

between the centres of the cable nipple and the lever fulcrum screw, compared to $1\frac{1}{16}$ " for the earlier boxes. At Birmingham we fitted these levers from the start, and matching brake levers improved the front brake as well. After we moved to Wolverhampton from Plumstead Road, I am not certain that the designers there knew anything about the clutch operating mechanism. If this dimension is in excess of the original $7\frac{8}{8}$ " it will contribute to a heavy clutch action.

We very often found that the clutch cable was badly routed especially along the top of the engine. It is best to re-route it round the steering head to the right to get a wider radius, then high up on the right hand side of the large diameter top frame tube so that it can make a single sweeping bend down to the gearbox inner end cover. The cable can be held inboard to the head steady side plate with a clip which should allow the cable to slide in it as the steering moves.

It is also absolutely vital that the small operating lever inside the box moves upwards exactly in line with the cable entry point in the gearbox outer cover.

With the Commando, as I understand it the pressure exerted by the diaphragm spring diminishes as it is pushed outwards nearer to becoming flat. Fitting an extra plain driving plate in the clutch will do this and result in a lighter action, but it might also cause the clutch to slip.

Gear change problems are likely to be due to incorrect setting or positioning of the pawl spring. The pawl must be square with its carrier when the legs of the spring are held apart by the guide on the pedal stop plate and at the same time the eye of the spring must be carefully centred over the hole in the pedal sleeve. If you position the ratchet plate spindle through the pedal sleeve this will accurately centre the eye of the spring for you and at the same you will see if the pawl is square with the carrier arm. It should also have a trace of free movement to either side of centre before it touches the legs of the spring. There is a double bend in one leg of the spring and this should be positioned downwards, on the underside of the pawl carrier arm. Both legs have a bend which makes them point towards one another when the spring is free and either or both of these bends can be increased or decreased as necessary with a pair of pliers.

If bottom gear fails to engage fully so that it subsequently jumps out, then slacken the pedal stop plate securing bolts and move the plate downwards a trifle to the limit of the clearance in the bolt holes. If this is not sufficient then the holes may be elongated slightly with a round file. Similarly move the plate upwards if the box jumps out of top.

An unsatisfactory gear change will result if the ratchet spindle is binding in the pedal sleeve. The end of the spindle could be rusty outboard of the O-ring, or it may be belled out due to overtightening of the pointer bolt.

John Hudson, Mick Kingston et al.

The AMC Gearbox.

The AMC gearbox needs a handlebar clutch lever with $7\frac{8}{8}$ "