

20. Troubleshooting

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Engine Does Not Start or Is Hard to Start

1. Open the drain screw, and check fuel flow to the carburetor.

Fuel is supplied.



2. Check spark plugs

Good spark



3. Test cylinder pressure.

Pressure normal



4. Start engine in the following procedure

Engine will not start.



5. Remove spark plugs.

Dry plugs

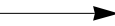
Fuel not supplied to the carburetor



Cause of Trouble

- (1) Fuel tank empty
- (2) Fuel tube up to the fuel tank clogged, or the vacuum tube or fuel tube up to the inlet pipe clogged
- (3) Float valve clogged
- (4) Fuel tank cap air hole clogged
- (5) Fuel supply pipe frozen
- (6) Fuel strainer clogged.

weak or no spark



- (1) Faulty spark plug
- (2) Contaminated spark plug
- (3) Faulty CDI unit
- (4) Faulty A.C. generator
- (5) Disconnected or shorted high tension cord
- (6) Disconnected or shorted ignition coil
- (7) Faulty main switch

Low cylinder pressure



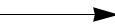
- (1) Piston ring seized
- (2) Cylinder and piston ring worn
- (3) Cylinder and cylinder head cracked
- (4) Crank case air leaks
- (5) Cylinder head gasket damaged

Engine start but stops immediately



- (1) Manifold air leaks
- (2) Inadequate ignition timing

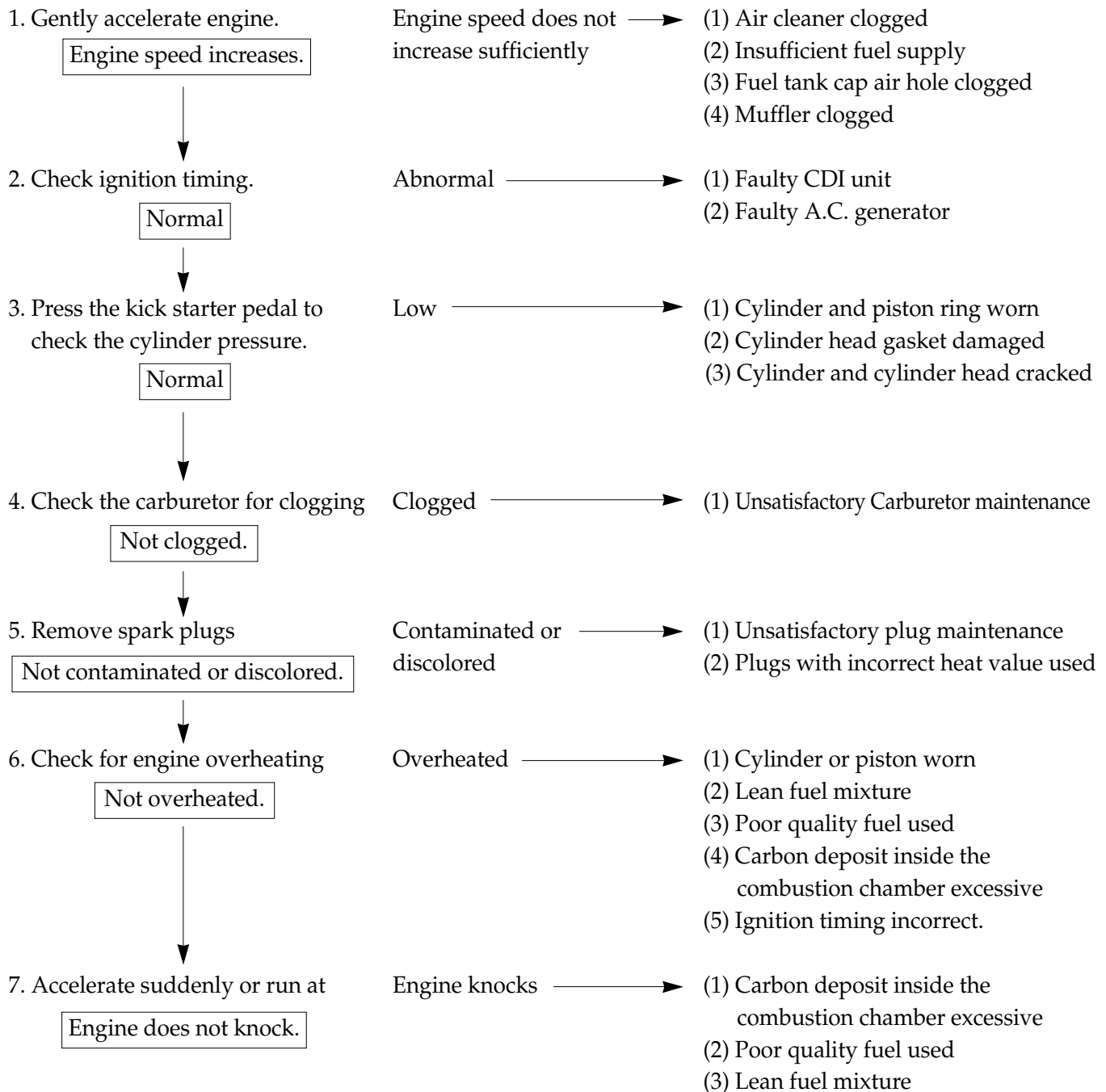
Plugs wet



- (1) Carburetor flooded
- (2) Faulty control box
- (3) Throttle valve excessively opened

