer concern of a hard start or a no start. DTCs P0087, P0088, P0191 or P128E may also be found. Normal SI Diagnostics may be inconclusive or lead to Fuel Injection Pump replacement.

Service Procedure

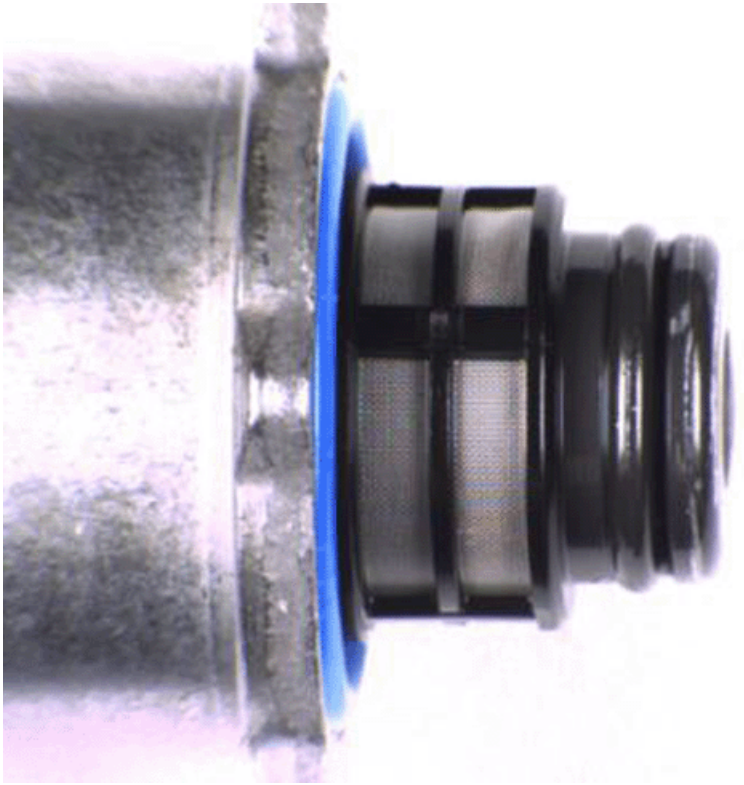
Complete the current SI diagnostics for any symptoms or DTCs found.

If the current SI diagnostic has led to Fuel Injection Pump replacement, Fuel Pressure Regulator 1 must be inspected for debris that can be picked up with a magnet.

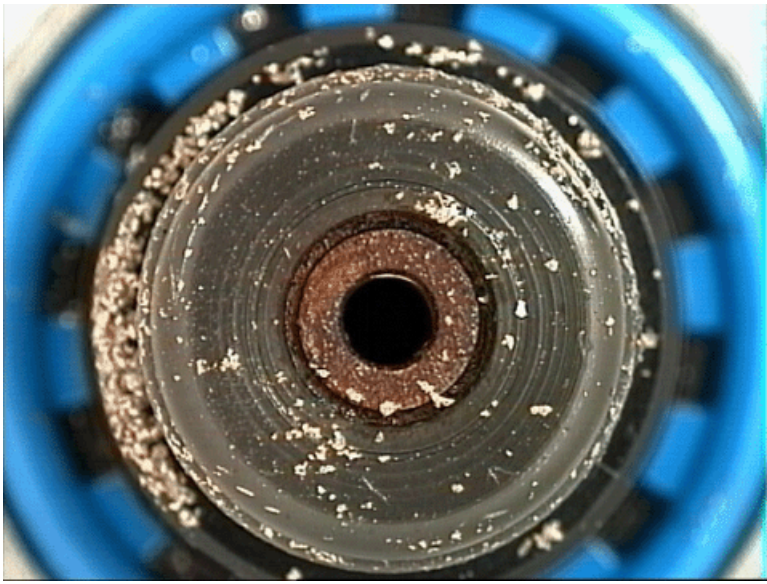
Note: Clean the area around Pressure Regulator 1 before removal. It is possible that road debris could find its way into the regulator port when it is removed. A small piece of dirt on Pressure Regulator 1 does not qualify for the fuel system repairs recommended in this Bulletin.



