

DRAPER

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Original Instructions
Version 1
April 2025

45 PIECE PETROL & DIESEL **MASTER COMPRESSION TEST KIT**

35886



Read this manual in full before using this product and retain it for future use. Always use the latest version of the manual. Please visit drapertools.com/manuals for the latest version.

Intended Use

This comprehensive master compression tester kit is designed to be used as a diagnostic tool to check the engine condition on both petrol and diesel vehicles. It is compatible with most motorcycles, cars, light commercial vehicles and marine engines.

Any other application beyond the conditions established for use will be considered misuse. Draper Tools accepts no responsibility for improper use of this product.

Health and Safety Information

Important: Read all the Health and Safety instructions before attempting to operate, maintain or repair this product. Failure to follow these instructions may result in injury or damage to the user, the product or the vehicle.

- **ALWAYS** follow the vehicle manufacturer's instructions, warnings and service procedures.
- This tester should only be used by qualified trained personnel.
- Ensure that any disconnected fuel pipes are plugged to avoid any spillages.
- Keep this tester kit in good working order and condition. **DO NOT** operate if any parts are damaged or missing as this may cause failure and/or personal injury.
- **DO NOT** use this kit if seals or threads are damaged. Change any defective seals before use to avoid incorrect readings.
- **DO NOT** leave any tools or part being used in or near the engine.
- **DO NOT** use the kit to perform a task for which it is not designed.
- **ALWAYS** wear suitable eye and hand protection.
- • Wear suitable clothing, remove jewellery and tie long hair back.
- Ensure that the correct connector/adaptor is used for the engine being tested.



WARNING! Always release the pressure before disconnecting the tester.

Identification

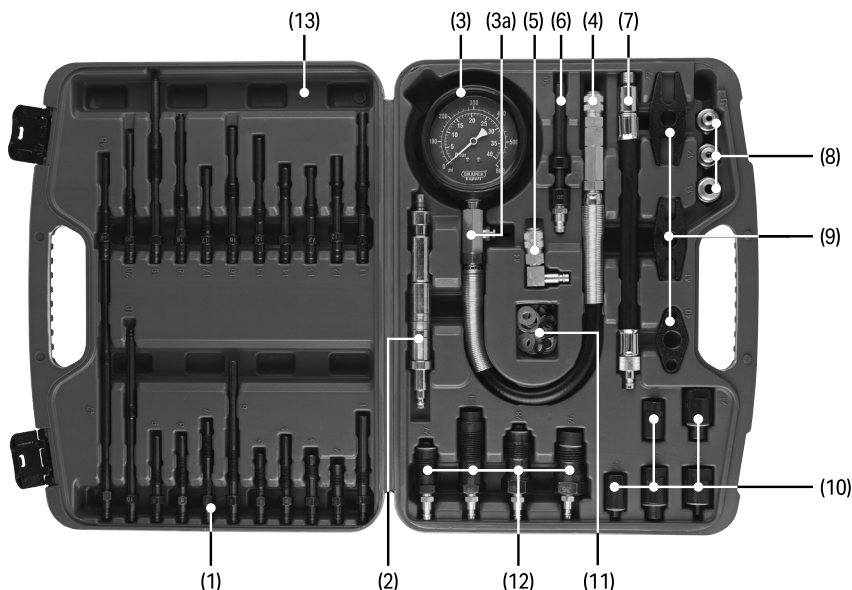
Carefully remove the product from the packaging and examine it for any signs of damage that may have occurred during shipment. If any part is damaged or missing, do not attempt to use the product. Please contact the Draper Helpline; contact details can be found at the back of this manual.

1. 22 x Dummy glow plugs (1 – 20 & 47 - 48)
2. 1 x Universal adaptor with adaptor sleeve
3. 1 x Dual reading gauge (0 – 40Bars/0 – 600PSI)
3a. Reset Valve
4. 1 x flexible 330mm hose
5. 1 x Right angled hose adaptor (44)
6. 1 x Non threaded glow plug (30)
7. 1 x Petrol flexible 200mm hose extension
8. 3 x Petrol spark plug adaptors (31,32 & 33)
M10, M12, M18
9. 3 x Clamping brackets (40, 41 & 42)
10. 5 x Adaptor Sleeves (21 – 25)
11. Assorted sealing washers
12. 4 x Large dummy glow plugs (26 – 29)
13. Storage case

Please visit drapertools.com for our full range of accessories and consumables.

Compression Testing

1. Switch off the engine before carrying out any testing.
2. Check the engine oil is at the correct level.
3. Remove all the glow plugs/spark plug from the engine.
4. Select the relevant spark plug adaptor (8)/dummy glow plug (1) that matches the ones removed.
5. Fit the adaptor into the first glow/spark plug port ensuring a good seal (use one of the sealing rings supplied if required).
6. Connect the coupling on the end of the pressure gauge (3) to the adaptor/dummy glow plug, ensuring it locks in place.



7. Turn over the engine using the starter motor and observe the reading on the gauge. Check for a steady reading and note the maximum reading obtained.
- Refer to the vehicle manufacturer's service manual for the correct compression data.
8. After testing press the reset valve (3a) to release the pressure before either repeating the test or disconnecting the tester.



WARNING! Always release the pressure before disconnecting the tester.

9. Repeat the tests for all the remaining cylinders in turn.

Note: A variation in the compression reading between the cylinder is often a better indication of engine problems rather than the actual individual values.

Compression Issue	Action/Diagnosis
Low compression reading on some cylinder	• Use oil in cylinder to check if rings are worn. – If compression temporarily increases, rings and or cylinder wall are worn. – Compression does not rise, leakage around valves or faulty head gasket.
Compression readings unusually high	• Excessive exhaust emissions, lack of power, poor performance or poor fuel consumption issue.

Maintenance, Storage and Disposal

- After use, clean and store in the storage case supplied in a cool, dry, childproof area.

At the end of its working life, dispose of the product responsibly and in line with local regulations. Recycle where possible.

Warranty

12months - Visit [drapertools.com/warranty](https://www.drapertools.com/warranty) for full details.

Contact Details

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