



Fault diagnosis

It can be hard to diagnose faults found in turbochargers. The damage which is initially identified may, in fact, have been caused by another problem elsewhere in the combustion engine. The table below provides a little guidance on the most common turbo damage. Of course, this does not cover the entire 'damage spectrum' and we advise you to always use your own expertise or contact MasterTurbo's product specialists.

Fault table

Loss of engine power						
Black smoke						
Blue smoke						
High oil consumption						
Strange noise						
Loss of oil from the compressor						
Loss of oil from the turbine						
Cause						Solution
.	.	.	.	.	Clogged air filter	Clean or replace air filter according to instructions
.	.	.	.	.	Fresh air supply to compressor is blocked	Air line between compressor and intake manifold is blocked
.	.	.	.	.	Air line between compressor and intake manifold is blocked	Clean or replace line
.	.	.	.	.	Intake manifold is blocked	Clean intake manifold
.	.	.	.	.	Leakage between air filter and compressor	Tighten or replace compressor and sealing bolts
.	.	.	.	.	Leakage between compressor and intake manifold	Tighten or replace compressor and sealing bolts
.	.	.	.	.	Leakage between intake manifold and cylinder head	Tighten or replace compressor and sealing bolts
.	.	.	.	.	Foreign body in engine-side exhaust system	Remove foreign object
.	.	.	.	.	Exhaust is clogged	Clean exhaust system and replace damaged parts
.	.	.	.	.	Exhaust is defective or damaged or has defective seals	Replace gaskets and damaged parts
.	.	.	.	.	Leakage of exhaust fumes between turbine intake and exhaust manifold	Tighten loose bolts and replace gaskets if necessary
.	.	.	.	.	Leakage of exhaust fumes between turbine exhaust and exhaust pipe	Eliminate leakage, tighten loose bolts and replace gaskets if necessary
.	.	.	.	.	Oil overflow pipe (return) is blocked	Remove blockage or replace line if necessary
.	.	.	.	.	Engine block crankcase ventilation is blocked	Clean the engine block ventilation
.	.	.	.	.	Turbocharger bearings are dirty or clogged	Change oil and oil filter, recondition or replace turbo
.	.	.	.	.	Petrol pump or diesel injectors are incorrectly adjusted	Re-adjust injectors or replace damaged parts
.	.	.	.	.	Valve tolerance is incorrect	Adjust valves
.	.	.	.	.	Worn piston rings or cylinder liner	Recondition engine
.	.	.	.	.	Deposits on valves and/or pistons	Recondition engine
.	.	.	.	.	Strong contamination of and deposits on compressor	Clean contaminated parts
.	.	.	.	.	Turbo is damaged	Inspect turbo damage, identify cause, recondition or, possibly, replace turbo
.	.	.	.	.	Bypass valve does not work	Inspect bypass valve and turbo air pressure control unit