# INSTALLATION INSTRUCTIONS

**SUBJECT:** **2007.5-2024 6.7L Cummins FMW Holset VGT Cheetah Turbocharger**



**FITMENT:** 2007.5-2024 6.7L Dodge Ram Cummins pickup truck models
**P/N:** FPE-351-0712**,** FPE-351-1317, FPE-351-1920
**ESTIMATED INSTALLATION TIME:** 6 hours

**KIT CONTENTS:**

| Item | Description | Qty |
|---|---|---|
| 1 | Turbocharger Assembly | 1 |
| 2 | Turbo Oil Drain Gasket | 1 |
| 3 | Coolant Line Sealing Washers | 4 |
| 4 | Exhaust Inlet Gasket | 1 |
| 5 | CARB EO Label | 1 |



**WARNINGS:**

- For California customers: An E.O. identification label is required for Smog Check inspection. The E.O. identification label included with your turbocharger MUST be placed near the turbocharger in the engine compartment so that smog check technicians can verify the E.O. number.

**DISASSEMBLY PROCEDURE:**

STEP 1: Disconnect the negative battery cables. Remove the passenger side battery tray. Remove the four bolts that retain the engine cover.

STEP 2: Remove the air cleaner body and disconnect the breather hose. Loosen the clamp that retains the inlet air tube to the turbocharger and remove the inlet air tube.

STEP 3: Remove the passenger side fender well.

STEP 4: Remove the Charge Air Cooler (CAC) Tube.

STEP 5: Drain the coolant system.

STEP 6: Disconnect the turbocharger speed sensor wiring harness connector.

STEP 7: Disconnect turbocharger actuator wiring harness connector from the turbocharger.

STEP 8: Remove the turbocharger oil pressure feed line.

STEP 9: Remove the banjo bolt from the turbocharger coolant line.

STEP 10: Remove the right-side engine mount.

STEP 11: If necessary, loosen the exhaust mounting bracket from the transmission to allow for movement of the exhaust.

STEP 12: Remove the V-band clamp that retains the cast elbow to the turbocharger.

STEP 13: Remove the two bolts that retain the turbocharger drain tube from the turbocharger. Leave the drain tube in the engine block.

STEP 14: Remove the banjo bolt and coolant tube from the turbocharger.

STEP 15: Remove the mounting nuts from the turbocharger that mounts it to the exhaust manifold.

STEP 16: Remove the turbocharger from the vehicle.

**INSTALLATION PROCEDURE:**

Reference our Installation Guidelines located in the resources section of our website for turbocharger replacement general guidelines and a checklist.

*ALWAYS ensure the charge air cooler is free of oil and debris. Clean all turbo air intake components and install a new air filter. Use new gaskets at all mating surfaces and connections.*

*ALWAYS perform a boost pressure leak test of the system.*

*WRITE DOWN THE S/N OF THE NEW FLEECE TURBOCHARGER INSTALLED FOR REFERENCE AND SERVICE.*

STEP 1: Clean all mating surfaces of the turbocharger and mating components.

STEP 2: Using the new gasket supplied with the turbocharger, install the turbocharger onto the exhaust manifold. Tighten the manifold stud nuts. Torque the nuts 46 ft-lbs.

STEP 3: Install the turbocharger oil drain tube and flange to the turbocharger using the new gasket supplied. Tighten the two bolts to 18 ft lbs.

Pre-lube the turbocharger by filling the oil inlet port with clean engine oil before connecting the oil feed hose to the turbocharger.

STEP 4: Install the lower turbocharger coolant line. Use the two new sealing washers supplied with the turbocharger. Tighten the banjo bolt to 18 ft lbs.

STEP 5: Connect the exhaust pipe and elbow to the turbocharger using a new gasket and v-band clamp. Tighten the clamp to 13 ft lbs. Using a rubber mallet, tap the exhaust elbow around the perimeter of the clamp to fully seat the clamp. Re-tighten the clamp to 13 ft lbs.

STEP 6: Tighten the exhaust support bracket to the transmission and torque bolts to 32 ft lbs.

STEP 7: Install the right side engine mount.

STEP 8: Install the upper turbocharger coolant line. Use the two new sealing washers supplied with the turbocharger. Tighten the banjo bolt to 18 ft lbs.

STEP 9: Install the turbocharger oil pressure feed line and tighten the fittings to 18 ft lbs.

STEP 10: Connect the turbocharger actuator wiring harness. Connect the turbocharger speed sensor wiring harness.

STEP 11: Install the charge air cooler tube to the turbocharger and tighten the clamp to 8 ft lbs.

STEP 12: Install the inlet air tube to the turbocharger and tighten the clamp to 8 ft lbs.

STEP 13: Connect the breather hose and install the air cleaner body.

STEP 14: Fill the coolant system.

STEP 15: Install the engine cover and tighten the four bolts to 89 in lbs.

STEP 16: Install the passenger side battery tray. Connect the negative battery cables.

STEP 17: Install the passenger side wheel well.

STEP 18: Start the engine and check for any cooling or exhaust leaks. Operate the engine at low idle for at least three minutes. This will prevent oil starvation damage to the bearing system and purge any residual contaminates from the bearings housing.

STEP 19: Affix the E.O. identification label included with your turbocharger near the turbocharger in the engine compartment so that smog check technicians can verify the E.O. number.