

## Model C15

### FRONT FORK AND STEERING HEAD

Under normal conditions the only servicing which the front forks will require is occasional renewal of the oil. The need for this may be indicated by excessive movement, but it should only be necessary after considerable mileage.

#### Changing the Oil

First remove the plugs marked *A*, Fig. C25A, and take out the drain plugs shown at *B*, Fig. C26A. After allowing the oil to drain out, apply the front brake and depress the forks a few times to drive out any oil remaining.

CABLE ADJUSTER

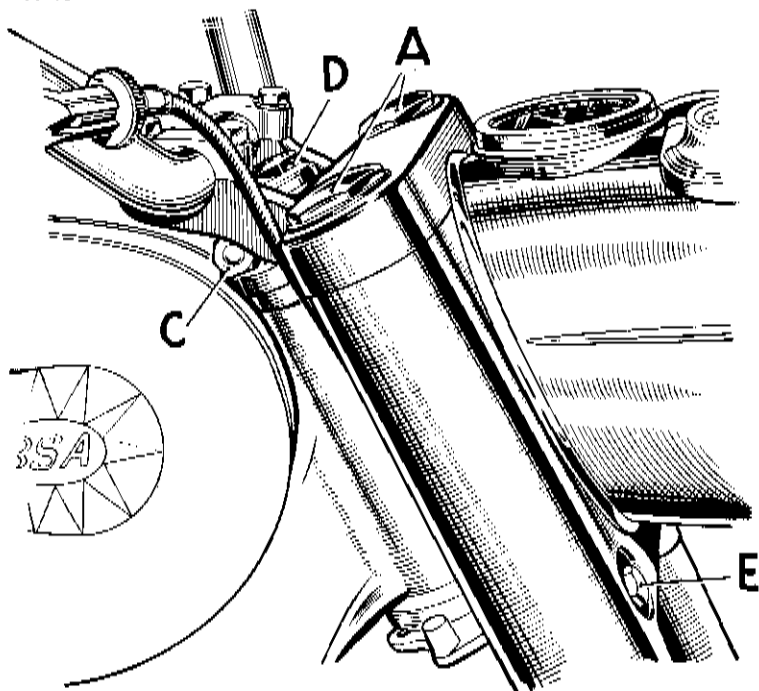


Fig. C25A. Front Fork and Steering Head.

Replace the drain plugs after ensuring that the fibre washers are in good condition and refill each leg with  $3\frac{1}{2}$  fluid ounces of an S.A.E. 20 oil, replace the top plugs and tighten securely.

### **Steering Head Adjustment**

To test the head for play support the crankcase on a box so that the front wheel is clear of the ground, then standing in front of the machine with the legs together against the front tyre, push and pull alternately on the handlebars.

If any play is apparent the steering should be adjusted.

Slacken the clamping nut *C*, Fig. C25A, and tighten the cap nut *D* until the adjustment is correct. The handlebars should turn freely, if the movement is "lumpy" it indicates that the top nut is too tight or the ball races are damaged.

When the adjustment is correct, tighten the clamp nut *C* securely.

### **Dismantling the Forks**

It should only be necessary to dismantle the forks after a very large mileage has been covered and special Service Tools will be required.

Drain off the oil as previously described on this sheet and remove the front wheel, followed by the front mudguard complete with the stays which are retained by four nuts and bolts on each side.

Unscrew the cap nuts *A*, Fig. C25A, take out the fork springs and slacken the pinch bolts *E* in the bottom yoke.

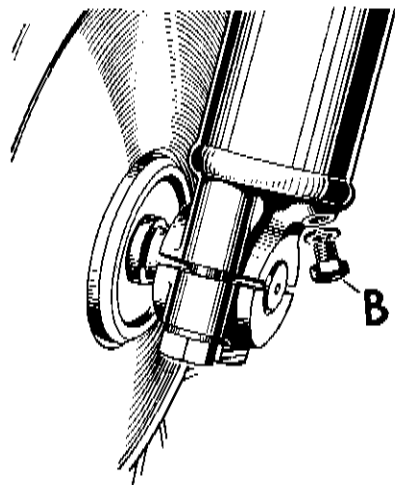


Fig. C26A. Front Fork Drain Plug.

the wheel spindle lug, a 1/8 in. Whit. socket or tubular spanner is the most suitable. When the bolt is out, turn the leg upside down when the restrictor rod will drop out of the main tube.

To release the legs from the top yoke screw in Service Tool number 61 3350 in place of the top cap *A*, strike the end of the tool a sharp blow with a hammer and draw the leg down through the bottom yoke. Repeat the procedure for the other leg. (See Fig. 27A).

The collar at the top of the sliding shaft carries an oil seal and dust shroud, on early machines only one oil seal is fitted, later models have two oil seals, one above and one below the dust shroud.

To remove the collar, hold the leg in a soft jawed vice by gripping the wheel spindle lug and unscrew using Service Tool 61 3586. The dust shroud is a press fit into the screwed collar and retains the lower oil seal. Note that the oil seal must always be fitted with the lip downwards.

If new bushes are to be fitted the restrictor rod must now be removed. Unscrew the small headed 5/16 in. bolt which is recessed into the

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Note that there is a milled slot in the end of the rod, this is for drainage and the slot must be positioned over the drain screw when the rod is replaced.

Bolt the assembly into Service Tool 61-3587 using the two spindle lug bolts and draw the main tube and alloy spacer out of the sliding member. The top bush can now be lifted off and the lower bush removed after the castellated nut has been unscrewed.

