**Honda Motorcycle Troubleshooting Guide**

**NOTE**

*This is not an exhaustive list, giving every possible cause for each problem listed. It is meant simply as a rough guide to assist the troubleshooting for some of the more common difficulties.*

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**Engine Doesn't Start, Starting Difficulty:**

**Starter motor not rotating:**
- Starter lockout or neutral switch trouble
- Starter motor trouble
- Battery voltage low
- Relays not contacting or operating
- Starter button not contacting
- Wiring open or shorted
- Ignition switch trouble
- Engine stop switch trouble
- Fuse blown

**Starter motor rotating but engine doesn't turn over:**
- Starter clutch trouble

**Engine won't turn over:**
- Valve seizure
- Cylinder, piston seizure
- Crankshaft seizure
- Connecting rod small end seizure
- Connecting rod big end seizure
- Transmission gear or bearing seizure
- Camshaft seizure
- Balancer bearing seizure

**No fuel flow:**
- Fuel tap vacuum hose clogged
- Fuel tank air vent obstructed
- Fuel tap clogged
- Fuel line clogged
- Float valve clogged

**Engine flooded:**
- Fuel level in carburetor float bowl too high
- Float valve worn or stuck open
- Starting technique faulty
  (When flooded, crank the engine with the throttle fully open to allow more air to reach the engine.)

**No spark; spark weak:**
- Battery voltage low
- Spark plug dirty, broken, or maladjusted
- Spark plug cap or high tension wiring trouble
- Spark plug cap not in good contact
- Spark plug incorrect
- IC ignitor trouble
- Neutral, starter lockout, or side stand switch trouble
- Pickup coil trouble
- Ignition coil trouble

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**Poor Running at Low Speed:**

**Spark weak:**
- Battery voltage low
- Spark plug dirty, broken, or maladjusted
- Spark plug cap or high tension wiring trouble
- Spark plug cap shorted or not in good contact
- Spark plug incorrect
- IC ignitor trouble
- Pickup coil trouble
- Ignition coil trouble

**Fuel/air mixture incorrect:**
- Pilot screw maladjusted
- Pilot jet, or air passage clogged
- Air bleed pipe, bleed holes clogged
- Pilot passage clogged
- Air cleaner clogged, poorly sealed, or missing
- Starter plunger stuck open
- Fuel level in carburetor float chamber too high or too low
- Fuel tank air vent obstructed
- Carburetor holder loose
- Surge tank duct loose

**Compression low:**
- Spark plug loose
- Cylinder head not sufficiently tightened down
- Cylinder, piston worn
- Piston ring bad (worn, weak broken, or sticking)
- Piston ring/land clearance excessive
- Cylinder head gasket damaged
- Cylinder head warped
- Valve spring broken or weak
- Valve not seating properly (valve bent, worn, or carbon accumulation on the seating surface)
- Hydraulic lash adjuster damaged (worn, seizure, or spring broken)
- Hydraulic lash adjuster oil passage clogged
Backfiring when deceleration:
- Vacuum switch valve broken
- Air suction valve trouble
- Coasting enricher trouble

Other:
- IC ignitor trouble
- Carburetors not synchronizing
- Carburetor vacuum piston doesn't slide smoothly
- Engine oil viscosity too high
- Drive train trouble
- Final gear case oil viscosity too high
- Brake dragging
- Air suction valve trouble
- Vacuum switch valve trouble

Poor Running or No Power at High Speed:

Firing incorrect:
- Spark plug dirty, broken, or maladjusted
- Spark plug cap shorted or not in good contact
- Spark plug incorrect
- IC ignitor trouble
- Pickup coil trouble
- Ignition coil trouble

Fuel/air mixture incorrect:
- Starter plunger stuck open
- Main jet clogged or wrong size
- Jet needle or needle jet worn
- Air jet clogged
- Fuel level in carburetor float chamber too high or too low
- Bleed holes of air bleed pipe or needle jet clogged
- Air cleaner clogged, poorly sealed, or missing
- Surge tank duct poorly sealed
- Water or foreign matter in fuel
- Carburetor holder loose
- Fuel tank air vent obstructed
- Fuel tap clogged
- Fuel line clogged

