

**Ford 6.0L 2004.5 - 2010  
High-Pressure Oil  
Pump Installation Tips**



*An Employee Owned Company*

12693 Old Virginia Road  
Reno, NV 89521  
800.648.4720

**DIPACODTECH.com**

**INSTALLATION TIPS**

1. Before replacing a high-pressure oil pump (HPOP) for a no start or hard start problem verify oil level and quality, cranking RPM, base oil pressure, Injector Control Pressure (ICP) sensor, Injection Pressure Regulator (IPR) operation, and high-pressure (HP) oil system leaks. A small air leak on the high-pressure oil pump drive shaft lip seal is normal and not a reason to replace the pump. Perform the procedure detailed in Ford technical service bulletin 08-18-6 to verify if the pump needs to be replaced.
2. Use caution when working on the high-pressure oil system to prevent injury. The high-pressure oil system is pressurized up to 3,000 PSI. Make sure the engine is off, the high-pressure has bled down, and the engine has cooled off prior to working on the engine.
3. It is important to work in a clean manner to prevent contamination of the HP oil system to prevent premature failures. Clean the engine area around the high-pressure oil pump and oil cooler prior to removal. Before assembly inspect each component for dirt, grease, or other contaminants and clean as necessary.
4. Remove the turbocharger and turbo inlet Y-pipe.
5. Remove the turbo heat shield bracket retaining nuts, wiring retainer and position the ground wire out of the way.
6. Remove the heat shield retaining bolts and heat shield.
7. Disconnect the IPR valve electrical connector and remove the IPR valve. Replace the IPR if its filter is damaged.
8. Remove the pump cover bolts. Use a thin gasket scraper at the rear seam to separate the pump cover from the crankcase. Remove the cover.
9. Remove the bolts on the high-pressure oil branch tube adapter.
10. Remove all bolts holding the HPOP in place. Then remove the pump.
11. Discard the lower o-ring seals located in the engine block.
12. Remove the oil cooler. Remove the oil (approximately 1 quart) from the reservoir. Clean any contamination in the reservoir. Remove and discard the oil reservoir filter.
13. Install a new oil reservoir filter. Add a quart of clean engine oil. Reinstall the oil cooler.
14. Install new lower o-ring seals into the engine block.
15. Install the HP pump and retaining bolts. Torque to 23 ft-lb (31 N-m).
16. Install the bolts for the HP oil branch tube adapter. Torque to 124 in-lb (14 N-m).
17. Verify the drive gear backlash using a dial indicator. Specification: 0.007-0.0124 in (0.179-0.315 mm)
18. Install a new gasket into the HP pump cover.
19. Apply Room Temperature Vulcanizing (RTV) sealer at the crankcase. Location is shown in Figure 1.
20. Apply clean engine oil to the HP pump o-ring.
21. Install the cover and retaining bolts. The cover must be seated properly on the pump o-ring seal to prevent cracking of the cover. Torque the bolts to 8 ft-lb (11 N-m).
22. Install the IPR valve and tighten to 8 ft-lb (11 N-m).

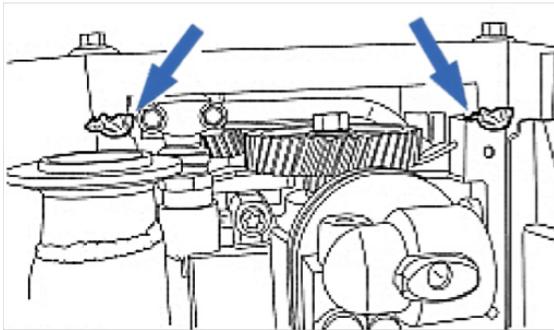
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# DIPACO PRODUCT INFORMATION

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23. Connect the IPR valve electrical connector and reposition the heat-insulating wrap.
24. Install the turbo heat shield. Torque the large bolt to 36 ft-lb (49 N-m) and the small bolts to 8 ft-lb (11 N-m).
25. Connect the wiring retainer to the back of the heat shield bracket.
26. Reposition the ground wire and install all retaining nuts.
27. Install the turbocharger inlet Y-pipe and then install the turbocharger.
28. Start the engine and let it idle to bleed the air from the system.
29. To bleed the remaining air from the system, drive the vehicle through minimum of 12 short, high demand cycles. (12 quick accelerations from 25 MPH to 50 MPH). Incomplete bleeding may require more than 100 miles of normal driving to remove all air trapped in the system.
30. Check for oil leaks.
31. Check the engine oil level and fill as necessary.

**Figure 1:** RTV Location



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Additional resources can be found at [www.dipacodtech.com/DTech-Product-Information-Bulletins](http://www.dipacodtech.com/DTech-Product-Information-Bulletins).

**Notice:** High-pressure pumps submitted for warranty that are damaged by contamination are not covered under the DTech warranty.

DTech high-pressure pumps are covered by a two year, unlimited mileage warranty. Complete warranty information can be found at [www.dipacodtech.com/warranty](http://www.dipacodtech.com/warranty).