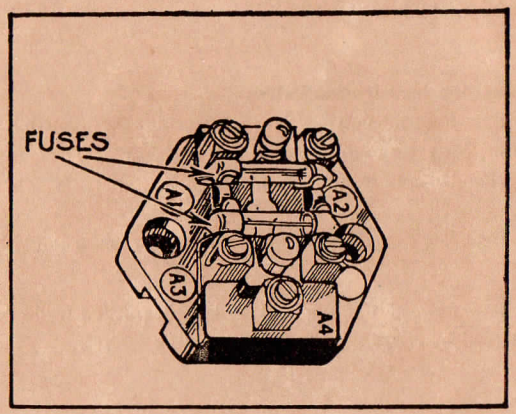
ELECTRICAL EQUIPMENT

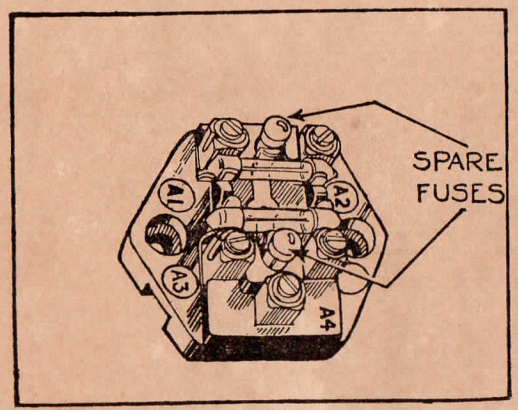
Fuses

Fuse connecting 'A1' and 'A2'. This fuse protects the accessories which are connected so that they operate irrespective of whether the ignition is on or off.

Fuse connecting 'A3' and 'A4'. This fuse protects the accessories which are connected so that they operate only when the ignition is switched on (stop lamp, direction indicators, etc.).

The fuses are carried in the separate fuse block mounted on the bulkhead





Two spare fuses are housed in holders on the fusebox

Blown fuses

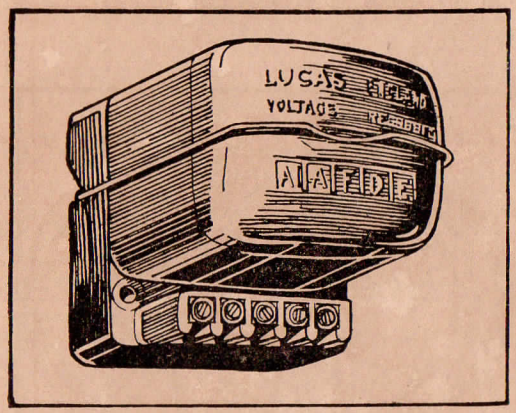
The units which are protected by the fuse can readily be indentified on the wiring diagram. A blown fuse is indicated by the failure of all the units protected by it, and is confirmed by examination of the fuse when withdrawn. Before renewing a blown fuse, inspect the wiring of the units that have failed for evidence of a short circuit or other fault. Remedy the cause of the trouble before fitting a new fuse.

Spare fuses

Spare fuses are provided **and it is important to use only 35 amps rating fuses.** The fusing value is marked on a coloured paper slip inside the glass tube of the fuse. If the new fuse blows immediately and the cause of the trouble cannot be found, have the equipment examined by a Distributor or Dealer.

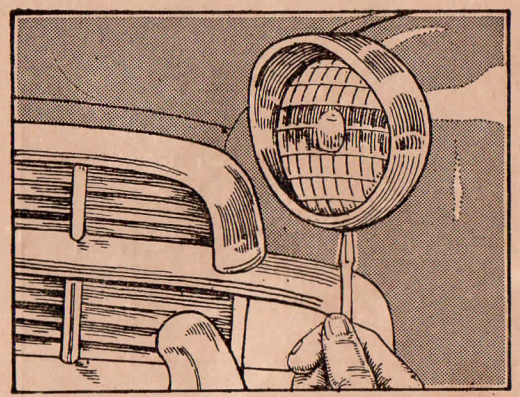
Control box

The cut-out and regulator are accurately set before leaving the Works and they must not be tampered with. The cover protecting them is therefore sealed. The fuses are mounted on a separate fuse unit and are accessible without removing the cover protecting the regulator and cut-out units.