Compression low:
- Spark plug loose
- Cylinder head not sufficiently tightened down
- Cylinder, piston worn
- Piston ring bad (worn, weak, broken, or sticking)
- Piston ring/land clearance excessive
- Cylinder head gasket damaged
- Cylinder head warped
- Hydraulic lash adjuster damaged (worn, seizure, or spring broken)
- Hydraulic lash adjuster oil passage clogged
- Valve spring broken or weak
- Valve not seating properly (valve bent, worn, or carbon accumulation on the seating surface)

Knocking:
- Carbon built up in combustion chamber
- Fuel poor quality or incorrect
- Spark plug incorrect
- IC ignitor trouble

Backfiring when deceleration:
- Vacuum switch valve broken
- Air suction valve trouble
- Coasting enricher trouble

Miscellaneous:
- Throttle valve won't fully open
- Carburetor vacuum piston doesn't slide smoothly
- Brake dragging
- Clutch slipping
- Overheating
- Engine oil level too high
- Engine oil viscosity too high
- Drive train trouble
- Final gear case oil viscosity too high
- Air suction valve trouble
- Vacuum switch valve trouble
- Balancer mechanism malfunctioning

Overheating:

Firing incorrect:
- Spark plug dirty, broken, or maladjusted
- Spark plug incorrect
- IC ignitor trouble

Fuel/air mixture incorrect:
- Main jet clogged or wrong size
- Fuel level in carburetor float chamber too low
- Carburetor holder loose
- Air cleaner poorly sealed, or missing
- Air cleaner duct poorly sealed
- Air cleaner clogged
- Surge tank duct poorly sealed

Compression high:
- Carbon built up in combustion chamber

Engine load faulty:
- Clutch slipping
- Engine oil level too high
- Engine oil viscosity too high
- Drive train trouble
- Final gear case oil viscosity too high
- Brake dragging

Lubrication inadequate:
- Engine oil level too low
- Engine oil poor quality or incorrect

Gauge incorrect:
- Water temperature gauge broken
- Water temperature sensor broken

Coolant incorrect:
- Coolant level too low
- Coolant deteriorated

Cooling system component incorrect:
- Radiator clogged
- Thermostat trouble
- Radiator cap trouble
- Thermostatic fan switch trouble
- Fan relay in junction box trouble
- Fan motor broken
- Fan blade damaged
- Water pump not turning
- Water pump impeller damaged

Over cooling:

Gauge incorrect:
- Water temperature gauge broken
- Water temperature sensor broken
Cooling system component incorrect:
- Thermostatic fan switch trouble
- Thermostat trouble

Clutch Operation Faulty:

Clutch slipping:
- No clutch lever play
- Friction plate worn or warped
- Steel plate worn or warped
- Clutch spring broken or weak
- Clutch release mechanism trouble
- Clutch hub or housing unevenly worn
- Clutch inner cable catching

Clutch not disengaging properly:
- Clutch lever play excessive
- Clutch plate warped or too rough
- Clutch spring compression uneven
- Engine oil deteriorated
- Engine oil viscosity too high
- Engine oil level too high
- Clutch housing frozen on drive shaft
- Clutch release mechanism trouble
- Clutch hub locknut loose

Gear Shifting Faulty:

Doesn't go into gear; shift pedal doesn't return:
- Clutch not disengaging
- Shift fork bent or seized
- Gear stuck on the shaft
- Gear position lever binding
- Shift return spring weak or broken
- Shift return spring pin loose
- Shift mechanism arm spring broken
- Shift mechanism arm broken
- Shift pawl broken

Jumps out of gear:
- Shift fork worn
- Gear groove worn
- Gear dogs and/or dog holes worn
- Shift drum groove worn
- Gear positioning lever spring weak or broken
- Shift fork pin worn
- Drive shaft, output shaft, and/or gear splines worn

Overshifts:
- Gear positioning lever spring weak or broken
- Shift mechanism arm spring broken

Abnormal Engine Noise:

Knocking:
- IC ignitor trouble
- Carbon built up in combustion chamber
- Fuel poor quality or incorrect
- Spark plug incorrect
- Overheating

Piston slap:
- Cylinder/piston clearance excessive
- Cylinder, piston worn
- Connecting rod bent
- Piston pin, piston holes worn

Valve noise:
- Engine not sufficiently warmed up after lash adjuster installation
- Hydraulic lash adjuster damaged (worn, seizure, or spring broken)
- Air in hydraulic lash adjuster
- Metal chips or dust jammed in hydraulic lash adjuster
- Engine operated in red zone
- Valve spring broken or weak
- Camshaft bearing worn

