



SPECIFICATION OF PRODUCTION INSPECTION AND

TEST OF IGNITION COIL

CHASSIS: All Ranges

TYPE: Lucas B12

The following tests to be carried out in conjunction with a 6-cylinder distributor having a closed period of 45 degrees. The negative battery terminal connected to the "SW" terminal of the coil, the positive of the battery earthed and the primary voltage between 12.0 – 12.5 volts.

1. The dimensions and appearance shall be in accordance with those specified on the Rolls-Royce detail drawing RD 3012.
2. Continuity and internal connection test. The negative battery terminal is connected to the SW terminal of the coil, the C.B. terminal to be connected to the positive battery terminal, which is earthed. A milliammeter with a suitable series resistance is connected between the negative battery terminal and the H.T. terminal of the coil. The milliammeter should then give a deflection dependent on the value of the resistance. There will be no deflection if there is a break in the circuit or if the internal connections are incorrect. (see diagram).
3. Primary resistance check - Check the primary resistance. This should lie between 4.0 ohms – 4.4 ohms at 18 degrees C.
4. Open circuit test. With the primary connected to the 6 cylinder contact breaker running at 100 R.P.M.
 - a. Run the coil on open circuit for 30 seconds
 - b. Connect the H.T. to a 3 point 14.5 K.V. spark gap. No missing must occur.
5.
 - a. High speed test - With the primary connected to the 6 cylinder contact breaker running at 2500 R.P.M., and the H.T. connected to an 8 K.V. rotary spark gap, the coil must spark regularly.
 - b. Polarity test - By means of a moving coil milliammeter inserted in the earth lead of the spark gap, the positive terminal of the meter being earthed, check for negative spark. Under these conditions, when running as in "a" the milliammeter shall give a positive reading. (see diagram).
6. Utility test
 - a. With the primary connected to the 6 cylinder contact breaker running at 250 R.P.M. and with the secondary shunted with a 0.5 megohm leak, the coil must spark regularly on a 10 K.V. gap.
 - b. With the primary connected to the 6 cylinder contact breaker running at 2000 R.P.M., and with the secondary shunted with a 0.5 megohm leak, the coil must spark regularly on an 8 K.V. gap.
7. Insulation test - Insulation resistance between primary and case with a 500 volt megger should be greater than 20 mega-ohms.