

Subject: Engineering Information - Service Engine Soon Lamp Illuminated On Driver Information Center (DIC), DTC P208B Set

Attention: Proceed with this EI ONLY if the customer has commented about this concern AND the PIE number is listed in the Global Warranty Management / Investigate History link (GWM/IVH). If the customer has not commented about this condition or the EI does not show in GWM/IVH, disregard the PIE and proceed with diagnostics found in published service information. THIS IS NOT A RECALL — refer to Service Bulletin 04-00-89-053 for more details on the use of Engineering Information bulletins.

Brand:	Model:	Model Year:		VIN:		Engine:	Transmission:
		from	to	from	to		
Chevrolet	Silverado 2500HD/3500HD	2020	2021	-	-	6.6 I (L5P)	-
GMC	Sierra 2500HD/3500HD						

Involved Region or Country	North America
Condition	Important: If the customer did not bring their vehicle in for this concern, DO NOT proceed with this EI. Some customers may comment on Service Engine Soon Lamp illuminated on Driver Information Center (DIC). Technicians may find DTC P208B set.
Cause	GM Engineering is attempting to determine the root cause of the above condition. Engineering has a need to gather information on vehicles PRIOR to repair that may exhibit this condition. As a result, this information will be used to "root cause" the customer's concern and develop/validate a field fix.

Correction

If you encounter a vehicle with the above concern, perform the following steps and contact the engineer listed below before replacing any components or proceeding with step 5.

- Record the VIN# and odometer reading on the vehicle:

- VIN#: _____
- Mileage: _____

- Using the GDS2 tool, record reductant system specific freeze frame values for the latest occurrence for DTC P208B that was set.

- _____
- _____
- _____
- _____

- Using the GDS2 tool, record the following:

item

- Current Engine Control Module (ECM) Software Level: _____
- Current Reductant Control Module (RCM) Software Level: _____
- Current Reductant Level (%): _____
- Current Reductant Concentration (%): _____
- Current Reductant Tank Temperature 1 (°C): _____
- Current Reductant Tank Temperature 2 (°C): _____

- Perform a Reductant Pump Command Test by applying 50% duty cycle and record the following parameters, record the following parameters 3 readings.

Parameters to Record (1st Iteration)

- Desired Reductant Pump Speed (rpm): _____
- Reductant Pump Speed (rpm): _____

- Desired Reductant Pressure (kPa): _____
- Reductant Pressure (kPa): _____

Parameters to Record (2nd Iteration)

- Desired Reductant Pump Speed (rpm): _____
- Reductant Pump Speed (rpm): _____
- Desired Reductant Pressure (kPa): _____
- Reductant Pressure (kPa): _____

Parameters to Record (3rd Iteration)

- Desired Reductant Pump Speed (rpm): _____
- Reductant Pump Speed (rpm): _____
- Desired Reductant Pressure (kPa): _____
- Reductant Pressure (kPa): _____

4. Hoist the vehicle and perform the following checks:

4.1. Inspect the Emission Reduction Fluid Tank for any cracks/porosity resulting in a leakage.

- If leaking, replace the tank assembly (tank, harness, RCM) and go to step 6.
- If no leaks present, continue to the next step.

4.2. Inspect the Emission Reduction Fluid Exhaust Front Pipe Injector Supply Pipe from the Emission Reduction Fluid Tank connection to the Emission Reduction Fluid Exhaust Front Pipe Injector connection for any signs of leakage.

- If leaking at Emission Reduction Fluid Exhaust Front Pipe Injector connection is found, re-connect connector or replace line as necessary and go to step 6.
- If leaking at Emission Reduction Fluid Tank connection is found, re-connect connector or replace line as necessary and go to step 6.
- If leaking somewhere along the Emission Reduction Fluid Exhaust Front Pipe Injector Supply Pipe, replace line and go to step 6.
- If no leaks are present, continue to the next step.



4.3. Inspect the X302 Diesel Exhaust Fluid Jumper Harness to Chassis Harness connector to insure that it is fully connected and not partially connected, as shown in the picture above.

- If **YES**, good connection, continue to next step.
- If **NO**, connector is not fully inserted; disconnect, re-align and re-connect connector, continue to next step.

4.4. Remove the access panel at the bottom of the Emission Reduction Fluid Tank Heat Shield **WITHOUT removing the 16-way reductant pump connector, check for any signs indicating that the wires behind the connector are in tension or in a stressed state.**

- If **YES**, take pictures, include in Field Product Report and continue to the next step.
- If **NO**, continue to the next step.



