

TECHNICAL

Bulletin No.: 06-02-32-007F

Date: August 24, 2009

Subject: Clunk, Knock or Rattle Noise From Front of Vehicle While Driving or Turning Over Bumps at Low Speeds (Diagnose Noise and Perform Outlined Repair)

Models:

2004-2006 Chevrolet Malibu Maxx

2004-2008 Chevrolet Malibu Classic

2008-2010 Chevrolet Malibu

2005-2010 Pontiac G6

2007-2010 Saturn Aura

Supersede:

This bulletin is being revised to update the models years and revise the information for Correction 2. Please discard Corporate Bulletin Number 06-02-32-007E (Section 02 - Steering).

Condition 1

Some customers may comment on a clunk noise heard and felt in the [steering wheel](#) while driving at slow speeds and turning. The clunk noise may appear to be directly in front of the driver. Hitting a bump while turning can produce the clunk noise. Sometimes the noise may be duplicated when the vehicle is sitting still and the steering wheel is turned 90 degrees in either direction before initially centering the steering wheel.

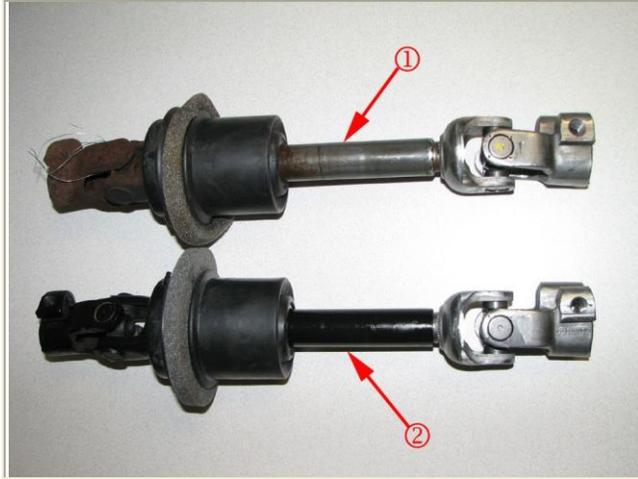
Cause 1

The clunk noise may be caused by a slip/stick condition between the inner and outer components of the intermediate shaft.

Important

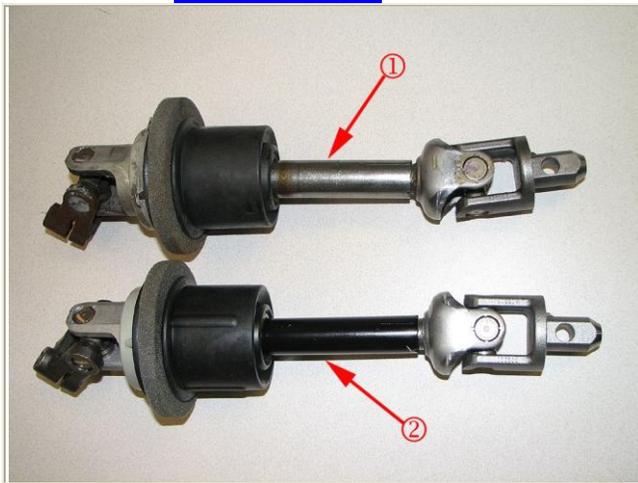
Revised design intermediate shafts went into production in the 2009 model year and are the only design currently available through GMSPO since approximately September 2008. Since any model year vehicle could have had a second design shaft installed, it is critical to identify it before proceeding. The revised design intermediate shafts will NOT tolerate any type of lubricant per the following instructions. Adding lube to the second design shafts will cause a clunk noise in a very short period of time. Use the following pictures to identify which design of shaft you are servicing.

Electric Assist [Power Steering](#)



First Design - Bare Steel Tube (Lube OK)

Second Design - Black Painted (DO NOT Lube)
Hydraulic Assist [Power Steering](#)



First Design - Bare Steel Tube (Lube OK)

Second Design - Black Painted (DO NOT Lube)

In the unlikely event that the source of the noise is identified as a second design shaft with black painted tube, it must be replaced.

