

Need more power?

Turbo Dynamics have a HUGE range of services available.

One of the leading combined Turbocharger Remanufacturer and Hybrid Turbocharger Designers in the world, Turbo Dynamics (TD) is an Authorised Garrett Turbo Specialist. Turbo Dynamics supply genuine turbochargers and parts: Garrett, Borg Warner (KKK & Schwitzer), Mitsubishi, IHI, Toyota, Holset, Hitachi, MAN B&W, MTU, Napier and ABB for both the performance and standard markets.

Turbo Dynamics is an appointed UK TiAL Sport Distributor and stock a range of TD, Garrett & TiAL Performance Accessories including: Turbocharger Speed Sensors, Blow-Off Valves, Dump Valves, Bleed Valves, Boost Gauges and Wastegates.



Catering for all your needs, Turbo Dynamics supply, design, upgrade/modify and service road, race, rally, marine, commercial and industrial turbochargers.

Services offered by Turbo Dynamics include design and manufacture of hybrid turbochargers, blueprinting and Nitrous Oxide refills. As a Zircotec Authorised Re-seller and Silkolene Distributor, TD offers ceramic coating services and race specification oils at competitive prices.

ISO 9001:2000 accredited and with a company motto of 'Quality without Compromise' the team at TD always endeavour to produce reliable products that provide power and performance. TD's results speak for themselves with their customer base including record-breakers, Keith Cowie and Mick Begley.

Your Turbo Dynamics Dealer can supply you with:

- Garrett GT Series Turbochargers
- Garrett Ballistic Concepts Ball Bearing Turbochargers & centre housing rotating assemblies
- New turbochargers
- New & remanufactured hybrid turbochargers
- Bespoke, one-off and racing turbocharger designs
- New & remanufactured exchange turbochargers
- Turbocharger spare parts
- Up-rated Actuators
- Performance accessories ...and more!



"Turbo Dynamics have the most extensive Hybrid Turbocharger range in the world"

- AUTHORISED DEALER -



TURBO DYNAMICS

POWER, PERFORMANCE, RELIABILITY

Competitively priced quality turbochargers



Huge range available for most models



Accessories

Parts

Servicing

Turbochargers

Engine & Turbocharger Fault Diagnostic Matrix

Engine lacks power
 Boost pressure too low
 Black exhaust smoke
 Excessive engine oil consumption
 Blue exhaust smoke
 Turbocharger noisy
 Cyclic sound from turbocharger
 Oil leak from compressor seal
 Oil leak from turbine seal
 Engine cuts under acceleration
 Boost pressure too high
 Compressor wheel damaged
 Turbine wheel damaged



POSSIBLE CAUSES	TYPE OF PROBLEM / FAILURE												REMEDY / ACTION		
Foreign body damage on compressor or turbine side of turbo	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Find and correct cause of failure, repair or replace turbocharger as required
Insufficient oil supply to turbocharger	●	●													Replace oil feed pipe, check oil pump and repair or replace turbo as required
Dirty / Clogged air filter element	●	●	●	●	●	●	●	●							Replace air filter element
Obstruction in the oil return pipe				●	●				●	●					Remove obstruction or replace pipe as required
Turbocharger centre / bearing housing sludged or coked				●	●				●	●					Change oil and oil filter, overhaul or replace turbocharger as required (check oil feed pipe for blockages)
Worn engine bores, liners or piston rings (blowby)	●	●	●	●					●	●					(Cylinder leakage test) Refer to engine manufacturers manual and repair engine as required
Internal engine problems (valves, pistons etc.)	●	●	●	●	●	●	●	●	●	●				●	(Cylinder leakage test) Refer to engine manufacturers manual and repair engine as required
Dirt or oil deposits caked on compressor wheel and / or diffuser vanes	●	●	●	●	●	●	●	●	●	●					Find and correct source of unfiltered air, check breather system for source of oil deposits. Turbocharger may need overhauling
Damaged turbocharger bearings	●	●	●	●	●	●	●	●	●	●				●	Find and correct cause of failure, repair or replace turbocharger as required
Turbine housing / wastegate seat cracked or valve damaged	●	●													Replace or repair defective / damaged parts as required
Obstruction in hose from air filter to compressor inlet	●	●													Remove obstruction and / or replace damaged parts as required
Obstruction in hose from compressor outlet to inlet manifold	●	●													Remove obstruction and / or replace damaged parts as required
Obstructed inlet manifold	●	●							●	●					Refer to engine manufacturers manual and remove obstruction
Air leak in hose from air filter to compressor inlet	●	●	●											●	Correct leak by replacing seals, tighten fasteners or replace hose as required
Air leak in hose from compressor outlet to intercooler / inlet manifold	●	●	●	●	●	●	●							●	Correct leak by replacing seals, tighten fasteners or replace hose as required
Air leak between inlet manifold and cylinder head flange	●	●	●	●	●	●	●								Refer to engine manufacturers manual and replace gaskets and / or tighten fasteners as required
Obstruction in exhaust manifold	●	●	●	●	●	●	●								Refer to engine manufacturers manual and remove obstruction
Restricted exhaust system or blocked catalytic converter	●	●	●										●	●	Remove obstruction or replace faulty components as required
Exhaust gas leak between exhaust manifold and cylinder head	●	●							●	●	●				Refer to engine manufacturers manual and replace gaskets and / or tighten fasteners as required
Exhaust gas leak from turbine inlet to exhaust manifold joint	●	●	●						●	●	●				Replace gaskets and / or tighten fasteners as required
Exhaust gas leak from downpipe after the turbine outlet									●	●	●				Replace gasket, downpipe or repair as required
Obstruction in engine crankcase vent and / or breather system				●	●				●	●					Refer to engine manufacturers manual, clear obstruction and / or replace filter
Fuel system defective or incorrectly adjusted	●	●	●	●									●	●	Refer to engine manufacturers manual, replace or adjust faulty components as required
Engine camshaft timing incorrect	●	●	●												Refer to engine manufacturers manual, replace worn parts and / or check timing as required
Turbocharger wastegate seized or not opening freely	●	●	●									●	●	●	Check wastegate valve and actuator operation
Excessive boost pressure, triggering ignition cut out switch	●	●										●	●	●	Check wastegate valve and actuator operation, also check for leaks in pressure hose to actuator, replace faulty parts as required
Piston ring sealing defective			●	●					●	●					Repair or replace turbocharger as required