



# Service Bulletin

File in Section: -

Bulletin No.: PIP5092

Date: February, 2013

## PRELIMINARY INFORMATION

**Subject:** Diagnostic Aids For Driveline Noise Or Vibration

**Models:** 2007-2013 Chevrolet Silverado, Suburban, Tahoe, Avalanche  
2007-2013 GMC Yukon, Sierra

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 driveline noise or vibration at various speeds and operating conditions. Dealer may notice that the vehicle drivetrain is no longer in a factory configuration. Modifications may include lowering of the vehicle, lifting the vehicle (both body and suspension), or larger more aggressive tires, just to name a few.

Lowering of the vehicle may be done in several manners, including use of drop spindles, and lowering blocks, etc. This changes the drive line working angles of the u-joints. This may get the u-joint out of the optimal working angle and cause premature wear. The working angles being altered can present as a vibration that the electronic vibration analyzer will pick up as a propeller shaft 2 disturbance. Angles are propeller shaft 2nd order; balance is propeller shaft 1st order.

Lifting or raising the vehicle through use of suspension or body lift kits really tends to alter the driveline working angles, and also creates propeller shaft related disturbances.

Larger or more aggressive tires also put more load on the drivetrain as well as generate more road noise when operated on road.

### Recommendation/Instructions

Diagnosing these types of concerns can be tricky as usually the customer will say that the concern was present before the modifications were made, just has gotten worse; or will say that when the vehicle was originally modified it was fine and the condition has just recently surfaced.

The modifications may not immediately cause a vibration to surface, but as the u-joints are put through excessive angles for a period of time they will fail.

The transfer case chain and bearings may be subject to greater stress due to tire size and aggressiveness. Operating the vehicle in 4 wheel drive, you may hear greater than normal noise from the loading of the driveline.

The vehicle should always be restored to a factory configuration when diagnosing noise and vibration concerns. Removal of non-GM accessories or modifications is not the financial responsibility of General Motors, and any questions regarding payment should be directed to District Manager Aftersales.

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.