WINDSCREEN WIPER MODEL DL2

ADDITION OF MODELS DL3 AND DL3A

Supplementary Information to Section J-8

General Features

Two new thermostatically protected windscreen wipers, models DL3 and DL3A, have been developed employing the link type transmission to drive two or more sets of arms and blades, according to applicational requirements. Model DL3 has a two-speed electric motor arranged, as described below, to park the wiper blades off the edge of the windscreen. Model DL3A, which is intended to supersede model DL2, has a non-reversing motor that may be wound for single-speed, two-speed or variable-speed operation, and may or may not be fitted with a DL2 type limit switch for bringing the wiper blades automatically to rest at the edge of the windscreen.

Self-Parking Mechanism of Model DL3

With model DL3, power is transmitted from the motor gearbox, through a rotating crank, 'eccentric' pivoted coupling and primary link to the drop arm of one of the wiper arm spindles and, thence, through secondary links to the drop arms of other spindles. When the control switch is turned to the 'Park' position, the motor armature reverses its direction of rotation and causes the special pivoted coupling between the crank pin and the primary link to rotate through 180°. This modifies the travel loci of the spindle drop arms and causes them, and therefore the wiper arms, to move to the parked position. This extra movement is used to actuate a limit switch associated with one of the drop arms, and the motor comes to rest. Provision is made in the switch design for fine adjustment of the parking position.

Servicing

In general, the information given in Section J-8 for model DL2 applies also to models DL3 and DL3A.

The fixed contact sector of both types of limit switch should be smeared with Ragosine Listate 225 grease or with petroleum jelly.

Constructional details of model DL3 can be seen by referring to the illustration overleaf. Model DL3A is similar pictorially but, as previously implied, its limit switch (when fitted) is located in the gearbox, while its rotating crank is joined directly to the primary link and not through an 'eccentric' coupling.

Test data is as given for model DL2 in Section J-8 para. 3, except for the armature resistance of 24-volt versions of DL3 and DL3A which is 1.5—1.8 ohms. The wiper blades should contact the windscreen with a pressure of 11—13 oz. (311.85—368.55 g.)

VARIABLE SPEED INSTALLATIONS

Control Switch Model 89SA

Windscreen wiper control switch model 89SA is used, in conjunction with special motor units, to provide variable speed wiping (as distinct from single or two-speed). The functions of 'On-Off' and speed control are combined, a rheostat being incorporated in the switch. The rheostat, as fitted in the switch used to control 12-volt units, has a maximum value of 9—11 ohms and enables any wiping speed to be chosen between the approximate limits of 44 to 68 r.p.m. The rheostat is connected in series with the motor field winding—one end of the field coil being brought out for this purpose.

Note : Model 89SA switches are not suitable for controlling windscreen wiper motors whose armatures reverse their direction of rotation before coming to rest with the wiping blades off the screen.

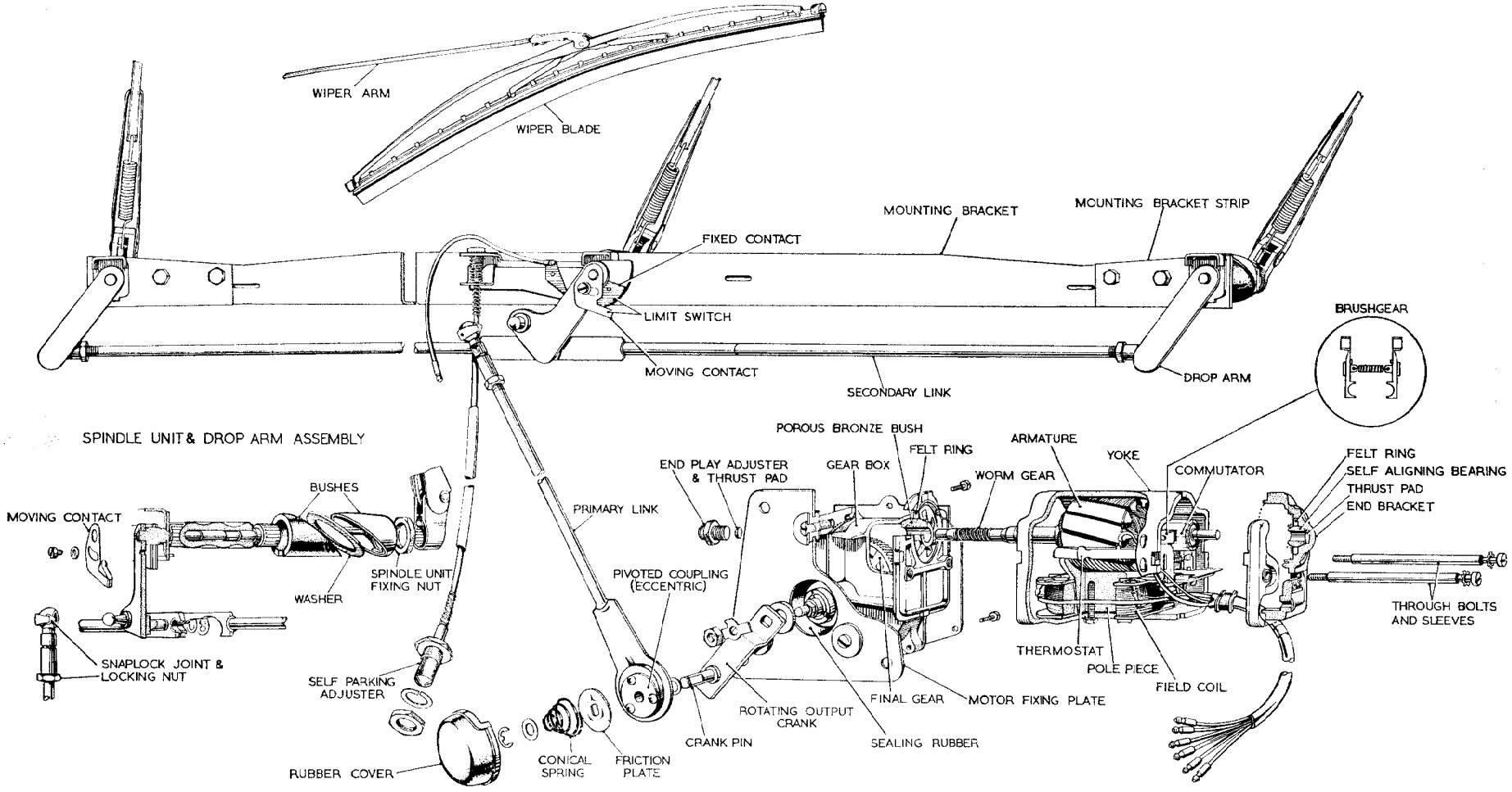
Amendment

Para. 1 line 4

For : " . . . off . . . "

Read : " . . . at . . . "

P.T.O.



Windscreen Wiper, Model DL3, dismantled