



# Compression Tester

## OPERATION INSTRUCTIONS

### TESTING PROCEDURE

1. Run engine for approximately 15 minutes or until normal operating temperature is reached.
2. Stop engine. Disconnect all spark wires one at a time and label for proper reconnecting.
3. Loosen all spark plugs approximately one turn, then use an air hose to blow away any dirt that could fall into cylinder head. Remove the spark plugs and place on a clean, flat surface in the order in which they were removed. This will help to correlate any compression problems with the condition of the plug from the particular cylinder involved.
4. Remove the air filter and cover carburetor with ALL26042 screened carb hat or similar device to prevent debris from entering.
5. Open the carburetor throttle plates to maximum.
6. Remove the high tension lead from the center of the distributor and ground it. To disable an electric ignition system, disconnect the electronic ignition module or remove the primary battery terminal from the distributor cap. (On Ford V-8 and V-6, disconnect the primary lead from the distributor cap.)



Note: Two fittings are included with tester, 14mm and 18mm. Use appropriate size fitting for your application.

7. Screw the spark plug adaptor hose into the spark plug hole. Hand tighten only- DO NOT USE A WRENCH.
8. Crank the engine for at least four compression strokes or until the pressure stops rising on the tester.
9. Record the compression reading and repeat the test on all remaining cylinders.

### TEST RESULTS

1. On a normal cylinder, the needle should advance on each stroke until it reaches a peak. All cylinders should test within the engine manufacturers specifications and reading should not vary more than 10% from cylinder to cylinder.
2. If the needle fails to advance normally or if it remains the same for several strokes and then starts to climb, the cylinder has a sticky valve.
3. If the compression reading is considerably higher than the manufacturer's specifications, it is indicative of carbon build-up in the cylinder. Use of a spark plug with a higher heat range can sometimes correct this fault.
4. If a reading on two adjacent cylinders is 20 pounds or more, lower than other cylinders, a defective head gasket is indicated. Water and oil may be seen in the two cylinders.
5. If readings are low or uneven between cylinders, pour a teaspoon of S.A.E. #30 oil into each cylinder and retest. If the readings increase considerably, the fault is poorly seated or worn rings. If the readings remain about the same, the valves are at fault.
6. Reconnect all spark plug wires in proper order.
7. Reconnect the secondary coil wire to the distributor.
8. **Return the carburetor throttle valve to the original setting before starting the engine.**

**Allstar Performance 8300 Lane Dr., Watervliet, MI 49098**  
**Phone: (269) 463-8000 Fax: (800) 772-2618 [www.allstarperformance.com](http://www.allstarperformance.com)**