

Fuel level too high or too low
 Needle jet bleed hole clogged
 Air cleaner clogged, poorly sealed, or missing
 Starter plunger stuck open
 Water or foreign matter in fuel
 Carburetor holders loose
 Fuel tank air vent obstructed
 Fuel tap clogged
 Fuel line clogged

Compression low

Spark plug loose
 Cylinder head not sufficiently tightened down
 No valve clearance
 Cylinder, piston worn
 Piston rings bad (worn, weak, broken, or sticking)
 Piston ring/land clearance excessive
 Cylinder head gasket damaged
 Cylinder head warped
 Valve lifter seizure
 Valve sticking
 Valve not closing
 Valve spring broken or weak
 Valve not seating properly (valve bent, warped, or worn)

Knocking

Ignition timing maladjusted
 Carbon built up in combustion chamber
 Fuel poor quality or incorrect
 Overheating

Miscellaneous

Throttle valve won't fully open
 Vacuum pistons don't slide smoothly
 Damaged diaphragm
 Ignition timing maladjusted
 Timing not advancing
 Balancer mechanism malfunctioning
 Brakes dragging
 Clutch slipping
 Overheating
 Engine oil level too high
 Engine oil viscosity too high

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Spark plug dirty, damaged, or maladjusted
 Ignition timing maladjusted

Fuel/air mixture incorrect

Main jet clogged

Fuel level too low
 Carburetor holders loose
 Air cleaner clogged, poorly sealed, or missing

Compression high

Carbon built up in combustion chamber

Engine load faulty

Clutch slipping
 Engine oil level too high
 Engine oil viscosity too high
 Brakes dragging

Lubrication inadequate

Engine oil level too low
 Engine oil poor quality or incorrect

Clutch Operation

Camshaft bearings worn
Valve lifter worn

Faulty

Clutch

slipping

No clutch lever play
Friction plates worn or warped
Steel plates worn or warped
Clutch springs weak
Clutch release maladjusted
Clutch inner cable catching
Clutch release mechanism defective
Clutch hub or housing unevenly worn

Clutch not disengaging properly

Clutch lever play excessive
Clutch plates warped or too rough
Clutch spring tension uneven
Engine oil deteriorated
Engine oil of too high a viscosity
Engine oil level too high
Clutch housing frozen on drive shaft
Clutch release mechanism defective
Loose clutch hub nut

Gear Shifting Faulty

Doesn't go into gear; shift pedal doesn't return

Clutch not disengaging
Shift fork(s) bent or seized
Gear(s) stuck on the shaft
Shift drum positioning pin binding
Shift return spring weak or broken
Shift lever broken
External shift mechanism pawl broken
Shift return spring pin loose
External shift mechanism arm spring broken

Jumps out of gear

Shift fork(s) worn
Gear groove(s) worn
Gear dogs, dog holes, and/or dog recesses worn
Shift drum groove(s) worn
Shift drum positioning pin spring weak or broken
Shift fork pin(s) worn
Drive shaft, output shaft, and/or gear splines worn

Overshifts

Shift return spring pin loose
Shift drum positioning pin spring weak or broken
External shift mechanism arm spring weak or broken

Abnormal

Engine

Noise

Knocking

Ignition timing maladjusted
Carbon built up in combustion chamber
Fuel poor quality or incorrect
Overheating

Piston slap

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

Valve noise

Valve clearance incorrect
Valve spring broken or weak