4.5. Check for signs of a blueish tinge on the white plastic windows, as shown in the picture above, that indicate reductant contamination or oxidation and continue to the next step.

4.6. Repeat the Reductant Pump Command Test by applying 50% duty cycle while shaking/wiggling wires behind the 16-way reductant pump connector and record the following parameters 3 readings.

Parameters to Record (1st Iteration)

- Desired Reductant Pump Speed (rpm): _____
- Reductant Pump Speed (rpm): _____
- Desired Reductant Pressure (kPa): _____
- Reductant Pressure (kPa): _____

Parameters to Record (2nd Iteration)

- Desired Reductant Pump Speed (rpm): _____
- Reductant Pump Speed (rpm): _____
- Desired Reductant Pressure (kPa): _____
- Reductant Pressure (kPa): _____

Parameters to Record (3rd Iteration)

- Desired Reductant Pump Speed (rpm): _____
- Reductant Pump Speed (rpm): _____
- Desired Reductant Pressure (kPa): _____
- Reductant Pressure (kPa): _____

4.7. Disconnect the 16-way reductant pump connector and inspect the pins in the connector on both the reductant pump and the harness side for any loose/damaged/shifted pins or contamination.

- If **YES**, it can be seen on the harness connector, take pictures, include in Field Product Report and continue to next step.
- If **YES**, it can be seen on the reductant pump connector, take pictures, include in Field Product Report and continue to next step.
- If **NO**, nothing in particular, continue to next step.

4.8. Lower the Emission Reduction Fluid Tank, perform the following Circuit/System Checks, record the values in the space provided below and continue to step 5.

Note: If needed, refer to document IDs 5217948, 5217945, 5362517, 5362825 for reference.

4.9. Turn the vehicle ignition and all vehicle systems **OFF**.

Note: It may take up to 2 minutes for all vehicle systems to power down before an accurate ground or low reference circuit continuity test can be performed.

4.10. Test for less than 10 Ω between the test points:

- Low Reference circuit terminal 14 & Ground (Ω): _____

item

4.11. Disconnect the electrical connector at the K115 Reductant Control Module.

4.12. Test for less than 2 Ω between the test points:

- Low Reference circuit terminal 14 at the Component harness and the Terminal 36 at the Control module harness (Ω): _____

4.13. Test for less than 2 Ω between the test points for the following:

- Control circuit terminal 7 at the Component harness and the Terminal 37 at the Control module harness (Ω): _____
- Control circuit terminal 8 at the Component harness and the Terminal 24 at the Control module harness (Ω): _____
- Control circuit terminal 16 at the Component harness and the Terminal 11 at the Control module harness (Ω): _____

4.14. Test for infinite resistance between the test points for the following:

- Control circuit terminal 7 at the Component harness and Ground (Ω): _____
- Control circuit terminal 8 at the Component harness and Ground (Ω): _____
- Control circuit terminal 16 at the Component harness and Ground (Ω): _____

4.15. With the ignition **ON** and the vehicle in Service Mode, test for less than 1 V between the test points for the following:

- Control circuit terminal 7 at the Component harness and Ground (V): _____
- Control circuit terminal 8 at the Component harness and Ground (V): _____
- Control circuit terminal 16 at the Component harness and Ground (V): _____

5. Regardless of the findings from the Circuit/System Checks from above, replace the complete Emission Reduction Fluid tank assembly (tank, harness and RCM) and return all parts for warranty.

6. Fill up/top off the reductant level as required.

7. Check and reprogram the ECM and RCM to latest version if not up to date.

8. Road test vehicle to verify the repairs and confirm that the Service Engine Soon warning does not come back ON the Driver Information Center (DIC).

Contact Information

The Contact Information has been redacted.

Please include the following information if leaving a message:

- Technician name
- Dealer name and phone number
- Complete VIN and repair order (R.O) number

On the repair order, document the date and time the call was placed (even if the engineer was not reached).

If engineering is unable to return the call within one hour, proceed with diagnosis and repair based on information found in SI.

Warranty Information

If engineer was contacted or required information was provided, use:

Labor Operation	Description	Labor Time
4087728*	Engineering Information - Service Engine Soon Lamp Illuminated On (DIC), DTC P208B Set	2.0 hr

* This is a unique labor operation for bulletin use only.

Version	1
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