BSA SERVICE SHEET No. 425

Printed December, 1958

MODEL C15
DISMANTLING AND REASSEMBLY OF HUBS AND BRAKES

Both wheels are fitted with ball journal bearings which do not require adjustment. The bearings are packed with grease during assembly and this should last until the machine is in need of a major overhaul.

Front Wheel Removal

With the machine on its centre stand place a box or small wooden trestle underneath the crankcase so that the front wheel is clear of the ground.

Disconnect the brake cable by removing the split pin *A* and the clevis pin *B*, Fig. C21A at the brake drum end, and withdraw the cable from the lug on the lower fork end. Remove the end caps *D* by unscrewing the four bolts (two in each cap) and as the last bolt is removed support the wheel to avoid damage to the threads on the bolts or the screwed sockets. The wheel will now be free.

Front Hub Dismantling

This should only be necessary when the bearings require replacement or greasing.

Unscrew the large nut on the spindle *E*, Fig. C21A this will be facilitated if the brake is applied using a short length of tubing, such as a box spanner, over the brake lever.

Take off the brake cover plate complete with shoes, cam and fulcrum pin.

The bearing retainer which is now exposed has a left-hand thread and can be removed by unscrewing in a clockwise direction with a suitable peg spanner.

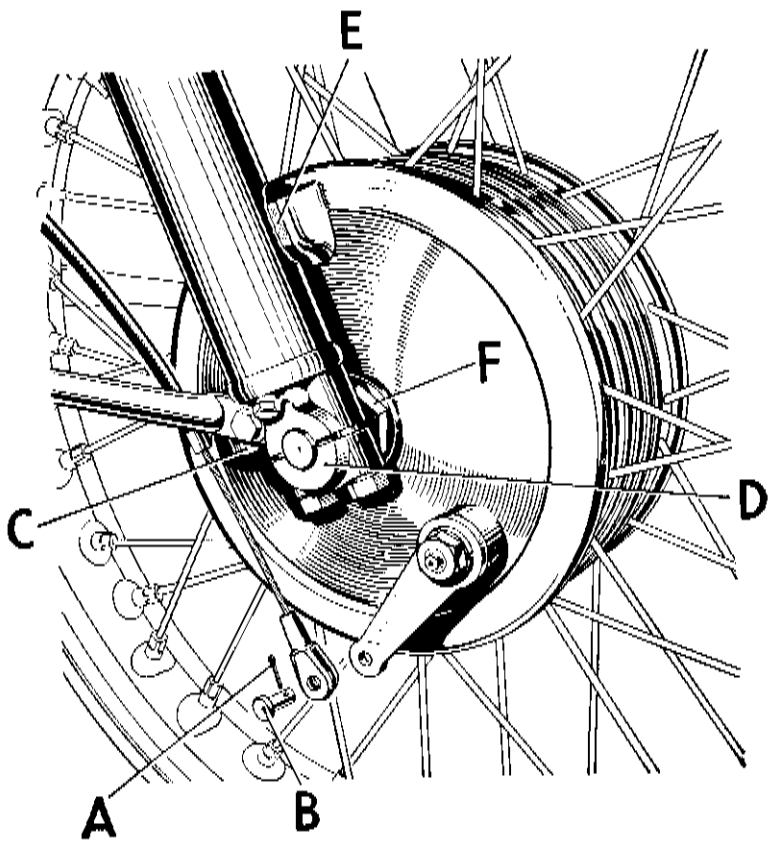

Fig. C21A. Removing the Front Wheel.

Now drive out the R/H or brake side bearing by striking the L/H side of the spindle with a mallet or copper hammer, if neither of these is available use a piece of hard wood placed against the end of the spindle to protect it.

To remove the L/H side bearing prise out the circlip and using a suitable drift, drive out the bearing and dust cover from the R/H side. If a suitable drift or punch is not available the spindle can be used but care should be taken to avoid damage.

Fitting New Bearings

Place the bearing squarely in position on the R/H side and drive in using a piece of tubing on the outer ring of the bearing. When it is resting on the abutment face in the hub, screw in the lock ring using a peg spanner and turning anti-clockwise (L/H thread).

Insert the spindle, screwed end first from the L/H side, and tap it gently home so that the bearing inner ring is seated against the shoulder on the spindle.

Place the L/H bearing over the spindle and drive it into the housing until the dust cap just clears the circlip groove and replace the circlip.

Brake Shoes

Before replacing the cover plate make sure that the brake linings are fit for further use and that the cam spindle is quite free in the cover plate.

Replacement shoes can be fitted either by springing the old ones off the fulcrum and cam spindles, or the shoes complete with spindles can be removed from the cover plate by taking off the domed nut on the fulcrum pin and the nut and lever on the cam spindle.

