



Service Bulletin

File in Section: -

Bulletin No.: PIP4885E

Date: October, 2012

PRELIMINARY INFORMATION

Subject: NQG 4WD Models With Noise Vibration On Dry Pavement

Models: 2007 - 2012 Chevrolet Silverado
2007 - 2012 GMC Sierra
Equipped with manual shift transfer case NQG

This PI was superseded to update recommended field. Please discard PIP4885D.

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

Condition/Concern:

Groan, growl, or moan coming from the vehicle when operating the vehicle in four wheel drive.

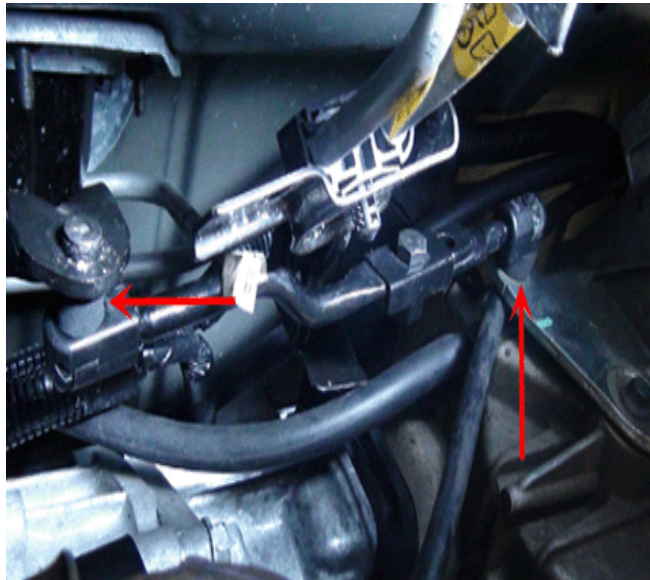
Recommendation/Instructions:

Notice: Driving on clean, dry pavement in Four-Wheel Drive High or Four-Wheel Drive Low for an extended period of time may cause premature wear on your vehicle's power train. Do not drive on clean, dry pavement in Four-Wheel Drive High or Four-Wheel Drive Low for extended periods of time. While driving on clean dry pavement and during tight turns, you may experience vibration in the steering system. Section 9 of the vehicle owner's manual entitled Drive Systems has the exact statement printed above. For more information regarding driveline noises while in four wheel drive refer to the latest version of technical service bulletin 01-04-18-001G.

The typical noise and vibration that is heard or felt is due to a combination of the transfer case chain link frequency, engine firing frequency, tire circumference variation, and various other tolerances' in the 4 wheel drive system. The noise may seem to be increased, compared to vehicles with NQF/NQH/NP0 transfer cases due to the noise transfer path of the shift lever sticking up through the floor. The noise may also be more noticeable in vehicles equipped with vinyl flooring due to the vinyl flooring not having as much mass and noise dampening effect as carpet.

The first thing that should be done is to compare with a like vehicle. Ensure that interior content is the same ie: both vehicles have carpet or vinyl flooring, same model and both do or do not have plow provisions RPO VYU. Further diagnostics would include shifting the transfer case to 4WD high and then disconnecting the shift linkage from the shift lever, at one of the points shown below, and reevaluating the vehicle operation. If the noise is greatly reduced or eliminated then the shift lever is the transfer path for the noise and is an operating characteristic. No repairs are recommended for this condition.

Note: Warranty analysis on nearly every bearing that has been replaced due to customer noise complaints on NQG T-cases have been identified as no trouble found. If the noise heard while in 4wd inside the cab is eliminated by linkage removal then do not disassemble the T-case. Engineering is in the process of validating a revised shift rod to eliminate this noise and should be released 2013 time frame. Replacement of part number light duty: 15007687, heavy duty: 25910465 will not change this noise. This pi will be updated when parts become available.



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For vehicles diagnosed and identified by the above procedure please use labor operation K4134.

On certain models, such as 3/4 and 1 ton vehicle, tire pressures can vary from front to rear based on the manufacturer's specifications which will further aggravate this condition. As an example the manufacturer's specification for tire pressures on a 2011 K2500 Silverado could be front: 65 PSI, rear: 80 PSI. The difference in tire pressures affects the rolling tire circumference from front to rear which can increase driveline noise while in 4WD which is an operating characteristic. For test purposes, drop the tire pressure in the rear to match the front. If the noise is reduced or eliminated this confirms the difference in tire pressures from front to rear can affect the noise when operated in 4WD set the rear tire pressure back to the manufacturer's specification. For vehicles with the same tire pressures front to rear, swap tires from an identically built vehicle that does not seem to exhibit the concern and reevaluate both vehicles.

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.