



File in Section: -

Bulletin No.: PI0659D

Date: March, 2014

Service Bulletin

PRELIMINARY INFORMATION

Subject: Groan, Squeak or Rubbing Type Noise When Turning Steering Wheel

Models: 2010-2014 Buick LaCrosse
2012-2014 Buick Verano
2012-2014 Buick Regal
2012-2014 Chevrolet Cruze, Volt
2013-2014 Chevrolet Malibu
2014 Chevrolet Impala

This PI has been revised to add the Cruze, Verano and Volt Models and update the Condition/Concerns, Recommendation/Instructions and Warranty Information. This PI replaces PI0886. Please discard PI0659C and PI0886.

Condition/Concern (Impala)



3226901



3226904

Some customers may comment on a rubber squeak type noise when turning the steering wheel. This condition may be caused by the seal for the intermediate shaft, located at the front of dash, rubbing on the rotating intermediate steering shaft. Refer to the pictures above.

Condition/Concern (Malibu)



3226901



3226904

Some customers may comment on a rubber squeak type noise when turning the steering wheel. This condition may be caused by the seal for the intermediate shaft, located at the front of dash, rubbing on the rotating intermediate steering shaft. Refer to the pictures above.

The EPS wire harness bracket may also be contacting the steering column seal.

Condition/Concern (LaCrosse, Regal, Verano, Cruze, Volt)

Some customers may comment on a rubber squeak type noise when turning the steering wheel.

This may be caused by the EPS wire harness bracket contacting the steering column seal.

Recommendation/Instructions (Impala)

Technicians should inspect the steering column seal for proper installation by repositioning the inner intermediate steering shaft boot assembly to gain access. Inspect the seal at the front of the dash where the intermediate steering shaft passes through from the steering gear. Ensure that the seal is centered in the opening and around the intermediate steering shaft as shown above. If the seal is out of position, replace the steering column seal following the steps below.



3216438

1. Remove the intermediate steering shaft lower bolt. Refer to Intermediate Steering Shaft Replacement in SI.
2. Remove the inner intermediate steering shaft boot assembly.
3. Raise and support the vehicle.
4. Support the powertrain.
5. Remove the front exhaust pipe. Refer to Exhaust Front Pipe Replacement in SI.

6. Remove the front and rear transmission mount through bolts.
7. Remove the front transmission mount.
8. Remove the driver side steering gear mounting bolt and discard.
9. Remove the electronic power steering harness bolts (if equipped).
10. Disconnect the left and right steering knuckle bolts and discard.
11. Remove the rear cradle bolts.
12. Loosen the front cradle bolts just enough to get clearance of the steering shaft.
13. Lower the rear of the cradle and remove the outer steering column seal.
14. Install the outer steering column seal.
15. Raise the rear cradle and install the rear cradle bolts.
16. Tighten the front cradle bolts. Refer to SI for torque specifications.
17. Install the left and right steering knuckle bolts. Refer to SI for torque specifications.
18. Install the electronic power steering harness bolts (if equipped).
19. Install the driver side steering gear mounting bolt. Refer to SI for torque specifications.
20. Install the front transmission mount. Refer to SI for torque specifications.
21. Install the front and rear transmission mount through bolts. Refer to SI for torque specifications.
22. Install the front exhaust pipe. Refer to SI for torque specifications.
23. Remove the support from the powertrain.
24. Lower the vehicle.



3228767

25. Install the inner intermediate steering shaft boot assembly. Ensure that the boot is properly positioned so that it lays flat against the floor. Make sure that the boot does not get tucked under the floor mat at any location.
26. Install the intermediate steering shaft lower bolt. Refer to SI for torque specifications.
27. Adjust the front toe. Refer to Wheel Alignment - Steering Wheel Angle and/or Front Toe Adjustment in SI.

Recommendation/Instructions (Malibu)

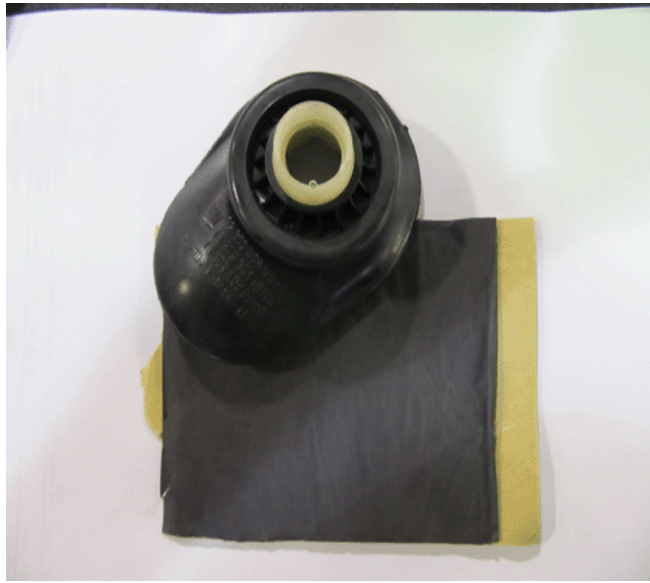
Technicians should inspect the steering column seal for proper installation by repositioning the inner intermediate steering shaft boot assembly to gain access. Inspect the seal at the front of the dash where the intermediate steering shaft passes through from the steering gear. Ensure that the seal is centered in the opening and around the intermediate steering shaft as shown above. If the seal is out of position, replace the steering column seal following the steps below.

Technicians should also inspect the EPS wire harness bracket if equipped and make sure that the bracket is not contacting the steering column seal. If contact is observed, manually adjust the EPS bracket to obtain an 8-12 mm (0.31-0.47 in) clearance from the steering column seal.



