

2014 - 2019 Corvette: Service Bulletin: #19-NA-217: Manual Transmission Stalling, Clutch Chatter and/or Hard Shifting into 1st Gear or Reverse; Automatic Transmission Vibration on Launch and/or Engine Noise - (Dec 21, 2020)

#19-NA-217: Manual Transmission Stalling, Clutch Chatter and/or Hard Shifting into 1st Gear or Reverse; Automatic Transmission Vibration on Launch and/or Engine Noise - (Dec 21, 2020)

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: | Transmi ssion: |
|-----------|----------|-------------|------|----------------|----|-----------------------|---|
| | | from | to | from | to | | |
| Chevrolet | Corvette | 2014 | 2019 | — | — | 6.2L (LT1, LT4) | 6L80 A utomati c (MYC), 8L90 A utomati c (M5U) or Manual |

Involved Region or Country

North America, Europe, Russia,
Middle East, Japan, Thailand

Condition

Important: 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.

Some customers may comment on any of the following conditions:

Note: On Automatic Transmission equipped vehicles, this may also happen after the driveline was replaced for another reason.

- For Manual Transmission equipped vehicles:
 - Stalling
 - Clutch chatter
 - Hard shifting into 1st gear or Reverse
- For Automatic Transmission equipped vehicles:
 - Vibration on takeoff

- Clunk noise

Cause

This condition may be caused by excessive crankshaft endplay associated with a damaged thrust bearing.

- Please use following information before considering an engine or crankshaft replacement.

Correction

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.



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.
- Start with removing the middle thrust main bearing cap.



1. 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.
- 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 | CRANKSHAF T (LT1) | 12674745 (EXC Z52) | 1 |
| X | CRANKSHAF T (LT1) | 12674744 (Z52) | 1 |
| X | CRANKSHAF T (LT4) | 12674743 | 1 |
| N/A | BOLT, CR/SHF BRG CAP (M10X2X96) (LT1/LT4) | 11548076 | 10 |
| N/A | BOLT, CR/SHF | 11548075 | 10 |

| | | | |
|-----|--|----------|----|
| | BRG CAP (M10X2X82) (LT1/LT4) | | |
| 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 |
| 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 | | |

Version

3

Modified

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.

Online URL:

<https://www.corvetteactioncenter.com/tech/knowledgebase/article/2014-2019-corvette-service-bulletin-19-na-217-manual-transmission-stalling-clutch-chatter-and-or-hard-shifting-into-1st-gear-or-reverse;-automatic-transmission-vibration-on-launch-and-or-engine-noise-dec-21-2020-1480.html>