



22. 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

NOT REACHING CARBURETOR

WEAK OR NO SPARK

LOW COMPRESSION

ENGINE FIRES BUT STOPS

WET PLUG

POSSIBLE CAUSE

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

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

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

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

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



TROUBLESHOOTING

ENGINE LACKS POWER

1. Raise wheels off ground and spin by hand
WHEEL SPINS FREELY
2. Check tire pressure
PRESSURE NORMAL
3. Accelerate rapidly from low to second
ENGINE SPEED LOWERED WHEN CLUTCH IS RELEASED
4. Accelerate lightly
ENGINE SPEED INCREASES
5. Check ignition timing
CORRECT
6. Check valve clearance
CORRECT
7. Test cylinder compression
NORMAL
8. Check carburetor for clogging
NOT CLOGGED
9. Remove spark plug
NOT FOULED OR DISCOLORED
10. Check oil level and condition
CORRECT
11. Remove cylinder head cover and inspect lubrication
VALVE TRAIN LUBRICATED PROPERLY
12. Check for engine overheating
NOT OVERHAETING
13. Accelerate or run at high speed
ENGINE DOES NOT KNOCK

- POSSIBLE CAUSE**
- WHEELS DO NOT SPIN FREELY → (1) Brake dragging
(2) Worn or damaged wheel bearings
(3) Wheel bearing needs lubrication
(4) Final gear bearing damaged
 - PRESSURE LOW → (1) Punctured tire
(2) Faulty tire valve
 - ENGINE SPEED CHANGED WHEN CLUTCH IS RELEASED → (1) Clutch slipping
(2) Worn clutch disc/plate
(3) Warped clutch disc/plate
 - ENGINE SPEED NOT INCREASED → (1) Carburetor choke closed
(2) Clogged air cleaner
(3) Restricted fuel flow
(4) Clogged fuel tank breather tube
(5) Clogged muffler
 - INCORRECT → (1) Faulty spark unit
(2) Faulty pulse generator
(3) Faulty ignition advancer
 - INCORRECT → (1) Improper valve adjustment
(2) Worn valve seat
 - TOO LOW → (1) Valve stuck open
(2) Worn cylinder and piston rings
(3) Leaking head gasket
(4) Improper valve timing
 - CLOGGED → (1) Carburetor not serviced frequently enough
 - FOULED OR DISCOLORED → (1) Plugs not serviced frequently enough
(2) Spark plug with incorrect heat range
 - INCORRECT → (1) Oil level too high
(2) Oil level too low
(3) Contaimnated oil
 - VALVE TARIN NOT LUBRICATED PROPERLY → (1) Clogged oil passage
(2) Clogged oil control orifice
 - OVERHEATING → (1) Excessive carbon build-up in combustion chamber
(2) Use of poor quality fuel
(3) Clutch slipping
 - 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)