



Service Bulletin

TECHNICAL

Subject: Shake and/or Shudder During Light Throttle Acceleration Between 48 and 104 KM/H (30 and 65 MPH) at a Steady State

Brand:	Model:	Model Year:		VIN Breakpoint	Engine:	Transmission:
		from	to			
Cadillac	Escalade Models	2016	2017	All vehicles Built after November 01, 2015	Equipped with 5.3L or 6.2L Engine (RPOs L83, L86)	Equipped with 8L90 Automatic Transmission (RPO M5U)
Chevrolet	Silverado	2016	2017			
GMC	Sierra	2016	2017			
GMC	Yukon Models	2016	2017			

Involved Region or Country	North America and N.A. Export Regions
Condition	<p>Some customers may comment on any of the following conditions:</p> <ul style="list-style-type: none"> • A shake and/or shudder during light throttle acceleration between 48 and 104 km/h (30 and 65 mph) steady state driving when transmission is not actively shifting gears. • A shudder feeling that may be described as driving over rumble strips or rough pavement. • Shudder feeling is evident in both Drive and M7 mode.

Diagnosis Instructions

To ensure TCC shudder is diagnosed correctly, please drive the following schedule on a smooth road with transmission sump temperature between 50°C (122°F) - 70°C (158°F).

Important: For some road conditions, it may be required to apply the brake pedal and throttle simultaneously to stay within desired engine torque range.

Press and hold the tow-haul mode button for 5 seconds to disable grade braking to prevent downshifts during test.

Run the following tests for 3 operational modes:

- Normal Operation (GDS2 for viewing only).
- GDS2 Commanding TCC in Disabled Operation. (TCC Open).
- GDS2 Commanding TCC in Enabled Operation. (TCC Locked).

TEST:

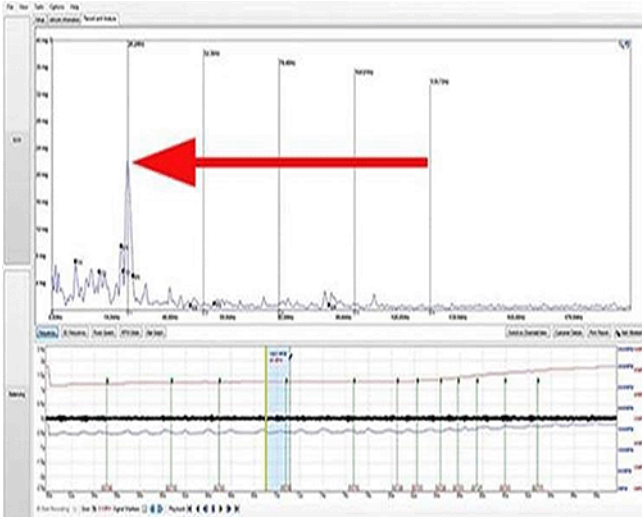
Drive the vehicle in 8th gear, **V8 mode**, with a transmission input speed of 1,050–1,300 rpm with (approximately 64–89 km/h (40–55 mph)) **constant throttle input**, and engine torque 200–375 Y.

To confirm TCC shudder, the vibration concern must be created in normal operation (Mode A) of the test. If the concern is gone with the torque converter clutch disabled (Mode B, TCC Open) and is gone when the torque converter clutch enabled (Mode C, TCC Locked), **the vibration root cause is TCC shudder and the fluid flush procedure corrective action described below should be performed.**

