## Top 4 Signs Your Turbo May Need Replacing



Loss of Power, Black or Blue smoke from the tailpipe/Oil emitted from the turbo, Unusual noises, or Dash Warning lights.

Cause:

The turbocharger and other turbo system components and engine need to be properly inspected and tested to determine the exact cause of the symptoms.

The Solution:

Repair the cause of the symptom and if needed replace the failed turbo.



## Turbo failure is often the result of another problem with the vehicle.

- 1) Loss of power Since the engine's exhaust pressure drives the turbo, any changes to that pressure can directly affect turbo operation. Therefore, it is essential to verify proper engine mechanical integrity and breathing, which can contribute to loss of power. Anything that affects engine compression, intake air leaks, exhaust system modifications, fuel system problems, or engine management system malfunctions will also affect Turbocharger performance.
- **2) Smoke coming out of the exhaust** When blue/black smoke starts coming out of your exhaust, it may be a result of oil coming out of a failing turbo oil seat. To check this, remove the fresh air intake from the turbo. If the turbo and ducting are oily, there is a probability of excessive engine "Blow By" or a dirty/ clogged air filter that results in the turbo drawing oil/mist through the emissions devices. Next, check the shaft of the turbo for excessive movement. To inspect the exhaust side, remove the turbo. Inspect the exhaust input side. If oil is found, it is most likely coming from the engine combustion chamber. If only found on the turbo's exhaust output/tailpipe side, a failed oil seat and replacement will probably occur. Often if the turbo has failed in this manner, it is due to,
- Insufficient or contaminated lubrication to turbo.

- · Clogged oil lines.
- Failing engine oil pressure.
- Oil viscosity / untimely oil changes.
- Overheating and or hot shutdowns resulting in cooking/baking the turbine side seat.
- Over speeding the turbo at cold engine /oil operation.
- **3) Unusual noises -** One early sign of turbo failure are noises coming from the turbo with the engine running. "Scratching Rubbing" noises can be caused by ingestion of foreign material into the turbo, which can damage the turbo wheels/blades. If you hear these types of noises, immediately shut off the engine and inspect the turbo for damage to the rotating turbine wheels. On vehicles with inadequate air filtration systems, dirt, stones, sand, trash, and other debris can be drawn into the turbo, causing damage. Never operate a vehicle without a proper air filter and ductwork.
- **4) Dashboard Warning Lights and Indicators -** An illuminated MIL (Malfunction Indicator Light) or Check Engine Light in the instrument cluster with the engine running is a sure sign of a problem with the engine control system. Using a scan tool to access fault codes related to these warning lights will help diagnose these problems that may be affecting the correct operation of the Turbocharger.



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