

# **Diesel Power Source**

## **Installation Instructions**

### **2007.5-2024 6.7L Cummins HE300 Turbocharger**

#### **GUIDE AND CHECKLIST:**

1. Inspect the intake and exhaust systems connected to the turbocharger to ensure they are clear of any debris. If the vehicle has experienced a turbocharger failure that caused mechanical damage to the compressor wheel, a new intake air filter must be installed before fitting a new turbocharger. Debris from the failed turbocharger can become trapped in the original filter and may be drawn into the new turbocharger, causing severe damage from small particles at high speeds.
2. Use new gaskets on all air, oil, and exhaust connections. Never use silicone sealants on intake components. Silicone can become loose and become ingested into the turbocharger causing damage.
3. Ensure the drain port tilt is no more than 15 degrees from the bottom center in either direction. Excessive tilt can create leakage on both the turbine and compressor seals.
4. Pour 1-2 teaspoons of clean engine oil into the inlet before connecting the oil feed hose to the turbocharger
5. As required by our warranty agreement, change engine oil and oil filter make sure the oil filter is full of oil before starting truck for the first time. Clean engine oil is crucial to turbo life and to obtain a warranty.
6. Operate the engine at low idle for at least three minutes after completing the installation of turbocharger, make sure oil pressure rises immediately.

#### **REMOVAL:**

- 1: Disconnect the negative battery cables. Remove the passenger side battery tray. Remove the four bolts that retain the engine cover.
- 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.
- 3: Remove the passenger side fender well.
- 4: Remove the Intercooler Tube.
- 5: Drain the coolant system.
- 6: Disconnect the turbocharger speed sensor wiring harness connector.
- 7: Disconnect turbocharger actuator wiring harness connector from the turbocharger.
- 8: Remove the turbocharger oil pressure feed line.
- 9: Remove the banjo bolt from the turbocharger coolant line.

10: Remove the right-side engine mount.

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

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

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

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

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

16: Remove the turbocharger from the vehicle.

#### **INSTALLATION:**

Reference to our “**Guide and Checklist**” located in the first section of these instructions for turbocharger replacement general guidelines and a checklist.

**Always** ensure the intake tubing and charge air cooler, and all air tubing are completely free of oil and debris. Clean all turbo air intake components and install a new air filter. Use new gaskets on all mating surfaces and connections.

**Record the serial number (S/N) of the installed DPS turbocharger** for future reference and service needs.

1: Using the new gasket supplied with the turbocharger, install the turbocharger onto the exhaust manifold. Tighten the manifold stud/bolt/nuts. Torque to 38-42 ft-lbs.

2: 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.

3: Install lower turbocharger coolant line. Tighten banjo bolt to 18 ft-lbs.

4: 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

5: As required by our warranty agreement, change engine oil and oil filter make sure the oil filter is full of oil before starting truck for the first time. Clean engine oil is crucial to turbo life and to obtain a warranty.

6. Although the actuator comes pre-calibrated, in some circumstances the actuator may need calibrated.