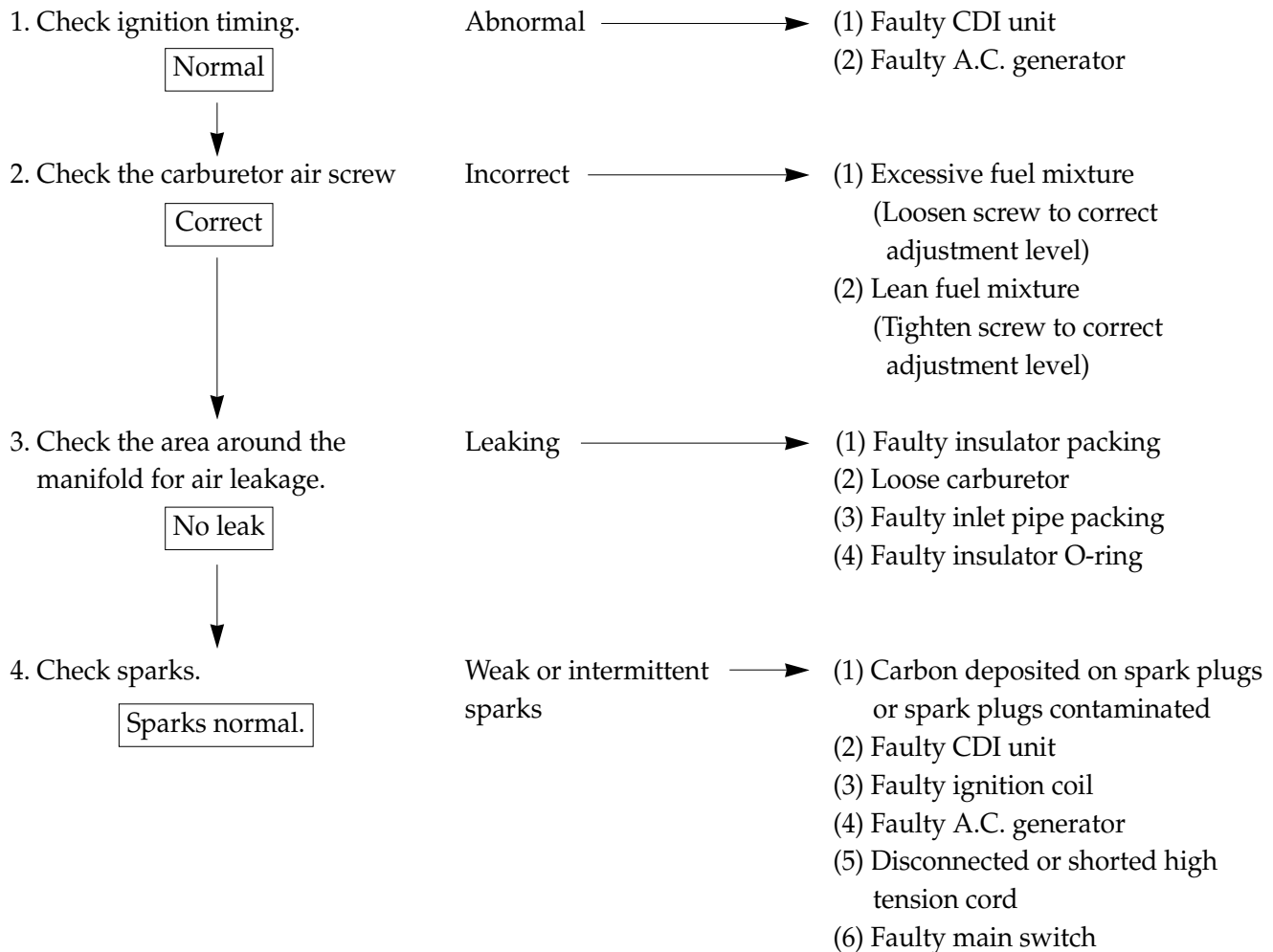
Engine output Insufficient

Cause of Trouble



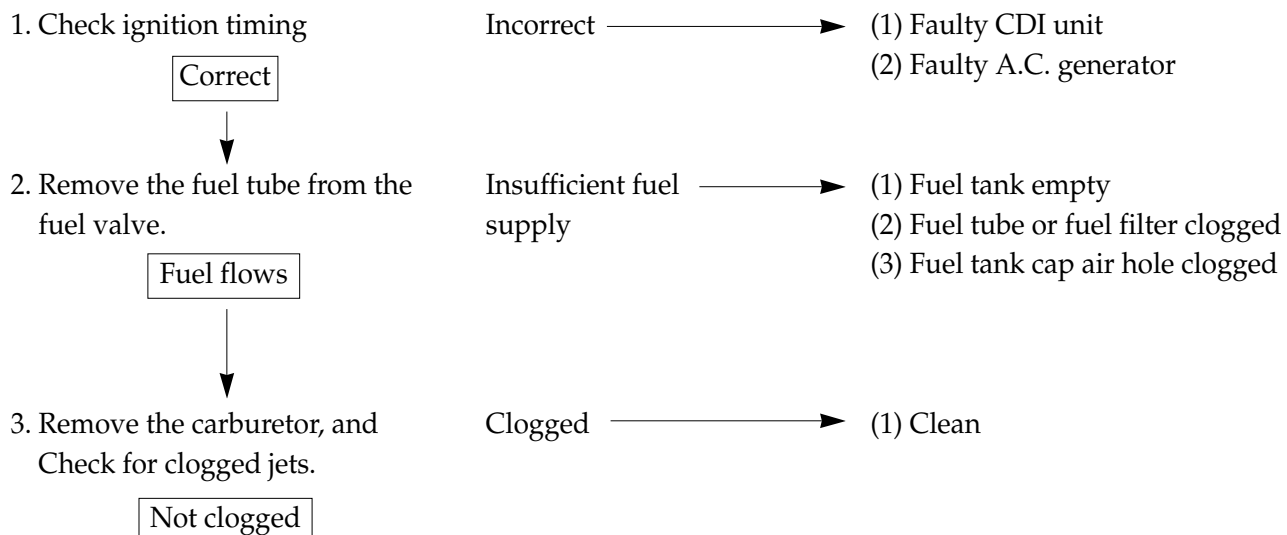
Poor Performance at Low Speed and Idling

Cause of Trouble



Poor Performance at High Speed

Cause of Trouble



Unsatisfactory Operation

Clutch Drive/Driven Pulley

1. Engine starts but motorcycle does not move. —>

Cause of Trouble

- (1) Drive belt worn or slips
- (2) Ramp plate damaged
- (3) Drive face spring damaged
- (4) Clutch lining came off
- (5) Driven pulley shaft spline damaged
- (6) Faulty transmission
- (7) Transmission seized



