

PML Covers

Prototype installation on rear of 2015
Ram 2500 w/4.10 gears.

Jimmy Spells

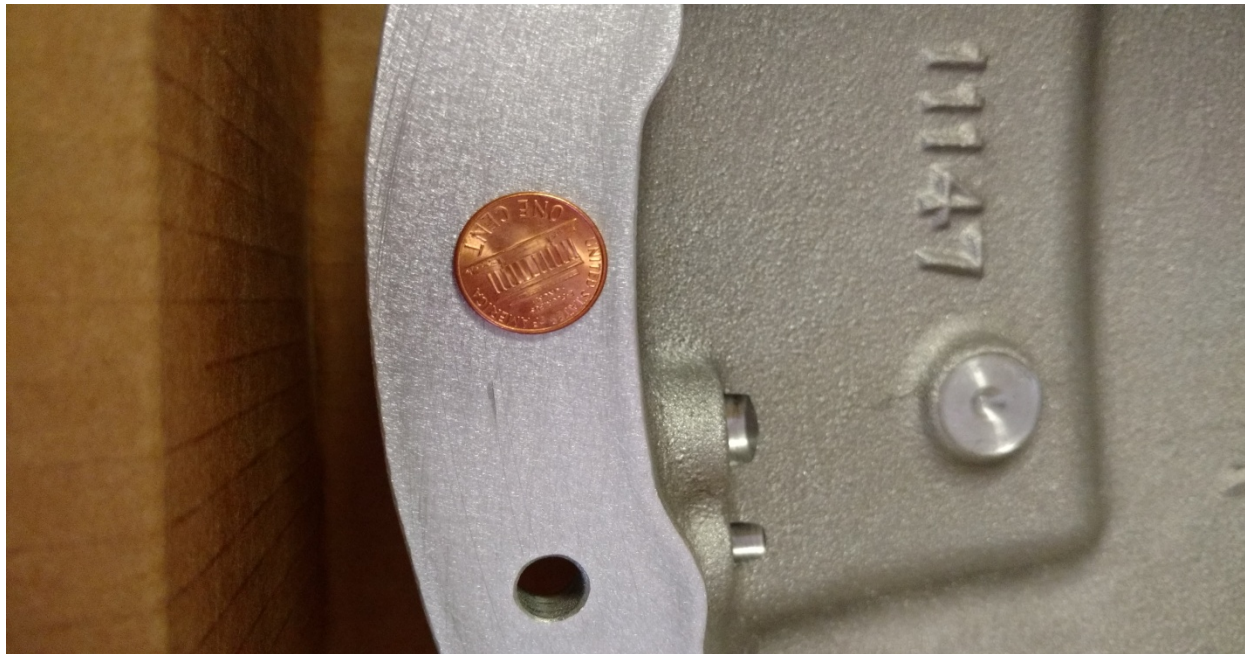
Spells' Truck

- My truck is a 2015 Ram 2500 with the 6.4L Hemi and 4.10 rear gears. I use it to tow a 32 foot fifth wheel and also off-road with it often.



Opening the Box

- Cover was well packaged and shipped extremely fast!
 - A slight ding in the flange



Instructions

- Instructions were adequate, but I think there were two areas for improvement:
 - it took me a while to figure out the information on the fill level for the new cover. I did not realize there was a fill line embossed on the old cover. I think everyone just fills to the bottom of the fill hole on a stock cover.
 - I think the installation would be much easier if the instructions directed the installer to drop the sway bar for the installation.



Preparing for Install

Supplies

- 4 quarts of 75w-90 GL-5 gear oil. (Delo synthetic was 5.99 a quart at Autozone)
- Blue Threadlocker
- Black RTV Sealant
- Pan
- Wipes
- Cleaner



Preparing for Install

Tools

- 3/8 ratchet and extensions
- 13mm deep and 15 mm sockets
- Cutting pliers
- Torque wrench
- Hex wrenches
- Wire brush/scraper



