Service Bulletin

Bulletin No.: 20-NA-192
Date: September, 2020

TECHNICAL

Subject: Steering Dither/Shake or Quick Steering Wheel Oscillation at Speeds of 80-129 km/h (50-80 mph)

Brand:	Model:	Model Year:		VIN:		Engine:	Transmission:
		from	to	from	to		
Chevrolet	Silverado 2500HD/ 3500HD	2020	2020	SOP	1GC4YVEY9LF187584	All	All
GMC	Sierra 2500HD/ 3500HD						

Involved Region or Country	North America
Additional Options (RPOs)	Equipped with STEERING-POWER, MAGNETIC SPEED, VARIABLE ASSIST (RPO NV8)
Condition	Some customers may comment about a steering dither (shake) or quick steering wheel oscillation at speeds of 50 - 80 mph (80 - 129 km/h).
Correction	The purpose of this bulletin is to outline the recommendations and procedures for diagnosing and repairing steering dither.

Service Procedure

Important:

- The first step in determining the cause of the vibration is a test drive with the appropriate diagnostic equipment installed on the vehicle. If the correct tools and procedures are not followed, an incorrect diagnosis will result.
- Before measuring tires on a GM approved tire force variation measurement equipment, the vehicle MUST be driven a minimum of 24 km (15 mi) to ensure removal of any flat-spotting. Refer to the latest version of Corporate Bulletin Number 03-03-10-007: Tire/Wheel Characteristics of GM Original Equipment Tires.
- If the wheels need to be removed, check for anything that could have caused a wheel to rotor mounting issue, i.e. pilot bore damage, rust or contamination on the rotor or wheel mounting surface, etc.
- GM approved tire force variation measurement equipment MUST be calibrated prior to measuring tire/wheel assemblies for each vehicle.

Note: If the equipment being used is capable of performing a centering check, the centering check must be completed before taking measurements of balance or RFV.

Step #1

Using a Pico Oscilloscope Diagnostic Kit, mount the PicoScope vibration sensor to the driver seat track.

Note: Only the use of the Pico Oscilloscope Diagnostic Kit with NVH should be utilized, available from GM Dealer equipment (CH-51450). Previous vibrations tools are NOT recommended due to the types and frequencies producing these vibrations.

- Seat Vibration – mount the sensor to the front right corner of the driver's seat bracket (1).
- Reference SI doc 3687302 for Pico Oscilloscope operation and SI doc 3686560 for the Road Testing Procedure.
- Perform road test (50 ~ 80mph (80 - 129 km/h), on a smooth road), measure driver seat track vibration. Drive vehicle (50 ~ 80mph / 80 - 129 km/h) minimum 10 mins prior to measuring seat track vibration to warm up the tires. Then follow recommendations A or B below.

A.) - T1 Y-Axis Less Than 25 mg

- T1 Y-axis consistently under 25 mg and steering wheel dither persists move to step 2.

B.) T1 Y-Axis Greater Than 25 mg

- T1 Y-axis consistently over 25 mg, service all wheel and tire assemblies per Corporate Bulletin Number 10-03-10-001E.
- When mounting the wheels to the balancer, it is critical to make sure the assembly is held tightly centered during the measurement. Below are adapters that have been verified to maintain this relationship (Single rear wheel only).
- Balance and road force correct the assemblies. It is recommended to get the road force values below 30 lbs on the front tires and below 45 on the rear tires.
- Move to Step 2 below.

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Step #2

If T1 Y-axis less than 25 mg and steering wheel dither persists, load steering gear update calibration.

Step #3

Clear out K43 data: End of Line and Adaptive data.

Step #4

Perform road test (50 ~ 80 mph (80 - 129 km/h), smooth road) to confirm steering wheel dither has been reduced.

Warranty Information

For vehicles repaired under warranty, use the appropriate labor operation based on the repair completed.

Version	1
Modified	Released September 17, 2020