



24. TROUBLESHOOTING

ENGINE DOES NOT START OR IS HARD TO START

1. Check fuel flow to carburetor.

REACHING CARBURETOR

2. Perform spark test.

GOOD SPARK

3. Test cylinder compression

COMPRESSION NORMAL

4. Start by following normal procedure.

ENGINE DOES NOT FIRE

5. Remove and inspect spark plug.

POSSIBLE CAUSE

NOT REACHING CARBURETOR

- (1) Fuel tank empty.
- (2) Clogged fuel tube or fuel filter.
- (3) Sticking float valve.
- (4) Clogged fuel tank cap breather hole.

WEAK OR NO SPARK

- (1) Faulty spark plugs.
- (2) Fouled spark plugs.
- (3) Faulty spark unit.
- (4) Broken or shorted spark plug wires.
- (5) Faulty alternator.
- (6) Broken or shorted ignition coil.
- (7) Faulty ignition switch.
- (8) Faulty pulse generator.

LOW COMPRESSION

- (1) Improper valve clearance.
- (2) Valve stuck open.
- (3) Worn cylinder and piston rings.
- (4) Damaged cylinder head gasket.
- (5) Seized valve.
- (6) Improper valve timing.

ENGINE FIRES BUT STOPS

- (1) Improper choke operation.
- (2) Carburetor incorrectly adjusted.
- (3) Intake pipe leaking.
- (4) Improper ignition timing (Spark unit or pulser generator).
- (5) Incorrect fast idle.
- (6) Fuel contaminated.

WET PLUG

- (1) Carburetor flooded.
- (2) Choke closed.
- (3) Throttle valve open.
- (4) Air cleaner dirty.



TROUBLESHOOTING

ENGINE LACKS POWER

	POSSIBLE CAUSE
1. Raise wheels off ground and spin by hand. WHEEL SPINS FREELY ↓	WHEELS DO NOT SPIN FREELY → (1) Brake dragging. (2) Worn or damaged wheel bearings. (3) Wheel bearing needs lubrication. (4) Final gear bearing damaged.
2. Check tire pressure PRESSURE NORMAL ↓	PRESSURE LOW → (1) Punctured tire. (2) Faulty tire valve.
3. Accelerate rapidly from low to second. ENGINE SPEED LOWERED WHEN CLUTCH IS RELEASED ↓	ENGINE SPEED CHANGED WHEN CLUTCH IS RELEASED → (1) Clutch slipping. (2) Worn clutch disc/plate. (3) Warped clutch disc/plate.
4. Accelerate lightly. ENGINE SPEED INCREASES ↓	ENGINE SPEED NOT INCREASED → (1) Carburetor choke closed. (2) Clogged air cleaner. (3) Restricted fuel flow. (4) Clogged fuel tank cap vent hole. (5) Clogged muffler.
5. Check ignition timing. CORRECT ↓	INCORRECT → (1) Faulty spark unit. (2) Faulty pulse generator. (3) Faulty ignition advancer.
6. Check valve clearance. CORRECT ↓	INCORRECT → (1) Improper valve adjustment. (2) Worn valve seat.
7. Test cylinder compression. NORMAL ↓	TOO LOW → (1) Valve stuck open. (2) Worn cylinder and piston rings. (3) Leaking head gasket. (4) Improper valve timing.
8. Check carburetor for clogging. NOT CLOGGED ↓	CLOGGED → (1) Carburetor not serviced frequently enough.
9. Remove spark plug. NOT FOULED OR DISCOLORED ↓	FOULED OR DISCOLORED → (1) Plugs not serviced frequently enough. (2) Spark plug with incorrect heat range.
10. Check oil level and condition. CORRECT ↓	INCORRECT → (1) Oil level too high. (2) Oil level too low. (3) Contaminated oil.
11. Remove cylinder head cover and inspect lubrication. VALVE TRAIN LUBRICATED PROPERLY ↓	VALVE TRAIN NOT LUBRICATED PROPERLY → (1) Clogged oil passage. (2) Clogged oil control orifice.
12. Check for engine overheating. NOT OVERHEATING ↓	OVERHEATING → (1) Excessive carbon build-up in combustion chamber. (2) Use of poor quality fuel. (3) Clutch slipping.
13. Accelerate or run at high speed. ENGINE DOES NOT KNOCK	ENGINE KNOCKS → (1) Worn piston and cylinder. (2) Wrong type of fuel. (3) Excessive carbon build-up in combustion chamber. (4) Ignition timing too advanced (Faulty spark unit or advancer).



POOR PERFORMANCE AT LOW AND IDLE SPEEDS

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|---|----------------------------|---|
| 1. Check ignition timing and valve clearance. | INCORRECT | (1) Improper valve clearance.
(2) Improper ignition timing
(Faulty spark unit or spark advancer). |
| CORRECT | | |
| 2. Check carburetor pilot screw adjustment. | INCORRECT | See Fuel System Section |
| CORRECT | | |
| 3. Check for leaking intake pipe. | LEAKING | (1) Deteriorated insulator O-ring.
(2) Loose carburetor. |
| NO LEAK | | |
| 4. Perform spark test. | WEAK OR INTERMITTENT SPARK | (1) Faulty, carbon or wet fouled spark plug.
(2) Faulty spark unit.
(3) Alternator faulty.
(4) Faulty ignition coil.
(5) Faulty spark advancer. |
| GOOD SPARK | | |

POOR PERFORMANCE AT HIGH SPEED

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| 1. Check ignition timing and valve clearance. | INCORRECT | (1) Improper valve clearance.
(2) Faulty spark unit.
(3) Faulty pulse generator.
(4) Faulty spark advancer. |
| CORRECT | | |
| 2. Disconnect fuel tube at carburetor. | FUEL FLOW RESTRICTED | (1) Lack of fuel in tank.
(2) Clogged fuel line.
(3) Clogged fuel tank breather hole.
(4) Clogged fuel valve. |
| FUEL FLOWS FREELY | | |
| 3. Remove carburetor and check for clogged jet. | CLOGGED | (1) Clean. |
| NO CLOG | | |
| 4. Check valve timing. | INCORRECT | (1) Cam sprocket not installed properly. |
| CORRECT | | |
| 5. Check valve spring tension. | WEAK | (1) Faulty spring. |
| NOT WEAKENED | | |

POOR HANDLING → Check tire pressure

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| 1. If steering is heavy. | | (1) Steering top thread nut too tight.
(2) Damaged steering head bearings. |
| 2. If either wheel is wobbling. | | (1) Excessive wheel bearing play.
(2) Bent rim.
(3) Improperly installed wheel hub.
(4) Swing arm pivot bearing excessively worn.
(5) Bent frame.
(6) Swing arm pivot adjusting bolt too tight. |
| 3. If the motorcycle pulls to one side. | | (1) Faulty shock absorber.
(2) Front and rear wheels not aligned.
(3) Bent front fork.
(4) Bent swing arm. |