Troubleshooting Chart

Possible Causes	Problem Description								
	Oil leakage at compressor side	Oil leakage at turbine side	Compressor/Turbine wheel damage	Turbocharger generates acoustic noise	Insufficient power/boost pressure too low	Boost pressure too high	High oil consumption	Black smoke	Blue smoke
Dirty air filter	■				■		■		■
Dirty compressor or clogged intercooler	■			■	■		■	■	■
Engine air cleaner missing or loose gaskets				■	■			■	
Intake or pressure hose distorted and/or leaking				■	■	■		■	
Boost pressure control swing valve/poppet valve does not close					■			■	
Boost pressure control swing valve/poppet valve does not open						■			
Pipe or hose assembly to actuator valve defective or ruptured					■	■			
Excessive flow resistance in exhaust system/leakage upstream of turbine	■			■	■		■	■	■
Exhaust gas leak between turbine outlet and exhaust pipe				■					
Oil feed and/or drain lines clogged, leaking or distorted	■	■					■		■
Crankcase ventilation clogged and/or distorted	■	■					■		■
Fuel system/injection feed system defective or incorrectly adjusted					■	■		■	
Valve guides, piston rings, engine or cylinder liners worn/increased blow by	■	■			■		■	■	■
Oil cooked or sludge in turbocharger center housing	■	■					■		■
Turbocharger bearings damaged	■	■	■	■	■		■	■	■
Compressor or turbine end sealing rings damaged	■	■					■		■
Turbine housing/flap damaged			■	■	■			■	
Insufficient oil supply to turbocharger			■	■	■			■	
Foreign object damage to compressor or turbine wheels			■	■	■			■	