3216438

1. Remove the intermediate steering shaft lower bolt. Refer to Intermediate Steering Shaft Replacement in SI.
2. Remove the inner intermediate steering shaft boot assembly.
3. Raise and support the vehicle.
4. Support the powertrain.
5. Remove the front exhaust pipe. Refer to Exhaust Front Pipe Replacement in SI.
6. Remove the front and rear transmission mount through bolts.
7. Remove the front transmission mount.
8. Remove the driver side steering gear mounting bolt and discard.
9. Remove the electronic power steering harness bolts (if equipped).
10. Disconnect the left and right steering knuckle bolts and discard.
11. Remove the rear cradle bolts.
12. Loosen the front cradle bolts just enough to get clearance of the steering shaft.
13. Lower the rear of the cradle and remove the outer steering column seal.
14. Install the outer steering column seal.
15. Raise the rear cradle and install the rear cradle bolts.
16. Tighten the front cradle bolts. Refer to SI for torque specifications.
17. Install the left and right steering knuckle bolts. Refer to SI for torque specifications.
18. Install the electronic power steering harness bolts (if equipped).
19. Install the driver side steering gear mounting bolt. Refer to SI for torque specifications.
20. Install the front transmission mount. Refer to SI for torque specifications.
21. Install the front and rear transmission mount through bolts. Refer to SI for torque specifications.
22. Install the front exhaust pipe. Refer to SI for torque specifications.
23. Remove the support from the powertrain.
24. Lower the vehicle.



3272176



3272178

25. For 2013 Malibu only, using the inner steering column seal as a template, trace an outline on the edge of the barrier material 4 in (101.6 mm) x 3.5 in (88.9 mm) as shown above.



3272179

26. For 2013 Malibu only, cut the material and install next to the intermediate shaft making sure not to contact the intermediate shaft.



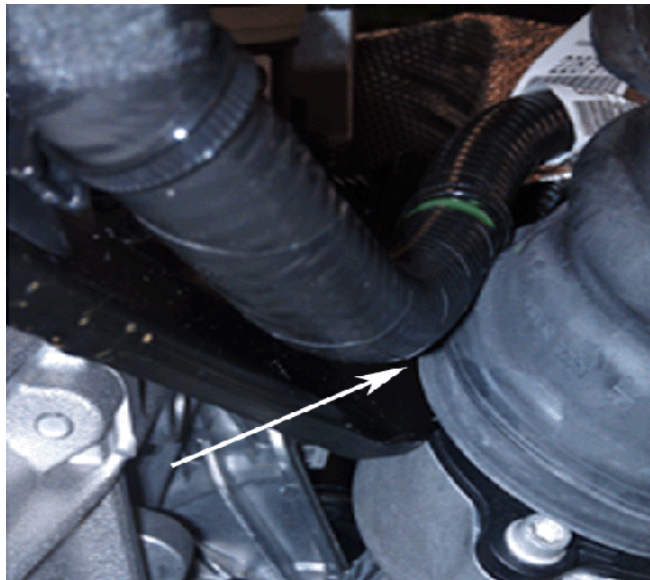
3272180



3228767

27. Install the inner intermediate steering shaft boot assembly. Ensure that the boot is properly positioned so that it lays flat against the floor. Make sure that the boot does not get tucked under the floor mat at any location.
28. Install the intermediate steering shaft lower bolt. Refer to SI for torque specifications.
29. Adjust the front toe. Refer to Wheel Alignment - Steering Wheel Angle and/or Front Toe Adjustment in SI.

Recommendation/Instructions (LaCrosse, Malibu, Regal, Verano, Cruze, Volt)



3225896

Technicians should inspect the EPS wire harness bracket and make sure that the bracket is not contacting the steering column seal. If contact is observed, manually adjust the EPS bracket to obtain an 8-12 mm (0.31-0.47 in) clearance from the steering column seal.

Parts Information

Part Number	Description
22968805	SEAL, STRG COL (NV7)
22968806	SEAL, STRG COL (NJ1)
23106608	SEAL, STRG COL (NJ2)
13253472	BOLT, S/GR
11518632	BOLT, S/KNU (2)
20972702	GASKET, EXH FRT PIPE (RPO LCV, LKW)

Part Number	Description
13293994	GASKET, EXH FRT PIPE (RPO LUK, LAF, LEA)
13267274* *Quantity 2 for LFX, LLT, LF1	GASKET, EXH FRT PIPE (RPOs LFX, LLT, LF1)
12609878 (Groove Ring Style)	GASKET, CTLTC CONV (RPO LTG)
22741875 (Triangular Shaped)	GASKET, CTLTC CONV (RPO LTG)
13229873	GASKET, EXH MUFF (RPO LCV, LTG)
13229872	GASKET, EXH MUFF (RPO LUK, LAF, LEA)
13255815	GASKET, EXH MUFF (RPO LLT, LF1)
20907464	GASKET, EXH MUFF (LFX, LKW)
22743413	GASKET, EXH MUFF (LHU, Y3E)
13229873	GASKET, EXH MUFF (LHU, EXC Y3E)
11515174** (Malibu Only)	BARRIER-SND
*Quantity 2 for LFX, LLT, LF1	
**There is enough material to do approximately 6 vehicles. Store remaining material for future use. (For Malibu Only)	

Warranty Information

For vehicles repaired under warranty, use:

Labor Operation	Description	Labor Time
7480058*	Inspect Steering Column Seal (Hydraulic Power Steering Only)	0.2 hr
Add	Replace Steering Column Seal	1.1 hrs
Add	Install Barrier (Malibu Only)	0.2 hr
7480088*	Adjust Electronic Power Steering Wire Harness Bracket (Electronic Power Steering Only)	0.2 hr
*This is a unique Labor Operation for Bulletin use only. It will not be published in the Labor Time Guide.		