

Hino trouble Shooting Steps

ENGINE STARTING DIFFICULTY

- ...Engine Does Not Crank
 -Starter does not operate
 -Discharged battery
 -Battery relay switch disconnected
 -Disconnected, loose or corroded battery terminals
 -Poor ground
 -Starting switch defective
 -Magnetic switch defective
 -Starting relay defective
 -Starter operates
 -Piston seizure
 -Bearing seizure
 -Foreign matter in cylinder
 -Excess mechanical resistance in engine, due to poor lubrication
 -Injection pump plunger seized
- ..Engine Cranks
 -Fuel not reaching injection pump
 -Fuel level too low
 -Clogged fuel lines
 -Air in fuel lines
 -Feed pump defective
 -Clogged fuel filter
 -Fuel reaching injection pump
 -High pressure injection line connection loose
 -Delivery valve sticking
 -Injector faulty
 -Injection nozzle faulty
 -Clogged injection nozzle
 -Fuel injection timing improper
 -Heater plug defective
 -Air cleaner clogged
 -Low compression
 -Water in fuel

ENGINE STALLS AT LOW SPEED

-Injection pump defective
-Governor out of adjustment
-Rack and pinion malfunctioning
-High pressure injection pipe clogged
-Injector defective
 -Nozzle spring adjusting screw loose
 -Nozzle port clogged
 -Injection pressure too low
 -Nozzle spray incorrect
 -Delivery valve defective

ENGINE LACKS POWER

-Insufficient fuel supply

-Clogged fuel line or air in system
-Feed pump defective
-Clogged fuel filter
-Injection insufficient
-Injection nozzle defective
-Nozzle spray incorrect
-Improper injection timing
-Insufficient air intake
-Clogged air cleaner
-Intake valve tappet improperly adjusted
-Others
-Low compression
-Engine overheating

ENGINE OVERHEATING

-Cooling system defective
-Heat exchanger cap defective
-Insufficient coolant water
-Thermostat defective
-Clogged heat exchanger
-Loose or slipping belt
-Coolant pump defective
-Sediment in water jacket
-Sea water pump defective
-Sea @#%\$ closed
-Sea water strainer clogged
-Fuel injection system defective
-Injection pump timer defective
-Improper injection timing with injection pump installed
-Excessive fuel injection
-Injector nozzle defective
-Lubrication system defective
-Engine oil level too low
-Oil pump defective
-Incorrect adjustment of oil regulator
-Engine oil deteriorated
-Oil cooler defective
-Cylinder carboned
-Cylinder head cracked
-Gas leak from cylinder head gasket

ENGINE KNOCKS

-Serious diesel knocking
-Improper fuel injection timing
-Uneven injection by injection pump
-Lack of compression
-Oil leaking into combustion chamber
-Fuel cetane value too low
-Mechanical knocking
-Excessive worn cylinder and piston
-Excessively worn piston and bushing
-Worn crankshaft and connecting rod bearing
-Foreign matters in cylinder

.....Improper valve clearance

IMPROPER COLOR OF EXHAUST GAS

....Excessive white smoke
.....Delayed fuel injection timing
.....Water in fuel
.....Oil leaking into combustion chamber
.....Insufficient combustion due to cold
....Excessive black smoke
.....Advance fuel injection timing
.....Fuel injection volume excessive
.....Nozzle spray incorrect
.....Compression pressure insufficient

EXCESSIVE FUEL CONSUMPTION

.....Poor fuel quality
.....Fuel leakage
.....Operation inadequate
.....Engine over-cooling
.....Clogged air cleaner and fuel filter
.....Injection pump defective
.....Improper injection timing
.....Injection nozzle defective
.....Improper engine compression
.....Improper valve timing
.....Seizure or excessive friction in moving engine parts

EXCESSIVE ENGINE OIL CONSUMPTION

.....Improper oil
.....Oil level too high
.....Oil leakage
.....Omission of oil changing
.....Omission of engine warm-up
.....Engine overheating
.....Worn cylinders, pistons and rings
.....Inadequate supply of oil to rocker arm
.....Sucking oil through valve guide

TURBOCHARGER RELATED

....Black Smoke
.....Turbocharger does not rotate smoothly
.....Carbon build up on the seal rings of turbine side, resulting in binding of rotation
.....Bearing seized
.....Contact and/or damage of turbine wheel or impeller blades
.....Exhaust system
.....Exhaust gas leak before turbocharger
.....Clogged or blocked exhaust piping
....White smoke
.....Clogging or deformation of oil return pipe, resulting in oil leak to compressor or turbine side
.....Damaged or worn seal rings due to excessive wear of bearing
....Low output
.....Gas leakage from exhaust system

-Air leakage from compressor side
-Dirty or damaged turbocharger
-Poor response of turbocharger
- Carbon build up on the seal rings of turbine side, resulting in binding of rotation
-Abnormal noise and vibration
-Noise
-Contact of rotating parts
-Vibration
-Loose connection between turbo and intake/exhaust piping
-Damaged bearing, contact of rotating parts, foreign material

SEA WATER PUMP RELATED

-Water discharge is not sufficient
-Sucking air
-Clogging of suction pipe and/or strainer
-Damaged impeller
-Abnormal noise or vibration
-Worn bearing
-Foreign material in the casing
-Incomplete mounting
-Bearing wears frequently
-too tight belt tension
-Damage of impeller
-When it has been operated for a long period
-When it has been operated without water
-When it has been operated at higher RPM
-Too high or low water temperature
-When it has not been operated for an extended period
-Foreign material in the pump