

# B.S.A. CYCLES LTD.

SERVICE SHEET No. 65.

December, 1936.

## MID-SEASON CHANGE.

### "B & M" GROUP 1937 MOTOR CYCLE. HAND GEARCHANGE FULCRUM PIN.

To eliminate excessive side thrust on the hand gearchange and petrol tank fulcrum bracket, and which may result in tank leakage at this point, a new type fulcrum bolt, component No. 66-3643 is being fitted, in conjunction with a distance collar, the latter being assembled between the tank and the change speed gate.

With these new components fitted it is essential that there be no excessive side thrust on the hand change lever in the change speed gate.

To modify existing tanks, remove the top bolt retaining the change speed gate to the tank, and slacken off the lower bolt so that the gate can be drawn away from the tank sufficiently to enable the distance collar, component No. 66-3667, to be fitted.

The concave face of this washer must be fitted over the lug on the tank.

Refit the top bolt and tighten up the lower one.

Now remove the hexagon nut and standard washer retaining the fulcrum bolt to the tank bracket and withdraw the bolt.

Pass the new fulcrum bolt through the hand gear change lever. Fit the spring washer on to the bolt and on the outside of the tank lug—that is, towards the lever.

Fit the standard washer and hexagon nut by which means the fulcrum bolt is retained in the tank lug.

In all probability it will now be found that excessive pressure is in evidence on the change speed lever when bottom gear is engaged, and it is important that this excessive pressure be relieved by the setting of the lever. To do this open the jaws of a movable spanner until they will accept the change speed lever.

A piece of rag should be placed around the change speed lever or between the jaws of the movable spanner, to prevent damaging the plated lever.

Now while steadying the rear half of the lever at the point where the lever meets the vertical operating rod, offer the spanner up to the lever about 1½ in. or 2 in. in front of the fulcrum, that is towards the knob.

Now set the lever outwards by forcing the handle of the spanner towards the rear of the machine, until the lever is set so as to allow a minimum inwards pressure on the gate when the lever is engaged in top gear.

This minimum inwards pressure should be just sufficient to prevent the lever rattling in the gate.

It will now be found that the change speed lever exerts an inwards pressure when all four gears are engaged, but in no case is this pressure excessive.

Further, it will be seen that as the various gears are engaged the change speed lever rocks on the new type fulcrum without straining the petrol tank bracket.

The foregoing applies to machines despatched from the works prior to  
December 14th, 1936.