



GARRETT TURBOCHARGER INSTALLATION INSTRUCTIONS

Before installing a replacement turbocharger it is important to find the reason for the damage to the previous turbo.
If in doubt, contact your Garrett Distributor for advice.

IMPORTANT NOTES:

1. Failure to follow these instructions can lead to turbocharger damage and may void warranty.
2. Changing the calibration of a wastegated turbo may damage the turbo/engine and voids warranty.
3. Correct gaskets must be used - they must not overlap holes.
- ❶ Gasket covering part of oil hole - reduces oil supply to turbo or if gasket material breaks away, may totally stop oil flow. ❷ Gasket clear of oil hole. Liquid gasket or sealants are not recommended, particularly for the oil inlet/outlet. Excess material may break away, reducing or stopping oil flow.
4. Refer to engine/vehicle manufacturers literature for correct oil type and quantity. Also, for correct torques and installation details.
5. Prevent dirt/debris from entering any part of the turbo during installation.
6. Before fitting the turbocharger, check that the part number is the correct one for the engine - fitting the incorrect turbo to an engine may damage the turbo/engine and will void the warranty.

INSTALLING THE TURBO

- All air hoses connected to the turbo must be totally clean and undamaged.
 - Air filter and housing must be totally clean and free from debris.
 - Clean engine breather system and check function.
 - Remove old gasket material from the exhaust manifold and pipe. Faces must be undamaged.
 - REMOVE PLASTIC OR FOAM BLANKING PLUGS FROM THE TURBO BEFORE FITTING.
 - Fill the oil inlet hole of the turbocharger with new engine oil and spin the compressor wheel by hand a few times - it should spin freely. Note: it is normal to feel some up and down movement on the wheels.
 - Fit turbocharger onto manifold or engine block (as applicable) using the correct new gasket or joint ring, then reconnect the exhaust pipe. Tighten all nuts/bolts.
 - Oil feed and drain lines must be totally clean and undamaged - oil flow MUST be unrestricted. Check that any flexible hose liners have not collapsed internally. Check that oil feed line is not too close to source of heat. ❸ Oil level OK, but drain line damaged - causes oil leaks from turbo.
 - Fit oil drain line. Refill the oil inlet hole with new clean engine oil and reconnect the oil feed line.
 - Fit air hoses and tighten.
 - Use new air, oil and fuel filters, refill engine with new engine oil.
 - If possible, prevent the engine from firing and crank the engine for 10 - 15 seconds to prime oil feed. Start the engine and idle for 3 to 4 minutes before increasing speed. Check for oil and gas/air leaks.
 - Stop engine and re-check engine oil level Note: oil level should NOT be above the point where oil returns from the turbo to the engine.
 - ❹ Oil level too high - blocks oil drain from turbo - causes oil leaks from turbo.
 - ❺ Oil level correct to specification.
- Check crankcase pressure. High pressure may be caused by piston bypass or blocked breather system.
- ❻ High crankcase pressure can stop oil from draining - causes oil leaks from turbo.

