

COMPRESSION GAUGE-PETROL



Boxed complete with

Part No.	Description
7/2/6	Universal Stem
7/3/13	Flexible Hose
7/3/1	2 Rubber Cones
7/3/18	3 spare O-rings
7/3/3	3 spare fibre washers
7/3/5	3 spare Schrader valves
Full Instructions	

THE REDEX COMPRESSION GAUGE for Spark Ignition Engines

The REDEX Compression Gauge for use with Petrol engines is designed for accurate measurement of the compression pressures in all spark ignition engines. The wide range, 0 to 250 lb. per sq. inch or 0 to 17 kg/cm², makes this gauge one of the most useful instruments in any workshop.

Construction

The instrument consists of three principle units:—

(a) The Gauge Head, part No. 7/2/1, consists of a strong chromium plated case which contains a special heavy-duty rack and pinion movement coupled to a bourdon tube pressure sensitive element manufactured from high grade, solid drawn seamless phosphor-bronze tubing. The thread of the connector on the Gauge Head is $\frac{1}{4}$ B.S.P. (20 TPI).

(b) The Flexible Hose, part No. 7/3/13, reinforced with nylon, has metal end connections to join the Head to the Stem. This Hose makes the REDEX Compression Gauge suitable for the majority of spark ignition engines.

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Construction (Continued)

(c) The Universal Stem comprises two main sections. The upper part being a hexagon stem, part No. 7/3/14, incorporating a pressure release valve, part No. 7/3/15; the lower part comprising a ball jointed socket in which is fitted a Schrader pressure retaining valve, part No. 7/3/5, and on which is mounted a tapered rubber cone, part No. 7/3/1. This stem can be adjusted through 45° from centre.

ASSEMBLY

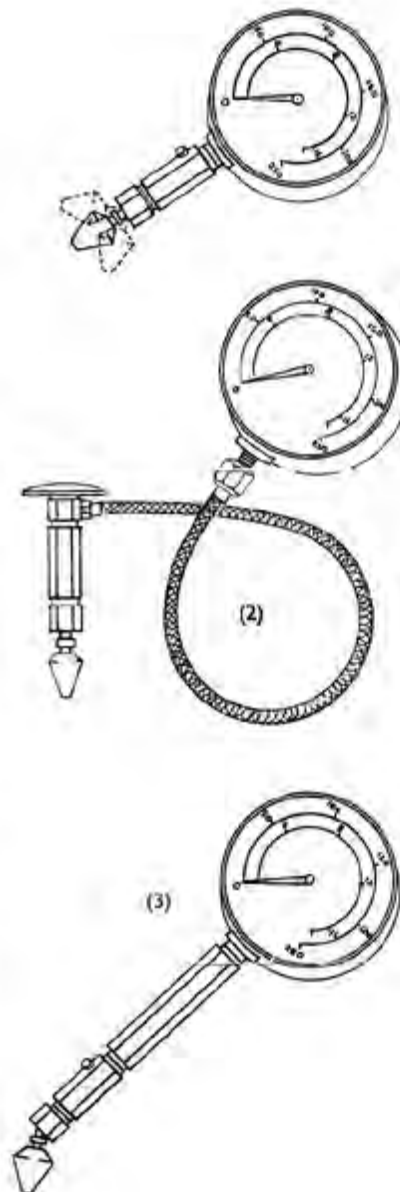
There are two ways in which to assemble this Compression Gauge.

1. For standard use with cylinders of normal accessibility the gauge head and the ball jointed hexagon stem are assembled together, the angle of the ball jointed section being set to suit the particular application (Fig. 1).

2. For cylinders of difficult access, the female coupling of the flexible hose is connected direct to the gauge head and the male coupling to the top of the hexagon stem. The ball jointed section is again set at the most suitable angle for each particular engine and locked in position by tightening up the securing nut (Fig. 2).

Readings obtained with the units assembled in either of these two ways will be consistent and comparable with one another. For engines with deeply recessed plug holes an additional 4" (10 cm) extension, part No. 7/3/7, is available. This part is not supplied with the Standard kit and must be purchased as an extra. Any number of these extensions may be used to lengthen the Hexagon Stem (Fig. 3), provided the Universal Stem, part No. 7/3/14, is included in the assembly as this contains the pressure release valve. Note: The Universal Stem must always be placed next to the Ball Jointed Socket.

**NO OTHER ORDER OF ASSEMBLY
THAN THOSE SHOWN ABOVE
SHOULD BE USED**



REDeX COMPRESSION GAUGE for all SPARK IGNITION ENGINES



METHOD OF USE

- 1 Warm engine to normal working temperature.
- 2 Remove all sparking plugs.
- 3 Press the rubber cone firmly into the sparking plug hole of the cylinder to be tested. Avoid forcing the cone into the plug hole, or twisting, as this will considerably reduce the life of the cone.
- 4 Open the throttle wide and operate the starter until the needle ceases to climb. This normally occurs after six engine revolutions.
- 5 Remove the gauge and note the compression figure obtained.
- 6 Operate the pressure release screw in the Hexagon Stem to bring the Gauge needle back to zero. Repeat the procedure for the other cylinders.

High, low or uneven compression pressures in an engine will invariably mean bad performance and uneconomical motoring. A **low compression** does not necessarily mean that the valves are burnt or the cylinder worn; very often a low compression indicates excess carbon, and/or gum, causing valves and rings to stick. If this condition is diagnosed in the early stages it can be cleared with REDEX (bore soak through plug holes and a bleed through air intake) before mechanical damage is caused. ~~An unusually high compression~~ reading indicates excess carbon deposits and this will almost certainly be remedied by the application of REDEX.

If compression pressures remain low after the REDEX Treatment or continue to fall after the engine has been run for several days, excessive wear and/or mechanical faults are indicated.

For illustration of complete Standard kit and additional distance piece see page 4.