2. Vehicle moves slow, engine starts but stops immediately —>

- (1) Shoe spring damaged
- (2) Clutch outer and weight seized
- (3) Pivot seized



3. Engine weak at start. —>

- (1) Drive belt worn or slips
- (2) Weight roller worn
- (3) Drive pulley bearing seized
- (4) Weak drive face spring
- (5) Drive pulley bearing worn or seized



4. Engine weak at high speed. —>

- (1) Drive belt worn or slips
- (2) Weight roller worn
- (3) Drive pulley bearing worn



5. Abnormal noise or odor. —>

- (1) Oil or grease spilled on the drive belt and inside pulley
- (2) Drive belt worn
- (3) Weak drive face spring
- (4) Driven pulley bearing worn or seized

Poor Mechanical Performance

Check tire pressure

1. Steering is heavy —>

Cause of Trouble

- (1) Steering head adjuster excessively tightened
- (2) Steering cone race or steel ball damaged



2. Wheels wobbling —>

- (1) Excessive wheel bearing play
- (2) Rim bent
- (3) Axle nut loose



3. Motorcycle pulls to one side —>

- (1) Front wheel and rear wheel not aligned
- (2) Front fork bent

Poor Front/Rear Suspension Performance

Check tire pressure

1. Suspension excessively soft —>

Cause of Trouble

- (1) Cushion spring weak
- (2) Overloaded
- (3) Damper oil leaks



2. Suspension excessively Hard —>

- (1) Fork pipe or cushion rod bent

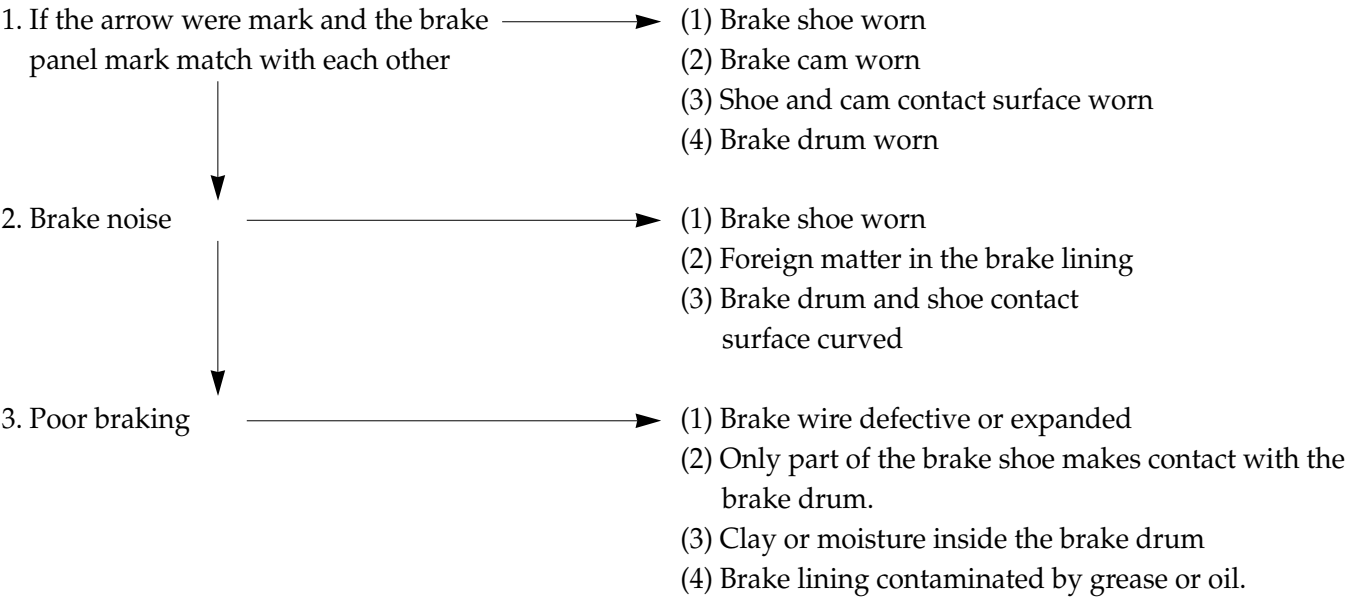


3. Noise from the suspension —>

- (1) Sliders stuck
- (2) Cushion stopper rubber damaged

Poor Brake Performance Check brake adjustment

Cause of Trouble



Fuel Gauge

Gauge Reading Inaccurate (Ignition switch ON)