Replacing the Wheel

Make sure that the cover plate nut *F* (Fig. C21A) is securely tightened, engage the tongue *E* in the slot in the cover plate, replace the two caps and four bolts in the fork ends, but before final tightening pull the wheel to the R/H side so that the cover plate nut is resting against the R/H fork end.

Replace the brake cable, clevis pin and split pin and check over the fork end bolts for tightness.

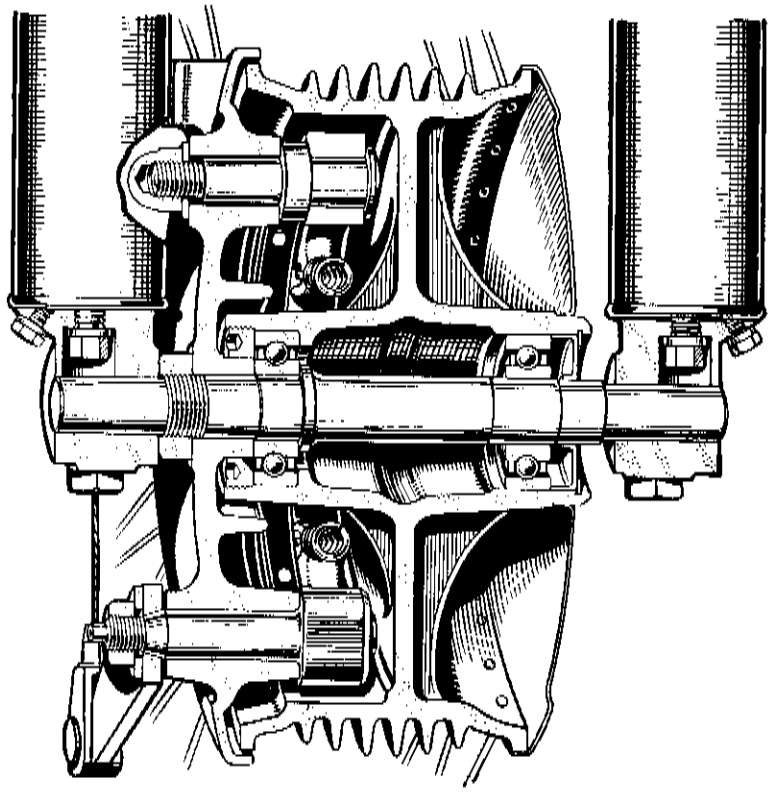

Fig. C22A. Front Hub Arrangement.

Rear Wheel Removal

With the machine on its stand, disconnect the rear chain at the spring link, place a sheet of paper on the ground under the run of the chain and wind the chain off the sprocket onto the paper but leaving it on the gearbox sprocket.

Take off the brake rod adjusting nut *A* (Fig. C23A) and the anchor arm *D* and disconnect the speedometer drive by unscrewing the union nut at the end of the cable.

Unscrew the spindle nuts *B* (Fig. C23A) and pull the wheel out of the fork ends at the same time freeing the brake rod from the swivel pin in the lever. Cant the machine over slightly towards the L/H side and remove the wheel from the R/H side.

Rear Wheel Dismantling

Unscrew the large central nuts on the spindle locking the spindle in the same way as described for the front wheel, and remove the brake cover plate complete with shoes and the speedometer drive gearbox from the R/H side. (Note the distance piece and driving dogs).

Next unscrew the bearing retainer which has a R/H thread and is therefore removed by using the peg spanner in an anti-clockwise direction.

Now drive the spindle through the bearing on the brake side so driving out the R/H bearing together with the felt washer, housing, and plain washer.

