

advanced FLOW engineering

Instruction Manual P/N: 46-71280A / 46-71280B

Dana M250 – 12 Bolt Rear Differential Cover

Make: RAM Model: 1500 TRX Year: 21-22 Engine: V8-6.2L (sc)



- Please read the entire instruction manual before proceeding.
- Ensure all components listed are present.
- If you are missing any of the components, call customer support at 951-493-7100.
- Ensure you have all necessary tools before proceeding.
- Ensure that your vehicle is cooled off before proceeding.
- Retain factory parts for future use.

Label	Qty.	Description	Part Number
A1	1	Differential Cover – Raw, Machined Fins (46-71280A)	05-61199A
A2	1	Differential Cover – Black, Machined Fins (46-71280B)	05-61200B
B	9	Screw, Socket Head M8 x 1.25 x 25	03-50231
C	9	Washer, Flat	03-50228
D	1	Plug, Magnetic M12 x 1.25	03-50385
E	1	Crush Washer	03-50384
F	1	Plug, 1/8" NPT	03-50029
G	1	Plug, 1/2" NPT (46-71280A)	03-50249
H	1	Plug, Magnetic 1/2" NPT, 3" Deep Reach (46-71280B)	03-50612
I	1	Porthole View Gauge (46-71280B)	03-50224

Warranty Information available at <https://afepower.com/contact#warranty>



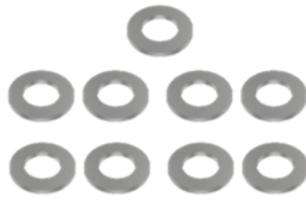
A1



A2



B



C



D



E



F



G



H



I



Note: Your vehicle must be completely cooled off before proceeding with the installation.

1. Park your vehicle on a flat, dry surface. You will need to block the tires to prevent the vehicle from rolling.

Note: You will need to get under the truck to do this installation. Please use every precaution when lifting the vehicle.

2. Place a drain pan under the differential cover.
3. Remove the brake line brackets by pulling them off of the cover bolts. Next remove the three (3) bolts supporting the brackets (circled above).
4. Remove the **bottom** eight (8) bolts from the differential cover.
5. Loosen, but do not remove, the remaining top bolt. Break the seal on the cover and the gear oil will begin to drain.



6. Allow all of the gear oil to drain from the differential.
7. Remove the remaining bolt from the top of the differential cover.

Note: Be careful when removing the OEM gasket, it will be reused later during the installation.

8. Remove the OEM cover and gasket from the housing.



9. Use a clean, lint free rag to wipe down the remaining gear oil from the housing.
10. Clean off the sealing surface with a gasket scraper. Be careful not to gouge the surface while cleaning.
11. Check the surface of the housing for any irregularities. If there are any, carefully remove high spots using a smooth flat file.

Note: Do not "Round Off" the flat gasket surface.



12. Hold the OEM gasket and supplied aFe differential cover into position, aligning the screw holes. Install one (1) of the supplied M8x1.25x25 socket head screws and flat washers at the top of the cover to hold it in place.
13. Reinstall the three (3) bolts removed during Step 3 in their original positions.
14. Continue installing the eight (8) remaining M8x1.25x25 socket head screws and flat washers finger tight.



15. Torque all of the mounting bolts to 12-16 ft.-lbs. in a crisscross pattern.
16. Reinstall the brake line brackets removed during Step 3.



17. Install the supplied M12x1.25 drain plug and crush washer into the bottom of the cover (secure about $\frac{1}{2}$ turn past finger tight).



Note: For all NPT plugs, secure 1.5-3 turns past finger tight. The fitting should never bottom out in the port.

If installing kit number 46-71280B:

18. Apply Teflon tape/pipe sealant to the threads and install the supplied 1" NPT Sight Glass plug into the side of the cover.



19. Using the top fill port, fill the aFe differential cover with new gear oil. Fill until gear oil runs out of the 1/8" NPT port on the side of the cover (about 4 quarts).

Note: If your vehicle is lifted and your axle has been rotated, you will have to verify you have the correct oil level for your vehicle.

20. Apply Teflon tape/pipe sealant and install the supplied 1/8" NPT plug into the side of the cover.



If installing kit number 46-71280A:

21. Apply Teflon tape/pipe sealant and install the supplied 1/2" NPT plug into the top of the cover.

If installing kit number 46-71280B:

22. Apply Teflon tape/pipe sealant and install the supplied 1/2" NPT magnetic 3" deep reach plug into the top of the cover.



23. Your installation is complete.

This Page Was Left Intentionally Blank

This Page Was Left Intentionally Blank



advanced FLOW engineering, inc.

252 Granite Street Corona, CA 92879

afepower.com/contact