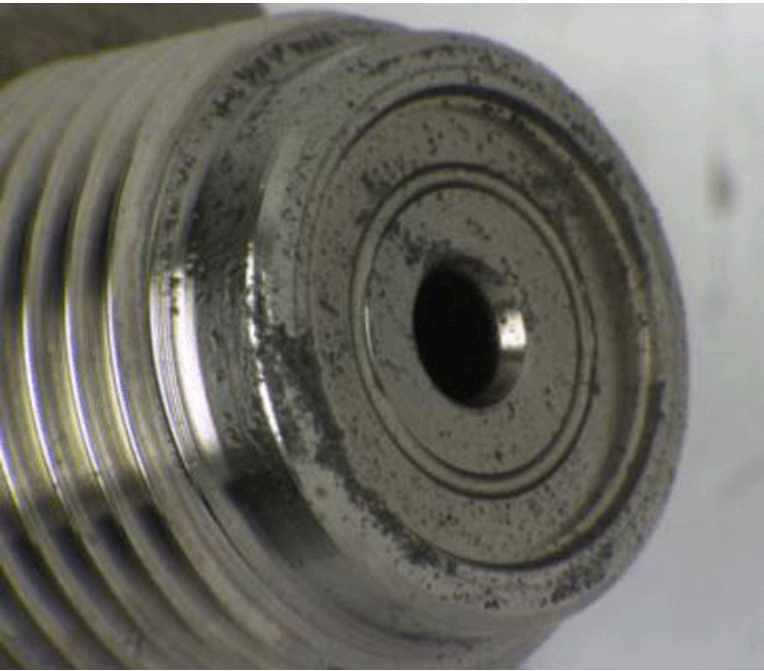
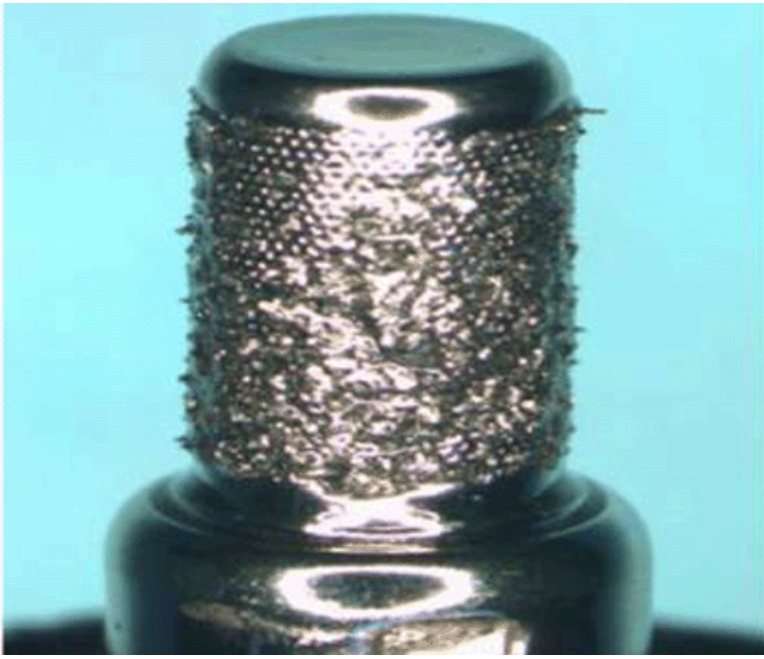
Remove the Fuel Injection Pump / Pressure Regulator 1 for inspection.



If Pressure Regulator 1 has no debris that can be picked up with a magnet on the screen, continue with Fuel Injection Pump replacement.



If there are only a few pieces of debris that can be picked up with a magnet found on Pressure Regulator 1, remove the Fuel Rail Pressure Sensor and/or Fuel Pressure Regulator 2 (Pressure Relief Valve) for inspection.



If additional debris that can NOT be picked up with a magnet (Contamination) is found on the Fuel Pressure Regulator 1, Fuel Rail Pressure Sensor, and/or Fuel Pressure Regulator 2 (Pressure Relief Valve), refer to PIP5370 and Contaminants-in-Fuel Diagnosis. DO NOT perform the repair listed in this bulletin.

