

# INSTRUCTIONS FOR COMPRESSION TESTER USE

## Preparation

1. Run engine for approximately 10 minutes or until it reaches normal operating temperature.
2. Stop engine, disconnect & number the spark plug wires; this makes it easy to identify the wires for proper reconnection.
3. Clean any loose dirt from around the spark plugs and remove them. Placing them in order on a clean surface will help to compare any compression problems with the condition of the plugs.
4. Remove the high tension lead from the center of the distributor and ground it. On electronic ignition systems, disconnect the electronic ignition module or remove the **primary battery** terminal from the coil. On GM HEI, disconnect the primary lead from the distributor cap.
5. Remove air filter and set throttle plates wide open using caution not to damage linkage or throttle body components.
6. Select the adapter to be used and attach it to the compression tester head.

Note; the 14mm long adapter is to be used with the hose assembly only where **the extra length is** required. The rubber cone adapter is for easy to reach holes and is **attached to the gage head** instead of the hose assembly.

## Testing

1. After connecting the gage head to either the hose or rubber cone fitting, thread in, or push rubber cone into spark plug hole.
2. Crank the engine for at least 4 compression strokes, or until pressure stops rising the gage.
3. Record the compression reading. Multiple readings can be taken from the same cylinder by pushing the side release valve on the hose assembly, or by pushing the bottom valve core on the rubber cone adapter.
4. Remove the tester and return the gage to zero as above and continue to next cylinder.

## Results

1. On a normal cylinder, the tester should reach a higher pressure on each stroke until peak pressure is reached. All cylinders on the same engine should show pressure within the manufacturer's specs.
2. If pressure fails to climb, or if it remains at the same pressure for several strokes and then starts to climb, the probable cause is a sticking valve.
3. If the pressures on two adjacent cylinders are more than 20 lbs. lower than the other cylinders, the probable cause is a defective head gasket.
4. If the pressure is considerably higher than the manufacturer's specs, the probable cause is carbon build-up in the cylinder.
5. If the pressure is low or varies widely between cylinders, put a teaspoon of SAE 30 oil into each cylinder and re-test.
6. If the pressure increases considerably, probable cause is poorly seated or worn piston rings.
7. If pressure changes little, probable leakage is through the valves.

**ALWAYS WEAR EYE PROTECTION DURING TESTING**