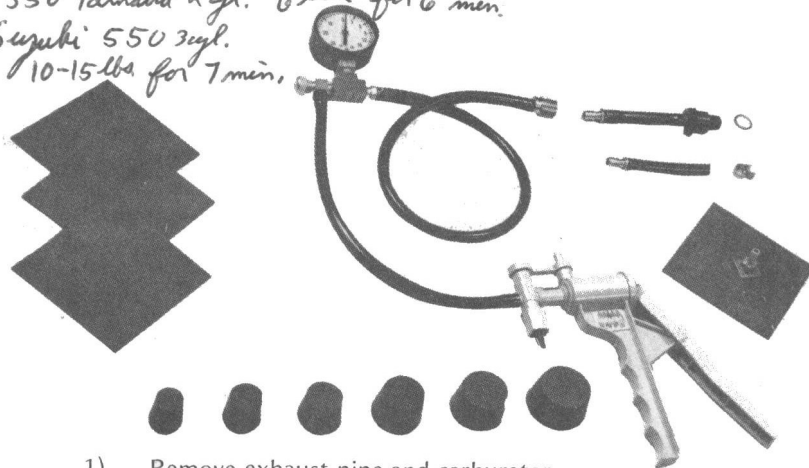


VACUUM/PRESSURE TESTER ACCESSORY PART NO. 3800

*Kawasaki 750 3 cyl 8-9 lbs for 1 minute
350 Yamaha 2 cyl. 6 lbs for 6 min.
Suzuki 550 3 cyl.
10-15 lbs for 7 min.*



Two cycle engine performance relies upon good engine sealing, especially in the crankcase where the primary compression of the fuel/air mixture takes place. A vacuum/pressure tester should be used to check an engine for leakage and pin-point any problem area before actual disassembly work is begun. This not only saves valuable time, but eliminates guess work and unnecessary parts replacement.

Making both vacuum and pressure tests on an engine are easily done with this tester. It is important to remember that an engine may pass the vacuum test but fail the pressure test or vice versa. Therefore, both procedures must be followed for successful results.

Where to Check for Leaks

- (1) Spark Plug – Threads & Gaskets
- (2) Head Gasket – Warped or Cracked
- (3) Cylinder Base Gasket – Defective Intake Gasket
- (4) Cylinder – Porous Casting – (check all areas)
- (5) Cylinder Oil Line – Defective Line, Banjo Fitting or Bolt – (improperly installed parts and washers)
- (6) Crankcase Gasket – Warped Cases or Sealant – (mating surfaces leaking).
- (7) Outside Crankshaft – Defective Case & Seal Area (to incl. porous areas).
- (8) Inside Crankcase – Defective Case and Seal Area (to incl. porous areas).
- (9) Rotary Valve – Defective Parts, O-rings & Gaskets
- (10) Slip Type Carb. Mount – Defective Fitting on Carburetor Mounts for Rotary Valve Engine
- (11) Oil Line Check Valves – Not Sealing – (Loose union bolts and/or defective union bolt gaskets) One way valves allowing backflow.

- 1) Remove exhaust pipe and carburetor.
- 2) Tester kit contains a hose adaptor which fits into the spark plug hole and a neoprene gasket with hose adaptor. Also included are a selection of rubber stoppers and neoprene gasket material for sealing purposes.
- 3) If tester is to be connected at spark plug, remove spark plug and fit adaptor. Turn engine so piston is at BDC. Plug both exhaust and inlet using rubber stoppers and/or neoprene gasket material.

NOTE: Plug exhaust on single cylinder models by removing exhaust pipe holder and fitting neoprene gasket material (cut to size with scissors) between holder and cylinder. Plug exhaust on three cylinder models by installing a rubber stopper in exhaust port and securing in place by attaching a bar across exhaust flange studs. Plug intake by fitting a rubber stopper into rubber carb holder and securing in place with clamp or by fitting neoprene gasket material (cut to size) between aluminum carb holder and cylinder.

- 4) If tester is to be connected at exhaust or inlet, leave spark plug in cylinder head and attach neoprene gasket with adaptor to either intake or exhaust. Use rubber stopper or neoprene gasket material at opposite port.
- 5) To check pressure, place pump hose on pump pressure outlet. With shut off valve open, pump pressure to 5-7 psi (read pressure side of gauge). Turn shut off valve to the closed position and remove hand pump. Check all tester connections for leakage. After tester has been thoroughly checked, watch gauge for pressure drop. A pressure loss of more than 1 lb./min. indicates a leak. Determine location of leak by using a squeeze type sprayer containing soap and water solution and watching for bubbles.
- 6) To check vacuum, place pump hose on pump vacuum outlet. With shut off valve open, pump vacuum to 5-7 in Hg (read vacuum side of gauge). Turn shut off valve to the closed position and remove hand pump. Again, check all tester connections for leakage. After tester has been thoroughly checked, watch gauge for vacuum loss. A loss of more than 1 in. Hg/min. indicates a leak. To determine location of leak, squirt oil around possible leakage areas and watch for a decrease in the leakage rate.
- 7) After locating leak(s) make necessary repairs and recheck in same manner as outlined in steps 5 and 6.