

# Hypermax

## STRAIGHT MOUNT TURBOCHARGER INSTALLATION 1999 ½ to 2003 FORD POWERSTROKE TRUCKS

1. Read and understand installation instructions before proceeding.
2. Check over parts list to get familiar with each item.
3. Disconnect the negative battery cables from each battery.
4. Remove driver side and passenger side intercooler pipes.
5. Remove charge air cooler housing. Retain the hoses and clamps. Cover the intake manifold openings.
6. Remove turbine discharge pipe from the turbocharger and connecting pipe.
7. Remove air inlet pipe.
8. Remove turbocharger, turbocharger mount, and manifold pipes. Reuse the exhaust seal rings, manifold flanges, and all hardware.
9. Remove turbocharger oil supply and drain o-rings from top of crankcase, make sure area is clean of oil.
10. Remove rear passenger side engine lifting eye.
11. Install 1/8" NPT – 5/16" line fitting into turbo mount plate, use hydraulic sealant.
12. Mount the turbocharger bracket to the turbo mount plate, use 3/8" bolts & lock washers.
13. Install the new turbocharger oil supply and drain o-rings into crankcase. Do not use oil, grease, or sealer.
14. Install turbo mount plate with turbocharger bracket onto engine, with (3) M8x25mm bolts. A M8x30mm flange bolt will be used on the forward mount hole, drivers side, for the intake cross over pipe hold down strap.
15. Check for clearance between the turbo mount plate and the passenger side steel fuel line. Bend tube as necessary.
16. Install the new manifold pipes using the original factory hardware, exhaust seal rings, and manifold flanges. Use anti-seize on the hardware.
17. Insert turbo oil drain tube into the turbo mount plate. Note o-ring inside of drain hole. Place gasket on top of flange. Make certain tube is inserted fully past the o-ring.
18. Slide turbocharger over mount studs. Install and tighten turbo with 3/8" flange nuts.
19. Align the turbo oil drain. Be certain gasket is in place.
20. Install turbo oil drain tube with M8x25mm bolts.
21. Pre-lube turbo with clean engine oil in top of turbo.
22. Install oil feed line gasket and oil feed line flange with M8x20mm bolts. Install oil feed line, tighten upper and lower oil feed line nut.
23. Install turbine discharge pipe using supplied discharge clamp. Reconnect the exhaust system.
24. Relocate heater hoses to clear turbine discharge pipe.
25. Install intake manifold temperature sensor into 3/8" NPT port and intake manifold heater element into 22x1.5 MPT port on the new intake cross over pipe.
26. Install the 1/8" hose – 1/8" NPT fitting into intake cross over pipe, this is for the boost gauge.
27. Install intake cross over pipe using the factory clamps and hoses. To facilitate hose installation, apply a small amount of glass cleaner to the inside of the hoses.
28. Install the hold down strap, use the M8x30mm flange bolt on the forward mount plate hole. Use the M8x16mm bolt on the top of the strap into the boss on the cross over pipe.
29. Connect boost line to intake manifold fitting.
30. Connect intake manifold temperature sensor plug and intake manifold heater plug.
31. Install the drivers side intercooler pipe, leave the turbocharger compressor housing clamp loose, align the intercooler pipe with the turbocharger, tighten all clamps.
32. Install map sensor fitting ( ¼" hose barb to 1/8" NPT 90 degree) to drivers side intercooler pipe and use the new 3' hose to connect to the map sensor, use the factory clamps.
33. Plug waste gate sensor and disconnect waste gate sensor vacuum lines.
34. Install passenger side intercooler pipe.
35. Install air intake pipe with 4" hose on turbocharger and 4" hump hose on air box with 4" hose clamps.
36. Install crank case breather and ¾" hose clamp.
37. Connect negative battery cables to each battery.
38. Start and run engine, check for any oil, fuel, or air leaks. Correct if necessary.