Cleaning the Old Cover

I cleaned the flange area with cleaner, a wire brush, and wipes prior to removal

Before



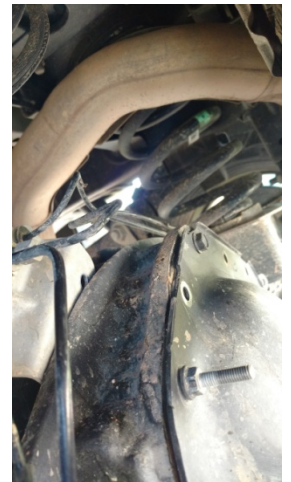
After



Remove the Old Cover

- Use the cutting tool to remove the push nut at the 2 o'clock position.
- Use the 13 mm socket to remove the bracket nuts and cover bolts. Leave the top bolt in place to hold the cover until all the fluid is drained. Have the drain under the differential prior to loosening any fasteners.
- There is plenty of room to lift the bracket at the 11 o'clock position away from the flange area.

Note: Dropping the swaybar would make accessing the bolts here much easier and I could not fit the new cover on with the swaybar installed later anyway. Details and picture later in the slide show.



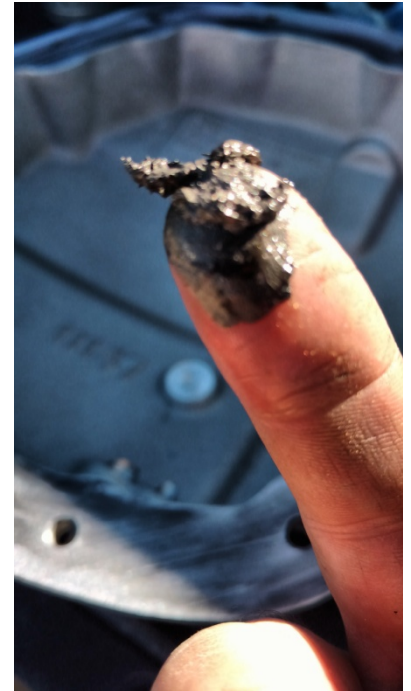
Drain the Differential and Prepare the New Cover.

I let the differential drain while I cleaned and added a light “skim” coat of black RTV to the flange of the new PML cover. I used electronic cleaner and a lint free cloth on the flange. Let the RTV completely cure prior to installation. This helps to seal any scratches or porosity in the aluminum flange.



Clean the Differential and Old Gasket for Re-use

I planned on just re-using the factory gasket for simplicity. Once again I cleaned the surfaces with electronic cleaner and a lint free rag. There was a small amount of material on the magnetic plug in the old cover.



Install the new Cover

The new cover would not fit easily with the swaybay in place so I remove the four bolt that held it to the rear end and let it hang from the end links. This made accessing everything much easier. I wish I had done this for the removal of the old cover. Align the gasket with the cover and loosely install the bolts (with threadlocker) and washers. The two longer bolts are use the secure the bracket a the 11 o'clock position.



Torque the New Bolts

Prior to fully torquing the cover bolts I temporarily swung the sway bar into place to check clearance. There was plenty! Since I re-used the old gasket I torqued the bolts to 20 ft-lbs. This is a good time to install the drain and figure out which level indication hole you will use. I planned on using the lower hole which corresponds to the factory fill line so I also installed the upper level check plug at this point.

