TURBOCHARGER CHECKLIST
READ BEFORE INSTALLATION

I. Pre-Install (Root Cause & Prep)

☐ **Fix the Failure Root Cause:** If the old turbo failed, ***determine and correct*** why (e.g., foreign object damage, oil starvation/contamination or over-speeding).

☐ **Oil Lines:** Replace the ***oil feed line***.

Clean and inspect the ***oil drain tube*** with the oil dipstick for blockages.

☐ **Air/Exhaust:** Replace the ***air filter, Inspect/Clean exhaust system (Catalytic converter/DPF) for blockages.***

☐ **Hardware:** Use ***ALL NEW*** gaskets, seals, mounting bolts and nuts.

II. Installation (Mounting & Priming)

1. Clean Surfaces: Remove all old gasket material and debris/rust.

2. Even Surfaces: Surfaces must be flat and clean.

Warped, rusted and corroded areas ***will cause leaks.***

3. Mount & Torque: Secure the turbo using manufacturer's ***torque specs.***

(SEE TORQUE SPEC CHART IN THE BACK)

4. Pre-Lubricate (*CRITICAL*): Pour clean oil into the turbo oil inlet.

Spin the wheel by hand to coat the bearings.

5. Connections: Install the oil supply line and all other lines/piping securely.

Inspect and reconnect wire for speed & temperature sensors.

III. Post-Install (Startup & Verification)

☐ **Initial Run:** Start the engine and ***idle for 3-5 minutes*** (do not rev the engine).

☐ **Check Leaks:** Visually ***inspect all connections*** (oil, air, exhaust) for leaks.

☐ **Final Check:** Re-check oil & coolant level. Perform an initial test drive under ***light load only.***

☐ **Tamper-Seal:** The tamper seal on all HDTURBO parts must remain intact.

Breaking, removing, or altering the tamper seal will immediately void the warranty.

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TURBOCHARGER CHECKLIST
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TORQUE SPEC CHART		
APPLICATION & TURBO MODEL:	**DESCRIPTION:**	**TORQUE SPECS & STEPS CHART**
VOLVO/MACK:	Turbocharger to manifold	**Step 1:** 20 Nm [15 ft-lb] **Step 2:** 48 Nm [35 ft-lb]
CUMMINS HE3XX:	Turbocharger to manifold	**Step 1:** 55 Nm [41 ft-lb]
CUMMINS HE4XX:	Turbocharger to manifold	**Step 1:** 81 Nm [60 ft-lb]
CUMMINS HE5XX:	Turbocharger to manifold	**Step 1:** 102 Nm [75 ft-lb]
PACCAR_EPA10-MX-13	Turbocharger to manifold	**Step 1:** 60 Nm [44 ft-lb] **Step 2:** 120°
PACCAR_EPA13-MX-13 ***PACCAR_EPA17-MX-13*** ***PACCAR_EPA21-MX-13***	Turbocharger to manifold _____ VGT turbocharger actuator to turbocharger	**Step 1:** 40 Nm [355lb-in] **Step 2:** 60° _____ **Step 1:** 3 Nm [26lb-in] **Step 2:** 11 Nm [97lb-in]

Failure to complete all pre-installation steps will void warranty coverage.

https://hdturbo.com/warranty-policy/

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