BSA SERVICE SHEET No. 307

Revised March, 1958

"B" Group Models

(Except those with engine prefix letters G.B.)

TRANSMISSION

Clutch Adjustment

The main clutch adjustment is enclosed inside the gearbox inner cover, and access is gained by the removal of the knurled oil filler cap.

The nut 'A' locks the adjusting screw 'B' in position, and to adjust the clearance between the ball and the end of the clutch push rod nut 'A' must be unscrewed, and screw 'B' rotated by means of a screwdriver until the necessary clearance is obtained.

Note. It is essential that a very slight clearance is permitted between the ball and the push rod at all times when the clutch is not being operated.

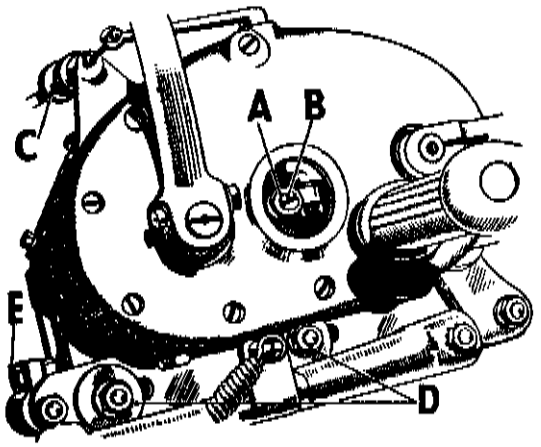

Fig. B16. Clutch adjustment

Further adjustment is provided by the knurled nut 'C' on the top of the gearbox. Remember, however, that some free movement in the control arm is necessary, for if the adjustment is too tight there will be a constant pressure on the clutch, with consequent wear and loss of efficiency.

Primary Chain Adjustment

The front chain tension is adjusted by moving the gearbox backwards or forwards in the frame, and this movement is carried out by slacking off the two large nuts D which attach the gearbox to the rear of the engine plates, and then screwing the adjuster bolt E which is attached to the rear of the gearbox shell either in or out. When the chain is at the correct tension, that is, with ½in. up and down play at the tightest part of the chain, tighten the nuts on the gearbox bolts and re-check the adjustment. Note that after tightening the primary chain the rear chain will be in need of adjustment.

Chain Case Removal

Drain off the oil in the case by removing the drain plug in the rear half. Remove the left hand footrest. The footrests are mounted on splines and may be rather tight. However, a few light blows on the front of the footrest will allow it to be worked clear. Remove the small screws round the rim of the chaincase and pull off the outer half, taking careful note of the positioning of the cork washers and distance pieces to facilitate re-assembly.

To dismantle the cush drive assembly, bend back the cush drive nut locking washer by inserting a small screwdriver through the coils of the spring, and remove the nut. With-

draw the locking washer, the spring, and the cush drive sliding sleeve. If any difficulty is experienced in unscrewing the cush drive nut due to the engine rotating, place the machine in gear and apply the back brake.

Remove the clutch in the manner described in Service Sheet 308.

Remove the engine sprocket and pull the cush drive bearing off the mainshaft. Unscrew the three bolts which hold the inner half of the chain case to the crankcase, after breaking the locking wire which passes through the heads of the bolts. There now remains only one nut which holds the rear chainguard to the primary chaincase, and this nut can quite easily be removed if the chaincase is pulled off the crankcase register.

Re-assembly of the primary transmission and chain case should be carried out in the reverse order to dismantling.

Rear Chain Adjustment (Rigid Frame)

The rear chain is adjusted by means of cams on the rear spindle, which operate against stops on the frame stays (see Fig. B17). To adjust, loosen the spindle nuts, and with a spanner on the end of the spindle, rotate the spindle. The wheel will then slide backwards, increasing the tension on the chain. Rotate the wheel slowly, and check chain tension. This tension is correct when there is $\frac{1}{2}$ in. up and down play in the chain at its tightest point. Make sure that both cams are held against their stops, and then tighten up the spindle nuts—first the left hand nut, and then the right hand one. Now check the wheel alignment by means of a straightedge placed alongside the wheels. This straightedge should touch both walls of each tyre if the tyres are the same size.

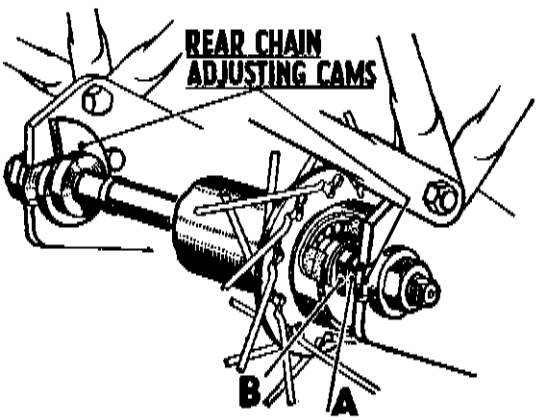

Fig. B17. Chain adjustment

It is a good plan to remove each chain periodically, thoroughly clean them in paraffin, and then gently warm them in a mixture of grease and graphite. When cool, wipe off excess grease, clean sprockets, and replace chains. Remember when fitting spring links that the closed end of the spring fastener must always face in the direction of travel.

For rear chain adjustment on spring frame models see Service Sheet 212C.

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