



# 20. TROUBLESHOOTING

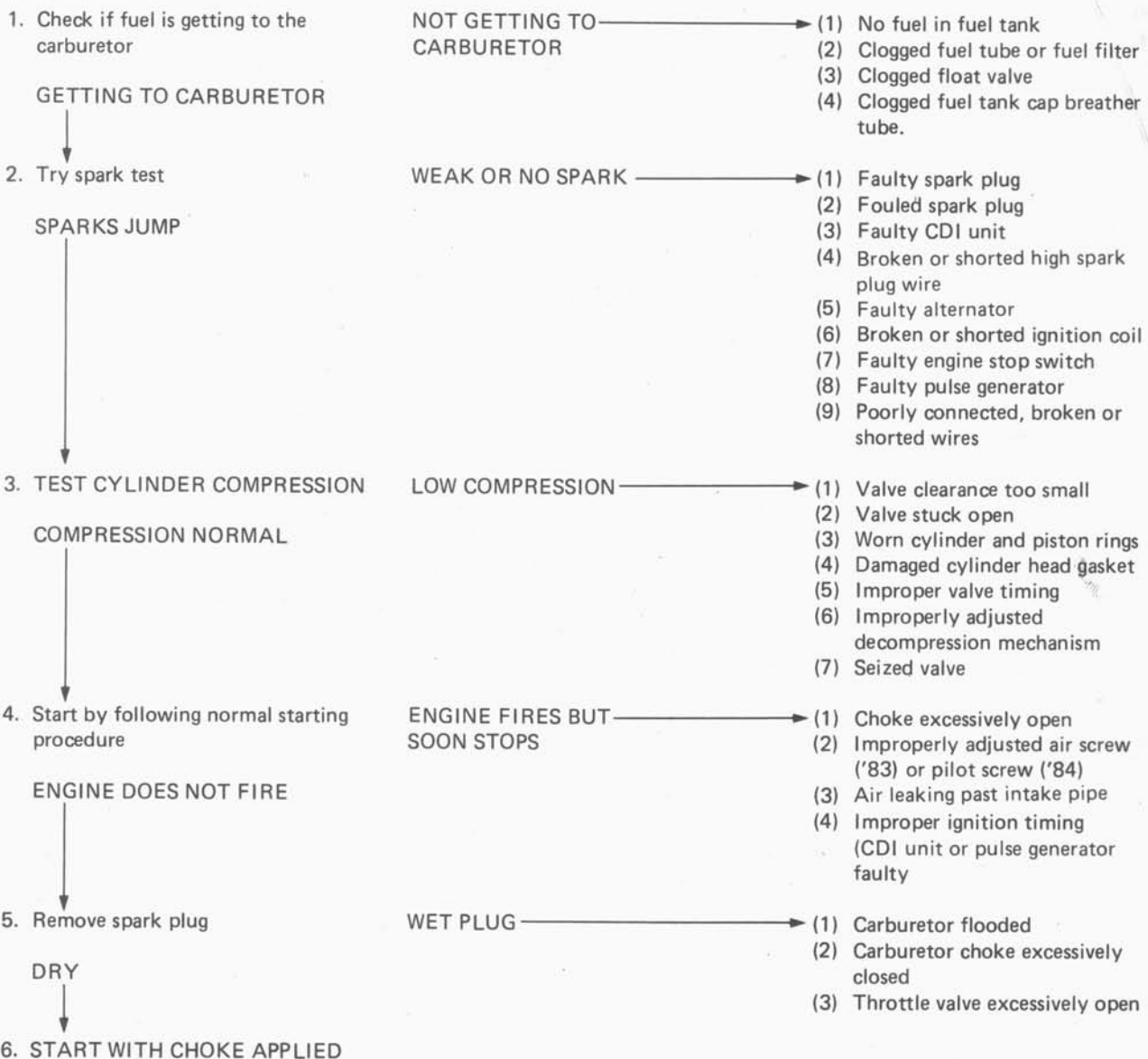
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## ENGINE DOES NOT START OR IS HARD TO START

### Probable Cause





## ENGINE LACKS POWER

	Probable Cause
1. Raise wheels off ground and pin by hand WHEEL SPINS FREELY ↓ 2. Check tire pressure with tire gauge PRESSURE NORMAL ↓ 3. Try rapid acceleration from low to second ENGINE SPEED LOWERED WHEN CLUTCH IS RELEASED ↓ 4. Lightly accelerate engine ENGINE SPEED INCREASE ↓ 5. Check ignition timing CORRECT ↓ 6. Check valve clearance CORRECT ↓ 7. Test cylinder compression using compression gauge NORMAL ↓ 8. Check carburetor for clogging NOT CLOGGED ↓ 9. Remove spark plug NOT FOULED OR DISCOLORED ↓	<p>WHEEL DOES NOT SPIN FREELY → (1) Brake dragging (2) Worn or damaged wheel bearing (3) Drive chain too tight (4) Rear axle nut excessively tightened</p> <p>PRESSURE TOO LOW → (1) Punctured tire and tube (2) Faulty tire valve</p> <p>ENGINE SPEED DOES NOT CHANGE WHEN CLUTCH IS RELEASED → (1) Clutch slipping (2) Worn clutch disc/plate (3) Warped clutch disc/plate</p> <p>ENGINE SPEED DOES NOT INCREASE SUFFICIENTLY → (1) Carburetor choke closed (2) Clogged air cleaner (3) Restricted fuel flow (4) Clogged fuel tank breather tube (5) Clogged muffler</p> <p>INCORRECT → (1) Faulty CDI unit (2) Faulty pulse generator (3) Faulty ignition advancer</p> <p>INCORRECT → (1) Improper valve adjustment (2) Worn valve seat</p> <p>TOO LOW → (1) Valve stuck open (2) Worn cylinder and piston rings (3) Leaking head gasket (4) Improper valve timing (5) Improperly adjusted decompression mechanism</p> <p>CLOGGED → (1) Carburetor not serviced frequently enough</p> <p>FOULED OR DISCOLORED → (1) Plug not serviced frequently enough (2) Use of plug with improper heat range</p>