1. Operate the turn signal to check the battery circuit.

Signal operates satisfactorily



2. Remove the fuel level sensor, and move float to check the status of operation

Float up : Full position

Float down : Empty position

Needle not moving



3. Short-circuit the tank unit terminal on the wire harness side.

Needle not moving



4. Terminal joints loose or faulty connection



Check

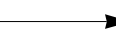
Signal continuously operates dim or does not operate at all



Cause of Trouble

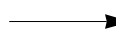
- (1) Fuse cut
- (2) Battery weak or totally discharged
- (3) Faulty ignition switch
- (4) Faulty terminal connection
- (5) Wire harness damaged

Needle moves.



- (1) Faulty float

Needle not moving



- (1) Balance coil damaged or shorted

Unsatisfactory



- (1) Terminal loose
- (2) Faulty terminal connection

- (1) Balance coil/lead shorted or damaged

Gauge needle shakes or vertically wobbles. (Ignition switch ON)

1. Operate the turn signal to check the battery circuit

Signal operates satisfactorily



2. Remove the tank and operate the float

Needle moving



3. Move the float rapidly.
One Up/down motion per second.

Needle moving



4. Start the engine, and measure the fuel level sensor resistance.

Resistance not changed

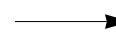


5. Check each joint



Satisfactory

Signal continuously operates dim or does not operate at all



Cause of Trouble

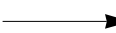
- (1) Fuse cut
- (2) Battery weak or totally discharged
- (3) Ignition switch damaged or shorted
- (4) Terminal loose or faulty connection
- (5) Wire harness damaged

Needle not moving



- (1) Faulty fuel level sensor connection

Needle not moving



- (1) Damper oil inside the meter insufficient.

Resistance changed significantly



- (1) Faulty connection between the sliding arm and the resistance

Unsatisfactory



- (1) Terminal connection loose or faulty connection

- (1) Balance coil/lead shorted or damaged

Starter Motor

Starting motor will not turn

1. Apply the brake and check the brake stop light for operation

Light is activated

Light not activated →

Cause of Trouble

- (1) Fuse cut
- (2) Battery weak or totally discharged
- (3) Faulty stop right switch
- (4) Faulty terminal connection
- (5) Ignition switch damaged or shorted

2. Operate the turn signal to check the battery circuit.

Signal operates satisfactorily.
(60~120 signaling/second)

Signal continuously operates dim or does not operate at all →

- (1) Battery totally discharged.

3. Press the starter switch to check the starter magnetic.

Satisfactory

Unsatisfactory →

- (1) Faulty starter switch connection
- (2) Starter magnetic damaged or shorted
- (3) Connector and terminals loose

4. Connect the starter to battery and check operation. Light not activated

Starter turns

Starter does not turn →

- (1) Worn Brush worn.
- (2) Rotor winding damaged or shorted
- (3) Starter motor subwire damaged
- (4) Terminal loose

- (1) Wire harness damaged

Starter Motor turns slow or fails to crank motor

- 1 Operate the turn signal to check the battery circuit

Signal operates satisfactorily.

Signal continuously operates dim or does not operate at all →

Cause of Trouble

- (1) Battery totally discharged.

2. Connect the starter subwire to the battery.

Turns slowly
(with speed not changing)

Operates satisfactory →

- (1) Connector/terminal loose
- (2) Faulty starter magnetic connector.

3. Operate the kick starter.

Operates light

Operates heavy →

- (1) Engine seized
- (1) Starter motor winding damaged or shorted

Starter turns without stopping

1. Turn off the ignition switch

Will not stop

Cause of Trouble

- (1) Pinion seized

- Starter magnet disconnected or seized