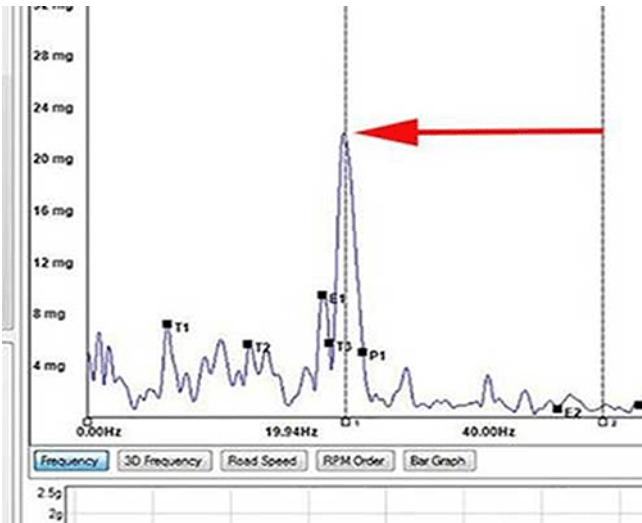
If the concern is not present in Mode A, then the vibration concern is not TCC shudder. If the concern is still present with the torque converter clutch disabled (Mode B) or with the torque converter clutch enabled (Mode C, TCC slip speed at zero), the root cause of vibration is NOT shudder. Vibrations not identified as shudder should be further investigated using the "Vehicle Vibration Diagnosis in SI as a starting point.

The use of the PICO scope and NVH software can be used to confirm TCC shudder, Engine, Tire or Driveline component related conditions.

To confirm TCC shudder record the PICO scope data while driving the vehicle in 8th gear, in V8 mode, with a transmission input speed of 1,050–1,300 rpm at 40 to 55 MPH (64-89 km/h) at constant throttle input, and engine torque 200-375 Nm.



The disturbance will display as unknown and will be around 26 Hz at 16 to 24 mg as shown in the illustration above if the concern is TCC shudder.



In the above illustration frequency and default view have been selected.

Service Procedure

Important: Requires DEXRON HP Fluid (GM Part No. 19353429, in Canada 19353430).

Note: US dealers must order The DEXRON®HP fluid through your local General Motors oil distributor. Canadian dealer must order through CCA.

Step 1: Cooler Flush, Drain, Clean pan/magnet, Replace Filter (If needed), Oil Fill, & Circulate New Fluid

1 a.) Flush the cooler lines and cooler using published SI Procedures.

1 b.) Remove the transmission fluid pan and drain transmission fluid following SI procedures for the application you're working on. Discard all oil.

Note: If you find that the fluid is cloudy, milky, or appears to be contaminated with water or engine coolant, DO NOT proceed with below steps. Follow Both SI Procedures for "Cooling System Leak Testing (L83, L86)" and "Engine Coolant/Water in Transmission."

1 c.) Clean the pan/magnet if any metallic particles present and replace transmission filter if debris is found.

1 d.) Install the transmission fluid pan and refill with new transmission fluid using enough volume to have oil come out of oil level check plug.

Important: Operate the vehicle on the hoist for 10 minutes. Cycle through all forward gear ranges, Reverse and Neutral.

Step 2: Drain, Oil Fill, & Circulate New Fluid

2 a.) Remove the transmission fluid pan and drain transmission fluid again. Discard all oil.

2 b.) Install the transmission fluid pan and refill with new transmission fluid using enough volume to have oil come out of oil level check plug.

Important: Operate the vehicle on the hoist for 10 minutes. Cycle through all forward gear ranges, Reverse and Neutral.

Step 3: Drain, Oil level Set, and Drive to Evaluate

3 a.) Remove the transmission fluid pan and drain transmission fluid again. Discard all oil.

3 b.) Install the transmission fluid pan and refill with new transmission fluid following the “Fluid Fill Procedure” in SI to obtain correct fluid level.

The shudder should be improved after the completion of this triple flush procedure.

Note: Shudder should improve directionally right away, but for full affect the vehicle may need to be driven up to 322 km (200 miles) and at least two cold to hot drive cycles before determining if the fluid flush corrected the condition or not. Do not re-evaluate vehicle for additional customer shudder concerns until the vehicle has been driven 322 km (200 miles).

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
8480478*	Flush and Drain Fluids for Transmission Shake and/or Shutter Repair	Use Actual Clock Time
*This is a unique Labor Operation for Bulletin use only.		

Version	3
Modified	June 01, 2016 – Added breakpoint date. Nov. 29, 2016 – Added the 2017 Model Year and updated information including graphics under Diagnosis Instructions.

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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