10. Remove oil level gauge and check oil level and for dirty oil

CORRECT

11. Remove cylinder head cover and inspect lubrication

VALVE TRAIN LUBRICATED PROPERLY

12. Check if engine overheats

13. Accelerate or run at high speed

ENGINE DOES NOT KNOCK

OIL LEVEL INCORRECT

- (1) Oil level too high
- (2) Oil level too low
- (3) Contaminated oil

VALVE TRAIN NOT LUBRICATED PROPERLY

- (1) Clogged oil passage
- (2) Clogged oil control orifice

OVERHEATS

- (1) Excessive carbon build-up in combustion chamber.
- (2) Use of improper quality of fuel
- (3) Clutch slipping
- (4) Fuel-air mixture too lean

ENGINE KNOCKS

- (1) Worn piston and cylinder
- (2) Fuel-air mixture too lean
- (3) Use of improper grade of fuel
- (4) Excessive carbon build-up in combustion chamber
- (5) Ignition timing too advanced (Faulty CDI unit)

## POOR PERFORMANCE AT LOW AND IDLE SPEEDS

1. Check ignition timing and valve clearance

CORRECT

2. Check carburetor air screw ('83) or pilot screw ('84) adjustment

CORRECT

3. Check if air is leaking past intake pipe

NOT LEAKING

4. Try spark test

GOOD SPARK

INCORRECT

Probable Cause:

- (1) Improper valve clearance
- (2) Improper ignition timing (Faulty CDI unit)

INCORRECT

- (1) Fuel-air mixture too lean (To correct, turn air screw ('83) in or pilot screw ('84) out)
- (2) Fuel-air mixture too rich (To correct, turn air screw ('83) out or pilot screw ('84) in)

LEAKING

- (1) Deteriorated insulator O-ring
- (2) Loose carburetor

WEAK OR INTERMITTENT SPARK

- (1) Faulty, carbon or wet fouled spark plug
- (2) Faulty CDI unit
- (3) Alternator faulty
- (4) Faulty ignition coil
- (5) Faulty pulse advancer



**TROUBLESHOOTING**

**POOR PERFORMANCE AT HIGH SPEED**

Probable Cause

- |   |                               |  |
|---|-------------------------------|--|
| <p>1. Check ignition timing and valve clearance</p> <p>CORRECT</p> <p>↓</p>       | <p>INCORRECT →</p>            | <p>(1) Improper valve clearance<br/>(2) Faulty CDI unit<br/>(3) Faulty pulse generator<br/>(4) Faulty advancer</p> |
| <p>2. Disconnect fuel tube at carburetor</p> <p>FUEL FLOWS FREELY</p> <p>↓</p>    | <p>FUEL FLOW RESTRICTED →</p> | <p>(1) Lack of fuel in tank<br/>(2) Clogged fuel line<br/>(3) Clogged fuel tank breather tube</p>                  |
| <p>3. Remove carburetor and check for clogged jet</p> <p>NOT CLOGGED</p> <p>↓</p> | <p>CLOGGED →</p>              | <p>(1) Clean</p>   |
| <p>4. Check valve timing</p> <p>CORRECT</p> <p>↓</p>                              | <p>INCORRECT →</p>            | <p>(1) Cam sprocket not installed properly</p>   |
| <p>5. Check valve spring tension</p> <p>NOT WEAKENED</p>                          | <p>WEAK →</p>                 | <p>(1) Faulty spring</p>   |

**POOR HANDLING**

Check tire pressure

Probable Cause

- |   |          |  |
|---|----------|--|
| <p>1. If steering is heavy</p>                | <p>→</p> | <p>(1) Steering head adjuster too tight<br/>(2) Damaged steering cones or steel balls</p>  |
| <p>2. If either wheel is wobbling</p>         | <p>→</p> | <p>(1) Excessive wheel bearing play<br/>(2) Distorted rim<br/>(3) Improperly installed wheel hub<br/>(4) Swing arm pivot bushing excessively worn<br/>(5) Distorted frame<br/>(6) Improper drive chain tension or adjustment<br/>(7) Loose swing arm pivot bolt<br/>(8) Loose engine hanger bolt</p> |
| <p>3. If the motorcycle pulls to one side</p> | <p>→</p> | <p>(1) Misadjusted shock absorber<br/>(2) Front and rear wheels not aligned<br/>(3) Bent front fork<br/>(4) Bent swing arm</p>   |