The cut-out and regulator require no attention and should never be tampered with

The headlamp rim-retaining screw



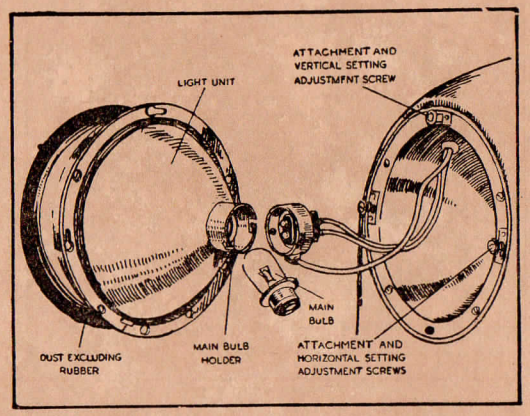
Headlamps

To remove the light unit for bulb replacement. Unscrew the securing screw at the bottom of the lamp rim and lift off the rim. Remove the dust-excluding rubber, which will reveal three spring-loaded screws. Press the light unit inwards against the tension of the springs and turn it in an anti-clockwise direction until the heads of the screws can pass through the enlarged ends of the keyhole slots in the rim.

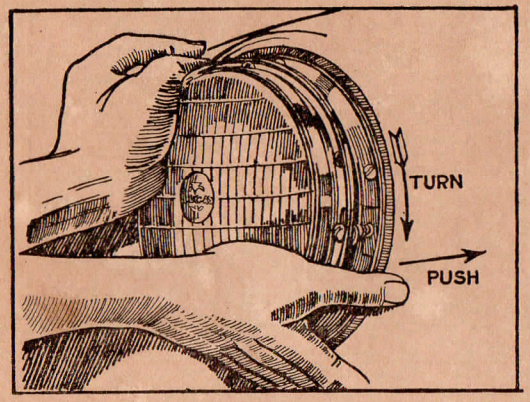
Replacing bulbs

Withdrawal of the light unit gives immediate access to the bulb holder for replacement.

Twist the back shell anti-clock-wise and pull it off. The main bulb can then be withdrawn from its holder. Fit the replacement bulb in the holder, with the slot in its disc in engagement with the projection in the holder. Engage the projections on the back shell with the holder slots, press on and twist to the right until its catch engages.



The lamp unit removed to show the bulb holder and back shell



Replacing the lamp unit

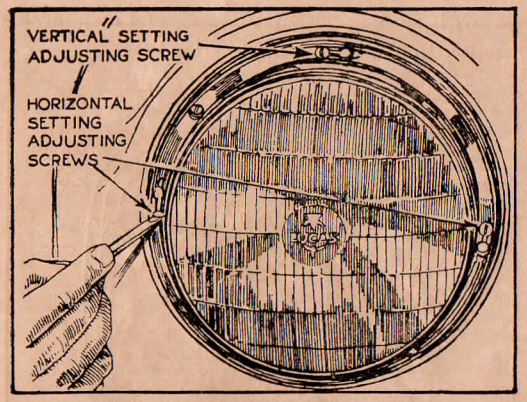
Replacing the light unit and lamp front

Position the light unit so that the heads of the adjusting screws pass through the slotted holes in the flange, press the unit inwards and turn it in a clockwise direction as far as it will go. Replace the dust-excluding rubber and refit the front rim.

