24. Troubleshooting

Engine Does Not Start or is Hard to Start

Engine Lacks Power

Poor Performance at High Speed

Poor Handling

24-4

Poor Handling

24-4

24-5

Poor Performance at Low and Idle

Speeds

24-3

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24-7

Poor Handling

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Engine Does Not Start or is Hard to Start



Air cleaner dirty

Engine Lacks Power

Possible Cause

			Possible Cause
1.	Raise wheels off ground and spin by hand	— Wheels Do Not Spin Freely — ➤	Brake dragging Worn or damaged wheel bearings Wheel bearings need lubrication
	Wheel Spins Freely		Final gear bearing damaged
2.	Check tire pressure —	Pressure Low	►• Faulty tire valve
	Pressure Normal		
3.	Accelerate rapidly from low to — second V Engine Speed Reduced When Clutch is Released	— Engine Speed Does Not Change ——➤ When Clutch Released	 Clutch slipping Worn clutch discs/plates Warped clutch discs/plates Weak clutch spring Sticking clutch hydraulic system Check for engine oil additive
4.	Accelerate lightly ————————————————————————————————————	— Engìne Speed Does Not Increase ——➤	 Starting enrichment valve opened Clogged air cleaner Restricted fuel flow Clogged muffler Clogged fuel tank breather Faulty fuel pump Faulty fuel pump relay
5.	Check ignition timing ————————————————————————————————————	— Incorrect — >	Faulty ignition control moduleFaulty ignition pulse generator
6.	Check valve clearance ————————————————————————————————————	— Incorrect — →	Improper valve adjustment Worn valve seat
7.	Test cylinder compression ——— Normal	— Toa Low ———→	 Valve stuck open Worn cylinder and piston rings Leaking head gasket Improper valve timing Seized valve Improper valve and seat contact
8.	Check carburetor for clogging —— Not Clogged	Clogged ————	 Carburetor not serviced frequently enough
9.	Remove spark plug	— Fouled or Discolored ——————	-• Plugs not serviced frequently
	Not Fouled or Discolored		enoughSpark plugs are incorrect heat range
10.	Correct	— Incorrect ——→	Oil level too low
11.	.	— Valve Train Not Lubricated ———➤ Properly	 Contaminated oil Clogged oil passage Clogged oil control orifice Contaminated oil Faulty oil pump
		•	

Possible Cause

 Ignition timing too advanced (Faulty ignition control module)

Lean fuel mixture

12. Check for engine overheating — Overheating -Coolant level low Fan motor not working Not Overheating (Faulty fan motor switch) · Thermostat stuck closed · Excessive carbon build-up in combustion chamber Use of poor quality fuel Clutch slipping - Check for engine oil additive Lean fuel mixture Wrong type of fuel 13. Accelerate or run at high speed — Engine Knocks — Worn piston and cylinder Wrong type of fuel Excessive carbon build-up in Engine Does Not Knock combustion chamber

Poor Performance at Low and Idle Speeds

Possible Cause 1. Check ignition timing and valve —— Incorrect —— Improper valve clearance clearance Improper ignition timing - Faulty ignition control module Correct Faulty ignition pulse generator 2. Check carburetor pilot screw ----- Incorrect --adjustment Correct 3. Check for leaking intake pipe — Leaking — Loose insulator clamps Damaged insulator Not Leaking 4. Perform spark test — Weak or Intermittent Spark — Faulty, carbon or wet fouled spark plug Good Spark Faulty ignition control module Faulty ignition coil Broken or shorted spark plug wires Faulty engine stop switch Faulty ignition pulse generator Faulty ignition switch Faulty bank angle sensor · Faulty bank angle sensor relay Faulty side stand switch Loose or disconnected ignition system wires

Poor Performance at High Speed

Possible Cause 1. Check ignition timing and valve — Incorrect — Improper valve clearance clearance Improper ignition timing - Faulty ignition control module Correct - Faulty ignition pulse generator 2. Disconnect fuel tube at — Fuel Flow Restricted — Clogged fuel line carburetor Clogged fuel tank breather Clogged fuel filter Fuel Flows Freely · Faulty fuel pump or relay Fuel tank empty Faulty auto fuel valve 3. Remove carburetor and check — Clogged — — for clogged jets Not Clogged 4. Check valve timing ———— Incorrect — Camshaft not installed properly · Cam reduction gear not Correct installed properly · Timing marks on the timing belt pulleys not aligned 5. Check valve spring — Weak — Faulty spring Not Weakened Poor Handling ———— Check tire pressure Possible Cause If steering is heavy — Steering head bearing adjustment nut too tight Damaged steering head bearings · Bent steering stem 2. If either wheel is wobbling — Excessive wheel bearing play Bent rim Improperly installed wheel hub · Swingarm pivot bearing excessively worn Bent frame Swingarm pivot adjusting bolt too tight 3. If the motorcycle pulls to one side -Front and rear wheels not aligned Bent fork Bent swingarm Bent front axle Bent frame