

To adjust and clean

The correct type of plug is given in the Data Section under "Ignition System".

Plugs should be removed and cleaned at the recommended intervals.

Before removing the sparking plugs, clean area around each plug with a dry brush, or compressed air, to ensure that nothing can enter the cylinders as the plugs are removed.

Large rubber washers are fitted to the sparking plug metal bodies to prevent small objects and dirt from collecting in the sparking plug recesses. See Fig. 7. The rubber washers should be renewed if necessary.

Sparking plugs should be loosened with a ring spanner and then run out with a suitable short box spanner. Plugs should be cleaned and tested in a pressure testing and dry abrasive cleaning machine especially designed for the purpose. After cleaning, the plug threads should be lightly wire brushed to remove any accumulation of carbon or abrasive material.

Before testing the sparking surfaces the electrodes should be filed lightly to remove all traces of burning and to restore flat parallel sparking surfaces. Gaps should then be set to the recommended figure given in the Data Section under "Ignition".

The gap setting of sparking plugs is very important and should be corrected by bending the earth (side electrode). Never attempt to bend the centre electrode as this will damage the insulator tip. A suitable combined gauge and setting tool is illustrated in Fig. 13.

A SMALL QUANTITY OF GRAPHITE GREASE SHOULD BE PUT ON EACH SPARKING PLUG THREAD BEFORE THE PLUGS ARE REPLACED.

When renewing plugs a complete set of the recommended type should be fitted.

IGNITION TIMING AND DISTRIBUTOR

The modern high compression engine is very sensitive to ignition timing. In the following paragraphs, detailed instructions are given of the various methods that can be used to obtain correct ignition timing. Incorrect ignition timing can cause rough running, bad idling, high fuel consumption and poor performance.

It is most important that the correct distributor is used when a replacement unit is fitted. The possibility of a wrong unit having been fitted previously in service must

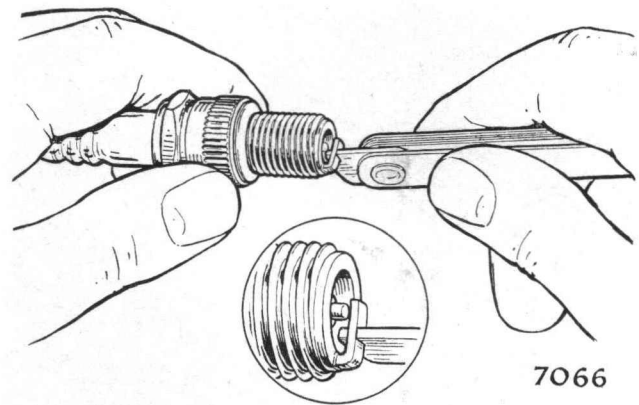


Fig. 13 Setting spark plug gap

not be overlooked. Distributors may be identified by the despatch number on the plate fitted on the side of the distributor. Correct despatch numbers are given in the Data Section under "Ignition System".

The distributor is driven by an extension of the oil pump spindle, the connection being made by an offset coupling to ensure correct replacement. The rotor revolves in an anti-clockwise direction viewed from above.

Two means of adjusting the timing are provided as shown in Fig. 14.

- (a) A clamp screw mounted horizontally. This is the main adjustment, and when it is slackened the body of the distributor can be turned relative to the mounting plate.
- (b) The vernier control. This provides an easy means of making small adjustments to the ignition timing to give the best performance from a particular fuel, or to eliminate pinking when excessive carbon deposits have formed in the engine.

One complete turn of the knurled adjustment is equivalent to three crankshaft degrees, and one vernier division to four crankshaft degrees.

The knurled adjustment should be rotated clockwise to retard, and anti-clockwise to advance, as shown by the letters "R" and "A", cast on the distributor body close to, the knurled adjustment.

OWING TO THE CLOSE PROXIMITY OF THE FAN BELT CARE IS NEEDED WHEN ADJUSTING THE VERNIER CONTROL WHILE THE ENGINE IS RUNNING.

Before checking the ignition timing it is most important to see that the contact breaker point gap is correctly set.