

Instructions for 555-80520 Leakdown Tester

1. Run the engine until it is thoroughly warmed up.
2. Remove all of the spark plugs.
3. Rotate the crankshaft until the piston of the cylinder to be tested is at top dead center on the compression stroke.
4. Install the adapter hose into the spark plug hole.
5. Connect hose to leakdown tester.
6. Connect leakdown tester to a good source of high pressure compressed air (preferably filtered and water trap-equipped; preferably not oiled).
7. Adjust regulator knob until the left hand gauge indicates at least 10 lbs less pressure than the source pressure.
8. Read right gauge, subtract it from the left gauge, then look up the difference in the conversion table below to get the leakdown percentage. We have included tables for 75, 90 and 100lb left gauge settings.
9. If you get an unrealistically low reading, there may be an obstruction in the small orifice in the coupler between the gauges. Take the tester apart and remove the obstruction.

Conversion from gauge difference to percentage of leakage

Left Gauge Reading	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
100#	99	98	97	96	95	94	93	92	91	90	89	88	87	86	85
90#	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#	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

By listening for escaping air at the intake system, exhaust system, radiator and crankcase breather, the possible sources of a high leakdown rate can be determined.

Crankcase breatherDefective rings or worn cylinder walls

Exhaust system.....Defective exhaust or valve seat

Intake systemDefective intake valve or seat

Radiator.....Leaking head gasket or cracked head/block

