File in Section:

Bulletin No.: PIP4554J

Date: February, 2014

# PRELIMINARY INFORMATION

Subject: Clunk Noise After Shifting From Reverse To Drive Or Drive To Reverse And Then

**Accelerating** 

Models: 2007-2009 Cadillac SRX

2007-2011 Cadillac STS 2008-2013 Cadillac CTS 2010-2013 Chevrolet Camaro

RWD only, equipped with 6L45 or 6L50 (RPO MYA, MYB) Automatic Transmission

This PI was superseded to update model years. Please discard PIP4554H.

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 clunk noise after shifting from reverse to drive or drive to reverse and then accelerating. This noise typically does not occur during the reverse to drive or drive to reverse shift, but is heard after the shift when the vehicle is accelerated. The noise may sound like it is coming from the rear of the vehicle from the rear drive axle.

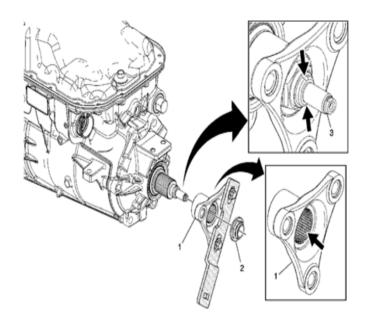
Customers may also comment on a driveline bump, clunk or thud on heavy acceleration or upon braking. This condition is more likely to be duplicated in low gear on acceleration or deceleration.

#### Recommendation/Instructions

This condition may be caused by the torque on the propeller shaft flange nut or movement between the flange and the transmission output shaft.

Apply thread locker to the transmission output shaft flange splines and a new front propeller shaft flange nut following the procedure below.

The existing output shaft and output shaft flange can be re-used and does not require replacement. A new front propeller shaft flange nut should be used.



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#### Callout 1

Component Name: Propeller Shaft Transmission Flange

#### Procedure

1. The output shaft flange splines must be thoroughly clean and dry before installing the flange.

**Note:** When repairing low speed and garage shift clunk - except for moving the vehicle from the hoist, do not operate the vehicle above 5 mph at light throttle for 24 hours to allow the adhesive to cure.

- 2. Apply GM P/N 89021297 (Canadian P/N 10953488) evenly across the width and length of the flange splines and install the flange onto the transmission output shaft.
- 3. Sufficient application of adhesive to every tooth on the flange will leave excess adhesive on the output shaft after installation. If no excess is observed, reapply adhesive. Remove excess adhesive.

#### Callout 2

Component Name: NEW Front Propeller Shaft Flange Nut

#### Procedure

- 1. The output shaft nut threads must be thoroughly clean and dry before installing the nut.
- 2. Apply GM P/N 89021297 (Canadian P/N 10953488) across the width of the nut threads, prior to tightening and staking.

**Note:** If the replacement nut contains a pre-applied adhesive patch, then liquid adhesive is not required.

Caution: Refer to Fastener Caution in the Preface section.

Tighten 55 N·m (41 lb ft).

Special Tool J 45012 Holding Fixture

For equivalent regional tools, refer to Special Tools.

Callout 3

Component Name: Output Shaft

**Caution:** Stake the flange nut onto the output shaft. Use the two staking grooves on the shaft to locate the staking points. Failure to stake the flange nut may result in damage to the transmission.

### **Parts Information**

| Part Number       | Description   | QTY |
|-------------------|---|-----|
| 89021297 (US)     | Adhesive/Sealant, Thread locker High Strength 10 ml | 1   |
| 10953488 (Canada) | Adhesive/Sealant, Thread locker High Strength 10 ml | 1   |
| 24256278          | Nut, Front Propeller Shaft Flange                   | 1   |

# **Warranty Information**

For vehicles repaired under warranty use:

| Labor Operation  | Description   | Labor Time |  |
|--|---|------------|--|
| 8480078*   | Replace Propeller Shaft Flange Nut, Clean and Apply Thread Locker to Flange Splines and Nut | 1.5 hr     |  |
| * This is an unique labor operation for bulletin use only. This will not be published in the Labor Time Guide. |   |            |  |

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.