Compression Testing Kit
Model Number: CHT692
Part Number: 1801692

GUARANTEE

This product is guaranteed against faulty manufacture for a period of 12 months from the date of purchase. Please keep your receipt which will be required as proof of purchase.

This guarantee is invalid if the product is found to have been abused or tampered with in any way, or not used for the purpose for which it was intended.

Faulty goods should be returned to their place of purchase, no product can be returned to us without prior permission.

This guarantee does not effect your statutory rights.

SAFETY

WARNING: THE WARNINGS, CAUTIONS AND INSTRUCTIONS DISCUSSED IN THIS MANUAL CANNOT COVER ALL POSSIBLE CONDITIONS AND SITUATIONS THAT MAY OCCUR. IT MUST BE UNDERSTOOD THAT COMMON SENSE AND CAUTION ARE FACTORS WHICH MUST BE APPLIED BY THE OPERATOR

1. DO NOT use tester if damaged.
2. Maintain the tester in good and clean condition for best and safest performance.
3. If required, ensure vehicle to be worked on is adequately supported with axle stands, ramps and chocks.
4. Wear approved eye protection. A full range of personal safety equipment is available from your CLARKE dealer.
5. Wear suitable clothing to avoid snagging. Do not wear jewellery and tie back long hair.
6. Account for all tools and equipment being used and do not leave them in, on or near the engine.
7. When not in use, place in protective case and store in a safe, dry, childproof area.

IMPORTANT: Always refer to the vehicle manufacturers service instructions or a proprietary manual, to establish the current procedure and data. These instructions are provided as a guide only.

PREPARATION.

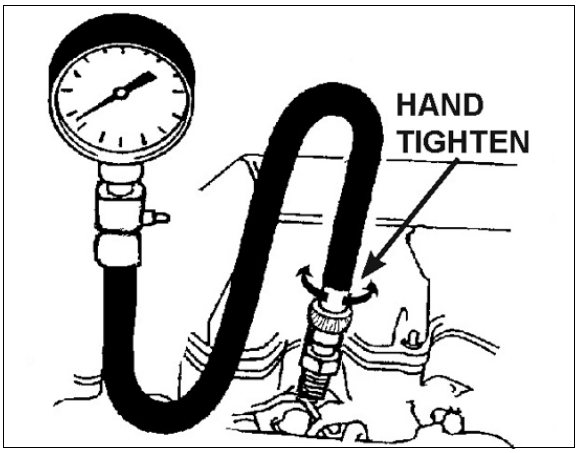
1. Run the engine until normal operating temperature is reached.
2. Stop engine and disconnect all spark plug wires, numbering them according to the cylinder to which they were connected.
3. Loosen spark plugs one turn but do not remove them
   - This will dislodge any dirt that has accumulated in the spark plug wells.
4. Use an air hose to blow dirt and debris from the spark plug wells.
5. Remove the spark plugs and place them on a clean, flat surface in the cylinder order in which they were removed.
6. Remove the air filter and set the throttle to the wide open position, taking care not to damage the linkage or throttle components.

WARNING: THE IGNITION SYSTEM MUST BE DISABLED. FAILURE TO DISABLE COULD RESULT IN DAMAGE TO THE IGNITION SYSTEM OR ECU.

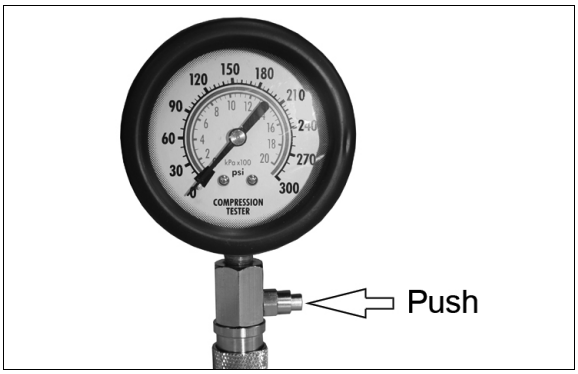
7. Disconnect the ignition system, following the manufacturer's recommendations in the vehicle servicing manual.
   - It is also good practice to unplug the fuel injectors or disable the fuel pump, especially on cars fitted with a catalytic convertor. This prevents unburned fuel getting into the exhaust system during the test.

COMPRESSION TEST

1. Using the appropriate threaded adaptor, screw the tester into a spark plug hole as shown (finger-tight - do not use a wrench) or using the push fitting, hold the compression tester firmly against the spark plug aperture.



2. Crank the engine until no increase in pressure is noted on the gauge reading; usually 3 or 4 revolutions is sufficient. Take a note of the pressure reading.
3. Decompress the tester by pressing the release valve as shown below.



4. Remove the compression tester from the spark plug hole and proceed to the next cylinder.
   - Take a note of the pressure reading for each cylinder.

GAUGE READINGS

1. On a normal cylinder, the gauge needle should travel up the scale on each compression stroke until it reaches peak value. All cylinders should indicate a pressure that is within the vehicle manufacturer's specifications, and the reading should not vary by more than 10% from cylinder to cylinder.
2. If the gauge needle does not travel up the scale or if it remains at the same value for several strokes and then starts to climb, the problem could be a valve sticking.
3. If the compression reading is considerably higher than the vehicle manufacturer's specification, the problem may be carbon build-up in the cylinder. It may also indicate that either the piston, or the cylinder head, has been modified.
4. If a reading on two adjacent cylinders is 20psi (or more) lower than the other cylinders, the problem may be a cracked cylinder head or defective head gasket. Under these conditions, both coolant and oil may be found in both cylinders.
5. If the readings are low, or vary widely between cylinders, pour a teaspoon of SAE 30 oil into each cylinder and retest them. If the readings increase considerably, the problem may be poorly seated, or worn piston rings. If the readings remain about the same, the valves and/or associated components may be the problem. A burned or damaged piston may also cause the same results.

AFTER TESTING

1. Clean, re-gap and reinstall the spark plugs in the same order in which they were removed, or install new spark plugs.
2. Reconnect each spark plug lead to the plug it was connected to prior to removal.
3. Return the throttle to the closed position.

IMPORTANT: After test, failure to return the throttle plates to the closed position before starting the engine can cause serious damage to the engine.

4. Reconnect the ignition system.