

BSA SERVICE SHEET No. 806

Reprinted April, 1960

All Models

LAMPS

LUCAS LIGHTING

Headlamps

Although the headlamps fitted to individual models may vary in detail, they remain similar with regard to the general features described below. All headlamps are fitted with a double filament main bulb and a pilot bulb. One of the double filaments provides the main riding beam while the second, brought into operation by means of the dipper switch, provides the dipped beam.

On some models the headlamp incorporates a panel containing the ammeter and lighting switch but if a cowl is fitted then it carries these components externally to the headlamp shell.

Other headlamps contain wire wound resistances for the purpose of reducing the charging rates under certain conditions and these are described under the appropriate lighting circuit.

Setting and Focusing

The best way of checking the setting of the lamp is to park the motor cycle in front of a light coloured wall at a distance of about 25 feet. If necessary, slacken the bolts securing the headlamp and move the lamp until, with the main driving light switched on, the beam is projected straight ahead and parallel with the ground. With the lamp in this position, the height of the beam centre from the ground should be the same as the height of the centre of the headlamp from the ground.

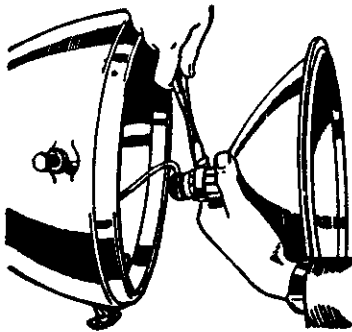


Fig. Y.22 Headlamp Focusing.

The headlamp must be focused so that, when the main driving light is switched on, a uniform beam without any dark centre is given. If the bulb needs adjusting, remove the lamp front and reflector, as described below, and slacken the bulb holder clamping clip at the back of the reflector. Move the bulb holder backwards and forwards until the correct position is obtained, and then tighten the clamping clip.

More sealed beam light units are fitted with the pre-focus type of bulb and therefore no focusing is necessary.

Removal of Front and Reflector, pre-1948 models

Press back the fixing clip at the bottom of the lamp. The front and reflector can now be taken off. The bulb holder is secured to the reflector by means of two fixing springs. When replacing the front, locate the top of the rim first, then press on at the bottom and secure with the fixing clip.

B.S.A. Service Sheet No. 806 (cont.)

When fitting a main headlamp bulb, care must be taken to insert it the correct way round, i.e. with the dipped beam filament above the centre filament.

The pre-focus type bulb is located by a flange and there is a notch which engages on a raised portion of the bulb holder to ensure correct positioning.

Where the pilot bulb is contained in an underslung cowl, the metal strip on which the bulb is mounted should be pushed to the rear and lifted away in order to provide access to the bulb.

Tail Lamps

Where the tail lamp is of the metal type the body or back should be removed by pushing it in, rotating to the left, and pulling away, thus providing access to the bulb. The moulded plastic type of rear lamp can be dismantled by unscrewing the two screws in the cover.

When a stop lamp is fitted, a two-filament type of bulb is employed with offset bayonet type fixing pins to ensure that it can only be fitted correctly.

MAIN BULBS

Models A7, A10, B31, 32, 33, 34, C12, C15 and M20, M21.

Lucas No. 168, 6v. 24/24w. (with E3H Dynamo). Lucas No. 169, 6v. 30/30w. (with E3L Dynamo). Lucas No. 312, 6v. 30/24w. (Pre-focus type Bulb).

Models C10 and C11.

Lucas No. 180, 6v., 18/18w. (with E3H Dynamo). Lucas No. 168, 6v. 24/24w. (with E3L Dynamo).

Models C11G and D1 (early) Lucas

Lucas No. 312, 6v. 30/24w. (Pre-focus type Bulb).

PILOT

Lucas No. 200, 6v. 3w. Lucas No. 988, 6v. 3w. (with Sealed Beam Light Unit).

TAIL

Lucas No. 205, 6v. 6w.

Lucas No. 384, 6v. 6/18w. (Stop/Tail Lamp).

1948 Models (Fig. Y.23)

Press back the fixing clip at the bottom of the lamp, and remove the lamp front. The reflector is secured to the lamp body by means of a rubber bead. When refitting the rubber bead, locate its thinner lip between the reflector rim and the edge of the lamp body. To replace the front, locate the metal tongue in the slot at the top of the lamp, press the front on, and secure by means of the fixing catch.

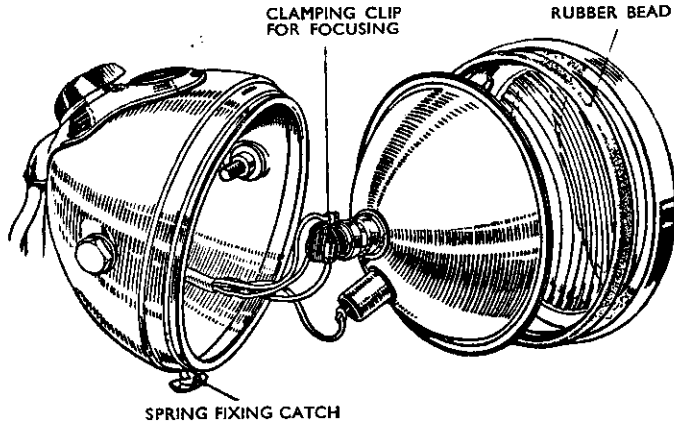


Fig. Y.23.

Sealed Beam Headlamps

Later models are fitted with a sealed light unit having the reflector and glass sealed together. After slackening the securing screw on the top of the headlamp, the rim, complete with light unit, may be removed. To replace, locate the rim on the lip at the bottom of the lamp body, press the light unit assembly and rim into position and tighten the securing screw. The main headlamp bulb in some of these headlamps is of the pre-focus type and is held in position by a cap with bayonet type fitting. In all cases access to the main or pilot bulbs is obtained by removal of the light unit assembly.

Breakage of the headlamp glass with this type of unit involves replacement of the glass and reflector complete. The light unit may be removed from the headlamp rim after prising out the retaining clips.

Replacement of Bulbs

When the replacement of a bulb is necessary, it is important not only that the same size bulb is fitted, but that it has a high efficiency and will focus in the reflector. Cheap and inferior replacement bulbs often have the filament of such a shape that it is impossible to focus correctly; for example, the filament may be to the one side of the axis of the bulb resulting in loss of range and light efficiency.

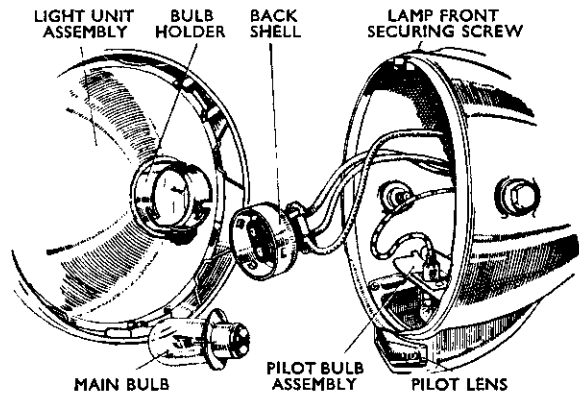


Fig. Y.24 Sealed Beam Unit.

Lucas Genuine Spare Bulbs are specially tested to check that the filament is in the correct position to give the best results with Lucas lamps. To assist in identification, Lucas bulbs are marked on the metal cap with a number. When fitting a replacement, see that it has the same number as the original bulb.