

Instructions

Cast Aluminum Rear End Cover for GM 10.5" 14 Bolt

(see www.bmracing.com for the latest vehicle fitment applications and model years)

Part Number 70501

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This **B&M Cast Aluminum Rear End Cover** has been designed to work on most GM vehicles equipped with a GM 10.5" 14 bolt style axle. The **B&M Cast Aluminum Rear End Cover** provides several advantages over stock factory covers. The extra capacity provides increased oil volume and added cooling, while the thick aluminum construction increases case rigidity. The reinforced center bar, along with the load bolts, prevents bearing cap deflection under severe loads. The magnetic drain plug feature allows regular gear oil changes without the usual mess, and limits ferrous debris from circulating in the axle.

INTRODUCTION

This rear end cover can be installed in about an hour by carefully following the instructions. It is suggested that the vehicle be allowed to cool off for a few hours to avoid burns from hot oil and parts. The vehicle should be off the ground for ease of installation - jack stands, wheel ramps or a hoist will work fine. **MAKE SURE VEHICLE IS FIRMLY SUPPORTED - DO NOT WORK UNDER A VEHICLE IF IT IS SUPPORTED BY ONLY A JACK!** Try to raise the vehicle 1-2 feet so

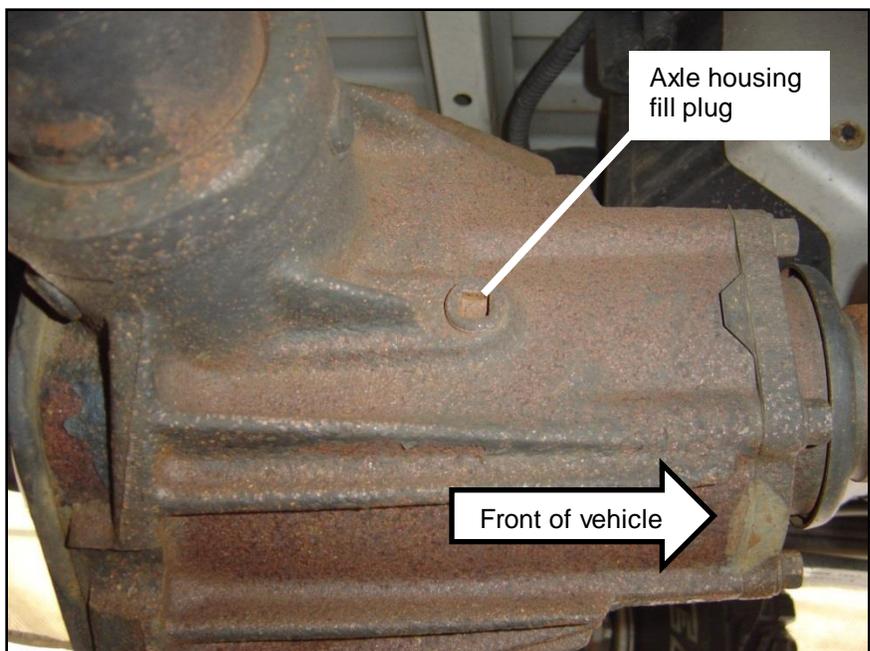


Figure 1

you will have plenty of room to work. Also, have a small box to put bolts in and a drain pan to catch oil.

INSTALLATION

STEP 1. Clean axle housing cover area from dirt and other debris.

NOTE: On some vehicles it might be necessary to remove

some parts (e.g. sway bar, panhard rod) to make the installation of the cover easier.

STEP 2. Place a drain pan underneath the axle housing. Remove the axle housing drain plug (if equipped) with a 3/8" square ratchet and allow the oil to drain.

STEP 3. Remove the axle housing fill plug with a 3/8" square ratchet and extension (**See Figure 1**).

STEP 4. Remove all the bolts except one at the top. Loosen the remaining bolt but do not remove.

STEP 5. Carefully pry the cover loose with a flat head screw driver, being careful not to damage the surface, and allow the oil to drain.

STEP 6. Remove the last bolt and the cover once completely drained.

STEP 7. Using a dry lint free rag, clean the accessible areas of the axle housing and check internal components for visible excessive wear or other problems.

STEP 8. Clean all gasket material from the axle housing surface (**See Figure 2**).

STEP 9. Verify what size cover bolts are used on your axle housing. These axle housings came with 3/8"-16 bolts or M8x1.25 bolts. Both size bolts are included in this kit.

STEP 10. We recommend running a tap of the correct size (3/8"-16 or M8x1.25) through each threaded cover hole on the axle housing to ensure an accurate torque on all bolts.

STEP 11. Install the supplied load bolts in each boss from the inside of the **B&M Cast Aluminum Rear End Cover** until they bottom out (**See Figure 3 & 4**).

STEP 12. Apply a bead of RTV silicone gasket maker to the **B&M Cast Aluminum Rear End Cover**. Run the bead inside the bolt holes (**See Figure 4**).

STEP 13. Install the **B&M Cast Aluminum Rear End Cover** on the axle housing using a supplied bolt and washer at a bottom hole on the cover so it can be used as a guide.

