



Service Bulletin

Bulletin No.: 24-NA-196

Date: October, 2024

INFORMATION

Subject: Information on Complaint of Empty DEF Tank Shortly After Beginning a Towing Trip and/or Unable to Properly Fill the DEF Tank

Brand:	Model:	Model Year:		Build Date:		Engine:	Transmission:
		from	to	from	to		
Cadillac	Escalade Models	2021	2025			LM2, LZ0, L5P	
	Silverado 1500	2020	2021				
	Silverado 1500 LTD (RPO J21, VIN Digit 5 = W / Y)	2022	2022				
	Silverado 1500 New (RPO J22, VIN Digit 5 = A / D)						
	Silverado 1500	2023	2025				
	Silverado 2500HD/ 3500HD	2020					
	Suburban Tahoe	2020					
	Sierra 1500	2020	2021				
	Sierra 1500 Limited (RPO J21, VIN Digit 5 = 8 / 9)	2022	2022				
	Sierra 1500 New (RPO J22, VIN Digit 5 = H / U)						
	Sierra 1500	2023	2025				
	Sierra 2500HD/ 3500HD	2020					
	Yukon Models	2020					

Involved Region or Country	North America
Condition	Some customers may comment on an empty DEF tank shortly after beginning a towing trip and/or unable to properly fill the DEF tank.

Important: Service agents must comply with all International, Federal, State, Provincial, and/or Local laws applicable to the activities it performs under this bulletin, including but not limited to handling, deploying, preparing, classifying, packaging, marking, labeling, and shipping dangerous goods. In the event of a conflict between the procedures set forth in this bulletin and the laws that apply to your dealership, you must follow those applicable laws.

Information

Important: Refer to 22-NA-150 to verify in the Reductant Control Module is at the latest update available and the Reductant Fluid Tank Level has been reset.

Note: This condition can be exacerbated by vehicle loading that exceeds the Gross Combined Weight Rating (GCWR) when towing. This information can be found on the towing placard inside the driver's door. The dealer should have the owner confirm by using a commercial scale that the total weight of the vehicle, trailer, and cargo do not exceed the GCWR stated on the placard.

Under high load towing conditions, the amount of DEF used may engage the warning strategy before the DEF tank can read a fill. If a customer attempts to fill at this time, the vehicle DEF system will not see the fill and may not see subsequent fill attempts. Allow the vehicle to progress into the warning strategy until a specific speed limitation warning is displayed before adding DEF to the tank. In the US, this will be a 65mph limitation.

- When the warning strategy is implemented, it is based on an estimated range to speed limitation of 1000 miles. When the gauge is reviewed during the warning strategy, the gauge will show very little DEF or no DEF at all. This is normal – the DEF needed to complete the warning and inducement is not shown on the gauge. Only the reserve is displayed in some cases, with large trailers, there may be no reserve and no gauge bars displayed.



DIC Messaging and Gauging when towing



Wrng Level	Actual Range (mi)	DIC Range (mi)	Inducement Message	DIC (MY20-22 IMAGES SHOWN)
2-3	1650	1000	1000 Miles Warning (dismissible) – one time (500 Miles for MY23+ HDPU)	
4	950	300	300 Mile Warning (dismissible) – every drive cycle	
5	725	75	75 Mile Warning – DEF Level Low, Speed Limit Soon (dismissible). Gauge will animate 'Low' regardless of actual level.	
6	650	0	500 Miles to 65MPH – permanent, blocks DIC	
8	150		75 Miles to 55MPH – permanent, blocks DIC	
10	75		75 Miles to 5MPH – permanent, blocks DIC	
14	0		Speed Limited 5MPH – permanent, blocks DIC	



- This combination of a DEF system message and a low gauge reading may drive customers to add DEF immediately to try to drive the gauge back up or to make the message stop. The chart shows the dash messages while towing and areas and messages in RED where it is not appropriate to add DEF to the tank.
- Areas in green indicate that at these warning levels and when these messages are displayed it is OK to add DEF to the tank.
- Customers need to be encouraged to ignore the gauge under these conditions until the warning strategy indicates a specific speed limitation will be reached (65mph/105kph). When the system goes from “speed limited soon” to “speed limited to 65mph in xx miles” it is safe to add DEF and the fill will be detected. The messages may stop for a short period, but they will begin again shortly if the vehicle is still towing. The owner can continue to operate the vehicle until they are being told that inducement and speed reduction are imminent. This is technically the best time to fill the DEF tank, and the system will always register a fill from inducement level *if no DEF has been added during the warning strategy* and if there are no functional issues with the DEF system.

Warranty Information

For vehicles repaired under the Bumper-to-Bumper coverage (Canada Base Warranty coverage), use the following labor operation. Reference the Applicable Warranties section of Investigate Vehicle History (IVH) for coverage information.

Labor Operation	Description	Labor Time
4089338*	Confirm DEF System Proper Operation	0.5 hr
*This is a unique Labor Operation for Bulletin use only.		

Version	2
Modified	Released September 23, 2024 Revised October 09, 2024 - Removed 2017 to 2019 Model Year, Added 2020 to Applicable Models, and Updated Information Section Information.

Additional Keywords: DEF, Range, Message, Towing, Gauge

