



# SPECIFICATION OF PRODUCTION INSPECTION AND TEST OF

## IGNITION DISTRIBUTOR

Type: Delco-Remy. 6 cyl originally issued for “Cresta” model which later became Bentley MkVI

1. The dimensions and appearance shall be in accordance with those specified on RD 3011.
2. The working surface of the cam shall have a hardness value of at least 400 Y.P.N. when tested with a 10 kg. load.
3. Inspection shall be made that the contact points are exactly opposite with contact surfaces bedding material.
  - a. By means of a spring balance suitably attached to the contact end of the rocker arm, and a small lamp in the circuit, ascertain the tension require, at the point, just to break contact. This shall be between the limits of 15 and 17 ozs. There shall be no readable difference between just making and breaking, this indicating absence of friction at the pivot. The springs in any one distributor shall not vary in poundage more than 1 oz.
  - b. The contact breaker shall be connected up to an ammeter, 12 volt, battery and a non-inductive resistance of zero temperature, coefficient, all in series, the last named being of such value as to permit the flow of exactly 1 amp when the points are in contact. The distributor shall then be driven at a speed of 800 r.p.m. The correct point setting will be such as to permit a flow of 0.75 amperes during rotation. The resulting gap shall lie within the limits of .019 and .021 ins. The distributor shall then be driven at 2250 r.p.m. when the current shall not fall below 0.72 amperes.
  - c. The contact breakers must be synchronised to break contact every 60 degrees in rotation with a tolerance limit of plus or minus one degree; the overall error must not exceed two degrees.
  - d. An insulation test shall be made by applying 200 volts a. c. through a low C.P. lamp to the low tension terminal. The lamp shall show no signs of lighting. (The condenser connection to the L.T. terminal must be removed for this test and the contact points opened.)
  - e. The capacity of the condenser shall be within the limits of 0.18 and 0.23 M.F.D. The insulation resistance measured by a 500 volt megger shall not be less than 100 megohms.
  - f. The distributor H.T. rotor in position on its cam shall stand up to 15000 volts applied between the rotor blade and the cam. The voltage for this test should be obtained by the use of a standard coil and distributor arranged to fire a single gap set to spark over at 15000 volts; the test leads being connected in parallel with the gap.
  - g. The automatic governor shall conform to the following limits:

Advance Degrees Start	Distributor min RPM	Distributor max RPM
	320	400
1	400	480
3	565	650
6	815	900
9	1060	1140
12	1320	1435
15	1730	1900
17	2065	2240

4. The cam should be lightly lubricated and the grease cap full.



- **CONDENSER:**
  - Test voltage before assembly - 1320 volts D.C.
  - Test voltage after assembly - 1200 volts
  - Capacity .23 MFD -18 MFD
  - Insulation – 500 Megohms absolute at 20 C

## NOTES

A number of Delco Ignition distributors were used during production of the post war six cylinder engines. The part numbers varied when changes occurred like adding additional condensers or methods of attachments for small parts. In other instances the part number changed because a major alteration took place, like the amount, or speed of the automatic advance.

In all cases the actual production testing was generally as outlined above and it should be noted that the rotor arm test was limited to a mere 15,000 volts. This has a knock on effect regarding any replacement ignition coils and extra high voltage, or sports coils are not an ideal choice.