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SERVICE SHEETS

BSA SERVICE SHEET No. 412B

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C12 Model

ADJUSTMENT, DISMANTLING AND RE-ASSEMBLY OF HUBS AND BRAKES

Wheels

Both wheels are fitted with ball forward bearings which require no adjustment. The bearings are packed with grease during reassembly and should last until the machine is overhauled. The brakes are provided with knurled finger adjusters and should not be adjusted too closely as any 'rubbing' will generate heat which may distort the drum and melt the grease in the hub.

Front Wheel Removal

Place the machine on the stand with the front wheel clear of the ground. Disconnect the brake cable and slacken pinch bolt 'A' (Fig. C42), insert a tommy bar in the wheel Spindle 'B' and unscrew the spindle which has a left-hand thread. Support the wheel and withdraw the spindle. The wheel can be pulled away from the right-hand fork leg and removed from the machine.

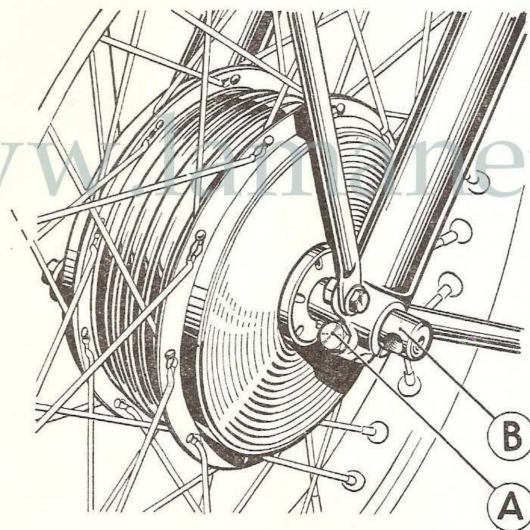


Fig. C42. Front Wheel Removal.

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After removal take care that the wheel is not allowed to fall on to the bush which projects from the brake drum side of the hub or it may be forced back on to the hub. If this should happen the bush can be retrieved and repositioned with the aid of a wheel spindle.

The wheel is replaced in the reverse order. After the spindle has been tightened and *before* the pinch bolt is tightened, depress the forks several times with the wheel on the ground to enable the left-hand fork end to position itself in the spindle shank otherwise the fork leg may be clamped out of position.

Rear Wheel Removal

Place the machine on the stand and remove the rear chain. Do not allow the chain to unwind itself from the gearbox sprocket. Undo the knurled brake adjuster and slacken the two spindle nuts 'B' (Fig. C43). The wheel can now be withdrawn to the rear and removed from the machine under one side of the rear mudguard.

The wheel is replaced in the reverse order. Ensure that the slot in the brake plate is engaged on its locating peg and that the chain adjusters are up against the fork ends.

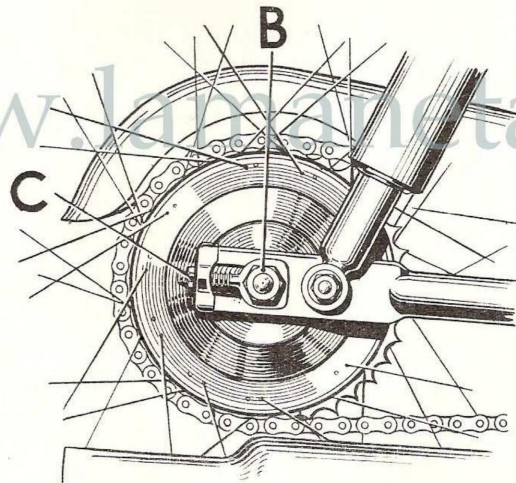


Fig. C43. Rear Wheel Removal and Chain Adjustment.

Rear Chain Adjustment

The rear chain must be adjusted when the machine is on the stand and the suspension is at its lowest point. Rotate the wheel and find the tightest point on the chain. The total up and down movement at this point should be $1\frac{1}{8}$ " measured at the centre of the chain run. If it varies from this the chain must be adjusted by moving the rear wheel. Slacken the spindle nuts 'B' and screw the adjusters 'C' in or out as required. When the chain tension is correct tighten the spindle nuts and recheck. Finally, ensure that the adjusting nuts are tight.