STEP 14. Install the rest of the supplied bolts and washers and torque to 25 ft/lb for 3/8"-16 bolts or 15 ft/lb for M8x1.25 bolts in a crisscross pattern.

STEP 15. Screw in the two load bolts by hand until they touch the bearing caps. Torque the load bolts to 5 ft/lb max.

NOTE: Do not over torque the load bolts as you run the risk of distorting the bearing caps, creating abnormal wear and premature failure.

STEP 16. Apply a very small amount of RTV on the threads of the load

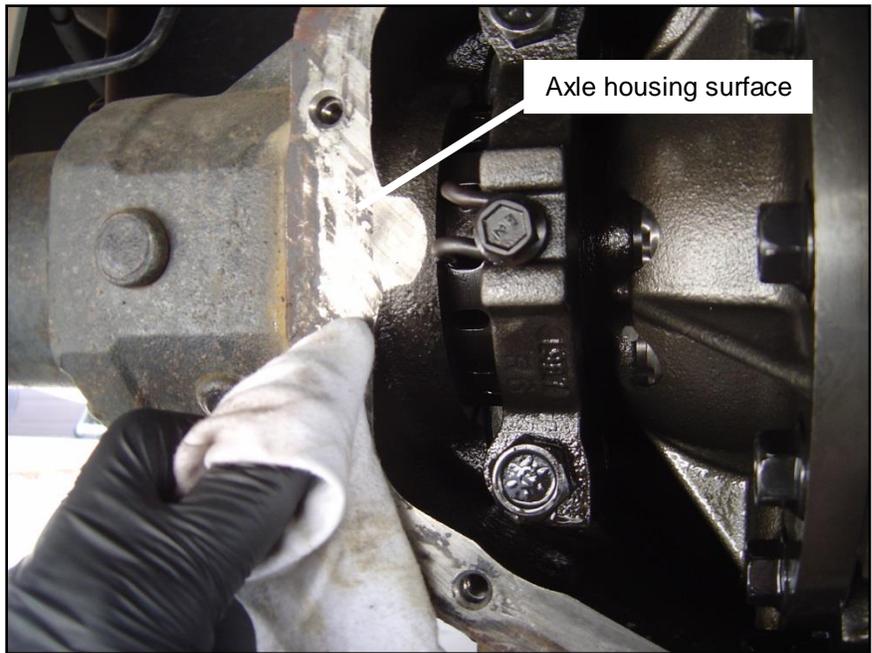


Figure 2

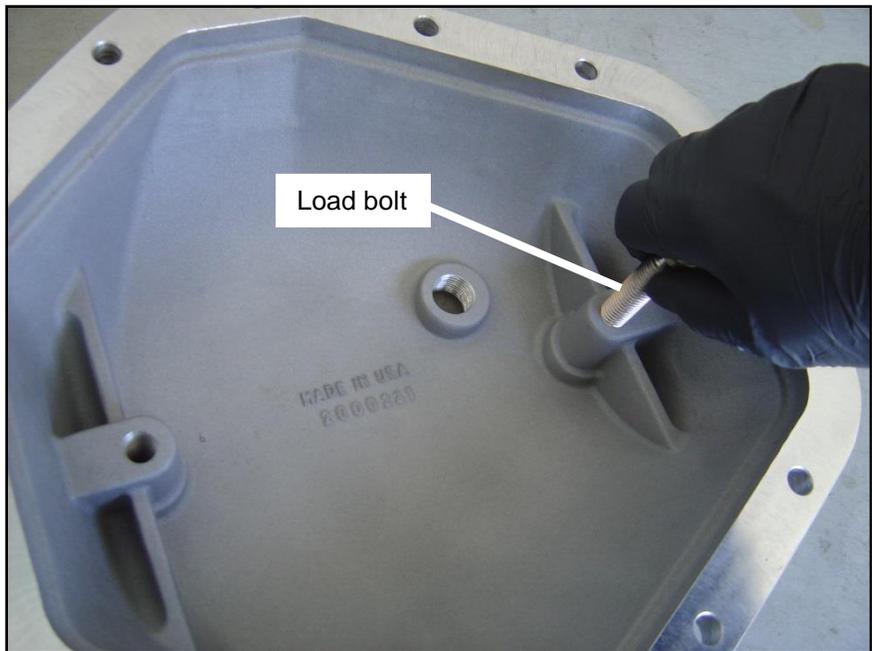


Figure 3

bolts and install the two supplied jam nuts on the load bolts. Torque the jam nuts to 5 ft/lb.

STEP 17. Install the axle housing drain plug (if equipped) and torque to 20 ft/lb.

STEP 18. Install the supplied magnetic 1/4" NPTF drain plug on the **B&M Cast Aluminum Rear End Cover** and tighten (**See**

Figure 5).

STEP 19. Fill with factory recommended gear oil using the **B&M Cast Aluminum Rear End Cover** fill plug hole (**See Figure 5**). Add gear oil until oil runs out of the axle housing fill hole.

STEP 20. Install the axle housing fill plug and torque to 20 ft/lb.

