ENGINE DOES NOT START OR IS HARD TO START

		POSSIBLE CAUSE
1. Check fuel flow to carburetor	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
REACHING CARBURETOR ↓		
2. Perform spark test	WEAK OR NO SPARK →	(1) Faulty spark plugs (2) Fouled spark plugs (3) Faulty spark unit (4) Broken or shorted high tension wires (5) Faulty A.C. generator (6) Broken or shorted ignition coil (7) Faulty ignition switch (8) Faulty pulser generator
GOOD SPARK ↓		
3. Test cylinder compression	LOW COMPRESSION →	(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
COMPRESSION NORMAL ↓		
4. Start by following normal procedure	ENGINE FIRES BUT STOPS →	(1) Improper choke operation (2) Carburetor incorrectly adjusted (3) Manifold leaking (4) Improper ignition timing (Spark unit or pulser generator) (5) Incorrect fast idle (6) Fuel contaminated
ENGINE DOES NOT FIRE ↓		
5. Remove and inspect spark pulg	WET PLUG →	(1) Carburetor flooded (2) Choke closed (3) Throttle valve open (4) Air cleaner dirty

ENGINE LACKS POWER

1. Raise wheels off ground and spin by hand

   WHEEL SPINS FREELY

2. Check tire pressure

   PRESSURE NORMAL

3. Accelerate rapid 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 OVERHEATING

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 bearing (3) Wheel bearing needs lubrication (4) Drive chain too tight
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 pulser 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) Contaminated oil
VALVE TRAIN 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 (4) Fuel-air mixture too lean
ENGINE KNOCKS →	(1) Worn piston and cylinder (2) Fuel-air mixture too lean (3) Wrong type of fuel (4) Excessive carbon build-up in combustion chamber (5) Ignition timing too advanced (Faulty spark unit or advancer)

POOR PERFORMANCE AT LOW AND IDLE SPEEDS

		POSSIBLE CAUSE
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 manifold	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) A.C. generator faulty (4) Faulty ignition coil (5) Faulty spark advancer
GOOD SPARK		

POOR PERFORMANCE AT HIGH SPEED

1. Check ignition timing and valve clearance	INCORRECT →	(1) Improper valve clearance (2) Faulty spark unit (3) Faulty pulser 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 cock
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 tesntion	WEAK →	(1) Faulty spring
NOT WEAKENED		

POOR HANDLING → Check tire pressure

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) Distorted rim (3) Improperly installed wheel hub (4) Swing arm pivot bushing excessively worn (5) Distorted frame (6) Improper drive chain tension or adjustment
3. If the motorcycle pulls to one side →	(1) Improperly adjusted shock absorber (2) Front and rear wheels not aligned (3) Bent front fork (4) Bent swing arm