

Broken, worn or sticking piston rings: The piston rings expand and seal against the cylinder liner walls. Faulty fuel pump: Caused by incorrect timing, wear between plunger and cylinder, delivery valve not seating properly, incorrect calibration, broken spring. Turbo charger : Reduction in the turbo charger speed can be attributed to worn or faulty bearings or carbon build up on the exhaust gas turbine blades. Restriction in flow of exhaust gases Can be caused by excessive build up of carbon or a baffle plate in the silencer coming adrift and partially blocking the flow. Faulty injector: Caused by blocked nozzle hole/s, valve not seating properly, broken spring, injector not opening at correct pressure, valve stem sticking in nozzle, leaking injector pipe, excessive fuel return. This will cause a reduction in air supply to the air intake manifold resulting in a loss of engine power Restricted fuel supply: Could be caused by fuel tank outlet valve not being fully opened. They will also stick in their grooves due to the carbon from incomplete combustion or overheating. Restricted air supply Could be caused by the fire flaps and hatch cover in the engine space being closed resulting in insufficient air flow to the engine. Piston ring gaps in line: Installation of the piston rings may have gaps which were not equally separated or the ring gaps came into line during the running of the engine. Piston ring gaps in line will cause the air from compression to enter the crankcase. Open the outlet valve and tighten the gland packing. Piston rings are also subject to breakage in service or when installing. In all cases air will pass the piston rings, on the combustion stroke, into the crankcase. Vibration coupled with loose gland packing could cause it to start closing. The fuel tank vent pipe anti-flash gauze could be clogged. Fuel lift pump Fuel lift pump is not delivering sufficient fuel from the tank to the fuel pump. If of the diaphragm type, the diaphragm could be perished. Fuel filter Fuel filter could be blocked. Normal wear takes place and will in time become excessive. This will cause the fuel pump to pull a vacuum on the fuel tank. Clean the anti flash gauze. Replace the injector. Retime the fuel pump and if that is not the problem, replace the fuel pump. In gear or plunger type pump it will most probably be wear. Overhaul the pump. Clean .filter. Water in the fuel Drain the water from the fuel at the fuel tank and at the separator