

**Ford 6.0L 2003 - 2004  
High-Pressure Oil  
Pump Installation Tips**



*An Employee Owned Company*

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**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, Injection Control Pressure (ICP) sensor, Injector Pressure Regulator (IPR) operation, and high-pressure (HP) oil system leaks. Perform the injector click test to verify the Fuel Injection Control Module (FICM) and injector spool valve operation.
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, turbo outlet pipe, and intake manifold.
5. Remove turbocharger heat shield after securing the outlet pipe.
6. Disconnect the IPR and IPC sensor electrical connectors. It is recommended to remove the IPR to inspect the filter. If the filter is damaged, replace the IPR.
7. Remove the high-pressure oil pump cover retaining bolts. Use a thin gasket scraper separate the pump cover from the crankcase and remove.
8. Remove the bolts securing the HPOP discharge in place.
9. Disconnect and remove the HPOP discharge pipe using the special disconnect tool (303-755). Discard the D-ring seal and the o-ring seal after removal.
10. Remove all bolts holding the HPOP in place. Then remove the pump.
11. 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.
12. Install a new oil reservoir filter. Add a quart of clean engine oil. Reinstall the oil cooler.
13. Install a new lower o-ring seal in the engine block.
14. Install the HPOP. Install and torque bolts to 18 ft-lb (24 N-m).
15. Install the o-ring seal in the top of the HP pump.
16. Reinstall the discharge pipe with new seals. Torque bolts to 71 in-lb (8 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 D-ring seal onto the HP discharge pipe outlet and lubricate with oil.
19. Install a new gasket into the HP pump cover.
20. Apply Room Temperature Vulcanizing (RTV) sealer to the crankcase. Location is shown in Figure 1.
21. Install the HP pump cover plate and retaining bolts. Tighten bolts to 8 ft-lb (11 N-m).
22. Install the intake manifold and the turbocharger.

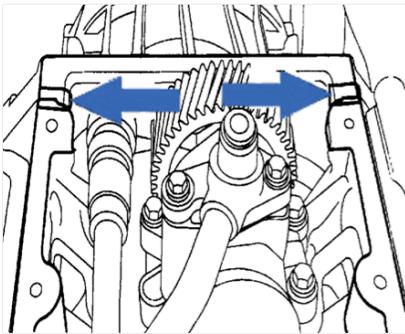
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# DIPACO PRODUCT INFORMATION

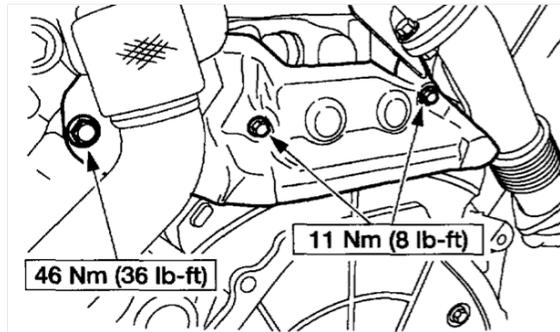
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23. Install the turbocharger heat shield. See Figure 2 for torque specifications.
24. Install the turbo outlet pipe. Torque to 20 ft-lb (27 N-m).
25. Start the engine and let it idle to bleed the air from the system.
26. To bleed the remaining air 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.
27. Check for oil leaks.
28. Check the engine oil level and fill as necessary.

**Figure 1:** RTV Location



**Figure 2:** Torque Specifications Turbo Heat Shield



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).