

# Model 2509 Cylinder Leakage Tester Kit

## Operating Instructions

These instructions should be followed for the proper operation of the cylinder leakage tester:

1. Allow engine to run until sufficiently warm. Turn off engine.
2. Remove all spark plugs from engine, plus air cleaner, radiator cap and crankcase filler cap.
3. Rotate crankshaft until piston of cylinder being tested is at top dead center on the compression stroke.
4. Install the proper adapter into the spark plug hole.
5. Connect tester quick-disconnect to the adapter.
6. Connect an adequate air source to the tester. Air sources should be 10 psi greater than the regulated input pressure shown on the left hand gauge.
7. When using a 100 psi source, adjust left-hand, regulated gauge to read 90 psi.
8. The relative pressure of the cylinder being tested is automatically indicated on the right-hand gauge. For example, using the chart below, with a regulated pressure of 90 psi, a gauge reading of 81 psi indicates a 10% cylinder leakage.

Due to standard engine clearances and normal wear, no cylinder should be expected to maintain a perfect no-leak reading. It is important that all cylinders have a relatively constant reading. A difference of 5 psi between cylinders is satisfactory. A difference of 10-15 psi indicates the need for further investigation.

### Test Results

By listening or looking for the following, the cause of low pressure can be determined:

Air escaping from crankcase breather.....	Defective rings or worn cylinder walls
Air escaping from exhaust system.....	Defective exhaust valve
Air escaping from carburetor.....	Defective intake valve
Air bubbles in radiator.....	Leaking head gasket or crack in block or head

Left-Hand Gauge Reading	Right- Hand Gauge Reading, psi														
	99	98	97	96	95	94	93	92	91	90	89	88	87	86	85
100 psi	99	98	97	96	95	94	93	92	91	90	89	88	87	86	85
90 psi	89	88	87	86	85.5	85	84	83	82	81	80	79	78	77	76.5
75 psi	74	73.5	73	72	71	70.5	70	69	68	67.5	67	66	65	64.5	64
Percentage of Leakage	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

## Repair Parts List

<u>Part Number</u>	<u>Description</u>	<u>Part Number</u>	<u>Description</u>
0031-0427	0-100 psi Pressure Gauge	0180-0893	10mm Adapter
0400-3111	Gauge Boot	0180-1495	12mm Adapter
0400-3117	Pressure Regulator	0180-1496	18mm Adapter
0400-0138	Hose Assembly, 24"	0400-3118	Carry Case
0180-1502	Cover Plate	0001-3472	Instruction Label



0001-000-3472