



## BEFORE YOU FIT A NEW TURBOCHARGER, FIND OUT WHAT CAUSED THE FIRST UNIT TO FAIL OR YOU RISK THE REPLACEMENT FAILING ALSO.

- Turbochargers are very reliable: less than 1% of turbochargers fail due to a manufacturing fault with the turbocharger itself.
- 95% of turbocharger failures are because of problems with oil starvation, oil contamination or foreign object damage.

# Top 3 Reasons for Turbocharger Failure

## 1. Contaminated Oil

- A blocked, damaged or poor quality oil filter.
- High carbon build-up in the engine.  
This can rapidly contaminate even new oil.
- A malfunctioning oil filter bypass valve.
- Engine wear, leaving swarf deposits in the oil.
- Oil that has degraded due to excessive temperatures or extended service intervals.

## 2. Oil Leaks at the Compressor End

- Blocked or restricted air intake filter or air intake pipe
- Air leaks on intake hoses or at the intercooler.
- Leaks in the EGR system.
- Leaks in the exhaust system.
- Any restriction in the oil drain pipe from the turbo to the engine.
- Restriction in the engine breather.

## 3. Impact Damage

- Items sucked into the air intake because of a damaged, poor quality or missing air-filter.
- Damaged hoses allowing small particles to enter the intake.
- Gasket material entering the intake.
- Broken engine components, e.g. injector tips, valves or fragments of damaged piston.
- Fragments from a previous turbocharger failure.