



Service Bulletin

File in Section: -

Bulletin No.: PI0659C

Date: February, 2014

PRELIMINARY INFORMATION

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

Models: 2010-2014 Buick LaCrosse
2012-2014 Buick Regal
2014 Chevrolet Impala
2013-2014 Chevrolet Malibu

This PI has been revised to add the 2014 Impala and update the Parts Information. Please discard PI0659B.

Condition/Concern



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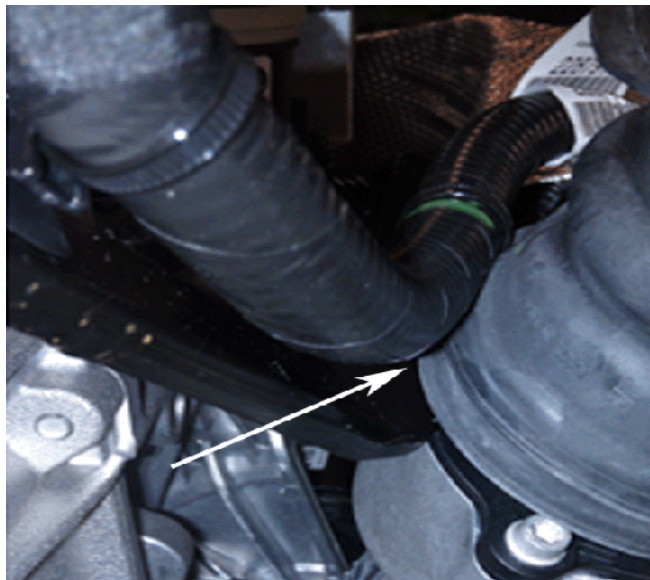


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Some customers may comment on a rubber squeak type noise when turning the steering wheel. This condition may be caused by the seal for the intermediate shaft, located at the front of dash, rubbing on the rotating intermediate steering shaft. Refer to the pictures above. On electronic power steering (EPS) equipped vehicles, the EPS wire harness bracket may be contacting the steering column seal.

Recommendation/Instructions

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.



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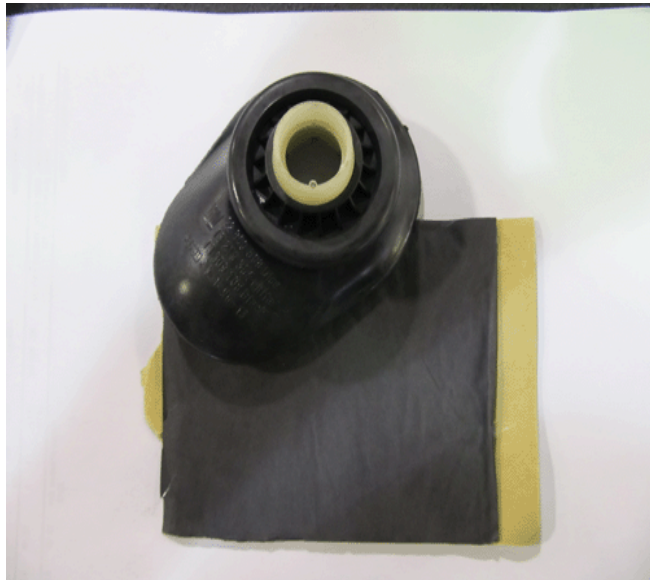
For electronic power steering (EPS) equipped vehicles, if the steering column seal is in position, technicians should inspect the EPS wire harness bracket if equipped and make sure that the bracket is not contacting the steering column seal. If contact is observed, manually adjust the EPS bracket to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

Steering Column Seal Replacement



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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. For electronic power steering (EPS) equipped vehicles, 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.
25. Lower the vehicle.



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26. 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.



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27. For 2013 Malibu only, cut the material and install next to the intermediate shaft making sure not to contact the intermediate shaft.
28. Install the intermediate steering shaft lower bolt. Refer to SI for torque specifications.



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29. 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.
30. Adjust the front toe. Refer to Wheel Alignment - Steering Wheel Angle and/or Front Toe Adjustment in SI.

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)
13293994	GASKET, EXH FRT PIPE (RPO LUK, LAF, LEA)
13267274*	GASKET, EXH FRT PIPE (RPOs LFX, LLT, LF1)
*Quantity 2 for 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	0.2 hr
Add	Adjust Electronic Power Steering Wire Harness Bracket	0.2 hr

Labor Operation	Description	Labor Time
Add	Replace Steering Column Seal	1.1 hrs
Add	Install Barrier (Malibu Only)	0.2 hr
*This is a unique labor operation for bulletin use only. It will not be published in the Labor Time Guide.		