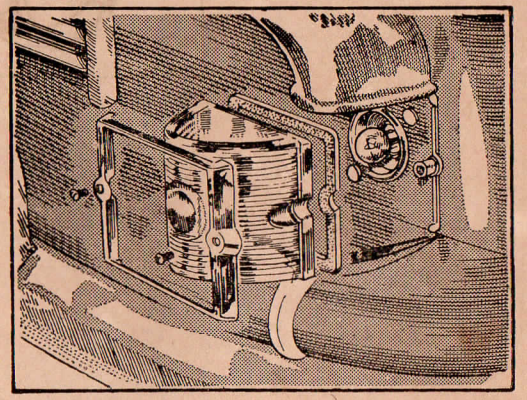
Setting head lamps.

The lamps should be set so that the main driving beams are parallel with the road surface or in accordance with local regulations. If adjustment is required, remove the rim as described on page 19.

Vertical adjustment is made by turning the screw at the top of the lamp. Horizontal adjustment can be altered by using the adjustment screws on each side of the light unit.



The method of setting the headlamp beams



Front sidelamp glass and retaining rim removed to show the bulb and holder

Side and flashing indicator lamps—front

Access to the side & flashing lamp bulb for replacement is obtained by removing the lamp glass and rim, which are retained in position by two screws and a flange with a rubber sealing gasket.

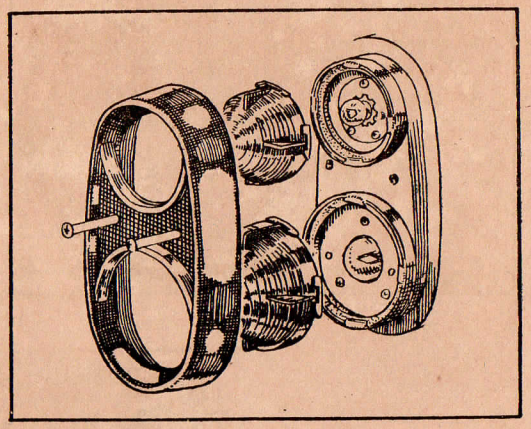
Cars built for use have combined side and flashing indicator lamps.

Stop, tail and fishing indicator lamps

In the top compartment is fitted the flashing indicator bulb, beneath which is fitted the stop and tail lamp bulb. The latter is of the double filament type, giving a marked increase in illumination on brake application to provide a stop warning. The bulb also has offset locating pins to ensure correct replacement. (See page 24 for replacement bulbs.)

To gain access to the bulbs, remove the two screws securing the lamp unit rim to the body and remove the rim.

Either lamp glass may be removed by first pushing inwards and then turning the glass in an anti-clockwise direction to free it from the securing lobes.

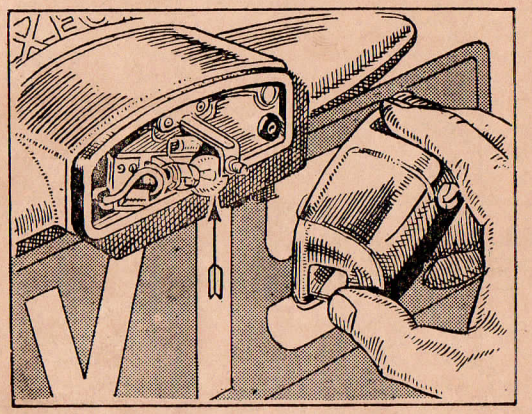


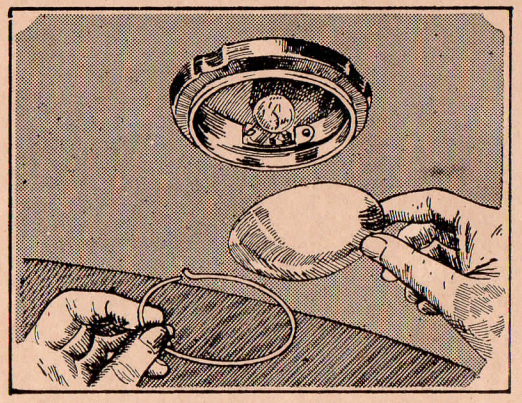
Remove the two rim retaining screws to gain access to the lamps; the glasses are then removed by pushing inwards and turning them anti-clockwise

Number plate lamps

The number-plate is illuminated by a separate lamp with a single bulb of 12-volt, 6-watt rating. The domed cover is removed for bulb replacement by unscrewing the slotted screw. The bulb is of the miniature bayonet type and is easily removed and replaced.