STEP 21. Install the supplied 1/2"

NPT fill plug on the **B&M Cast Aluminum Rear End Cover** and tighten.

STEP 22. Install and tighten any other parts (e.g., sway bar, panhard rod) if removed.

Owner's Manual/Maintenance Booklet recommends replacing axle lubricant anytime axle is submerged in water. (Refer to Owner's Manual/Maintenance Booklet for details).

Parts List

- (1) Cast Aluminum Cover
- (2) Load Bolts
- (2) Jam Nuts
- (1) 1/4" NPTF Drain Plug
- (1) 1/2" NPT Filler Plug
- (14) 3/8"-16 Bolts
- (14) 3/8" Washers
- (14) M8x1.25 Bolts
- (14) M8 Washers

Tools List

- Jack & Jack Stands
- Drain Pan
- Rags
- RTV Silicone Gasket Maker
- Gear Oil
- Gear Oil Pump
- Torque Wrenches
- 3/8" Ratchet & 3" Extension
- 1/4" Allen
- M6 Allen
- 5/16" Allen
- 3/8" Allen
- 3/4" Socket
- Flat Blade Screwdriver

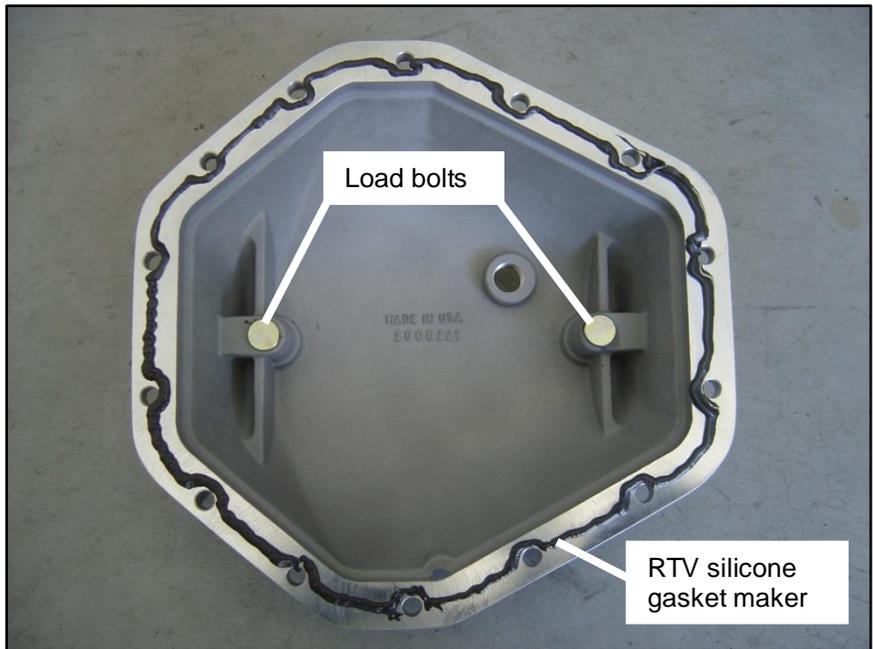


Figure 4

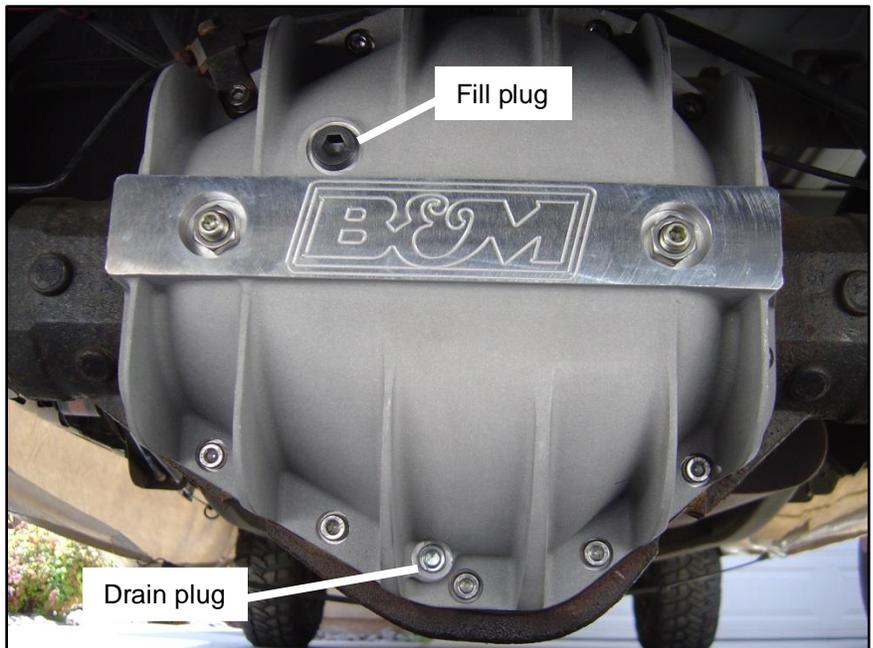


Figure 5