



# Service Bulletin

File in Section: -

Bulletin No.: PIP5075A

Date: August, 2013

## PRELIMINARY INFORMATION

**Subject:** Rear Axle Leak From The Vent

**Models:** 2011-2013 Cadillac CTS, CTS-V

**This PI was superseded to add photo and update instructions and warranty info. Please discard PIP5075.**

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 fluid leak from the rear of the vehicle. In rare instances the customer may comment on an oily film on the rear bumper of the vehicle. Further inspection may indicate a leak from the rear axle assembly.

### Recommendation/Instructions

1. Place the vehicle in neutral.
2. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle in SI.
3. Determine if the leak is coming from the rear axle differential vent.
4. If the leak is not coming from the axle vent, then do not proceed to the next step. Refer to Rear Axle Lubricant Leak Diagnosis in SI.

**Note:** An over-filled differential will cause fluid to seep out of the rear axle vent. Verify fluid level before proceeding. Fluid anywhere from 1/4" down from the opening to up to the opening is "full". If fluid level is correct then proceed, if overfull then correct fluid level and restart leak diagnosis.

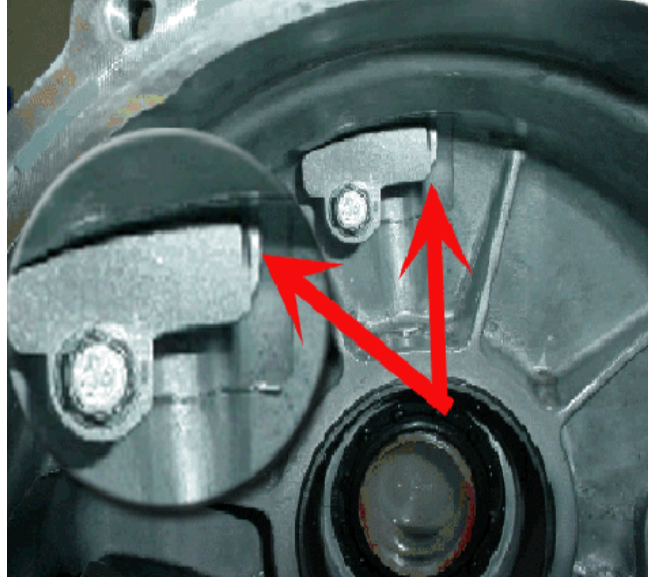
5. Remove the rear propeller shaft. Refer to Rear Propeller Shaft Replacement in SI.
6. Remove the rear axle mounting fasteners, Refer to Differential Replacement in SI.
7. Lower the rear axle enough to gain access to the rear differential vent, located on the top of the axle.
8. Pry the top of the metal rear differential vent cap off. If the cap has already been replaced with a rubber hose, STOP and skip to step 23.
9. Discard the old vent cap and spring.
10. Obtain a 9.50 mm (3/8 in) inside diameter hose by 30.50 cm (12 in) long of rubber low fuel pressure/oil resistant hose or equivalent, a new differential vent, P/N 15852707, and two hose clamps.
11. Assemble the new vent onto the hose with a clamp.
12. Tighten the clamp.
13. Install the second clamp onto the hose.
14. Attach the other end of the rear differential hose assembly to the axle vent.
15. Position the second clamp around the rear axle vent and hose.
16. Tighten the second clamp.
17. Raise the axle assembly back into the vehicle.
18. Install the rear axle mounting fasteners. Refer to Differential Replacement in SI.

**Important:** To prevent a rattle from occurring, make sure the vent cap is not touching anything when tied down.

19. Tie strap the hose and vent assembly to the rear cross member frame.

**Important:** An over-filled differential will cause fluid to seep out of the rear axle vent. The axle should be filled and allowed to drain to level for 90-120 seconds before installing the fill plug, fluid anywhere from 1/4" down from the opening to up to the opening is "full".

20. Check the differential fluid level. Refer to Rear Axle Lubricant Level Inspection in SI.
21. Clean off any axle fluid residue with GM Brake Cleaner, P/N 12378392 (in Canada, P/N 88901247), or the equivalent.
22. Install the rear propeller shaft back into the vehicle. Refer to Rear Propeller Shaft Replacement in SI.
23. If the vehicle has returned after hose installation then it is possible that the rear axle vent baffle has moved. Inspect baffle location using Rear Axle Disassemble procedure in SI.



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There should be no gap between the baffle and case as seen in the above picture. If there is a gap, loosen the bolt and reposition baffle so that the upper edge is tight to the case (no gap) and retorque bolt to 10Nm / 89 lb. in.

24. Reassemble, refill, reinstall rear differential assembly using appropriate procedures in service information and verify leak has been corrected.

## Parts Information

Part Number	Description	Qty
15852707	Vent, Rear Axle	As Required
1648216	Clamp, Hose	2
12337820	Strap, Nylon	2
9439238	Hose, 3/8 Fuel and Oil Resistant (25 ft)	1
89021677 (U.S.) 89021678 (Canada)	Synthetic Axle Lubricant (75W90)	1

## Warranty Information

For vehicles repaired under warranty use:

Labor Operation	Description	Labor Time
*3080038	Install Rear Axle Vent and Hose	1.8 hr
* This is a unique labor operation for bulletin use only. It will not be published in the Labor Time Guide.		
3032360	Differential Replacement	Use published labor time.

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.