

- ATTENTION:**
- GENERAL MANAGER
  - PARTS MANAGER
  - CLAIMS PERSONNEL
  - SERVICE MANAGER

IMPORTANT - All Service Personnel Should Read and Initial in the boxes provided, right.


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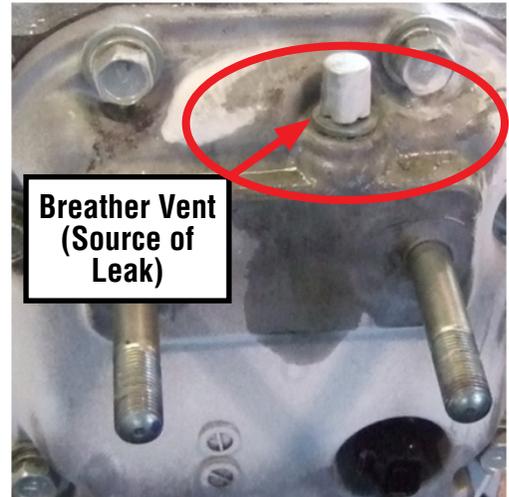
QUALITY DRIVEN® SERVICE

## SERVICE BULLETIN

**APPLICABILITY:** 2015 WRX STI **NUMBER:** 03-74-14  
**SUBJECT:** Gear Oil Leaking from Rear Differential Cover **DATE:** 08/18/14

### INTRODUCTION

This bulletin provides a repair procedure to address a customer concern of a gear oil leak from the rear differential cover area. As with any diagnosis, begin by confirming the source of the leak. This will involve thoroughly cleaning the contaminated surfaces of all residual gear oil and the application of a suitable leak tracing developer such as Castle® Leak Tracer Powder™ or similar. If the source of the leak is confirmed as the breather vent assembly which is pressed into the aluminum rear differential cover, both the cover and the breather vent will require replacement. In some cases, you may find the breather vent is visibly not fully or evenly seated while in others, it may appear flush. Proper seating of the breather vent is not the criteria for replacement of the vent and cover. Rely on the results of your leak tracing to determine what repair is required. While this bulletin addresses a specific possible leak source, if your diagnosis leads to a different source, repair that condition by following the applicable Service Manual information.



### COUNTERMEASURE IN PRODUCTION

A change to the breather vent installation procedure was made in production July 21, 2014 starting with VIN **F9812950**.

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**CAUTION: VEHICLE SERVICING PERFORMED BY UNTRAINED PERSONS COULD RESULT IN SERIOUS INJURY TO THOSE PERSONS OR TO OTHERS.**

Subaru Service Bulletins are intended for use by professional technicians ONLY. They are written to inform those technicians of conditions that may occur in some vehicles, or to provide information that could assist in the proper servicing of the vehicle. Properly trained technicians have the equipment, tools, safety instructions, and know-how to do the job correctly and safely. If a condition is described, DO NOT assume that this Service Bulletin applies to your vehicle, or that your vehicle will have that condition.

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ISO 14001 is the international standard for excellence in Environmental Management Systems. Please recycle or dispose of automotive products in a manner that is friendly to our environment and in accordance with all local, state and federal laws and regulations.

## PART INFORMATION

The following list of parts will be required to perform the rear differential cover replacement:

PART NAME	PART NUMBER	QUANTITY REQUIRED	NOTES
Cap, Breather	38354AA020	1	n/a
Cover, Differential Carrier	38316AA061	1	
Gasket, Differential Carrier	38353AA050	1	
Gasket, Drain Plug	803920050	2	1 for Drain Plug, 1 for Temperature Sensor
Self-Locking Nuts	902350027	4	These are all one-time use hardware items which require replacement when removing the rear differential assembly.
Exhaust Gasket	44022AA123	1	
Self-Locking Nuts	802008270	2	
Gear Oil	SOA427V1800	1	Case of 12, 1-quart bottles. (See more information at the end of this procedure.)

## SERVICE PROCEDURE / INFORMATION

The repair for this condition involves replacement of the rear differential cover and gasket along with the installation of a new breather vent assembly.

- Remove the rear differential assembly from the vehicle following the procedures outlined in the applicable Service Manual.
- To make it easier, **CAREFULLY** remove the 2 mounting studs from the original cover **BEFORE** removing the cover, as they will need to be changed over to the replacement.



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- Drain the gear oil then remove the original cover and thoroughly clean and inspect the gasket sealing surface differential case for any irregularities.

