



# PETROL ENGINE COMPRESSION TEST KIT 3PC

MODEL NO: **CT951.V4**

Thank you for purchasing a Sealey product. Manufactured to a high standard, this product will, if used according to these instructions, and properly maintained, give you years of trouble free performance.

**IMPORTANT:** PLEASE READ THESE INSTRUCTIONS CAREFULLY. NOTE THE SAFE OPERATIONAL REQUIREMENTS, WARNINGS & CAUTIONS. USE THE PRODUCT CORRECTLY AND WITH CARE FOR THE PURPOSE FOR WHICH IT IS INTENDED. FAILURE TO DO SO MAY CAUSE DAMAGE AND/OR PERSONAL INJURY AND WILL INVALIDATE THE WARRANTY. KEEP THESE INSTRUCTIONS SAFE FOR FUTURE USE.



Refer to instructions



Wear eye protection



Wear protective gloves



Wear safety footwear



Wear protective clothing

## 1. SAFETY

- WARNING!** Ensure all Health & Safety, local authority and general workshop practice regulations are strictly adhered to when using tools.
- DO NOT** use tester if damaged.
- DO NOT** use the tester for a task it is not designed to perform.
- Maintain the tester in good and clean condition for best and safest performance. Use an authorised service agent.
- Wear approved eye protection. A full range of personal safety equipment is available from your Sealey stockist.
- Wear suitable clothing to avoid snagging. Remove ties, watches, rings and other loose jewellery and contain long hair.
- Maintain correct balance and footing. Ensure the floor is not slippery and wear non-skid shoes.
- Account for all tools and equipment being used and do not leave them in, on or near engine.
- Keep the work area clean, uncluttered and ensure that there is adequate lighting.
- DO NOT** operate the tool when you are tired or under the influence of alcohol, drugs or intoxicating medication.
- When not in use, place in original protective case and store in a safe, dry, childproof location.
- Always refer to the vehicle manufacturer's service instructions or a proprietary manual, to establish the current procedure and data.

## 2. INTRODUCTION

Fitted with Ø65mm gauge having two scales (psi and kPa), reading from 0-300psi and 0-2000kPa. Includes quick coupling 150mm rigid stem with cone-type adaptor and 335mm flexible adaptor with 14 and 18mm screw-in adaptors. Supplied in storage case.

## 3. OPERATION

### 3.1. PREPARATION

- 3.1.1. Run engine until normal operating temperature is achieved.
- 3.1.2. Stop engine, loosen spark plugs one turn, with an air hose, blow dirt and debris from the spark plug wells.
- 3.1.3. Remove all spark plugs.
- 3.1.4. If fitted with a carburettor set the throttle valve wide open.
  - WARNING!** The ignition system MUST be disabled. Failure to disable could result in damage to the ignition system or ECU.
- 3.1.5. Unplug the low tension connections to the coil. If you aren't sure how to disable the vehicle ignition system then consult the manufacturer's service instructions or a proprietary manual before you start. It is also good practice to unplug the fuel injectors or disable the fuel pump, especially on cars fitted with a catalytic converter. This prevents unburned fuel getting into the exhaust system during the test.

### 3.2. COMPRESSION TEST

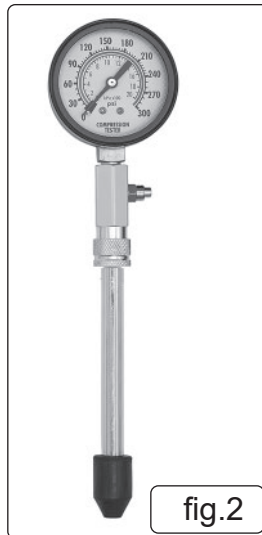
- 3.2.1. Using the appropriate threaded adaptor, screw the tester (fig 1), into a spark plug hole (finger-tight - do not use a wrench) or using the push fitting (fig 2), hold the compression tester firmly against the spark plug aperture.
- 3.2.2. Crank the engine until no increase in pressure is noted on the gauge reading; usually 3 or 4 revolutions is sufficient. Take a note of the pressure reading.
- 3.2.3. Decompress tester by pressing release valve (fig 1) remove the compression tester from the spark plug hole and proceed to the next cylinder. Note pressure reading for each cylinder.

**NOTE:** The actual figure in psi is not important. It is important that all cylinders have approximately the same compression pressures. On high compression engines (150psi and higher) the pressure should not vary more than 15psi from the highest to the lowest cylinder reading.  
On low compression engines (under 150psi) the pressure should not vary more than 10psi from the highest to the lowest cylinder reading.

**NOTE:** Compression readings are unbalanced when one or two cylinders are considerably higher or lower than the others.

### CAUSES OF UNBALANCE

- 3.3.1. Low cylinder compression is caused by leakage from:
- A. Head Gasket - explosive sound when running engine.
  - B. Head Gasket between cylinders - compression will be low in two adjacent cylinders and water may appear in cylinders or crankcase.
  - C. Valves that are not seating properly.
  - D. Piston rings that are worn. Pour a teaspoon of oil into the spark plug hole to seal the rings. Repeat test. If compression reading increases, the rings are worn; no increase indicates a bad valve.
- 3.3.2. High cylinder compression is caused by accumulation of carbon in that cylinder. High compression readings in all cylinders is caused by an even accumulation of carbon in all cylinders. This may cause detonation pinking that is difficult to eliminate.



#### ENVIRONMENT PROTECTION

Recycle unwanted materials instead of disposing of them as waste. All tools, accessories and packaging should be sorted, taken to a recycling centre and disposed of in a manner which is compatible with the environment. When the product becomes completely unserviceable and requires disposal, drain any fluids (if applicable) into approved containers and dispose of the product and fluids according to local regulations.

**Note:** It is our policy to continually improve products and as such we reserve the right to alter data, specifications and component parts without prior notice. Please note that other versions of this product are available. If you require documentation for alternative versions, please email or call our technical team on [technical@sealey.co.uk](mailto:technical@sealey.co.uk) or 01284 757505.

**Important:** No Liability is accepted for incorrect use of this product.

**Warranty:** Guarantee is 12 months from purchase date, proof of which is required for any claim.

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