BSA SERVICE SHEET No. 410

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C10, C11 and C11G Models

ADJUSTMENT, DISMANTLING AND RE-ASSEMBLY OF HUBS AND BRAKES

(For Spring Frame Rear Hub, see Service Sheet No. 412)

Front Wheel Removal and Replacement

To remove the front wheel, place a suitable support under the engine crankcase so that the wheel is held clear of the ground. Disconnect the brake cable from the brake arm clip and unscrew the wheel spindle nut which has a left hand thread. Slacken the pinch bolt A (Fig. C27) and pull out the spindle B. Slide the distance bush C outwards to allow the wheel to drop out of the forks.

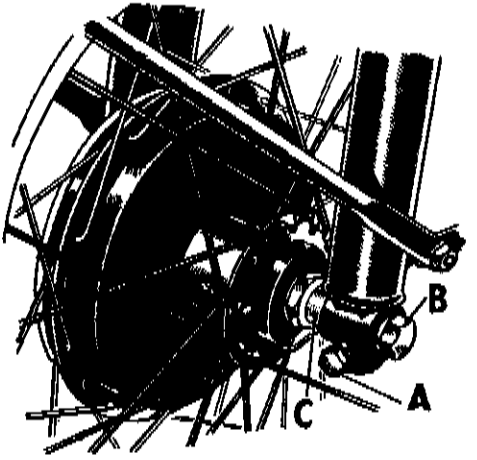

Fig. C.27. Removal of front wheel.

The wheel is replaced in the reverse order to that for removal. It is most important that after the spindle nut has been tightened and before the pinch bolt is tightened, the forks are depressed once or twice to enable the left hand fork end to position itself on the distance bush. If this precaution is not observed, the fork leg may be clipped out of position and the fork will not function correctly.

Rear Wheel Removal (Rigid Frame)

Disconnect the rear chain, then remove the bolt holding the brake anchor plate and the knurled brake adjuster nut on the rear brake rod. Disconnect the speedometer drive by unscrewing the nut F (Fig. C28), then loosen the two spindle nuts and the wheel should slide out of the fork ends.

When replacing the rear wheel note that the spindle nuts are shouldered and must be correctly located in the fork ends.

Rear Chain Adjustment (Rigid Frame)

The rear chain must be re-adjusted after the rear wheel has been replaced or when chain wear has taken place. With the spindle nuts just slack, rotate the spindle by means of a spanner on the flats at its left hand end. Clockwise rotation will move the spindle backwards by the action of the two cams bearing on the frame stops.

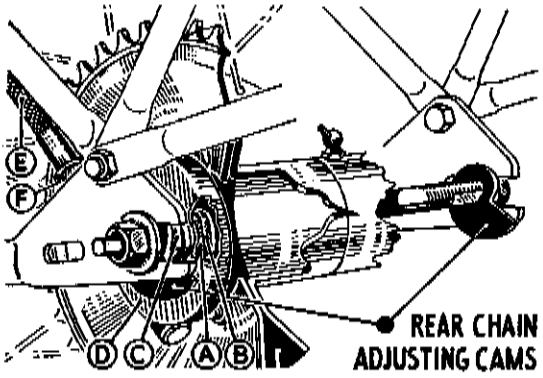

Fig. C.28. Section of hub showing adjustment.

The chain should be adjusted so that there is a total up and down movement of ½ in. in the centre of the chain run and at its tightest point. Tighten the spindle nuts and check the wheel adjustment by means of a taut piece of string which should be equidistant from the front and rear of each wheel.

Note: Where the speedometer drive gearbox is attached to the rear wheel, it must be correctly aligned so that the speedometer cable is not kinked. Slackening nut C (Fig. C28) will permit the gearbox to be rotated, but the left hand spindle nut must be slackened first.

Bearing Adjustment (Front Hub and Rear Hub Rigid Frame)

Both hubs are adjusted in a similar manner. Cup and cone type bearings are employed and the adjusting cone B (Fig. C28) with its locknut A, are on the left hand side of the hub. Where the speedometer drive gearbox is fitted to the rear wheel it must be removed, after undoing the retaining nut and washer at C, to gain access to the adjuster cone.

To carry out the adjustment, remove the wheel then slacken the locknut and screw the adjuster cone in or out until, with the locknut re-tightened, the spindle rotates freely but without any appreciable end play.

Hub Dismantling and Re-assembly

With the wheel removed, undo the locknut A (Fig. C28) and unscrew the adjuster cone B which will permit the brake plate, fixed cone and spindle to be withdrawn from the other side of the hub. The balls will fall free during the operation and care should be taken to prevent their loss, and to avoid the inter-mixing of one set with the other.

