

Subject: Engineering Information - Service Engine Soon (SES) Lamp Illuminated, Service Emission System and/or DEF Level Low Message On Driver Information Center (DIC), DEF Level Sensor Reading Incorrectly, DEF Level Sensor Being Erratic, DEF Level Sensor Stuck and/or High DEF Consumption

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 1500	2020	2021	—	—	Equipped with 3.0L (RPO LM2)	—
	Silverado 1500 LTD (RPO J21, 12th VIN Digit = 4 or less)	2022	2022				
	Silverado 2500HD/3500HD	2020				Equipped with 6.6L (RPO L5P)	
GMC	Sierra 1500	2020	2021			Equipped with 3.0L (RPO LM2)	
	Sierra 1500 Limited (RPO J21, 12th VIN Digit = 4 or less)	2022	2022				
	Sierra 2500HD/3500HD	2020					

Involved Region or Country	North America
Condition	<p>Important: If the customer did not bring their vehicle in for this concern, DO NOT proceed with this EI.</p> <p>Some customers may comment on having one or more of the following conditions:</p> <ul style="list-style-type: none"> • Service Engine Soon (SES) lamp illuminated • Service Emission System and/or DEF Level Low message on driver information center (DIC) • DEF Level Sensor reading incorrectly • DEF Level Sensor being erratic • DEF Level Sensor stuck and/or high DEF consumption
Cause	GM Engineering is attempting to determine the root cause of the above condition. Engineering is looking to collect data to better understand problem. Issue may be related to poor Reductant Level reading or improper communication between the Reductant Control Module (RCM), Engine Control Module (ECM) and/or DIC.

Correction

If you encounter a vehicle with the above concern, contact the engineer listed below **BEFORE** proceeding with the following steps:

1. Connect the vehicle to the GDS2 tool. Are any of the following DTCs P203C, P203D, P21C5, U2627, U2628 and/or U2630 active or in history.
 - 1.1. If yes, refer to SI for the appropriate diagnostic procedure.
 - 1.2. If no, proceed to the next step.
2. Using the GDS2 tool, check the Reductant Tank Temperature Sensor and Reductant Tank Temperature Sensor 2, are they both above 3°C (37.4°F)?

- 2.1. If yes, proceed to the next step.
- 2.2. If no, let the vehicle sit inside the shop until both temperatures meet the requirement, then proceed to the next step.
3. Record the number of bars for the DEF Level on the DIC, as well as the type of message that is/was active (if any) and proceed to the next step.
4. Using the GDS2 tool, check the Reductant Level and record the reading, is it below 90%?
 - 4.1. If yes, add 1.0 L or more of fresh DEF to fill the Emission Reduction Fluid Tank and proceed to the next step.
 - 4.2. If no, proceed to the next step.
5. Perform the standard Reductant Fluid Tank Level Reset procedure outlined in SI, followed by the standard Diagnostic Repair Verification procedure, also outlined in SI. Was DEF added to the Emission Reduction Fluid Tank in step 4?
 - 5.1. If yes, proceed to step 6.
 - 5.2. If no, proceed to step 7.
6. For a second time, using the GDS2 tool, check the Reductant Level and record the reading. Compare results with previous reading, did the Reductant Level increase to 90% or higher?
 - 6.1. If yes, proceed to the next step
 - 6.2. If no, replace the Emission Reduction Fluid Tank Assembly (tank, harness and RCM), road test the vehicle to verify repairs and return vehicle back to the customer. Ensure an attempt was made to contact the engineer listed below, before proceeding with the repairs.
7. For a second time, record the number of bars for the DEF Level on the DIC. Did the level update **and** any previously active Reductant System related messages clear?
 - 7.1. If yes, proceed to the next step.
 - 7.2. If no, wait for engineer's instructions for next steps.
8. If not already completed, top up the Emission Reduction Fluid Tank with fresh DEF. Road test vehicle to verify repairs and return vehicle back to the customer (if customer's complaint also included high DEF consumption, please refer to Service Bulletin 20-NA-082 to help educate the customer).

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
4088648*	Engineering Information - Service Engine Soon (SES) Lamp Illuminated, Service Emission System, DEF Level Low Message On (DIC)	1.0 hrs.
*This is a unique Labor Operation for bulletin use only.		

Version	1
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