

## WINDSCREEN WIPER

Lucas 14W

### DESCRIPTION

Windscreen wiper model 14W features a permanent magnet motor and a newly designed limit switch. The two-pole motor is distinguished by its cylindrical yoke which contains two ceramic magnets, and the limit switch is specially arranged to control the wiper parking cycle and the dynamic braking of the armature.

The driving torque is transmitted to the wiper arms through a cable rack transmission which incorporates two spindle wheel-boxes. Motion is imparted to the cable rack by a connecting rod actuated by a crankpin on the wiper gearwheel.

The manually operated control on the fascia is a 108SA Lucas two-position type.

### Limit switch operation

Associated with the wiper terminal assembly is a two-stage limit switch which is operated by a plunger from the underside of the moulded gearwheel in the wiper gearbox. When the manually operated control on the fascia is switched "OFF", the wiper will continue to operate under the influence of the limit switch.

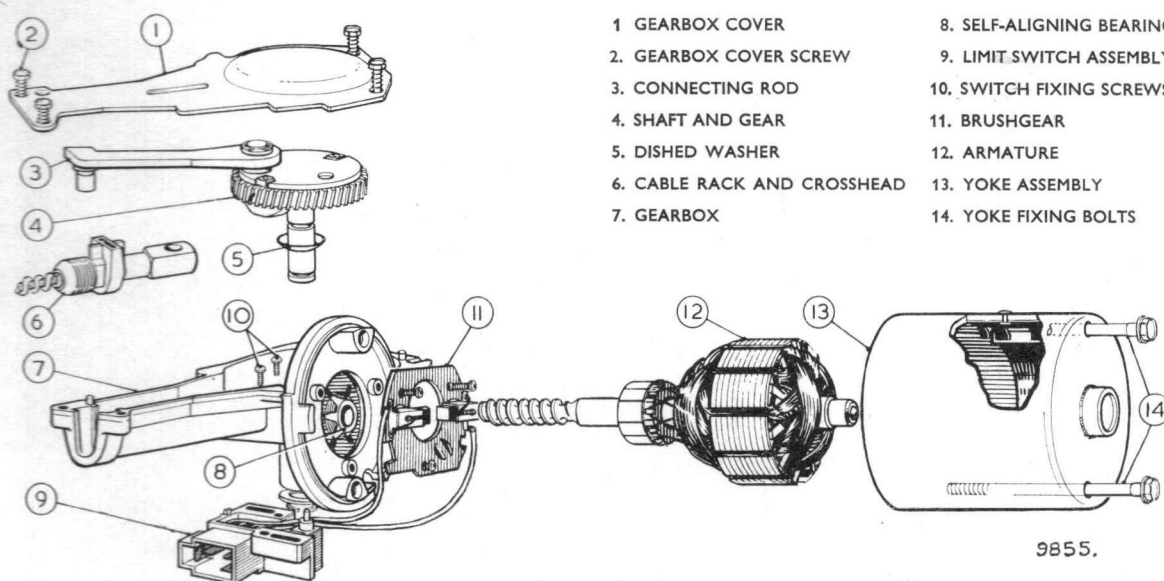
When the wiper blades reach the park position, the first-stage contacts in the limit switch open and switch "OFF" the motor. A momentary period follows, during which no contact is made by the switch, then the second-stage contacts close causing regenerative braking of the armature by which action consistent parking of the wiper blades is maintained.

### MAINTENANCE

The wiper bearings, gearbox interior, and cable rack transmission are adequately lubricated during production and require no further attention until the unit is dismantled for general overhaul.

### TO REMOVE AND REFIT

The wiper motor is mounted on the left-hand front wheel arch. The procedure for removing and refitting is the same as described in earlier paragraphs for the 12W windscreen wiper.



- |                             |                          |
|-----------------------------|--------------------------|
| 1 GEARBOX COVER             | 8. SELF-ALIGNING BEARING |
| 2. GEARBOX COVER SCREW      | 9. LIMIT SWITCH ASSEMBLY |
| 3. CONNECTING ROD           | 10. SWITCH FIXING SCREWS |
| 4. SHAFT AND GEAR           | 11. BRUSHGEAR            |
| 5. DISHED WASHER            | 12. ARMATURE             |
| 6. CABLE RACK AND CROSSHEAD | 13. YOKE ASSEMBLY        |
| 7. GEARBOX                  | 14. YOKE FIXING BOLTS    |

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Fig. 34. Exploded view of 14W wiper motor and gearbox