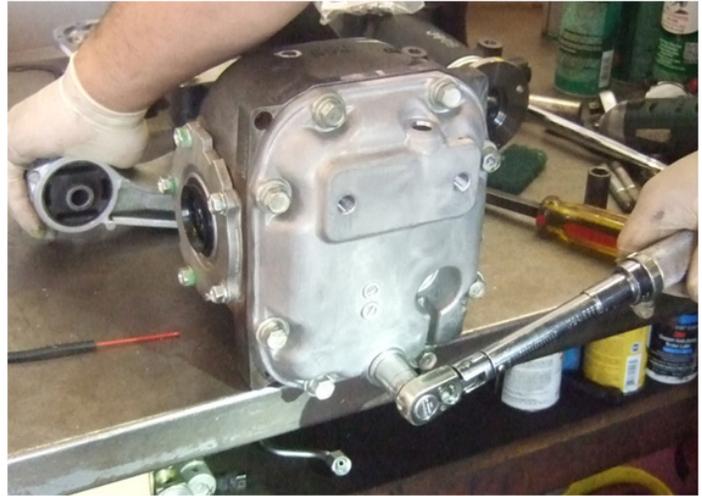


- Fit the new gasket to the cover as shown. Reinstall the 8 cover mounting bolts and torque to 44 Nm (32.5 ft. lbs). **NOTE:** The new gasket goes on “dry” with **NO SEALER**.

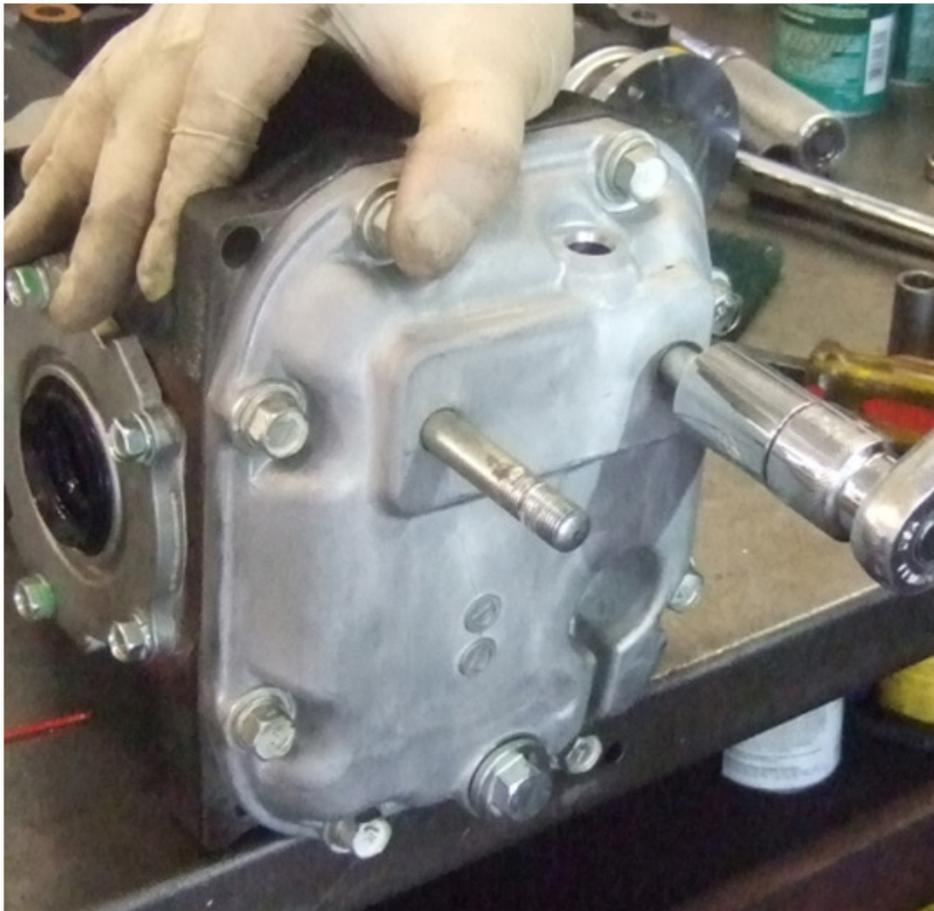


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- Clean and transfer the drain plug into the new cover and install a new sealing gasket. Torque the drain plug to 60 Nm (44.3 ft. lbs.).

