

BSA SERVICE SHEET No. 609

"M" Group Models

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TRANSMISSION

ADJUSTMENTS WHICH CAN BE CARRIED OUT WITHOUT DISMANTLING

CLUTCH ADJUSTMENT.

(Models up to Engine No. ZM-101).

Two adjustments are provided at the clutch control arm on the gearbox outer cover. The adjustment, which is for the clutch push rod will be exposed when the rubber cover at the base of the arm is moved aside and consists of a grub screw and locknut. Between the inner end of the screw and the clutch push rod a steel ball is inserted and the grub screw must be adjusted so that there is just a little clearance between the ball and push rod. The control arm in the de-clutched position should be as upright as possible.

The second adjustment is for the cable itself. If the control arm has been set in a new position, the cable length is altered to suit by means of the thumb nut on the cable stop above the gearbox.

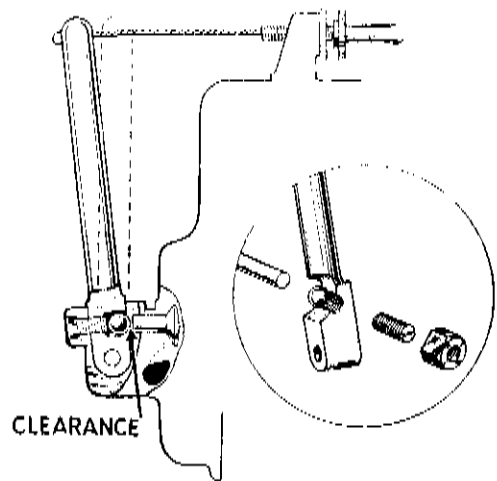


Fig. M32. Clutch control adjustment.

CLUTCH ADJUSTMENT

(Models after Engine No. ZM-101).

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.

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.

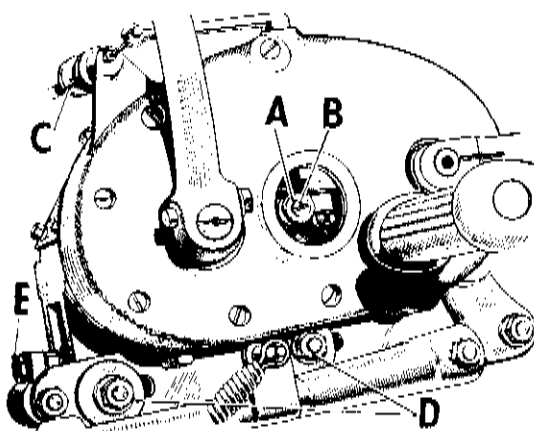


Fig. M32 (a). Clutch Adjustment.

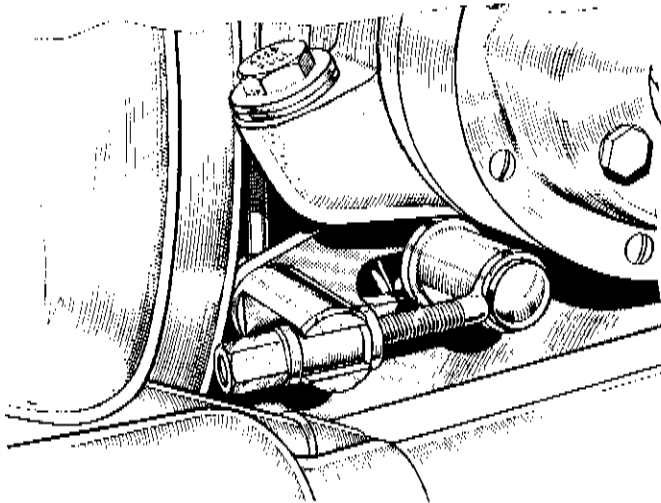


Fig. M33. Front chain adjuster.

FRONT CHAIN ADJUSTMENT.

The front chain is adjusted by moving the gearbox. The latter slides between two plates and cannot, therefore, cause chain misalignment.

Release the gearbox fixing bolts and move the box by means of the screw adjuster (see Fig. M33) until the chain has about $\frac{1}{2}$ in. total play at a point about mid way between its sprockets. The chaincase filler plug can be used as an inspection cover for this purpose, or alternatively, the chaincase outer cover can be taken off. Make sure that the adjustment is correct for all positions of the sprockets and that the gearbox bolts are well tightened.

