

HINTS AND TIPS ON —SERVICE—

For **BSA** *and* **ARIEL** *Dealers*

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LATEST "TIMING" INFORMATION FROM THE FACTORY

A50 - A65 IGNITION TIMING

(Time Both Cylinders)

To check the ignition setting accurately, the following equipment is necessary:

- A. Timing Scale for use through spark plug hole.
- B. Dial Indicator Gauge for use with above or on its own if the indicator finger is long enough.
- C. Timing Disc and Pointer.
- D. Feeler Gauges.

PROCEDURE

1. Set both sets of contact breaker points to .015" when fully open and remove both spark plugs.
2. Set the right-hand piston at top dead center (TDC) on the compression stroke (both valves closed) by means of the timing scale and dial indicator. If top gear is engaged the piston can be "rocked" to obtain the correct position. Set the indicator, which must be firmly clamped in position, to zero.
3. Fasten the timing disc to the crankshaft and attach the pointer to a suitable point adjacent to the rim of the disc. Set the disc to zero and re-check piston position adjusting as necessary.
4. Turn the crankshaft backwards beyond the required setting, then forward until the required degree before TDC is reached.

12° for A50	23° A50 Energy Transfer
15° for A65	28° A65 Energy Transfer
5. Slacken off the contact breaker plate screws sufficient to enable the plate to be moved with the fingers and switch on the ignition.

(Continued/)

October 26, 1964

6. Turn the contact breaker assembly until the upper set of points is just opening. This will be indicated by the ammeter needle flicking back to zero. An alternative method is to connect a separate bulb and battery in circuit with the contact breaker spring and earth. In this case the bulb should just glow as the points open.
7. Repeat the procedure on the left-hand cylinder when, if the settings are correct, the lower set of points should be just opening when the piston is the required distance before TDC as shown on the timing disc.
8. If when checking the left-hand cylinder the points do not open at the required position, slacken off the cylindrical screw inside the "C" shaped spring of the lower points and adjust the movable contact until the ammeter needle flicks to zero (or the bulb glows) whichever method is used.
9. Now turn the crankshaft to check the fully open setting of the lower points. If they have closed to say .013" this figure should be recorded for future reference and the lower set of points always set to it.

Slight variation in the contact breaker gap setting of the lower points (left-hand cylinder) is permissible to ensure the correct ignition setting.

Opening the contact breaker gap advances the setting and closing the gap retards the setting.

ENERGY TRANSFER IGNITION

MODELS A65-2SPH - A50 CYCLONE COMPETITION

On these models the Woodruff Key which normally locates the rotor is not required, its place being taken by the timing disc and peg, number 12668-0546.

If the engine sprocket has been removed for any reason, it must be replaced with the chamfered side next to the crankcase.

Set the pistons at TDC and slide on the timing disc so that the peg faces outwards and is at 9 o'clock.

Now fit the rotor so that one of the holes engages on the peg.

Hole marked "S" is used for the A50.

Hole marked "R" is used for the A65.

Ignition timing otherwise is as detailed previously.

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