

advanced FLOW engineering

Instruction Manual P/N: 46-70020

Ford 10.25/10.50 – 12 Bolt Rear Differential Cover

Make: Ford Model: F-250/F-350 Year: 1988-2021 Engine: V8 7.3L/6.0L/6.4L/6.7L (td)

Make: Ford Model: F-250/F-350 Year: 1997-2010 Engine: V8 5.8L/7.5L/5.4L

Make: Ford Model: F-250/F-350 Year: 1999-2010 Engine: V10 6.8L

Make: Ford Model: F-250/F-350 Year: 2010-2021 Engine: V8 6.2L/7.3L

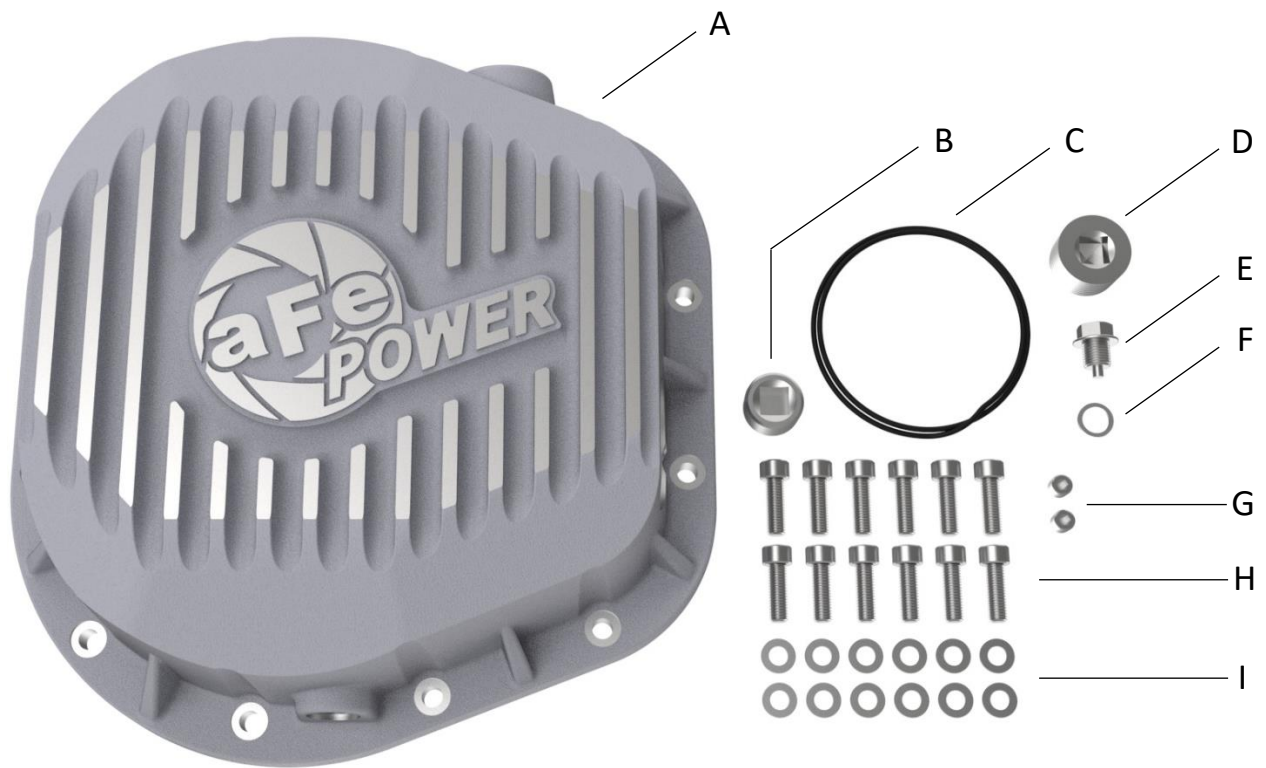
Make: Ford Model: Excursion Year: 2000-2003 Engine: V8 7.3L (td)

Make: Ford Model: Excursion Year: 2004-2005 Engine: V8 6.0L (td)



- 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
A	1	Differential Cover – Raw, Machined Fins	05-60711A
B	1	Plug, 3/4" NPT	03-50391
C	1	O-Ring, 11.984 ID x 0.139 W	05-60057
D	1	Plug, 1" NPT	03-50390
E	1	Plug, Magnetic M12 x 1.25	03-50385
F	1	Crush Washer	03-50384
G	2	Plug, 1/8" NPT	03-50029
H	12	Screw, Socket Head 5/16" – 18 x 1.0	03-50227
I	12	Flat Washer	03-50228



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



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. Position a drain pan under the differential cover.
3. Remove the **bottom** 11 bolts from the differential cover.
4. Loosen, but do not remove, the remaining top bolt. Break the seal on the cover and the gear oil will begin to drain.