Important: If debris that can be picked up with a magnet as described above is found, complete the repairs listed below:

1. Replace all of the parts listed in the Parts Information below.
2. Clean and flush all fuel chassis lines, filter pipes, and other engine mounted fuel system pipes that are not being replaced.
3. The fuel filter housing must be cleaned with a new fuel filter installed.
4. The fuel tank and fuel sender must 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.

Parts Information

Part Number	Description	Qty	Silverado / Sierra (LML)						Silverado / Sierra (LGH)		Express / Savana (LGH)						
			2011	2012	2013	2014	2015	2016	2011	2012	2010	2011	2012	2013	2014	2015	2016
12664429	FILTER KIT, FUEL	1	X	X	X	X	X	X	X	X		X	X	X	X	X	X
88917036	FILTER, OIL	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
97363570	GASKET, CTR INT MANIF	2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
12635466	GASKET, EGR VLV (LOCR A)	2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
98062923	GASKET, EGR VLV (LOCR B)	2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
97223686	GASKET, ENG COOL THERM HSG	2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
15126137	GASKET-EXH MANIF PIPE	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
97188685	GASKET, EXH TURBO INL PIPE	2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
97192618	GASKET, EXH TURBO INL PIPE	2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
12627897	GASKET-TURBO OIL FEED PIPE	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
12637218	GASKET-TURBO OIL RTN PIPE	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

12639312	HOSE ASM-FUEL FEED (RH SIDE OF PUMP, W/ BANJ)	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
12639000	HOSE ASM-FUEL RTN	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
12661071	INJECTOR ASM-INDIRECT FUEL	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
12656313	PIPE ASM-FUEL FEED	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
94011618	SEAL, COLD START FUEL FEED VLV (O RING)	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
12625100	SEAL, COLD START FUEL FEED VLV (O RING)	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
94036238	SEAL, OIL LVL IND TUBE (O RING)	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
94011603	SEAL, THERM BYPASS PIPE (O RING)	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
12670466	PIPE ASM-FUEL HIGH PRESS	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
12641590	SWITCH ASM, ENG FUEL VAC	1	X		X	X	X	X	X	X	X	X	X	X	X	X	X
12631851	SEAL-TURBO AIR INL ADAP	1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
97224993	SENSOR ASM, FUEL TEMP	1	X						X		X	X	X	X	X	X	X
12676436	SENSOR ASM-WAT IN FUEL IND	1											X	X	X	X	X
98065521	GASKET-EGR VLV CLR	1	X	X	X	X	X	X	X	X							

12644913	BRACKET ASM-FUEL FEED PIPE CLIP	1	X	X	X	X	X	X	X	X						
12624346	TUBE-FUEL PRESS REG VAC	1	X	X	X	X	X	X	X	X						
12636270	HOSE-FUEL FEED (ON RH PUMP INLET)	1	X	X	X	X	X	X	X	X						
12636274	HOSE-FUEL FLTR (ON FILTER OUTLET)	1	X	X	X	X	X	X	X	X						
12636275	HOSE-FUEL PRESS REG VAC (PIPE TO SERVICE FIT)	1	X	X	X	X	X	X	X	X						
12646725	MANIFOLD ASM-F/INJN FUEL FEED	1	X	X	X	X	X	X	X	X						
12639779	PIPE ASM- FUEL FEED (FILTER OUT TO PUMP INLET)	1	X	X	X	X	X	X	X	X						
12670460	PIPE ASM- FUEL HIGH PRESS (CYL 2 & 7)	2	X	X	X	X	X	X	X	X						
12670468	PIPE ASM- FUEL HIGH PRESS (CYL 1 & 8)	2	X	X	X	X	X	X	X	X						
12670469	PIPE ASM- FUEL HIGH PRESS (CYL 3 & 6)	2	X	X	X	X	X	X	X	X						
12670471	PIPE ASM- FUEL HIGH PRESS (CYL 4 & 5)	2	X	X	X	X	X	X	X	X						

