



Instructions for

Summit Leakdown Tester

SUM-900010

Thank you for purchasing the Summit Leakdown Tester. Low cylinder leakage is important for maximum performance and by using this tool, you can determine the percentage of cylinder leakage quickly and accurately. Please observe all shop safety precautions and read all instructions before beginning any work.

1. Run the engine until it is at normal operating temperature.
2. Remove all spark plugs, using extra caution on aluminum heads to prevent any thread damage.
3. Rotate the crankshaft until the piston of the cylinder to be tested is at bottom dead center.
4. Remove the valve cover and loosen that cylinder's rocker arms so that the valves fully close.
5. Install the adapter hose into the spark plug hole and connect it to the leakdown tester.
6. Connect the tester to a good source of dry, compressed air at 110 to 120 PSI and adjust the regulator knob on the tester until the left gauge indicates 100 PSI for ease of calculation. If you must use a different pressure on the left gauge, make sure it is at least 10 pounds less than the source pressure.
7. Its very easy to find your leakdown percentage if you set the left gauge at 100 PSI. It is simply the difference between the left and right gauge readings.
8. For all other left gauge settings (other than the ones listed in the chart below) perform the following calculation: Subtract the right gauge reading from the left gauge reading, then divide the difference by the left gauge. Next, multiply the result by 100. The formula is:

$$[(\text{Left Gauge} - \text{Right Gauge}) \text{ Divided by Left Gauge}] \times 100 = \text{Leakdown \%}$$

You can quickly look up the leakdown percentage in the conversion chart below if your left gauge reading is 100, 90 or 75 PSI.

% of Leakage	Conversion From Gauge Difference to Percentage of Leakage														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
100 lbs.	99	98	97	96	95	94	93	92	91	90	89	88	87	86	85
90 lbs.	89	88.2	87.3	86.4	85.5	84.6	83.7	82.8	81.9	81	80.1	79.2	78.2	77.4	76.5
75 lbs.	74.2	73.5	72.7	72	71.2	70.5	69.7	69	68.2	67.5	66.7	66	65.2	64.5	63.7

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