

WINDSCREEN WIPER

Lucas 12W

DESCRIPTION (Fig. 31a)

The 12W is a single speed wiper controlled by a 108SA two-position switch. The wiper motor is a two-pole permanent magnet type incorporating a single stage worm-drive gearbox. A cable rack transmission, operating in conjunction with two bulkhead wheel-boxes, transmits the power to the wiper arms and blades by reciprocating motion.

Limit switch operation

Associated with the terminal assembly are three contacts which ride on an insulated brass slip-ring attached to the underside of the moulded gear. These contacts provide effective control of the motor immediately the wiper is switched "off", two contacts providing regenerative braking of the armature to give immediate deceleration of the motor, and the other contact operating a limit switch to bring the wiper arms and blades to the park position.

The limit switch is set in production to suit either a right-hand model or a left-hand model and no provision is made for adjustment.

Maintenance and testing

The procedure for maintenance and testing is the same as given in later paragraphs for the DR3A windscreen wiper, except that the following test data will apply:—

The normal operating voltage when checked at the supply terminal and with the cable rack connected is 11.5 volts.

The light running current after 60 seconds from cold and with the cable rack disconnected is 1.4 amperes maximum.

The light running speed measured on the final gear and with the cable rack disconnected is 46 to 52 r.p.m.

To remove and refit wiper motor

The wiper motor is mounted on the left-hand front wheel arch in the luggage compartment.

Disconnect the battery. Remove the fibre-board protecting the wiper motor. Disconnect the motor cables. Remove the U-clamp securing the motor. Remove the motor gearbox cover and connecting rod. Disconnect the cable rack from the motor gearbox and withdraw the motor assembly from its mounting position.

Refitting is the reverse of the removal procedure, ensuring that the motor is effectively earthed through its cable connection on the mounting plate.

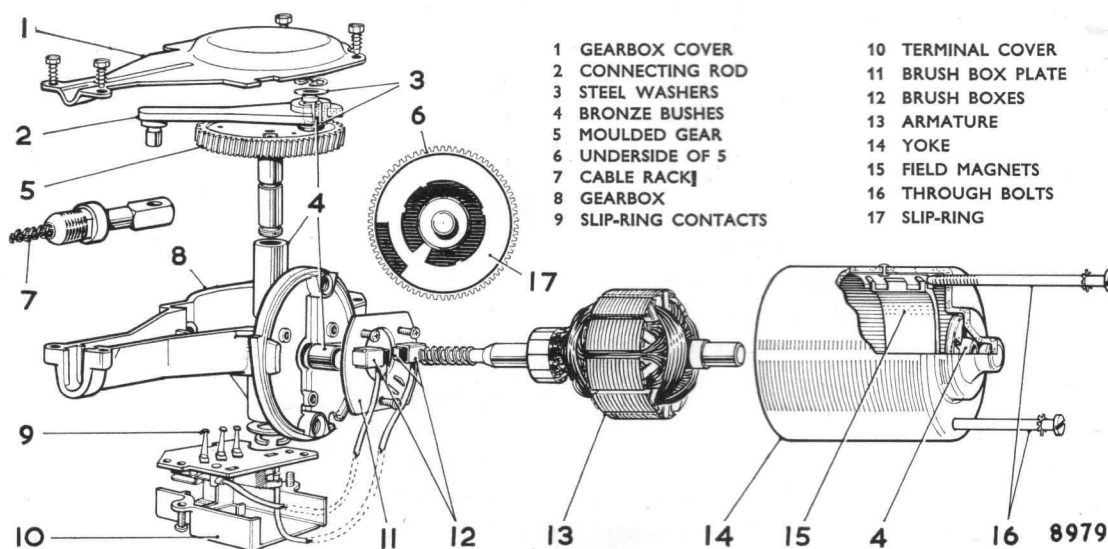


Fig. 31a. Exploded view of 12W Wiper Motor and Gearbox