Wheel Alignment

During chain adjustment it is important to see that the wheel alignment remains correct. If the adjusters are moved an equal amount alignment will not be disturbed assuming that it was originally corrected, but it is wise to check it occasionally by means of a long straight edge placed along the sides of the wheels. The straight edge should touch the front and rear walls of both tyres. Where different sizes of tyres are used allowance must be made.

Dismantling Front Hub

This should not be necessary unless it is intended to renew the bearings. Withdraw the brake plate, which is a push fit on the bush 'B' (Fig. C44). After removing the locking cotters unscrew the bearing retaining collars 'C' and 'D' which have right-hand threads. Replace the spindle and drive out the brake side ballrace 'E' together with bush 'B' by striking the spindle with a soft mallet. Ballrace 'F' can now be removed with a suitable drift.

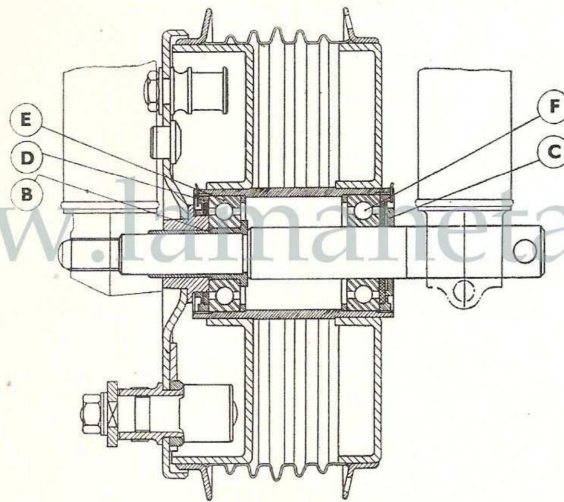


Fig. C44. Front Hub.

Re-assembly

Ensure that the hub distance collar located behind each bearing is in position. Press in the bearings until they are fully home and screw in the retaining collars making sure that the oil seals are serviceable lock the collars up tight. It may be found necessary to drill fresh holes for the split pins.

If the brakes have been relined or new shoes fitted it will be necessary to centralise the brakes. Replace the brake cover plate complete with shoes, cam and fulcrum pin into the drum. Slacken the fulcrum pin nut and turn the cam so as to operate the shoes in the normal way. The fulcrum pin will move in the slot until the shoes press equally on to the drums. The fulcrum pin should be fully tightened and the brake cam can then be released.

Dismantling Rear Hub

Remove the retaining nut 'A' (Fig. C45) and left of the brake plate and shoes. The spindle nut 'B' is now exposed, remove this and tap the spindle through until it can be withdrawn. Prise off the dust caps 'C' and felt washers 'D'. Unscrew the locking ring 'E' (Note:- this has a left-hand thread.) Drive out the ballraces using a suitable drift inserted through the hub.

Re-assemble in the reverse order. Grease the bearings thoroughly and ensure that the bearings are up against the distance collar. Tighten the locking ring fully.

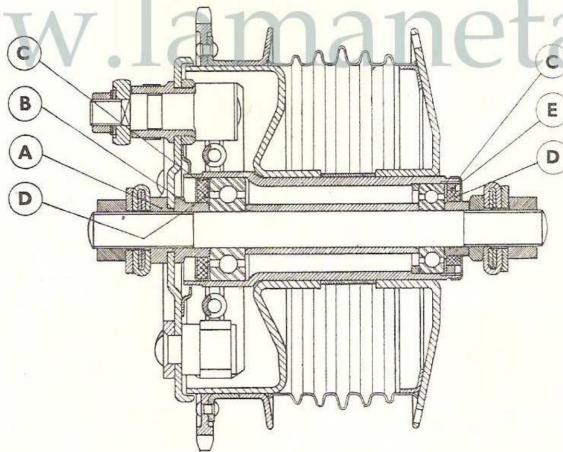


Fig. C45. Rear Hub.