Correction 1 (Only for First Design - DO NOT USE FOR 2ND DESIGN)

Lubricate the intermediate shaft with [steering column](#) shaft lubrication kit, P/N 26098237.

1. From inside the vehicle, remove the instrument panel insulator panel - left side panel to gain access to the intermediate shaft.
2. Remove the intermediate shaft to [steering column](#) attachment bolt.
3. Remove the intermediate shaft from the [steering column](#).



4. Extend the intermediate shaft all the way. Using the intermediate shaft grease kit, P/N 26098237, inject the grease into the gap between the inner shaft and the outer shaft as you are collapsing the shaft. This will draw the grease into the shaft.
5. Cycle the shaft up and down several times to distribute the grease.

Important

Remove original thread locker material from the bolt and apply Loctite(R) 242 (or equivalent) to the threads of the bolt and reinstall intermediate shaft bolt.

6. Install the intermediate shaft to the column.

Tighten

- For electronic [power steering](#), tighten the bolt to 49 Nm (36 lb ft).
 - For hydraulic [power steering](#), tighten the bolt to 62 Nm (46 lb ft).
7. Wipe off any excessive grease on the intermediate shaft to avoid damage from drips on the carpet.
 8. Install the instrument panel insulator panel - left side.

9. Verify that the noise is no longer present.

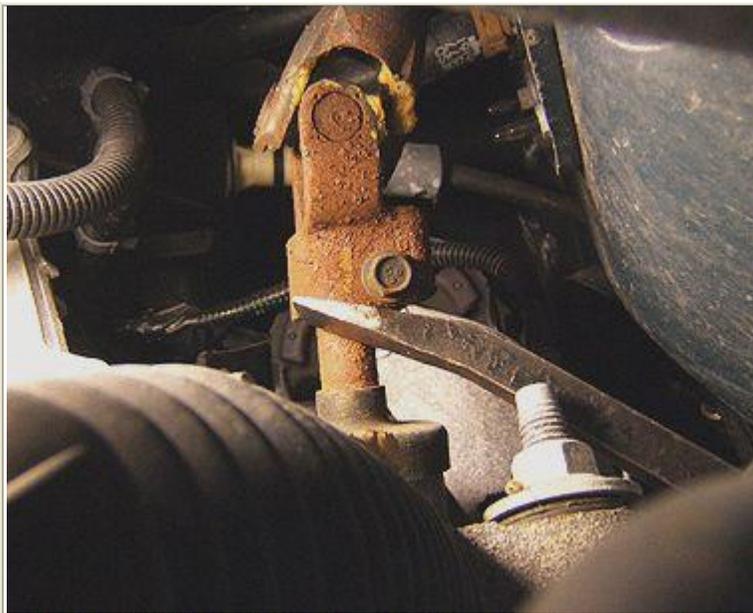
Condition 2

There may be interference between the clamp and the [steering gear](#) input shaft. The clamp is beveled and if forced down on the input shaft too hard, it may cause a loose fit with the intermediate shaft to input shaft joint.

Correction 2

To correct this condition, perform the following steps:

1. Remove the intermediate shaft pinch bolt at the [steering gear](#) end.
2. Install a new bolt, GM P/N 26058124 (Chevrolet, Pontiac) or P/N 26046722 (Saturn), but do not tighten the bolt at this time.



3. Pry the clamp up using a pry bar to position the bolt into the upper part of the groove as shown above. This will position the clamp off the bevel.
4. While keeping the clamp in the upper position, tighten the bolt.
Tighten
Tighten the bolt to 49 Nm (36 lb ft).
5. Verify that the clunk noise is no longer present.

