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INSTRUCTIONS

FOR USING THE MOTION PRO P/N 08-0126 4-STROKE LEAK DOWN TESTER

The Motion Pro Leak Down Tester is designed to check the percentage of cylinder leakage in a 4-stroke engine. A moisture free air supply of 70 PSI to 200 PSI is required. This kit is supplied with a cylinder leakage tester, three adapter hoses (10mm, 12mm, 14mm) and carrying case.

WARNING!

Wear eye protection to prevent eye injury from escaping gas and/or metal chips. We recommend that a qualified mechanic in a properly equipped shop perform this procedure.

1. Perform all leak down testing with the engine cold. **CAUTION: Introducing cold air into a hot engine can warp or fracture valves and/or other engine parts.**
2. Remove all spark plugs.
3. Rotate the crankshaft until the piston of the cylinder to be tested is at top dead center on the compression stroke.

WARNING!

On some engines, the crankshaft will spin when air pressure from the tester is applied to the piston. To avoid injury, never leave tools attached to the crankshaft while using the leak down tester. To prevent the engine from spinning, shift the engine into high gear and apply the rear brake.

4. Thread the correct adapter hose into the spark plug hole. Do not connect the adapter hose to the leak down tester at this time.
5. Pull up on the regulator knob to unlock it and turn it counter-clockwise as far as possible. This will insure that the regulator is adjusted below 60 PSI to prevent damaging the leak down tester gauge when attached to the air supply.
6. Connect the tester to an air supply of 70 PSI to 200 PSI.
7. Set the gauge needle to 0% by adjusting the regulator knob. Check the setting by momentarily connecting the tester to the adapter hose. This will cause the needle to swing counterclockwise and then return to 0%. Re-perform this step until the needle returns to 0% without re-adjusting the regulator.
8. Connect the tester to the adapter hose. The needle will swing counterclockwise and then clockwise as the cylinder is pressurized. When the needle stops, record the percentage of leakage for that cylinder.
9. Repeat steps 1 through 7 to test the remaining cylinders.

PERCENTAGE OF CYLINDER LEAKAGE	ENGINE CONDITION
0% - 5%	Engine in excellent condition. Most engines built for racing have 5% or less.
6% - 14%	Engine in good condition. Proceed with tune-up or adjustments as planned.
15% - 22%	Engine in poor condition. Will run, but performance will be down.
23% - UP	Engine in very poor condition. Consider rebuilding engine before proceeding.

HELPFUL TIPS:

- Perform a leak down test to determine an engine's condition before a tune-up.
- Air escaping from:
 Carburetor.....Intake valve leaking
 Exhaust system.....Exhaust valve leaking
 Crank case breather.....Piston/rings leaking
 Radiator.....Head gasket leaking
 Adjacent cylinders.....Head gasket leaking

