

Turbocharger Fault Finding Guide

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Oil leak from turbine seal	Oil leak from compressor seal	Cyclic sound from turbocharger	Turbocharger noisy	Blue exhaust smoke	Excessive engine oil consumption	Black exhaust smoke	Engine lacks power	Engine stalls during acceleration	Cause	Remedy
									Clogged air filter element	Replace element according to engine manufacturers recommendations
									Obstructed air intake duct to turbo compressor	Remove obstruction or replace damaged parts
									Obstructed air outlet duct from compressor to intake manifold	Remove obstruction or replace damaged parts
									Obstructed intake manifold	Refer to engine manufacturers manual and remove obstruction
									Air leak in duct from air cleaner to compressor	Correct leak by replacing seals or tightening fasteners
									Air leak in duct from compressor to intake manifold	Correct leak by replacing seals or tightening fasteners
									Air leak at intake manifold to engine joint	Refer to manufacturers manual and replace gaskets or tighten fasteners
									Obstruction at exhaust manifold	Refer to engine manufacturers manual and remove obstruction
									Restricted exhaust system	Remove obstruction or replace faulty components
									Gas leak in exhaust manifold to engine joint	Refer to manufacturers manual and replace gaskets or tighten fasteners
									Gas leak in turbine inlet to exhaust manifold joint	Replace gaskets or tighten fasteners
									Gas leak in ducting after turbine outlet	Refer to engine manufacturers manual and repair leak
									Obstructed turbocharger oil drain line	Remove obstruction or replace line as required
									Obstructed engine crankcase vent	Refer to engine manufacturers manual, clear obstruction
									Turbocharger centre housing sludged or coked	Change engine oil and filter, overhaul or replace turbo as required
									Fuel system defective or maladjusted	Refer to engine manufacturers manual, replace or adjust faulty components
									Engine crankshaft timing incorrect	Refer to engine manufacturers manual and replace worn parts
									Worn piston rings or liners (blow by)	Refer to engine manufacturers manual and repair engine as required
									Internal engine problems (valves, pistons)	Refer to engine manufacturers manual and repair engine as required
									Dirt caked on compressor wheel and/or diffuser vanes	Clean using a non caustic cleaner, correct source of unfiltered air and change oil filter
									Damaged turbocharger	Find the correct cause of failure, replace turbocharger as required
									Wastegate malfunction	Check wastegate and actuator operation
									High boost pressure triggering ignition cut out switch	Check wastegate and actuator operation, replace faulty parts