

# BSA SERVICE SHEET No. 515

October, 1959

## Model D7

### 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 nut (A) and the screw (B) Fig. D29 at the brake drum end. Slacken the torque arm nut (C) on the cover plate and 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 screw threads on the bolt or the screwed sockets. The wheel will now be free.

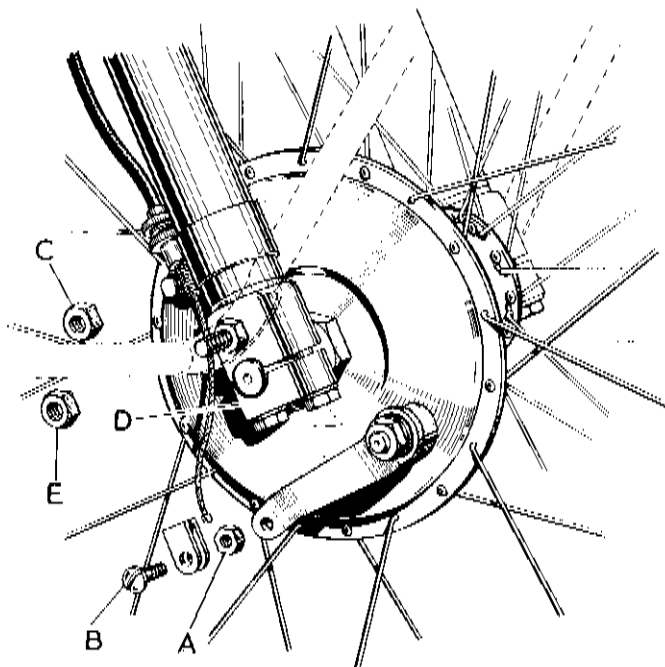


Fig. D29. Front Wheel Removal.

#### Front Hub Dismantling

Unscrew the large nut (E) Fig. D30 on the spindle. This will be facilitated if the brake is applied by using a short length of tubing, such as a box spanner, over the brake arm.

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

The bearing retainer (G) which is now exposed has a left-hand thread and can be removed by unscrewing in a clockwise direction with a peg spanner, Part No. 61 3644.

Drive out the right-hand or brake side bearing by striking the left-hand side of the spindle with a mallet or copper hammer. If neither of these is available the bearing can be driven out with an ordinary hammer if a piece of hard wood is placed against the end of the spindle to protect it.

To remove the left hand side bearing prise out the circlip (H) and, using a suitable piece of tube, drive out the bearing and dust cover from the right hand side.

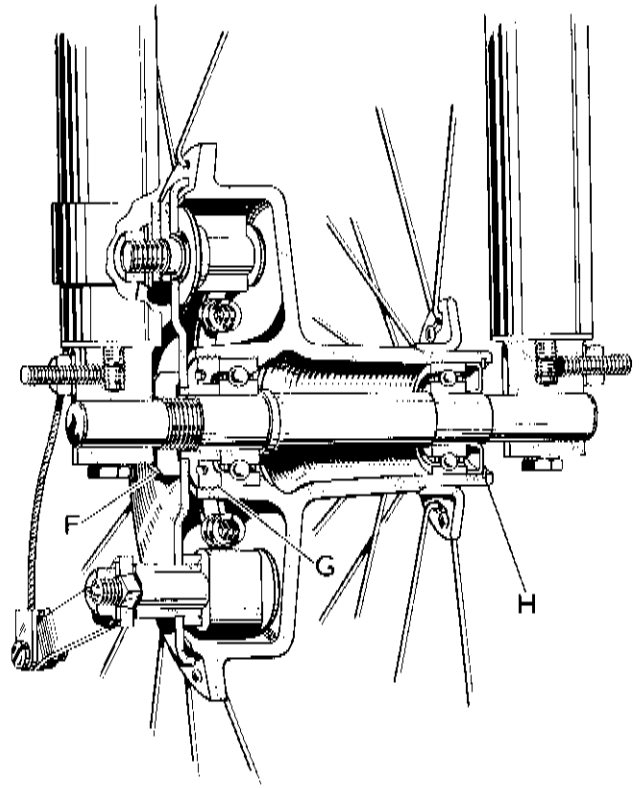


Fig. D30.