### **Reassembling the Forks**

After replacing the lower bush, slide on the alloy spacer tube then the top bush with the flange uppermost.

Insert the main tube into the sliding member, lower bush first and press in the distance piece and top bush.

Service Tool 61-3587 with 61-3602 can be used for this purpose or a long piece of tube having an inside diameter of  $1\frac{1}{4}$  in, but great care must be exercised not to damage the top bush. Screw on the collar using Tool number 61-3586.

Now insert the restrictor rod slotted end first, and with the aid of the spring locate the slot over the drain plug, screw in the small headed  $5/16$  in. diameter bolt and secure.

Take out the spring and slide the assembly up through the bottom yoke and using Service Tool 61-3350 draw the leg up tight into the top yoke tightening the pinch bolt *E*, Fig. C25A before releasing the Service Tool.

The top cap *A*, Fig. C25A can be used in place of the Service Tool but it must be removed again to refill with oil and to replace the spring.

After replacing both legs slacken off the top caps and the pinch bolts in the bottom yoke, replace the guard and front wheel, remove the support from underneath the engine and pump the forks up and down a few times to line up the legs, finally tightening up all nuts and bolts from the bottom upwards.

Do not forget that the front wheel must be drawn close up to the brake side before the clip bolts are tightened.

Suitable oils for the forks are Mobiloil Arctic, Shell X100 20, Castrolite, Esso 20, B.P. Energol S.A.E. 20.

### **Dismantling the Steering Head**

The steering can be dismantled without stripping the forks but sufficient slack must be obtained in the lighting cables and the front brake cable disconnected, to allow the column to be drawn down out of the head.

Take out the four bolts securing the handlebar and lift the bar to one side. Slacken the pinch bolt *C*, Fig. C25A and take off the caps *A* and *D*, Fig. C25A and the top fork cover.

Now with a rawhide or copper mallet strike the sides of the top yoke alternately to release it from the tapered legs.

Lift the top yoke to one side and draw the steering column down and out of the head but be careful to catch the bearings which will be released as the column is withdrawn. There are 24  $3/16$  in. diameter steel balls in each race.

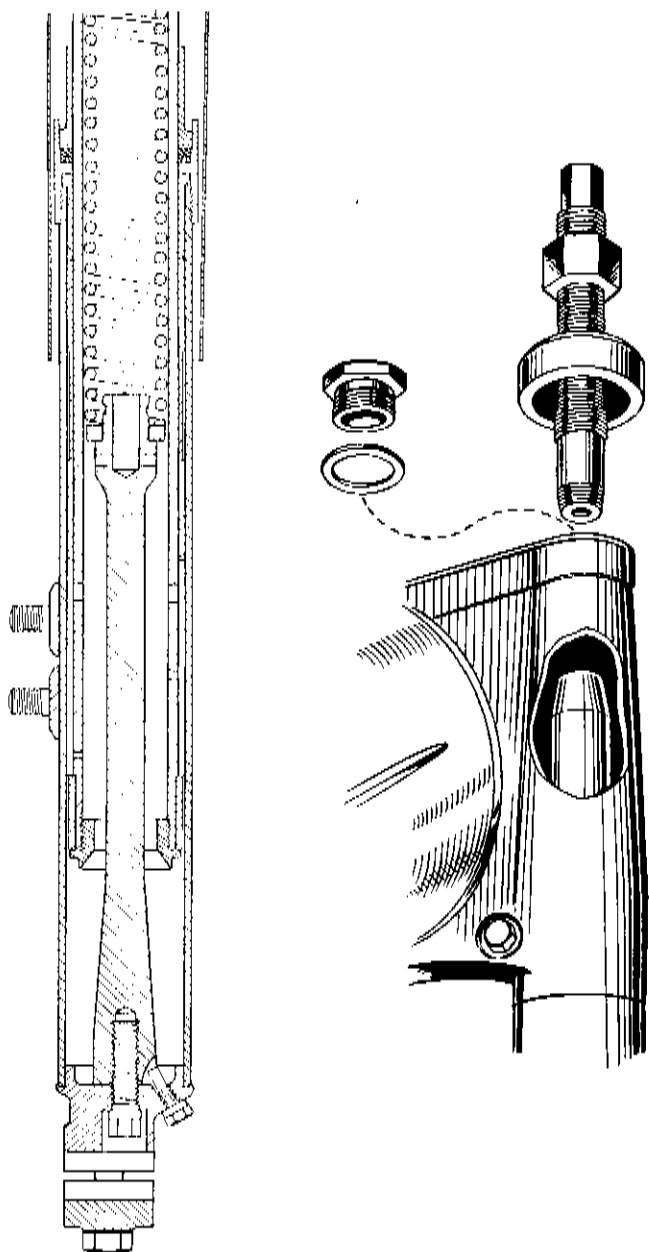


Fig. C27A. Dismantling the Front Fork,

The two inner cones are the same, Part number 40 5027, and the two cups are also identical, Part number 40 4074.

The cups are a press fit into the head lug and can be driven out from opposite ends with the aid of a suitable drift.

If there are small indentations in either the cups or cones or the steel balls are pitted, they should be replaced.

#### Reassembling the Steering

Drive the new cups into the head lug using a flat plate or bar across the top of the cup and make sure that they enter the seatings squarely.

Grease the cups and press 24 balls into each. Slide the column carefully up into the head and place on the top cone and dust cover, next the top yoke and cap *D*, Fig. C25A. Screw in the caps *A*, and replace the handlebar.

Check over the adjustment of the steering finally tightening nut *C* and replacing the brake and lighting cables.