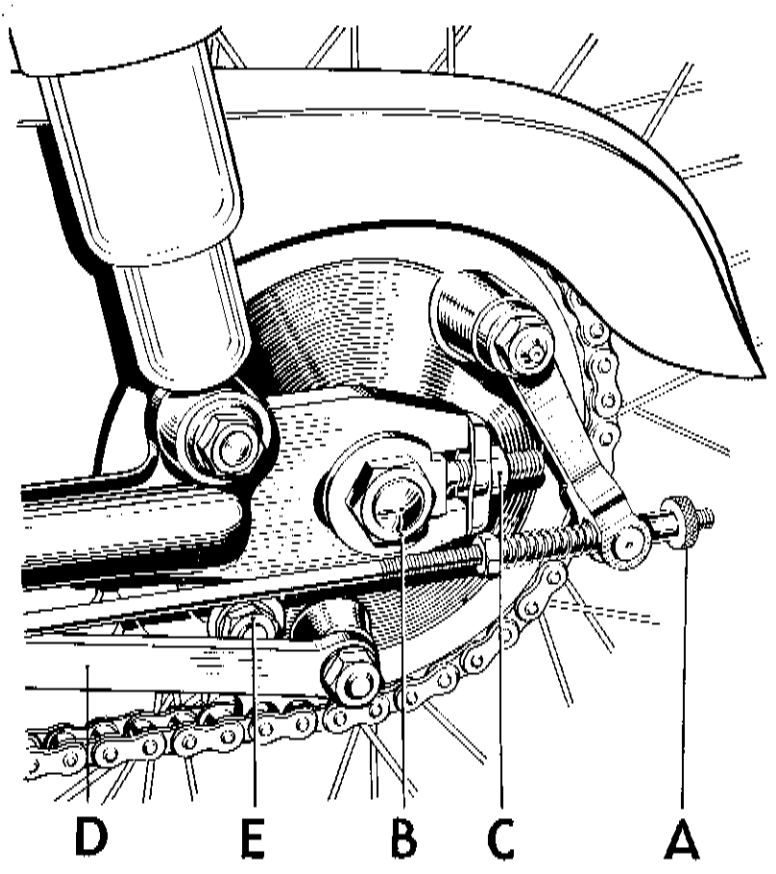

Fig. C23A. Rear Chain Adjustment.

The brake side bearing can now be driven out from the opposite side using a suitable drift or the spindle, but care must be taken not to damage the spindle threads if the spindle is used.

Fitting New Bearings

New bearings can be fitted in the reverse order but care must be taken to see that the drive side bearing, which is the larger of the two, is close up to the abutment in the hub shell and the shoulder on the spindle.

After fitting the drive side bearing and its retainer, insert the spindle from the R/H side, drive in the R/H bearing until it is seated against the shoulder on the spindle, insert the plain washer, felt washer and housing and press down into the recess. Slide the distance piece over the R/H side spindle end, then the speedometer drive gearbox, taking care to mesh the driving dogs, and screw on the spindle lock nut, this nut can be finally tightened after the brake cover plate is fitted.

Brake Shoes

These are dealt with in the same manner as described for the front wheel and are interchangeable with the front shoes, the only difference being that there is the normal type of nut used on the fulcrum pin.

After replacing the cover plate and nut, tighten the lock nut on the speedometer drive.

Brake Drum and Chainwheel

This is registered onto the hub shell and retained by six bolts and three tab plates and should not be disturbed except for replacement purposes of either the drum or spokes on that side.

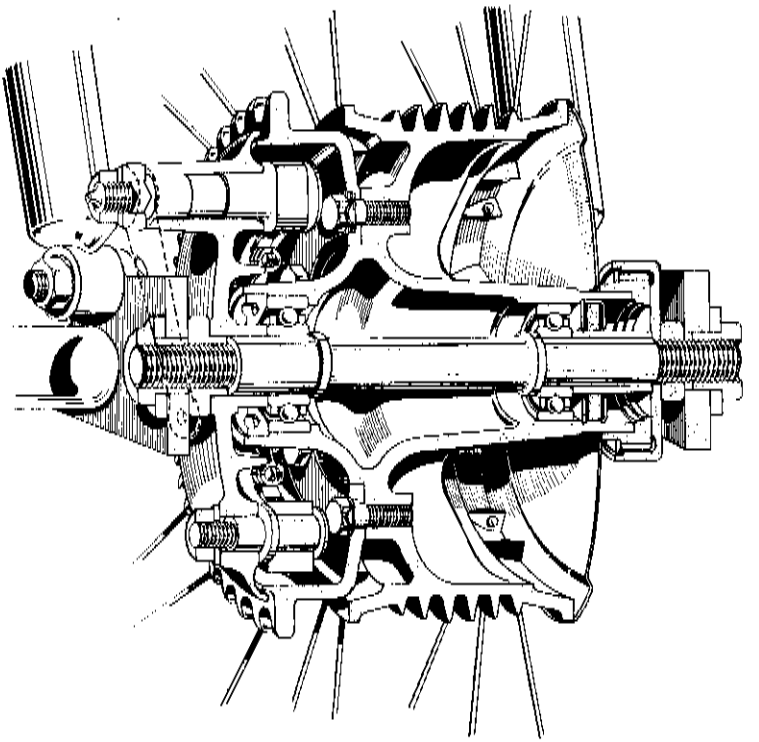

Fig. C24A. Rear Hub Arrangement.

Rear Wheel Replacement

Procedure is the reverse of that for removal but care should be taken to see that the wheel is in alignment with the front. This is done by applying a straight edge against the wheels which must touch the front and rear of both tyres. Also the spring on the chain connecting link must be fitted with the open end towards the rear on the top run.

It is most important to see that all nuts are securely tightened particularly those on the brake anchor strap.

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Service Dept., Birmingham 11.
Printed in England