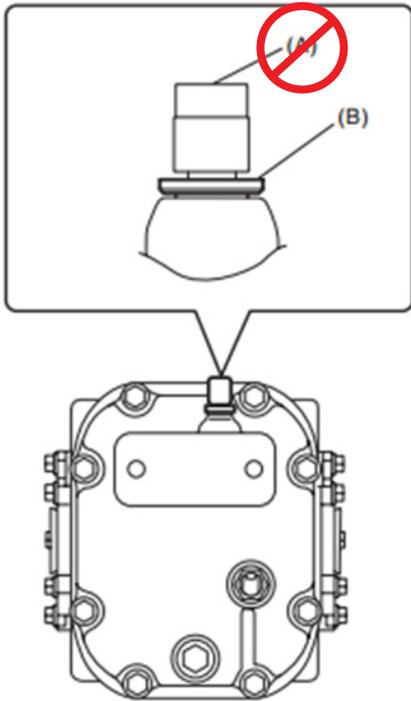


- Reinstall the 2 differential assembly mounting studs into the new cover until they bottom out. **DO NOT OVERTIGHTEN.**

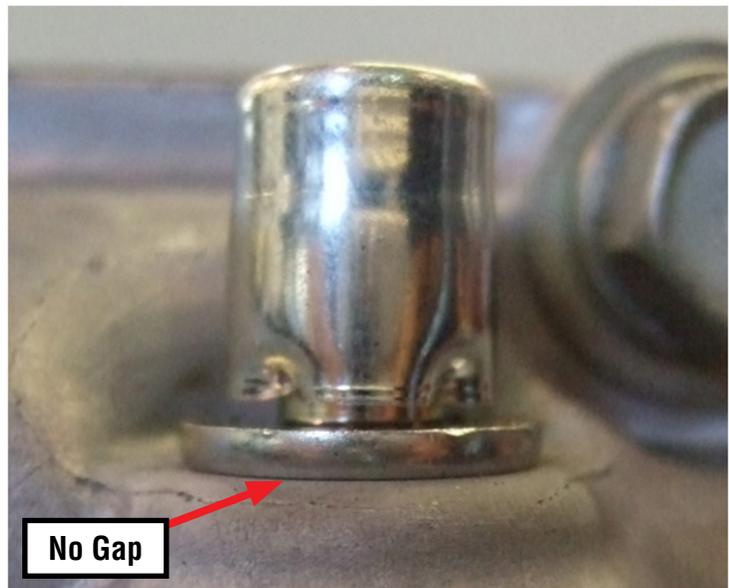
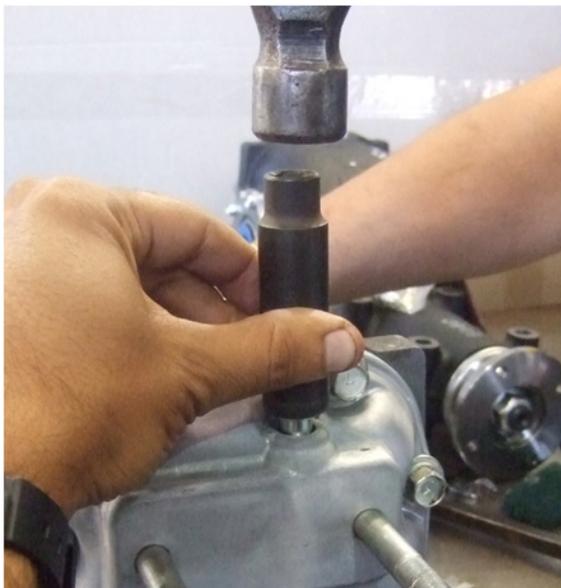


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**VERY IMPORTANT:** When installing the new breather vent assembly into the rear cover, **DO NOT** tap on portion “A” shown in the illustration below. The square drive end of a 12mm ½-inch drive deep-well **impact** socket fits over and past portion “A” down onto the “flange” portion “B” and makes an excellent installation tool / driver.



**NOTE:** The new breather vent assembly is also installed “dry” with **NO SEALER**. **CAREFULLY** tap the new breather vent into the cover while keeping the **impact** socket (installation tool) square and perpendicular as shown in the photos below. The tapping sound will change when the flange portion of the breather vent bottoms out and is fully seated (no gap) against the rear cover.



- The rear differential assembly is now ready for reinstallation into the vehicle in the opposite order of removal. **REMINDER:** The 6 self-locking nuts are one-time use and must be replaced.
- After installation, fill the rear differential assembly with the required Genuine Subaru 80W90 LSD Gear Oil. The part number to use for ordering purposes is: SOA427V1800 (which is a case of 12, 1- quart bottles). Two (2) 1 quart bottles may be claimed when performing this repair procedure. (Actual fill amount is 1.1 quarts.)  
**\*Use part number SOA635302 when claiming these 2 quarts of LSD Gear Oil.**
- Install the gear oil temperature sensor with a new sealing gasket and torque to 60 Nm (44.3 ft. lbs.).

#### WARRANTY / CLAIM INFORMATION

For vehicles within the Basic New Car Limited and / or Powertrain Warranty period, this repair may be claimed using the following information:

LABOR DESCRIPTION	LABOR OPERATION #	FAIL CODE	LABOR TIME
Rear Differential Cover Gasket / Vent R&R	A372-301	KVY-34	1.2