

## THE MAHLE TURBO-CHECK

### Before installation

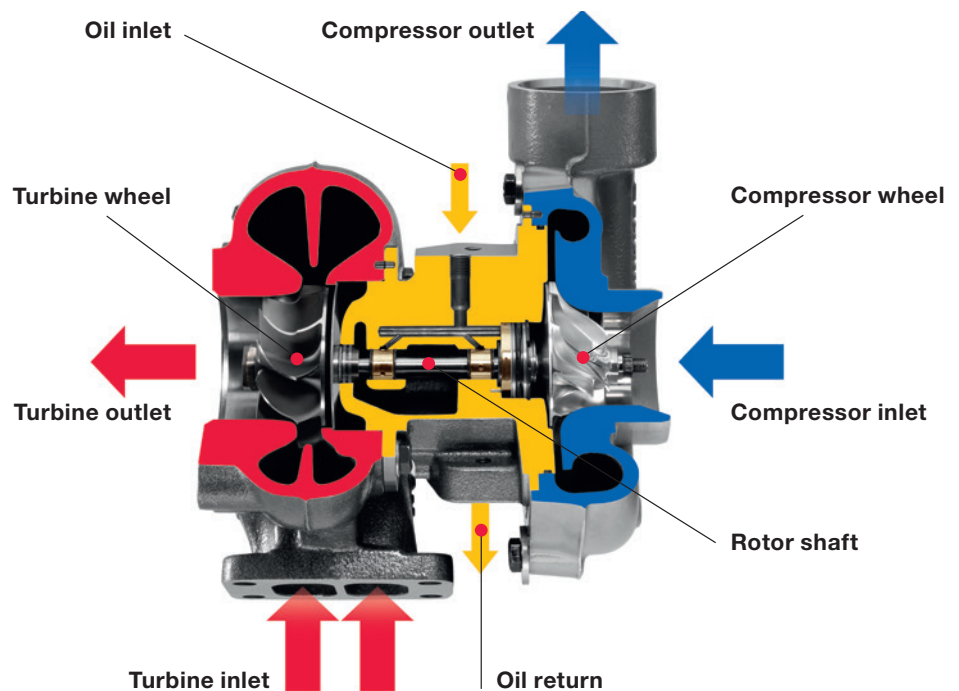
- ✓ Reason for the failure of the old turbocharger (possibly fault on or around engine) diagnosed and remedied
- ✓ Turbocharger model number compared with the engine specifications and the turbocharger manufacturer's model number
- ✓ Functional capability of the engine ventilation ensured
- ✓ Oil supply ensured, oil return from the turbocharger to the crankcase is clear
- ✓ Intake, charge air and exhaust area:
  - Functional capability checked
  - Any contamination by foreign bodies or fluids remedied
  - Absolute cleanliness of and no damage to the air lines connected to the turbocharger ensured
- ✓ In the case of liquidcooled turbochargers: Ventilation and supply with coolant ensured
- ✓ Checked whether adjustment of the housing position is necessary
- ✓ Tightening torque as specified by the engine and vehicle manufacturer maintained
- ✓ Ensured that flanges and threads are free of damage and wear
- ✓ Only brand new and exact fitting sealing elements used
- ✓ Engine oil and oil filter change carried out as specified by the engine and vehicle manufacturer

### During installation

- ✓ Before securing the oil supply line: Turbocharger filled with new engine oil through the oil inlet hole, while slightly turning the rotor manually
- ✓ Boost pressure changed if necessary
- ✓ Attention paid to correct handling

### After installation

- ✓ Idle for approx. 120 seconds after engine start
- ✓ During idling: All connections (air, exhaust, water and oil) checked for firm seating, tightness and free of leaks, gas-tightness checked with soapy water if necessary
- ✓ When oil pressure has built up: operate engine at various speeds and under load
- ✓ After 20 operating hours or 1,000 km: all relevant connections checked again for firm seating, tightness and free of leaks



**Important note for the car repair shop:** The turbocharger may only be installed by skilled personnel. Incorrect installation, use and operation of the turbocharger or modifications to it can cause damage to the turbocharger and the engine. The manufacturer's specifications as well as the installation and start-up instructions must be followed. No liability for material defects shall be accepted if a turbocharger is installed that does not comply with the engine specifications or if the installation and fitting instructions are not followed. Visible faults must be reported immediately.

# DIAGNOSIS MATRIX

This matrix enables you to quickly localise the root causes of damage to or malfunction of a turbocharger.

**Important:** Do not disassemble the old turbocharger until the root cause for the damage or malfunction is eliminated. This is the only way to ensure the long-lasting and flawless operation of the new charger.

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