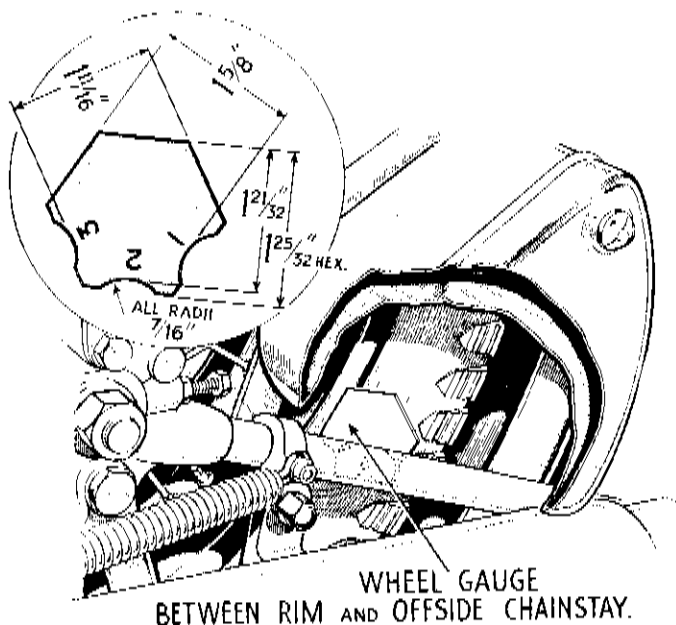


Fig. M35. Wheel alignment gauge.

REAR CHAIN ADJUSTMENT.

The rear chain is tensioned by means of a special cam on the nearside of the wheel spindle and by screw adjustment on the offside. First, release the offside spindle nut (see Fig. M34), then the cam locknut on the nearside. The latter nut is the larger of the two nuts on this side. Then, applying a spanner to the smaller nut, turn it in an anti-clockwise direction to tighten the chain, until it has a total amount of play, mid way between the sprockets, of about $\frac{3}{4}$ in.

Now turn to the offside of the machine and screw the adjuster in (if the chain has been tightened) until the wheel is properly aligned in the frame.

A gauge is provided in the tool kit for this purpose, and fits between the offside chainstay

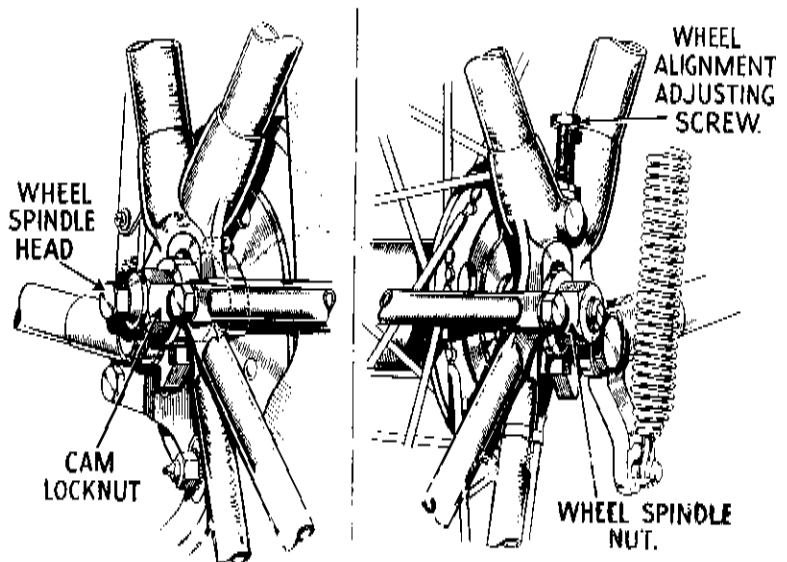


Fig. M34. Rear chain adjuster.

and the wheel rim (Fig. M35). (Before the gauge is used it is necessary that the wheel alignment be checked with a straight edge and then see which gauge—1, 2, or 3—is the correct fit.) If the machine is in the workshop, however, it is much better to use a wooden straight edge, in the normal manner, i.e., it should touch each wheel in two places if both tyres are of the same section. Tighten the cam locknut and check the chain setting. If correct, tighten the offside spindle nut and then the offside adjuster locknut.

Note. It may be necessary to adjust the rear brake, since this will have been altered by movement of the rear wheel.