



# Service Bulletin

Bulletin No.: 22-NA-080

Date: July, 2023

## TECHNICAL

**Subject: Diagnostic Tips for Engine Related Shudder Concerns**

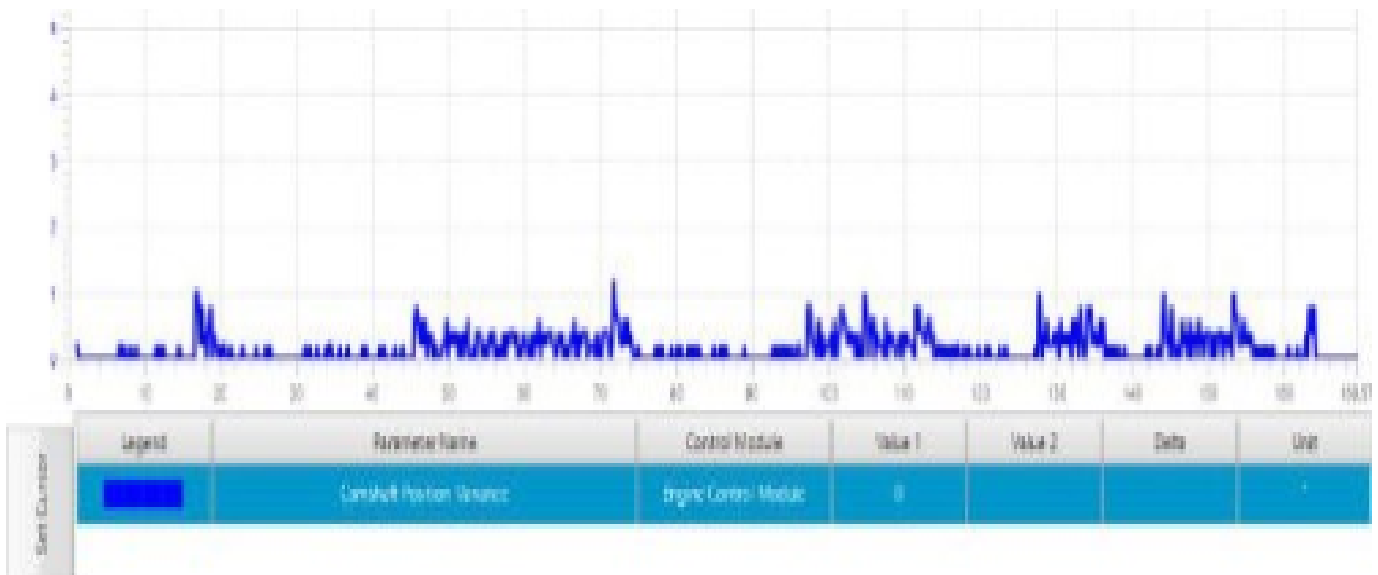
**This bulletin replaces PIP5794B. Please discard PIP5794B.**

Brand:	Model:	Model Year:		Breakpoint Date:		Engine:	Transmission:
		from	to	from	to		
Cadillac	Escalade Models	2015	2024	SOP	EOP	4.3L (LV3), 5.3L (L82, L83, L84) 6.2L (LT1, LT2, LT4, L86, L87), 6.6L (L8T)	
	CT5	2022					
Chevrolet	Camaro	2016	2024				
	Corvette	2014					
	Express	2021					
	Silverado	2014	2018				
	Silverado LD	2019	2019				
	Silverado 1500 (New Model)	2019	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	2024				
	Silverado 2500HD/3500HD	2020	2024				
Suburban	2015	2024					
Tahoe							
GMC	Savana	2021	2024				
	Sierra 1500	2014	2018				
	Sierra Limited	2019	2019				
	Sierra 1500 (New Model)	2019	2021				
	Sierra 1500 - Limited (RPO J21, VIN Digit 5= 8/9)	2022	2022				
	Sierra 1500 - New (RPO J22, VIN Digit 5 = H/U)						
	Sierra	2023	2024				
	Sierra 2500HD/3500HD	2020	2024				
	Yukon Models	2015	2024				