Removal of the retaining nut will permit the brake plate to be withdrawn from the spindle. The bearing cups can be tapped from the hubs by means of a suitable drift applied from the opposite end, and will carry with them the felt washers and their retainers. These items should only be removed if they require replacement.

Re-assembly is carried out in the reverse order. After the cups have been positioned insert the plain steel washer, followed by the felt washer and the felt washer retainer to complete the assemby of the oil seal for each bearing. Pack the cups with grease and insert the ball bearings. The front hub should have eleven 5/16 in. balls in each cup and the rear hub ten 5/16 in. balls.

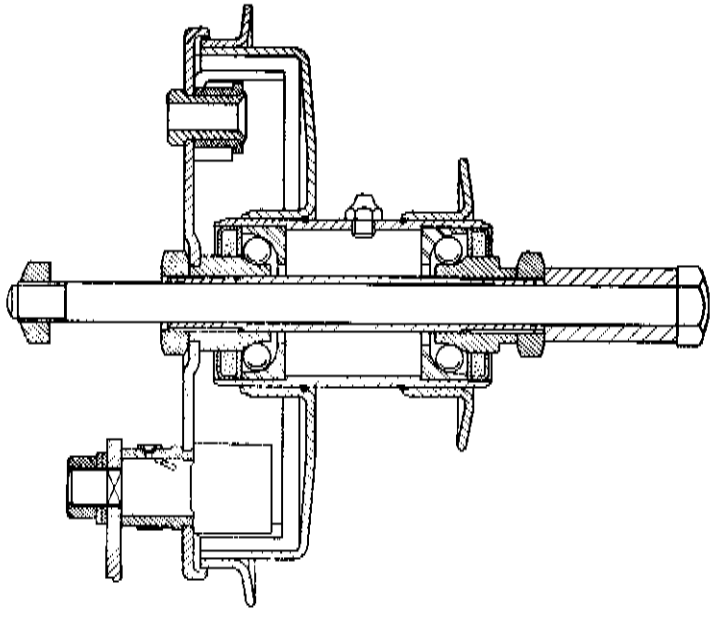

Fig. C.29. Front hub. Section view.

If the non-adjustable cone has been removed from its spindle or spindle sleeve it should be screwed into position again, noting that it screws on to the shorter thread of the rear spindle.

Replace the spindle in the hub and screw the adjustable cone and locknut into position to secure the spindle. Replace the brake plate and its retaining nut or distance piece and adjust the bearings as described in the earlier paragraph. The brake plate should rotate freely without binding.

Brake Re-lining

To remove the brake shoes lay the drum cover plate flat on a bench and lever the shoes upwards. They can then be drawn over, and free of the cam and fulcrum pin. If the cam pads show excessive wear the brake shoes should be removed.

When the brake shoes are removed the linings can be replaced as described in Service Sheet 612.

Chain Wheel Replacement

The rear chainwheel is of the bolted on type and can be simply replaced after removing the rear wheel and the speedometer drive gearbox. Make sure that the retaining bolts are quite tight as, if they are allowed to work loose, fracture is likely.

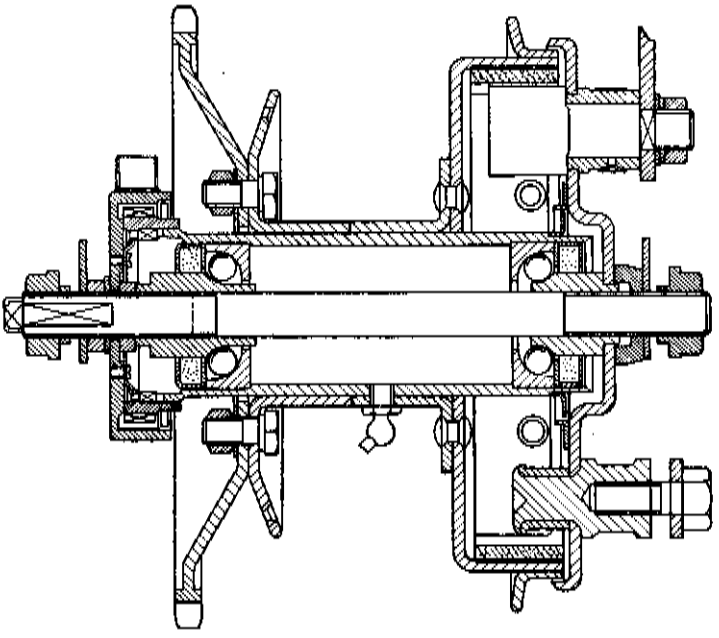

Fig. C.30. The Rear Hub. Section view.

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