Other noise:
- Connecting rod small end clearance excessive
- Connecting rod big end clearance excessive
- Piston ring worn, broken or stuck
- Piston seizure, damage
- Cylinder head gasket leaking
- Exhaust pipe leaking at cylinder head connection
- Crankshaft runout excessive
- Engine mounts loose
- Crankshaft bearing worn
- Primary gear worn or chipped
- Camshaft chain tensioner trouble
- Upper or lower tension spring trouble
- Camshaft chain, sprocket, guide worn
- Air suction valve damaged
- Balancer gear worn or chipped
- Balancer shaft position maladjusted
- Balancer bearing worn
- Balancer coupling rubber damper damaged
- Oil pump chain, sprocket worn

Abnormal Drive Train Noise:

Clutch noise:
- Weak or damaged rubber damper
- Clutch housing/friction plate clearance excessive
- Clutch housing gear worn

Transmission noise:
- Bearings worn
- Transmission gears worn or chipped
- Metal chips jammed in gear teeth
- Engine oil insufficient

Drive line noise:
- Bevel gear bearings worn
- Bevel gears worn or chipped
- Bevel gears maladjusted
- Rear wheel coupling damaged
- Insufficient lubricant

Abnormal Frame Noise:

Front fork noise:
- Oil insufficient or too thin
- Spring weak or broken
Oil Pressure Warning Light Goes On:
- Engine oil pump damaged
- Engine oil screen clogged
- Engine oil filter clogged
- Engine oil level too low
- Engine oil viscosity too low
- Camshaft bearings worn
- Crankshaft bearings worn
- Oil pressure switch damaged
- Wiring damaged
- Relief valve stuck open
- O-ring at the oil pipe in the crankcase damaged

Exhaust Smokes Excessively:
- White smoke:
  - Piston oil ring worn
  - Cylinder worn
  - Valve oil seal damaged
  - Valve guide worn
  - Engine oil level too high
- Black smoke:
  - Air cleaner clogged
  - Main jet too large or fallen off
  - Starter plunger stuck open
  - Fuel level in carburetor float chamber too high
- Brown smoke:
  - Main jet too small
  - Fuel level in carburetor float chamber too low
  - Surge tank duct loose
  - Air cleaner poorly sealed or missing

Handling and/or Stability Unsatisfactory:
- Handlebar hard to turn:
  - Steering stem locknut too tight
  - Bearing damaged
  - Steering bearing lubrication inadequate
  - Steering stem bent
  - Tire air pressure too low
- Handlebar shakes or excessively vibrates:
  - Tire worn
  - Swing arm pivot bearing worn
  - Rim warped, or not balanced
  - Wheel bearing worn
  - Handlebar clamp loose
  - Steering stem head bolt loose
- Handlebar pulls to one side:
  - Frame bent
  - Wheel misalignment
  - Swing arm bent or twisted
  - Steering maladjusted
  - Front fork bent
  - Right/left fork oil level uneven
  - Right/left rear shock absorbers unbalanced
- Shock absorption unsatisfactory:
  (Too hard)
  - Front fork oil excessive
  - Front fork oil viscosity too high
  - Front fork air pressure too high
  - Rear shock absorber air pressure too high
  - Tire air pressure too high
  - Front fork bent
  (Too soft)
  - Front fork oil insufficient and/or leaking
  - Front fork oil viscosity too low
  - Front fork, rear shock absorber spring weak
  - Rear shock absorber oil leaking

Brake Doesn't Hold:
- Disc brake:
  - Air in the brake line
  - Pad or disc worn
  - Brake fluid leak
  - Disc warped
  - Contaminated pad
  - Brake fluid deteriorated
  - Primary or secondary cup damaged
  - Master cylinder scratched inside
- Drum brake:
  - Brake maladjusted
  - Brake linings or drum worn
  - Overheated
  - Water in brake drum
  - Brake cam, camshaft worn
  - Oil on brake linings

Battery Discharged:
- Battery faulty (e.g., plates sulphated, shorted through sedimentation, electrolyte level too low)
- Battery leads making poor contact
- Load excessive (e.g., bulb of excessive wattage)
- Ignition switch trouble
- Regulator/Rectifier trouble
- Stator coil open or short
- Wiring faulty

Battery Overcharged:
- Alternator trouble
- Regulator/Rectifier trouble
- Battery trouble
- Wiring faulty