Condition 3

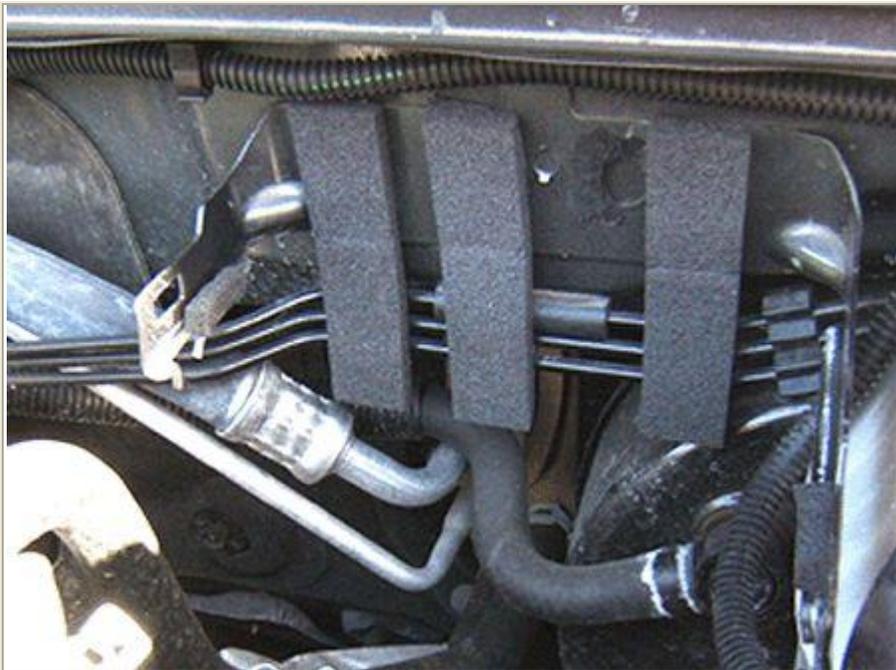
Important

This condition ONLY applies to 2004-2007 Chevrolet Malibu/Maxx and 2005-2007 Pontiac G6.

Some customers may comment on a knocking or rattling type noise from the front of the vehicle when driven at low speeds and over bumps. The noise only occurs when the [steering wheel](#) is in the straight ahead position and sounds like the noise is in the left [suspension](#) of the vehicle or directly in front of the driver.

Correction 3

1. Ensure the noise is not caused by Condition # 1.
2. Determine the source of the noise. Install the chassis ears at the following locations:
 - sway bar link - one side at a time
 - upper [strut mount](#) - one side at a time
 - [steering gear](#) near the pinion area
 - base of the [steering column](#) housing
 - radiator surge tank
3. If the noise is coming from the upper [strut mount](#) or sway bar link, replace as necessary and retest.
4. For 2004-2006 Chevrolet and Pontiac model year vehicles, the noise may be coming from the radiator surge tank area. (The 2007 model year vehicles use a different style radiator surge tank - refer to Step 9.)
5. If the noise is coming from the radiator surge tank, release the two retaining tabs holding the radiator surge tank and reposition the tank away from the attaching bracket and isolate with closed cell foam.
6. Cut three pieces of closed cell foam, P/N P46515 (or equivalent), into 25 mm (1 in) by 102 mm (4 in) pieces.
7. Cut two pieces of closed cell foam into 25 mm (1 in) by 6 mm (1/4 in) pieces.



8. Install the three pieces of foam to the attaching bracket starting at the top center inside the bracket and proceed down across the fuel lines, then at the inside of the bracket at the left and right positions of the center piece of foam. Finally, install the last two pieces of foam to the inside bracket at the left and right extended sides behind the retaining holes as shown above.
9. Reposition the radiator surge tank back onto the bracket and seat the two retaining tabs on the tank.
10. Drive the vehicle to verify that the noise is no longer present.

Parts Information

Order Adhesive Back Shim Stock from Kent Automotive at 1-888-YES-KENT or online at www.kent-automotive.com.

Part Number	Description	Material Allowance
P46515	Adhesive Back Shim Stock (259 mm x 309 ft roll) [15 mm (9/16 in) thickness]	\$1.60 per vehicle (\$1.78 in Canada)

Part Number	Description
26098237	Intermediate Shaft Grease Kit
26058124	Bolt (Chevrolet, Pontiac)
26046722	Bolt (Saturn)