### **Fitting New Bearings**

Place the bearing squarely in position on the right hand 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 locking ring using a peg spanner and turning anti clockwise (left-hand thread).

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

Place the left hand bearing over the spindle and drive it into the housing until the dust cap just clears the circlip groove, and replace the dust cap and circlip.

### **Brake Shoes**

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

Replacement shoes may be obtained through the medium of your Dealer from the B.S.A. Exchange Replacement Service, and can be fitted by springing the old ones off the fulcrum and cam spindles then springing the new ones on in like manner.

### **Replacing the Wheel**

Make sure that the cover plate nut (l') Fig. D30 is securely tightened, engage the torque arm bolt of the cover plate in the clip on the right-hand fork leg and replace the fork end clips. Before finally tightening the clip bolts pull the wheel towards the right hand fork leg.

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

### **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 rear sprocket on to the paper but leaving it over the gearbox sprocket.

Take off the brake rod adjusting nut (A) Fig. D31 and remove the torque arm bolt (B). Disconnect the speedometer cable by unscrewing the union nut at the end of the cable. The inner cable can then be lifted out of the gearbox drive.

Unscrew the spindle nuts (C) Fig. D31 and pull the wheel out of the fork ends, at the same time freeing the brake rod from the swivel pin on the lever. Tilt the machine over slightly towards the left hand side and remove the wheel from the right-hand side.

### **Rear Wheel Dismantling**

Unscrew the large nuts (A) Fig. D32 on the spindle, locking the spindle in the same way as described for the front wheel. Remove the brake cover plate complete with shoes and then the speedometer drive gearbox from the right-hand side. (Note the distance piece and driving dogs).

Next unscrew the bearing retainer (B) which has a right hand thread and is therefore removed by using a peg spanner in an anti-clockwise direction.

Drive the spindle through the bearing on the brake side so driving out the right-hand bearing.

The brake-side bearing can now be driven out from the opposite side using a drift against the outer race of the bearing.

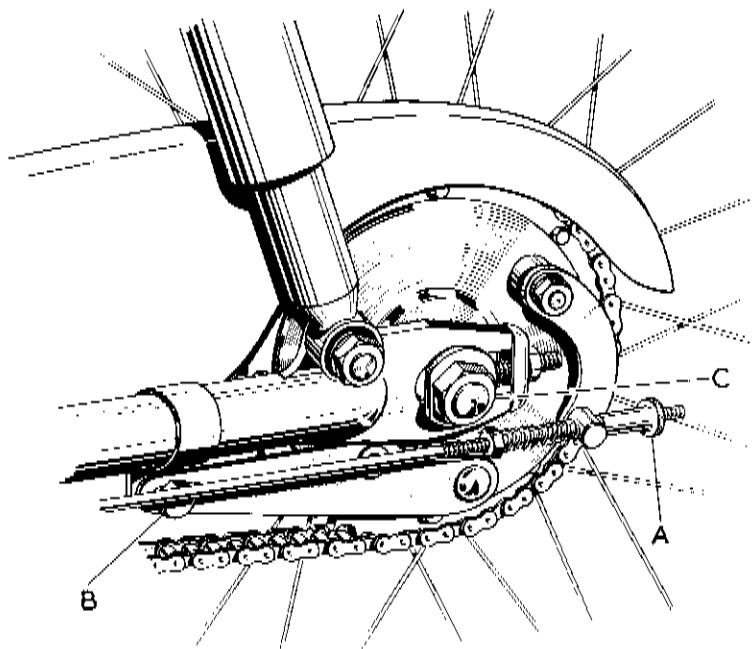


Fig. D31.