12670474	PIPE ASM-FUEL HIGH PRESS (LEFT SIDE OF PUMP)	1	X	X	X	X	X	X	X	X							
12670475	PIPE ASM-FUEL HIGH PRESS (RIGHT SIDE OF PUMP)	1	X	X	X	X	X	X	X	X							
12629458	SEAL-TURBO AIR INL ADAP	1	X	X	X	X	X	X	X	X							
12627913	SEAL-UPR INT MANIF	1	X	X	X	X	X	X	X	X							
12645582	HOSE ASM-FUEL RTN (LEFT RAIL TO FEED PIPE)	1		X	X	X	X	X		X							
98065519	GASKET-EGR MANIF	1	X	X	X	X	X	X									
98065523	GASKET-EGR PIPE	1	X	X	X	X	X	X									
98065520	GASKET-EGR VLV CLR	1	X	X	X	X	X	X									
12672028	PUMP KIT-FUEL (CONTAINS FUEL PUMP, INJECTORS & RAILS)	1	X	X	X	X	X	X									
98070023	GASKET-EGR VLV CLR	1						X	X		X	X	X	X	X	X	X
12672027	PUMP KIT-FUEL (CONTAINS FUEL PUMP, INJECTORS & RAILS)	1							X	X	X	X	X	X	X	X	X
12636266	HOSE-FUEL RTN	1									X	X	X	X	X	X	X
12641356	PIPE ASM-FUEL FEED	1									X	X	X	X	X	X	X

12670457	PIPE ASM-FUEL HIGH PRESS (CYL 6)	1									X	X	X	X	X	X	X
12670463	PIPE ASM-FUEL HIGH PRESS (CYL 7)	1									X	X	X	X	X	X	X
12670456	PIPE ASM-FUEL HIGH PRESS (CYL 8)	1									X	X	X	X	X	X	X
12670454	PIPE ASM-FUEL HIGH PRESS	1									X	X	X	X	X	X	X
12670465	PIPE ASM-FUEL HIGH PRESS (CYL 1)	1									X	X	X	X	X	X	X
12670460	PIPE ASM-FUEL HIGH PRESS (CYL 2)	1									X	X	X	X	X	X	X
12670464	PIPE ASM-FUEL HIGH PRESS (CYL 3)	1									X	X	X	X	X	X	X
12670459	PIPE ASM-FUEL HIGH PRESS (CYL 4 OR 5)	2									X	X	X	X	X	X	X
12670453	PIPE ASM-FUEL HIGH PRESS	1									X	X	X	X	X	X	X
12639101	PIPE ASM-FUEL RTN	1									X	X	X	X	X	X	X
26020642	SEAL, P/S PUMP RSVR (O RING)	1									X	X	X	X	X	X	X
97368325	GASKET-CTR INT MANIF	1									X	X	X	X	X	X	X

Warranty Information

For vehicles repaired under the Powertrain coverage, use the following labor operation. Reference the Applicable Warranties section of Investigate Vehicle History (IVH) for coverage information.

Labor Operation	Description	Labor Time
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4080558*	Diagnose and Clean/Repair Complete Fuel System	2010-2016 G Van 21.0 Hours* 2011-2014 C Truck (2WD) 18.0 Hours* 2011-2014 K Truck (4WD) 20.0 Hours* 2015-2016 C and K Truck (2WD and 4WD) 21 Hours*
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*This is a unique Labor Operation for bulletin use only.

Version	6
Modified	April 11, 2016 – Updating the Qty. column of the Parts Information table. April 29, 2016 – Updating the Parts Information table. Oct. 26, 2016 – Updating the Parts Information table. Feb. 03, 2017 – Updating the Service Procedure. March 2, 2017 – Updating the Service Procedure.

GM bulletins are intended for use by professional technicians, NOT a "do-it-yourselfer". They are written to inform these technicians of conditions that may occur on some vehicles, or to provide information that could assist in the proper service of a vehicle. Properly trained technicians have the equipment, tools, safety instructions, and know-how to do a job properly and safely. If a condition is described, DO NOT assume that the bulletin applies to your vehicle, or that your vehicle will have that condition. See your GM dealer for information on whether your vehicle may benefit from the information.



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