Slacken the central screw and remove the cover to obtain bulb access





A wire circlip retains the roof lamp glass.

Roof lamp bulb replacement

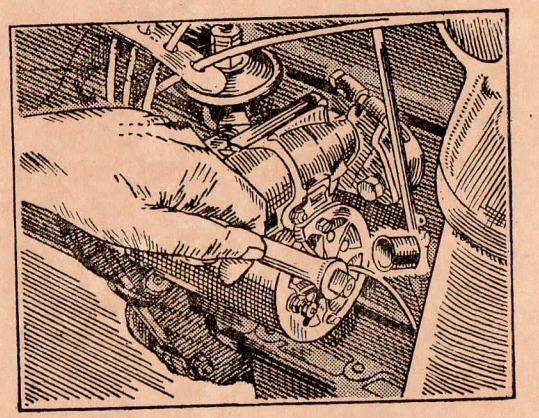
Access to the bulb for replacement is achieved by removing the wire circlip retaining the glass and removing the glass.

ELECTRICAL EQUIPMENT

Starter

The starter motor is mounted on the right-hand side of the engine on the flywheel housing. It requires no lubrication between overhaul periods.

In the event of the starter pinion becoming jammed in mesh with the flywheel, it can usually be freed by turning the starter armature by means of a spanner applied to the shaft extension at the commutator end. This is accessible by removing the small cap.



A jammed starter pinion may be freed by turning armature shaft by means of a spanner

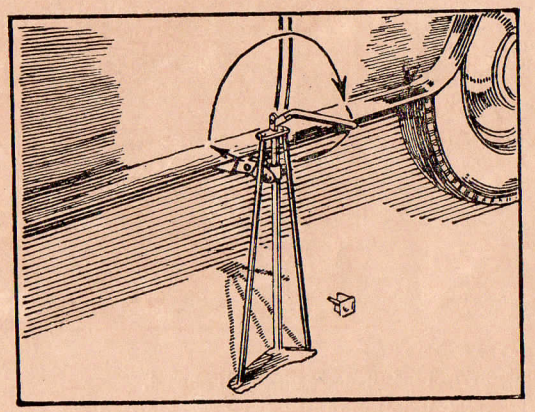
Replacement bulbs

	Volts	Watts
Headlamps	12	42/36
Pilot Lamps	12	6
Stop Lamps	12	18
Tail Lamp	12	6
Number Plate Illumination Lamp	12	6
Roof lamp	12	6
Trafficators	12	3
Ignition warning light	12	2·2
Headlamp beam-warning light	12	2·2
Panel, side and tail warning lights	12	2·2

Jack operation

Apply the hand brake and remove the rubber plug from the socket which is welded to the chassis on either side beneath the centre door pillar. Insert the arm of the jack and raise the side of the car until the wheels are almost clear of the ground.

As the car swings over when one side is raised, the top of the jack should lean slightly outwards at the start of the lift, so that it is vertical when the wheels are raised clear of the ground.



The jack should be positioned leaning out slightly at the top

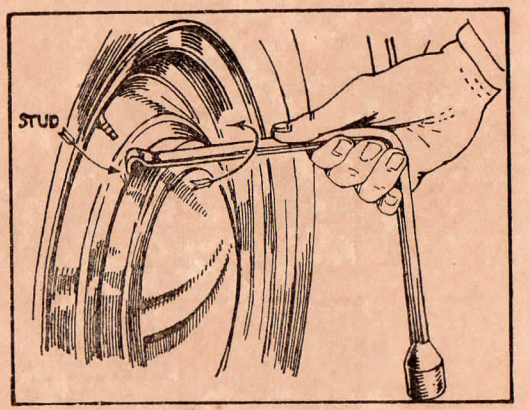
Removing the wheel discs

Remove the wheel disc by inserting the flattened end of the wheel nut spanner in the recess provided in the road wheel and levering off the hub cover, using a sideways motion of the spanner and not a radial one. A radial movement of the spanner will open out the rim of the disc. To refit the hub disc, the rim should be placed over two of the buttons on the wheel centre and the outer face given a sharp blow with the fist over the third button.