5. Allow all of the gear oil to drain from the differential.
6. Remove the remaining bolt from the top of the differential cover and remove the cover from the housing.
7. Use a clean, lint free rag to wipe down the remaining gear oil from the housing.
8. Clean off the sealing surface with a gasket scraper. Be careful not to gouge the surface while cleaning.
9. 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.



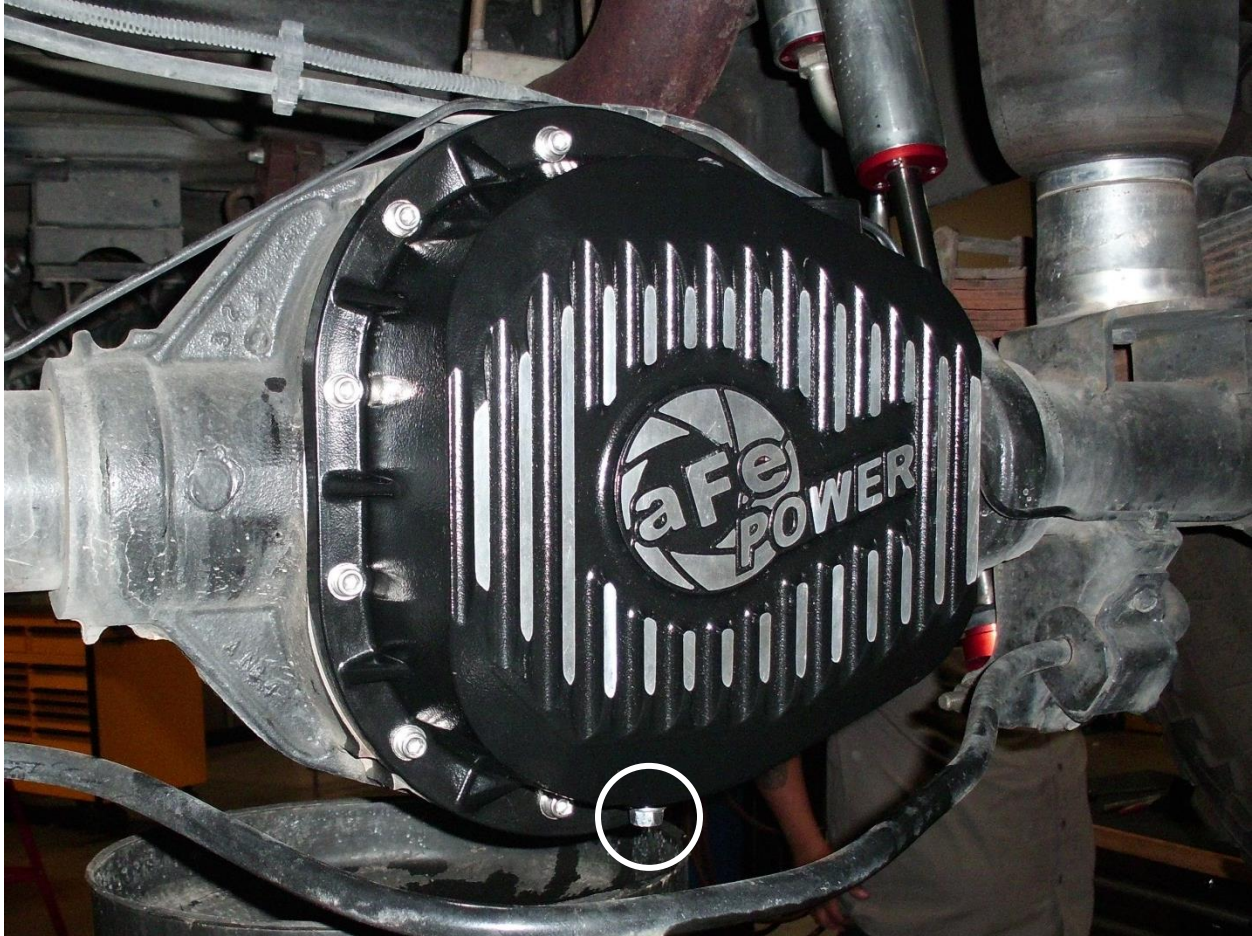
10. Lightly coat the supplied O-Ring with oil and install onto the provided aFe differential cover.