**Fitting New Bearings**

New bearings can be fitted in the reverse order but care must be taken to see that the locking washer is in place behind the drive side bearing and that the bearing is seated well 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 right hand side, drive in the right hand bearing to the shoulder on the spindle, slide the distance piece (C) Fig. D32 over the right-hand side of the spindle, then the speedometer gearbox taking care to mesh the driving dogs and screw on the spindle locknut. This nut can be finally tightened after the brake cover plate is fitted.

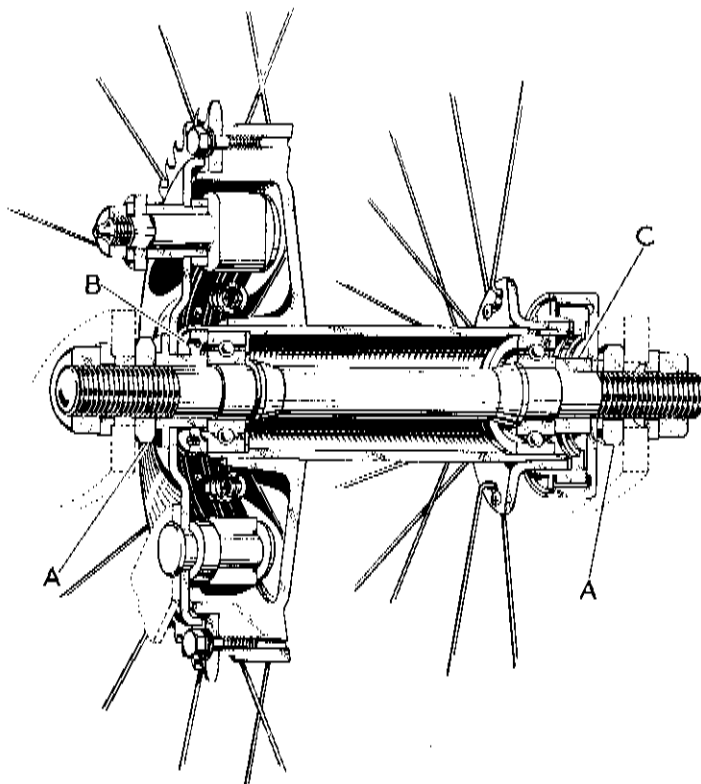


Fig. D32.

**Brake Shoes**

These are dealt with in the same manner as described for the front wheel and are interchangeable with the front shoes. After replacing the cover plate and nut, tighten the locknut on the speedometer drive.

**Chainwheel**

This is registered on to the brake drum and secured by eight bolts and spring washers.

**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 placing a straight edge against the wheels which must touch the front and rear of both tyres. The spring on the chain connecting link must also be fitted with the open end towards the rear wheel when on the top run of the chain. All nuts must be securely tightened.

## **B.S.A. SERVICE SHEET No. 515 (contd.)**

### **Front Mudguard**

If the front forks or steering head is to be dismantled, it will be necessary to remove the front mudguard. This is done by taking out the two bolts and nuts on the bridge piece midway up the fork legs, and then the two nuts (E) Fig. D29 on each side of the fork ends holding the stays. Spring the stays over the studs and drop the guard down out of the forks.

### **Rear Chain**

The rear chain should be adjusted when the machine is on its stand and the rear wheel in its lowest position.

Adjustment should then be made so that the chain has a total up and down movement of  $\frac{3}{4}$  inch in the centre of the chain run at its tightest point.

To carry out the adjustment slacken off the outer spindle nuts and the nut securing the brake torque arm to the frame. Screwing the adjuster nut in will tighten the chain but it is essential that both adjusters are screwed in or out the same amount in order to maintain correct wheel alignment.

When the chain adjustment has been corrected, care should be taken to see that all the nuts and bolts are securely tightened.