Removing the wheels

Slacken the five nuts securing the road wheels to the hub. The wheel nuts have right-hand threads i.e. turn clock-wise to tighten and anti-clockwise to remove. Raise the car to lift the tyre clear of the ground and remove the nuts. Lift the road wheel from the studs.

Reverse this procedure when replacing the road wheel, ensuring that the securing nuts are tight and that the brake adjuster seals are in position with the adjustment hole in the wheel opposite the hole in the brake-drum.



Use the special attachment on the end of the wheel nut spanner to remove the hub caps

Tyre pressures

The recommended tyre pressures are given on page 4.

Maintain the correct inflation pressures by checking with an accurate tyre gauge at least once a week. Correct when necessary.

Any unusual pressure loss should be investigated. Under-inflation causes rapid wear, and even more serious is the possible damage to the cords of the fabric owing to excessive bending or flexing of the cover walls.

Tyre valves

See that the valve caps are screwed down firmly by hand.

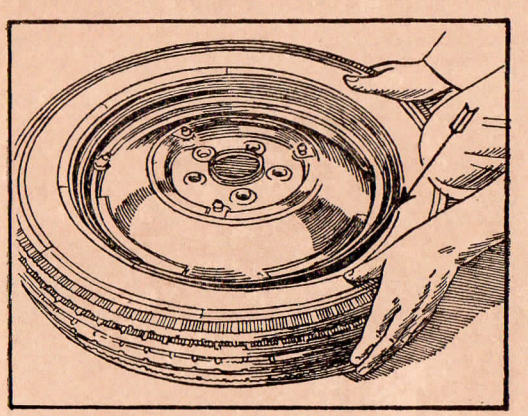
The reliability of a valve depends upon the proper functioning of its interior. It may be tested for airtightness by rotating the wheel until the valve is at the top and inserting its end in a container full of water. If bubbles appear the seatings is faulty and should be renewed. When valve caps are removed do not place them on a dusty road surface.

Removing tyres

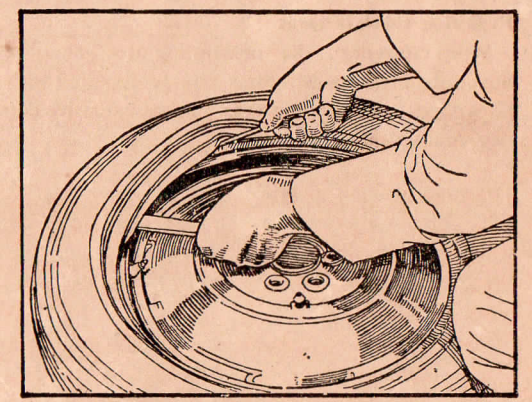
Inextensible wires are incorporated in the edges of tyres. Do not attempt to stretch the edges of the tyre cover over the rim. Force is entirely unnecessary and dangerous, as it merely tends to damage the cover edges.

Remove valve inner core to completely deflate the tyre and push both cover edges into the base of the rim.

Lever the cover edge over the rim edge.



The cover beads should be pushed into the wellbase of the rim.



The cover edge can then be levered over the rim to remove it, or replace it, as required

Tyre replacement

A similar technique has to be employed when replacing the tyre, first fitting the tyre into the rim and then using a tourniquet to spread the tyre beads to touch the wheel rim edges as the tyre beads form the air seals in the wheel rim.

Great care must be taken not to damage the bead, use tyre levers which are in good condition.