

Fault Finding Chart Turbocharger



DIESEL | TURBO CHARGERS | PERFORMANCE www.unitedfuel.com.au

Tel: 61 8 9259 3000

Freecall: 1800 199 701

Fax: 61 8 9479 1864

	High Oil Consumption	Turbocharger Noisy	Cyclic Sound from the Turbo	Oil Leak from Compressor Seal	Oil Leak from Turbine Seal	Engine Running Hot	Poor Transient Response	Smoke	Engine Lacks Power	Black Exhaust Smoke	Blue Exhaust Smoke	
•			•	•							•	Restricted engine crankcase breather Refer to engine manufacturer's manual, clear restriction
•			•	•							•	Turbocharger bearing housing sludged or coked Change engine oil and oil filter, overhaul or replace turbocharger as required
						•	•	•	•			Fuel injection pump or fuel injectors incorrectly set Refer to engine manufacturer's manual and replace or adjust faulty components as required
								•	•			Engine valve timing incorrect Refer to engine manufacturer's manual for correct settings and adjust as required
•			•	•				•	•		•	Worn engine piston rings or liners Refer to engine manufacturer's manual and repair as required
•			•	•				•	•		•	Burnt valves and/or pistons Refer to engine manufacturer's manual and repair as required
•	•	•	•	•				•	•		•	Excessive dirt build up on compressor wheel and/or diffuser vanes Clean in accordance with details/instructions from Steve Boyle at United Fuel Injection
•	•		•	•				•	•		•	Turbocharger damaged Find and correct cause of failure, repair or replace turbocharger as necessary
	•				•							Failed diaphragm Replace using correct actuator service kit
						•	•					Seized valve Free valve/replace complete turbine housing sub-assembly
	•					•						Leaking hose Replace hose and clips
	•					•	•	•	•			Wastegate mechanism set incorrectly Contact United Fuel Injection for correct setting details

Fault Finding Chart Turbocharger



Tel: 61 8 9259 3000
 Freecall: 1800 199 701
 Fax: 61 8 9479 1864
www.unitedfuel.com.au

High Oil Consumption	Turbocharger Noisy	Cyclic Sound from the Turbo	Oil Leak from the Turbo	Oil Leak from Compressor Seal	Engine Running Hot	Poor Transient Response	Smoke	Engine Lacks Power	Black Exhaust Smoke	Blue Exhaust Smoke	
•			•	•	•	•	•	•	•	•	Dirty air cleaner
											Clean or replace element according to manufacturer's recommendations
•	•	•	•	•	•	•		•	•	•	Restricted compressor intake duct
											Remove restriction or replace damaged parts as required
	•			•	•		•	•			Restricted air duct from compressor to intake manifold
											Remove restriction or replace damaged parts as required
	•			•	•		•	•			Restricted intake manifold
											Refer to engine manufacturer's manual and remove restriction
	•										Air leak in feed from air cleaner to compressor
											Replace seals, gaskets or tighten fasteners as required
•	•			•	•	•	•	•	•	•	Air leak in feed from compressor to intake manifold
											Replace seals, gaskets or tighten fasteners as required
•	•			•	•	•	•	•	•	•	Air leak between intake manifold and engine
											Refer to engine manufacturer's manual and replace gaskets or tighten fasteners as required
•	•		•				•	•	•	•	Foreign object in exhaust manifold (from engine)
											Refer to engine manufacturer's manual and remove obstruction
			•	•			•	•			Restricted exhaust system
											Remove restriction or replace damaged parts as required
	•				•	•	•	•			Exhaust manifold cracked, gaskets blown or missing
											Refer to engine manufacturer's manual and replace gaskets or damaged parts as required
	•				•	•	•	•			Gas leak at turbine inlet/exhaust manifold joint
											Replace gasket or tighten fasteners as required
	•				•						Gas leak in ducting after turbine outlet
											Refer to engine manufacturer's manual and repair leak
•			•	•						•	Restricted turbocharger oil drain line
											Remove restriction or replace damaged parts as required