



Service Bulletin

PRELIMINARY INFORMATION

Subject: Vibration Or Shudder On Acceleration From A Stop

Models: 2013-2016 Cadillac XTS with All Wheel Drive (AWD)
2014-2016 Buick Regal with All Wheel Drive (AWD)

This PI was superseded to update Models and Recommendations sections. Please discard PIP5090G.

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

Condition/Concern

Some customers may comment on a noise, vibration or shudder on acceleration from a stop. Upon inspection technician may find that the right front axle shaft is not fully seated into the transfer case. Vehicle will not experience a loss of power or loss of forward momentum when axle shaft retaining ring is uncoupled and splines remain engaged.

Recommendation/Instructions

If this condition is encountered inspect the splined area on the right half shaft and the mating splines on the Intermediate drive shaft.

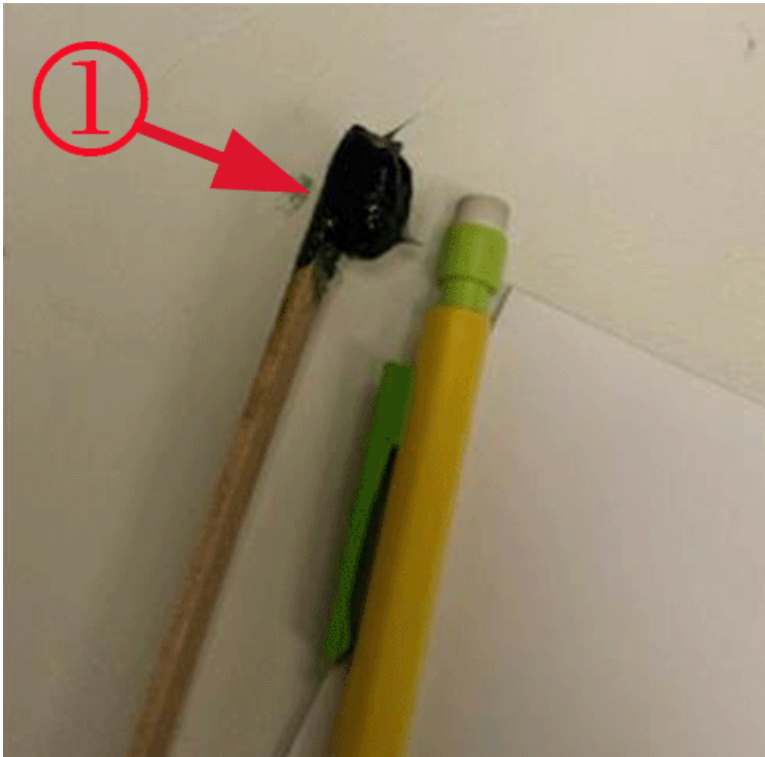
If the splines are damaged on the intermediate drive shaft the shaft would need to be replaced and the Front Wheel Drive Intermediate Shaft/Bearing installation procedure should be followed to ensure the bearing is installed in the correct orientation.

If the splines in the half shaft are damaged, you must replace the half shaft AND install a new retaining ring P/N 90223082.

If the splines are not damaged replace the right hand axle shaft barrel cross section ring, P/N 22727024, with round cross section retaining ring, P/N 90223082.

Remove all grease from the transfer case intermediate drive shaft (IDS) internal splines and axle shaft splines. Apply total of 1 gm grease on IDS splines: 0.5 gm in two 120 degree quadrants each, 180 degree apart. Ensure the other two adjacent quadrants have splines free of grease. Apply grease within 15 mm of leading spline edge and do not apply in the retaining ring groove.

1/2 gm of grease is shown below. Do not exceed 1.5 gm total.



Ensure that the axle is fully inserted and the retaining ring is in position.

DO NOT reuse the original barrel shaped retaining ring.

While the axle shaft is out inspect the splined end of the transfer case for excessive wear

Due to IDS o-ring interference fit to axle shaft, you will feel increasing resistive load while installing axle shaft.

After installation, please let axle sit for 30 seconds and press in again to make sure axle is fully seated.

The half shaft is not considered fully installed until technician either HEARS or FEELS the snap ring lock into the groove of the transfer case intermediate shaft.

To aid in installation orient the retaining ring opening at the bottom of the shaft as the new ring will require higher force to install the axle shaft.

To ensure that the shaft is fully installed after hearing and feeling the shaft lock into place pull outward on the shaft to make sure the ring has locked into the groove.

Warranty Information

For vehicles repaired under warranty use:

Labor Operation	Description	Labor Time
3040190	Front Wheel Drive Shaft Replacement - Right Side	Use Published Labor Operation Time

Please follow this diagnostic or repair process thoroughly and complete each step. If the condition exhibited is resolved without completing every step, the remaining steps do not need to be performed.

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