

# 2015 - 2016 Corvette: Service Bulletin: Shake Or Shudder On Acceleration Excessive Engine RPM Fluctuation Between 30 And 65 MPH

## #PIP5337E: Shake Or Shudder On Acceleration Excessive Engine RPM Fluctuation Between 30 And 65 MPH - (Aug 15, 2016)

<b>Subject:</b>	Shake Or Shudder On Acceleration Excessive Engine RPM Fluctuation Between 30 And 65 MPH
<b>Models:</b>	2015 - 2016 Cadillac Escalade, Escalade ESV built prior to 11/01/15.
	2015 - 2016 Chevrolet Corvette, Silverado built prior to 11/01/15.
	2015 - 2016 GMC Sierra, Yukon, Yukon XL built prior to 11/01/15.
	Equipped with 8L90 Automatic Transmission (RPOs M5U) and the 6.2L (RPOs L86 and LT1)
	Note: This information does not apply to Silverado and Sierra models with the 5.3L (RPO L83).
	Please refer to bulletin 16-NA-175 for vehicles equipped with 5.3L (RPO L83)

This PI was superseded to update labor time. Please discard PIP5337D.

The following diagnosis might be helpful if the vehicle exhibits the symptom(s) described in this PI.

### **Condition/Concern**

Some customers may comment on any of the following conditions

A shake or shudder during light throttle acceleration, between 30 and 65 mph steady state driving.

Excessive engine RPM fluctuation that may be described as frequent tachometer needle movement at constant speed when engine speed is below 1600 RPM.

A shudder feeling that may be described as driving over rumble strips or rough pavement.

It is important to note that these conditions:

Do not occur during vehicle launch from a stop.

Do not occur when the transmission is shifting gears

Do not occur when the vehicle is decelerating.

Do not occur when TCC slip speed is zero. TCC slip speed is zero in gears 2-8 when engine RPM is greater than 1600 RPM.

### **Recommendation/Instructions**

Drive the vehicle while monitoring TCC slip speed.

TCC slip speed should be 10 rpm or less also note if the shudder takes place during TCC apply.

If the TCC slip speed is in the range of 10 RPM or less the condition is possibly related to engine performance.

Monitor Active Fuel Management (AFM) to see if the engine is operating in 4 cylinder mode or transitioning from 8 cylinder to 4 cylinder mode.

In an effort to help separate the AFM transitions from potential TCC shudder, the vehicle can be placed in manual mode and tapped to 7th gear, this will turn off AFM.

Drive the vehicle under the same engine RPM and engine torque as the original complaint in an attempt to duplicate the condition.

**Note:** If the shudder is only present in 4 cylinder mode and TCC slip is 10 rpm or less deem the shudder concern normal characteristic of AFM.

If the slip speed is beyond 10 rpm or there is shudder during TCC apply the torque converter should be replaced following the instructions published in Service Information (SI).

Additionally the following should be performed as well during the torque converter replacement process.

Flush the cooler lines and cooler using DT-45096 transmission oil cooling system flush and flow test tool.

Use compressed air to remove any residual fluid from the cooler and lines.

Remove the transmission fluid pan and drain transmission fluid.

Install a new transmission filter, clean pan and magnet.

Install the transmission fluid pan and refill with new transmission fluid following the fluid fill procedure in SI to obtain correct fluid level.

**Note:** Only DEXRON®HP Fluid should be used. The US part number for the DEXRON®HP Fluid is 19331925, P/N (19331926) in Canada.

**Important:** Under certain load conditions a minor chuggle/shudder feel may be felt in the passenger compartment due to natural engine frequencies or Active Fuel Management (AFM) transitioning from 8 cylinder to 4 cylinder and back to 8 cylinder.

It may be necessary to compare the operation of the vehicle to a known good unit under the identical driving conditions as the operation may be characteristic.

## Parts Information

Part Number	Description	QTY
24279497	Torque Converter: 6.2 (L86) – Truck and Utility	1
24279495	Torque Converter: 6.2 (LT1) Corvette	1

Online URL:

<https://www.corvetteactioncenter.com/tech/knowledgebase/article/2015-2016-corvette-service-bulletin-shake-or-shudder-on-acceleration-excessive-engine-rpm-fluctuation-between-30-and-65-mph-1300.html>

