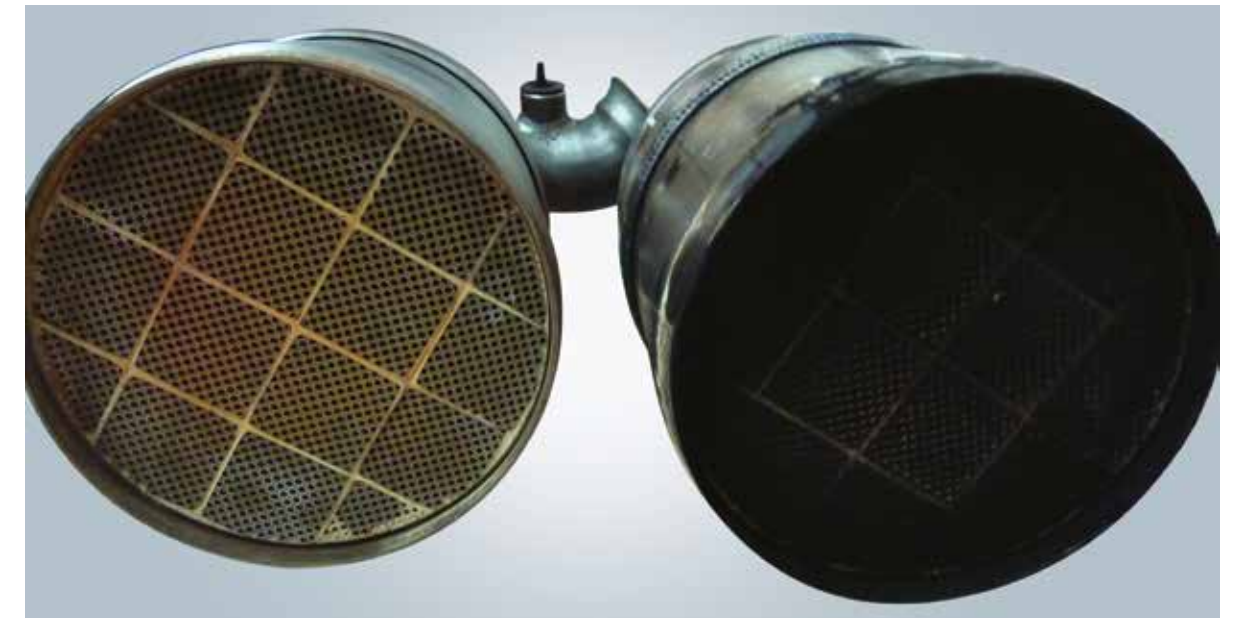


Turbocharger fitting



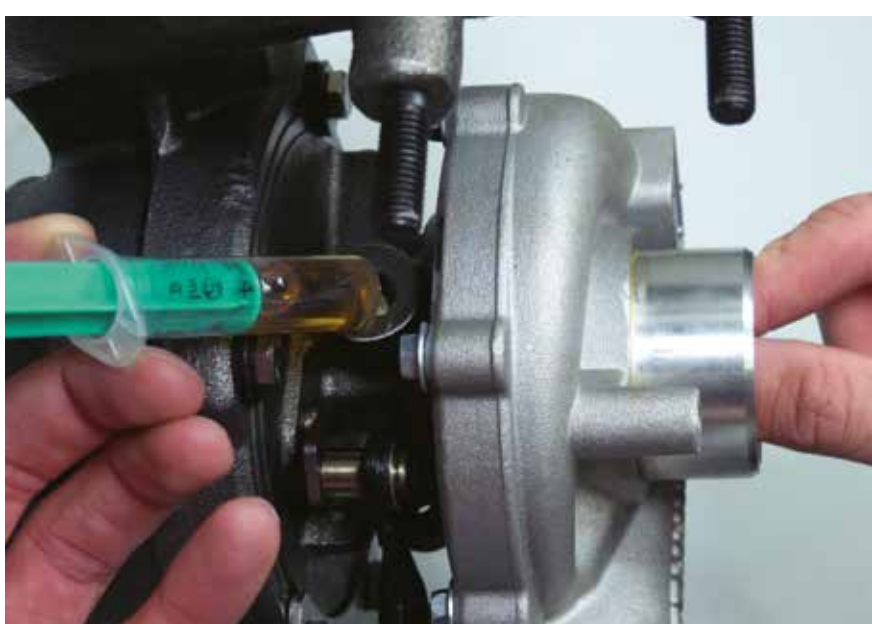
1. Removal

- Before fitting the new turbocharger, determine the cause of failure of the old unit.
- Diagnose and eliminate other defects in the engine environment.
- Impeller nut: the impeller nut may have come loose and made its way into the intake section. Failure to remove it may result in serious consequential damage!
- Remove and replace the air filter.
- As a general policy, drain the old engine oil and replace the oil filter.



2. Inspection

- Is the part number correct? As turbochargers are specifically designed for a particular engine, it is always important to ensure that the part number of the new part matches the old one.
- Is the oil supply functioning? The flow rate of the oil inlet and return lines is difficult to verify. Therefore, as a general policy, replace the lines.
- Is the crankcase ventilation working properly? Clogged oil mist separators must be cleaned or replaced.
- Does the blowby gas quantity fall within the required range? Too much blowby inhibits the oil returning from the turbocharger to the oil sump.
- Are the intake and charge air lines clean and leakproof? Always replace damaged or deformed hoses.
- Has the old impeller been compromised by previous damage? Always replace the charge air cooler in such cases. Fragments and chips cause serious damage.
- Is the boost pressure regulation working properly? Check the hoses and cables for damage.
- Is the exhaust system clear? Clogged particulate filters and obstructed exhaust gas recirculation valves will cause the turbocharger to fail again. Check the load condition of the particulate filter and read off the fault memory.
- Is cooling ensured? In water-cooled turbochargers, the supply of coolant must be ensured.
- Are flanges warped or threads damaged?



3. Fitting

- Always take precautions to ensure cleanliness.
- Do not use a sealing compound. It can enter the oil circuit and block the oil supply.
- The factory calibration of the turbocharger must not be changed.
- Only use new gaskets.
- Observe the manufacturer specifications for assembly torques.
- Prefill the turbocharger with fresh oil through the supply port while cranking the rotor shaft manually.
- Make sure the cables and hoses are routed correctly and the insulation is intact.
- Top up with engine oil (use one that is manufacturer-approved).
- To build up the oil pressure, use the starter motor to crank the engine with the ignition/injection disabled.
- Clear the fault memory and let the engine idle for a few minutes with no load. When doing so, check that all the connections are properly secured and leakproof.
- When the operating temperature is reached, carry out a test drive with a final follow-up check (function, leaktightness, fault memory entries).

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