11. Hold the aFe differential cover into position, aligning the screw holes. Install one (1) of the supplied 5/16" – 18 x 1.0 socket head screws and flat washers at the top of the cover to hold it in place.
12. Continue installing the 11 remaining 5/16" – 18 x 1.0 socket head screws and flat washers finger tight.
13. Torque all of the mounting screws to 12-16 ft.-lbs. in a crisscross pattern.

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

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



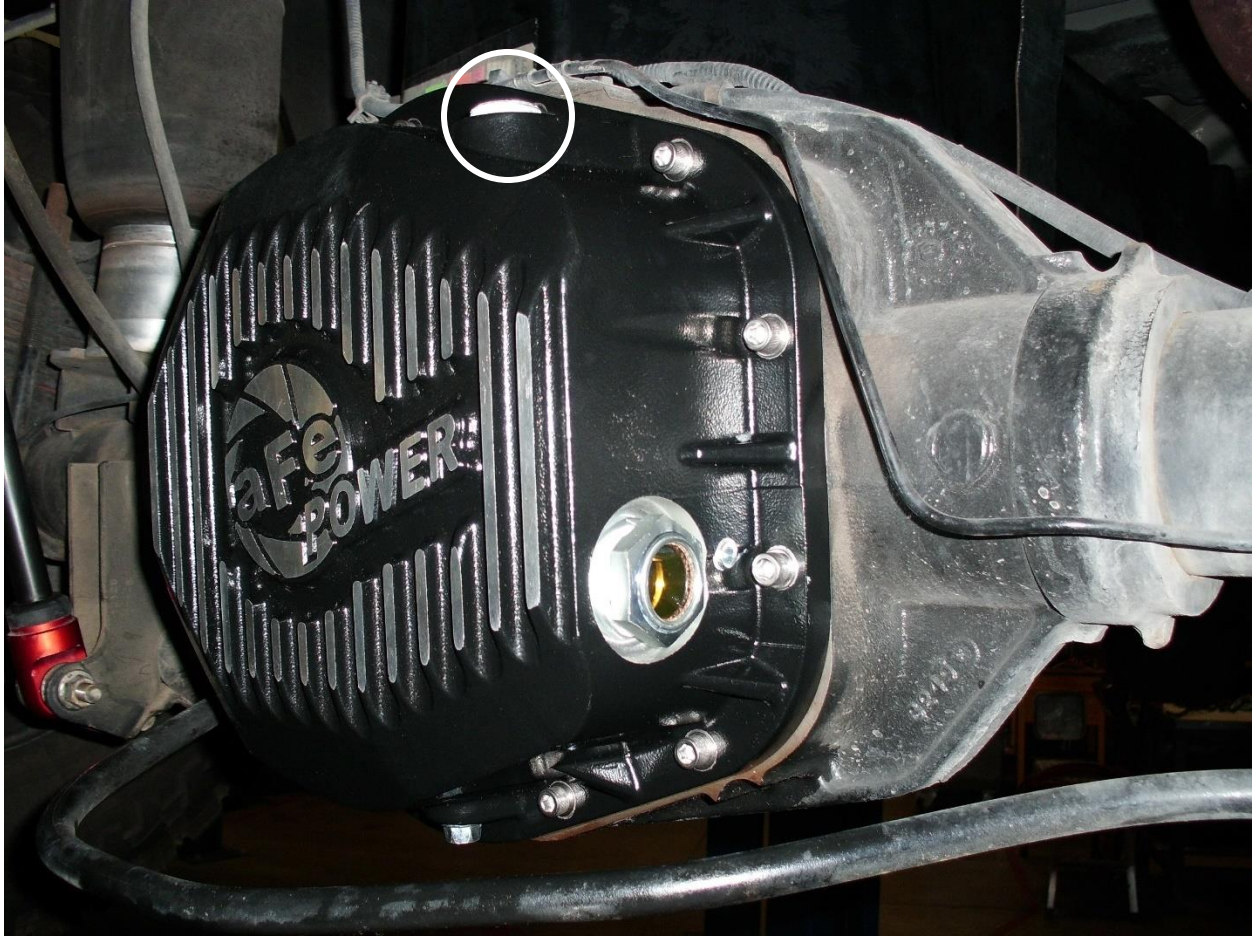
15. Install the supplied M12 x 1.25 drain plug and crush washer into the bottom of the cover (secure about ½ turn past finger tight).



17. 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 5 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.

18. Apply Teflon tape/pipe sealant and install one of the supplied 1/8" NPT plugs into the side of the cover.



19. Apply Teflon tape/pipe sealant and install the supplied 3/4" NPT plug into the top of the cover.

Note: If using a temperature sensor, install it instead of the 1/8" NPT plug.

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



21. Your installation is complete.

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