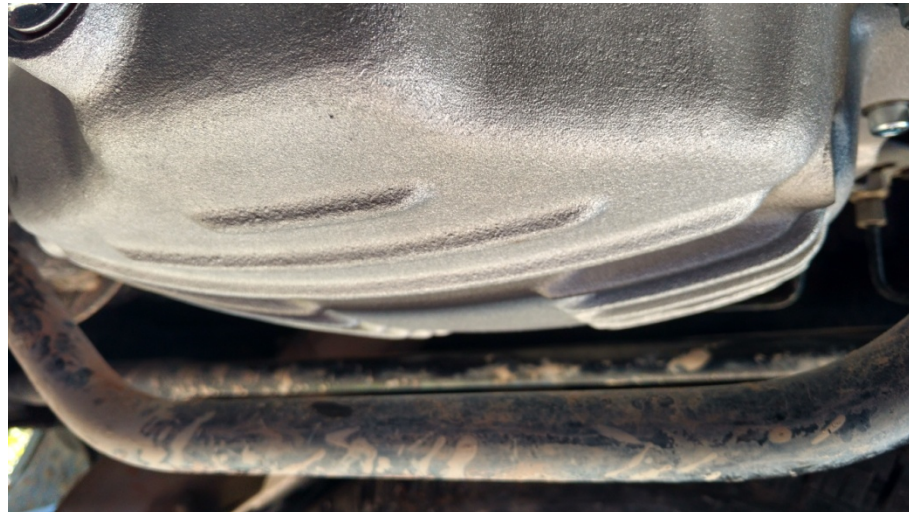


Fill and Check All Bolts

Reinstall the four sway bar bolts; I used the blue threadlocker and absent of a torque spec, torqued to 50 ft-lbs. I then filled with the differential gear lube. It took 3 quarts and 20 ounces to fill to the lower hole. Install the level and fill plugs and you are done.



Before and After Clearances

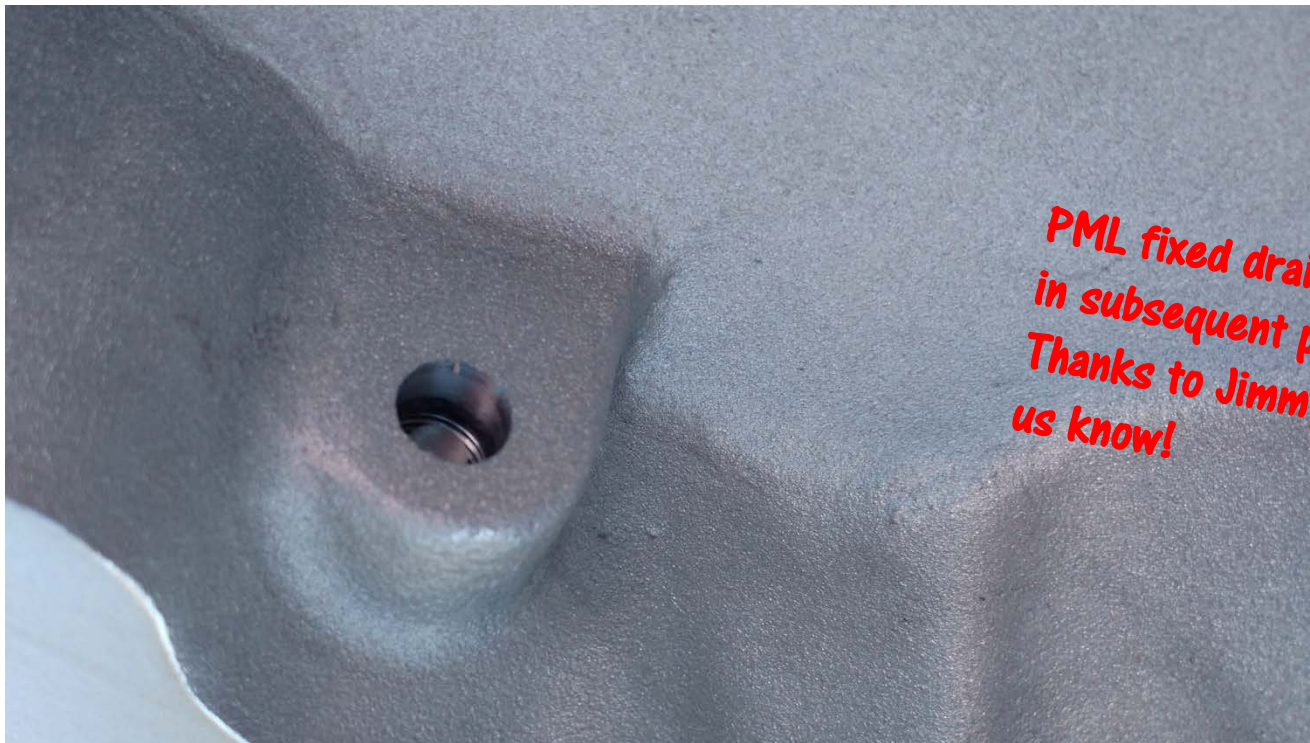


Radom Pictures



What I Would Change

It seems to me that the boss for the drain plug is too high in the cover, it would prevent fully draining all fluid. It also shrouds the magnetic plug so I am not sure how effective the magnetic will be for material in the bottom of the cover.



*PML fixed drain plug boss
in subsequent parts.
Thanks to Jimmy for letting
us know!*