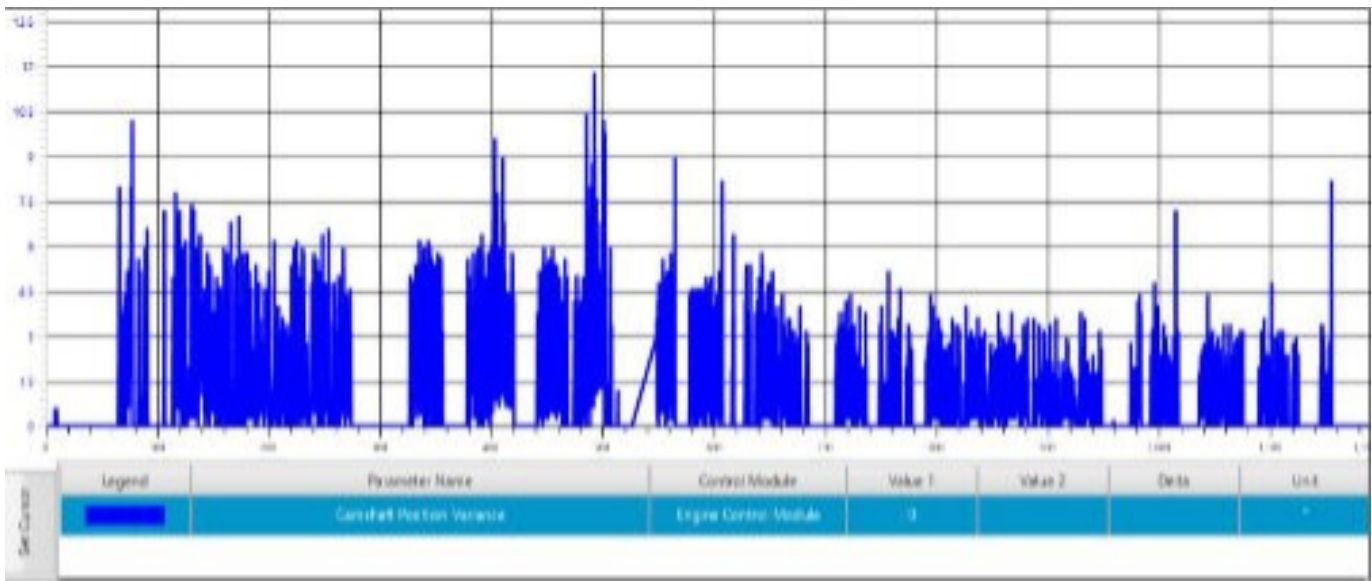
<b>Involved Region or Country</b>	North America, Europe, Uzbekistan, Middle East, Iraq, Israel, Palestine, Argentina (Mercosur), Brazil (Mercosur), Bolivia (West), Chile (West), Colombia (West), Ecuador (West), Paraguay (West), Peru (West), Uruguay (West), Venezuela (West), Japan, Cadillac Korea (South Korea), GM Korea Company, China - SGM, Taiwan, Thailand (ASEAN), Singapore, Philippines, Australia/New Zealand, Egypt, Other Africa, South Africa
<b>Condition</b>	Some customers may comment that they feel a Shudder or Surge type feeling when driving at a steady speed. – Some customers may mistake it for a transmission related concern.
<b>Cause</b>	This condition may be caused by the camshaft actuator magnet sticking.
<b>Correction</b>	If the concern has been determined to be engine related and not being caused by the transmission the following diagnosis may be helpful: – While duplicating the Shudder or Surge concern monitor the data parameter "Camshaft Position Variance" in GDS2. Although target variance is 0 degrees, it is not uncommon to observe variance of up to 3-4 degrees on a properly functioning system. – Any variance exceeding 3-4 degrees could potentially cause a noticeable Shudder or Surge concern. If after diagnosis you confirm that the concern has been isolated to the camshaft actuator system, it is recommended to replace the camshaft actuator magnet and re-evaluate. Refer to <i>Camshaft Position Actuator Magnet Replacement in SI</i> . If the Shudder/Surge is still present after camshaft actuator magnet replacement and camshaft actuator variance is over 4 degrees, refer to GM Service Information for further diagnosis.

**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.**

Below are line graph examples from GDS2, one showing normal operation of the camshaft actuator system and one that is considered suspect and not operating properly:



Normal operation (variance under 4 degrees)



6029096

Suspect fault in camshaft actuator system (variance over 4 degrees)

### Parts Information

**Note:** Only select the parts that coincide with the repair performed. Replace the part with the P/N outlined in the Electronic Parts Catalog (EPC) in accordance with the vehicle VIN.

Causal Part	Description	Part Number	Qty
X	MAGNET, CM/ SHF POSN ACTR	12675031	1
		12670340	

### Warranty Information

For vehicles repaired under warranty, use:

Labor Operation	Description	Labor Time
4064870	Camshaft Position Actuator Magnet	Use the Published Labor Operations Time
4021760		

Version	3
Modified	Released April 20, 2022 Revised July 21, 2022 - Added 12670340 to Parts Information section. Revised July 13, 2023 - Added 2023 to Applicable Vehicles.

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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