IMPORTANT INFORMATION BEFORE INSTALLING TURBOCHARGER

Turbocharger Install Guidelines

1. Always understand why the original turbocharger needs replacing. Determine the cause of any failure and rectify this before fitting a replacement unit.
2. Check the engine air intake ducting, intercooler and intake manifold are undamaged and free from splits, cracks, holes, oil, gasket pieces, dust, dirt, carbon, or other foreign objects.
3. Check the engine exhaust manifold and exhaust system are undamaged, clean and without obstruction i.e. free from oil, gasket pieces, dust, dirt, or other foreign objects.
4. Replace the air filter element, using only OEM quality parts.
5. Remove the turbocharger oil supply and oil drain flanges, pipes, and fittings and clean to be free from obstruction, internal carbon, and sludge. If in doubt, replace with new components. Some applications may require that the sump is removed in order to inspect and clean the oil pick up of carbon or sludge deposits.
6. Check the coolant pipes and connections of water-cooled bearing housing applications, are clean and free from obstruction and will not leak under pressure.
7. Replace the engine oil & oil filter, ensuring that only OEM quality parts and specified oils are used.
8. Check oil pressure and flow at the engine block and turbocharger are within the manufacturer's specifications.
9. Check the exhaust mounting flange surfaces and studs are in good condition, free from cracks and debris. If in doubt, replace with new components.
10. Remove blanking tape, dust caps or plugs from the oil and water supply and drain galleries on the Turbocharger.

11. Mount the turbocharger on the exhaust flange, check that the turbine inlet gasket fits correctly without obstructing the gas passages and gives a gas tight seal.
12. The orientation of the end housings may need changing in order to align correctly with all other connections. If so, ensure all fasteners are tightened to the specified torque as per the OEM service manual. If fitted, ensure lock plate tabs are secured against the bolt heads.
13. Pour clean engine oil into the turbocharger oil supply hole and slowly rotate the turbocharger rotor assembly until clean oil starts to flow out of the oil drain flange. Carefully assemble the turbocharger oil supply pipe and align the gasket correctly (if fitted), check that the connection is clean, well made and will not leak under pressure. DO NOT use liquid gasket substances or silicone, as any excess will enter the turbocharger oil system and obstruct oil flow, causing the turbocharger bearing system to fail prematurely.
14. Assemble the exhaust system to the turbine housing outlet. Check that the gasket and connection is well made and will not leak in use.
15. Check the exhaust system is well supported and not causing excess loads on the turbocharger. Always re-fit any supports and brackets back to their original position.
16. With the engine disabled in a “NO START” condition, crank the engine to develop oil pressure. Crank the engine WITHOUT firing, until engine oil flows freely from the turbocharger drain.
17. Assemble the oil drainpipe and check that the gasket is aligned correctly (if fitted) and the connection is well made without any obstruction. Do not use sealant as this may cause a restriction in the oil return flow.
18. Connect the air pipe securely from the compressor housing or intake manifold to the wastegate actuator (if fitted) ensuring the pipe is clean and dry before fitment.
19. Connect any other external fittings to the turbocharger, as necessary.
20. Start the engine and idle for approximately 3 minutes so that the oil supply is fully purged of air. Check that all air, gas, and oil connections are tight and free from leakage, using soapy water to help detect gas leaks.
21. Stop the Engine: Re-check the Engine Oil Level to be correct, check all hoses, pipe clamps, studs and nuts are correctly tightened to the torque recommended by the manufacturer.
22. Slowly accelerate the engine and check that there are no leaks of the air, oil, coolant, and gas under pressure.
23. Check that the hoses/connections do not deform under normal operation.
24. Before switching off the engine, leave it to idle for at least 2 to 3 minutes to cool the turbine.