



Preliminary Information

PIP5794B Diagnostic Tips For Engine Related Shudder / Surge Concerns

Models

Brand:	Model:	Model Years:	VIN:		Engine:	Transmissions:
			from	to		
Cadillac	Escalade	2020 - 2021	All	All	5.3L L84, 6.2L L87	All
Chevrolet	Silverado	2019 - 2021	All	All	4.3L LV3 5.3L L82 L84, 6.2L L87	All
Chevrolet	Suburban	2020 - 2021	All	All	5.3L L82/L84, 6.2L L87	All
Chevrolet	Tahoe	2020 - 2021	All	All	5.3L L84, 6.2L L87	All
GMC	Sierra	2019 - 2021	All	All	4.3L LV3 5.3L L82 L84, 6.2L L87	All
GMC	Yukon	2020 - 2021	All	All	5.3L L84, 6.2L L87	All

Involved Region or Country	North America
Condition	Vehicle may exhibit a shudder / surge while driving that may be mistaken for a transmission related concern
Cause	Camshaft Actuator System

Correction:

If the concern has been determined to be engine related and not being caused by the transmission the following may be helpful:

While duplicating the shudder 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.

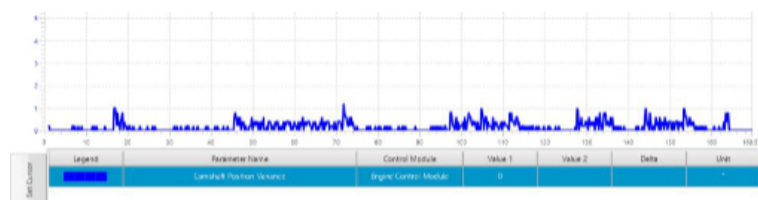
Any variance exceeding 3-4 degrees could potentially cause a noticeable shudder / surge concern.

If the concern has been isolated to the camshaft actuator system, it is recommended to replace the camshaft actuator magnet and re-evaluate.

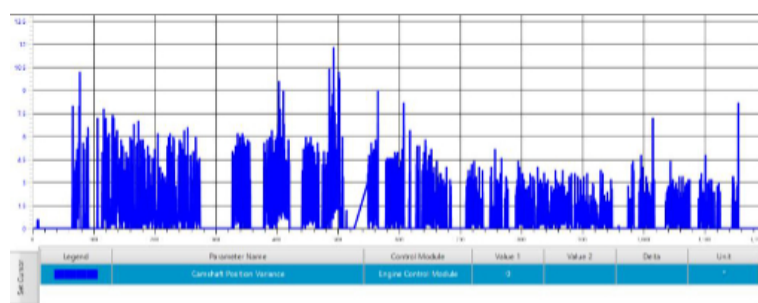
If the shudder / surge is still present after camshaft actuator magnet replacement and camshaft actuator variance is over 4 degrees, refer to GM Service Information or GM TAC for further assistance with diagnosis.

Below are line graphs from GDS2, one showing normal operation of the camshaft actuator system and one that is not operating properly.

Normal operation (variance under 4 degrees):



Fault in camshaft actuator system (variance over 4 degrees):



Parts Information

Part Number	Description	Quantity
12675031	MAGNET, CM/SHF POSN ACTR	1

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 Op	Description	Time
4087978*	Camshaft Position Actuator Magnet Replacement	4.9 hours
*This is a unique Labor Operation for Bulletin use only.		

Version History

Version	2
Modified	03/25/2021 - Created on 04/07/2021 - Updated to edit correction and parts information. 08/18/2021 - Updated to include surge to the document as a possible symptom.



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