



# Service Bulletin

Bulletin No.: 19-NA-217

Date: December, 2020

## TECHNICAL

**Subject: Manual Transmission Stalling, Clutch Chatter and/or Hard Shifting into 1st Gear or Reverse; Automatic Transmission Vibration on Launch and/or Engine Noise**

Brand:	Model:	Model Year:		VIN Breakpoint		Engine:	Transmission:
		from	to	from	to		
Chevrolet	Corvette	2014	2019	—	—	6.2L (LT1, LT4)	6L80 Automatic (MYC), 8L90 Automatic (M5U) or Manual

<b>Involved Region or Country</b>	North America, Europe, Russia, Middle East, Japan, Thailand
<b>Condition</b>	<p><b>Important:</b> If the vehicle came in with a rattle noise coming from the front of the vehicle when the engine is running at slower engine speeds and no other concerns, refer to Service Bulletin 18-NA-268.</p> <p>Some customers may comment on any of the following conditions:</p> <p><b>Note:</b> On Automatic Transmission equipped vehicles, this may also happen after the driveline was replaced for another reason.</p> <ul style="list-style-type: none"> <li>– For Manual Transmission equipped vehicles:               <ul style="list-style-type: none"> <li>• Stalling</li> <li>• Clutch chatter</li> <li>• Hard shifting into 1st gear or Reverse</li> </ul> </li> <li>– For Automatic Transmission equipped vehicles:               <ul style="list-style-type: none"> <li>• Vibration on takeoff</li> <li>• Clunk noise</li> </ul> </li> </ul>
<b>Cause</b>	<p>This condition may be caused by excessive crankshaft endplay associated with a damaged thrust bearing.</p> <ul style="list-style-type: none"> <li>– Please use following information before considering an engine or crankshaft replacement.</li> </ul>
<b>Correction</b>	If a vehicle comes in with the conditions listed above, refer to the Service Procedure below.

**Note:** Complete the SI diagnostics and the Cost Comparison Worksheet for Assembly Repair vs Replacement to determine if the engine requires a repair or replacement. DO NOT the replace engine assembly for this concern. Only replace the engine assembly if other damage is found.



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**Example of a good thrust bearing face.**

### **Service Procedure**

**Important:** Follow the service procedures outlined in Service Bulletin 18-NA-268 for DSA inspection and possible repair.

1. Validate the crankshaft endplay is within specification (0.0015-0.0086 (0.040-0.220 mm).
  - ⇒ If endplay is found to be out of specification, remove the engine oil pan and inspect for possible crankshaft thrust bearing and/or crankshaft wear.
2. Start with removing the middle thrust main bearing cap.



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3. Inspect the thrust bearing for wear on one side and crankshaft on the corresponding mating surface. The graphic above shows an example of a damaged thrust bearing.

**Note:** It is not necessary to replace the engine assembly for this condition.

- ⇒ If wear is evident (3 vertical channels worn off), it will be necessary to replace the crankshaft, connecting rods and main bearings.

4. Refer to *Crankshaft and Bearing Removal* in SI.

If bearing damage is found and if the vehicle is equipped with a dry sump system, it will be necessary to replace the oil tank with lines and oil cooler.

**Parts Information**

Causal Part	Description	Part Number	Qty
X	CRANKSHAFT (LT1)	12674745 (EXC Z52)	1
X	CRANKSHAFT (LT1)	12674744 (Z52)	1
X	CRANKSHAFT (LT4)	12674743	1
N/A	BOLT, CR/SHF BRG CAP (M10X2X96) (LT1/LT4)	11548076	10

Causal Part	Description	Part Number	Qty
N/A	BOLT, CR/SHF BRG CAP (M10X2X82) (LT1/LT4)	11548075	10
N/A	BOLT, CR/SHF BRG CAP (M8X1.25X25 HEX FLANGE) (LT1/LT4)	11546565	10
N/A	SEAL, CR/SHF FRT OIL (LT1/LT4)	12693255	1
N/A	SEAL, CR/SHF RR OIL (LT1/LT4)	89060436	1
N/A	BEARING KIT, CR/SHF (LT1/LT4)	12656814	1
N/A	BEARING KIT, CONN ROD (LT1/LT4)	12683811	1
N/A	BEARING, CLU/PILOT (Manual Transmission Only) (LT1/LT4)	12557583	1
N/A	TNK, ENG OIL (LT1/LT4 Dry Sump Only Z52)	12680701	1
N/A	HOSE, AUX ENG OIL TK INL	23299434	1

Causal Part	Description	Part Number	Qty
N/A	HOSE, AUX ENG OIL TK OTLT	23299435	1
N/A	BOLT, A/TRANS FLEX PLT (M11X1.5X19) (LT1/LT4)	11547118	8
N/A	OIL, Engine	Refer to EPC	
N/A	FILTER, OIL		

## 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 Operation	Description	Labor Time
4087158*	Replace Crankshaft, Crankshaft Main Bearings and Connecting Rod Bearings	24.1 hrs
*This is a unique Labor Operation for bulletin use only.		

<b>Version</b>	3
<b>Modified</b>	Released February 4, 2020 March 24, 2020 – Added CRANKSHAFT (LT1) 12674744 (Z52) to the Parts Information section and corrected P/N 11547188 to 11547118. December 21, 2020 – Updated some quantities in the Parts Information section.

