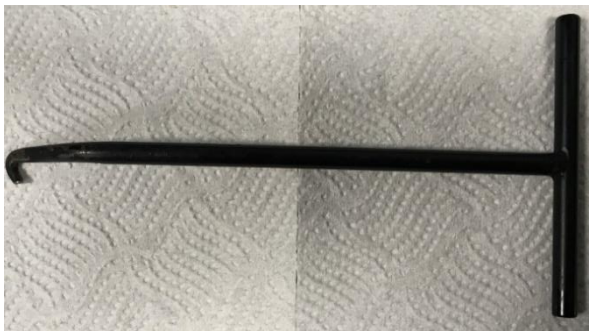
Front Hub Removal

To re-position the brake levers (see previous Crankhandle) necessitated removal of the hubs as to gain access to the brake cams that needed to be changed. Removal of wheels and brake drums is straightforward, the drums being held on by 3 screws (orange dot), which are not particularly tight.

Front brake drum: Orange dots adjacent to the 3 screws that hold drum onto hub. Blue dot is on grease cap, which is not tightly attached. Red dot is blanking screw for hole that allows high melting point grease into hub. Black line shows the brake lever, after rebuild, now angled away from brake cable when at rest.

First remove the hub grease blanking screw (red dot in photo above). If you replace the bearings with "sealed for life" type, then this screw will not be needed in reassembly.

We put masking tape over the surface of the shoes to try and lessen the risk of grease or oil getting onto them, which would destroy the friction required between the shoe and drum. We scratched an arrow on the front shoe, so that we knew which was which, when reassembling. Slacken off the brake adjuster on the inner side of the backplate, to make brake spring removal and reattachment easier.
The brake-shoe springs can be removed with a spring puller (below), and a bit of jiggling then gets the shoes out.

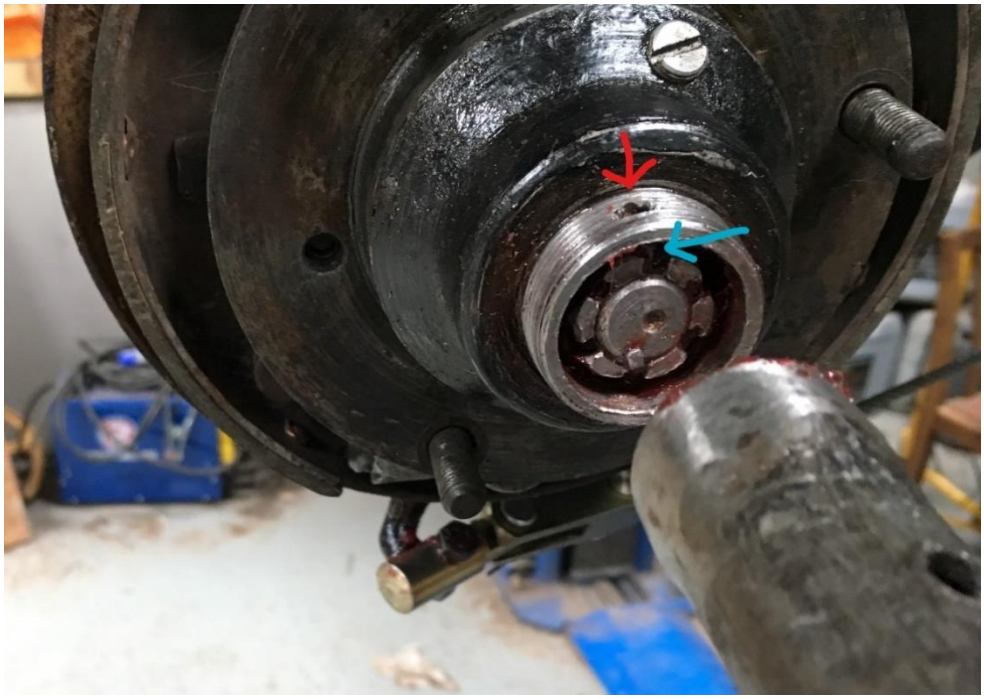


We kept the components from each hub in a separate box, so they didn't get mixed up.

Next remove the grease cap (blue dot in first photo) with a 7/8" Whitworth spanner.

7/8" and 1" open jaw Whitworth spanner, worth about £20 on eBay

Under the grease cap is the nut holding the front hub onto the stub axle, which is locked by a recessed split pin, which needs to be removed, before the nut can be loosened. The split pin (head shown by blue arrow) is inserted by passing through a hole in the hub (red arrow), which then goes through a hole in the stub axle. It would be difficult to extract it this way, so we cut this split-pin in situ by using a sharpened 7/16" Whitworth box spanner . Incidentally, this showed the advantage of using non-stainless split pins, in that stainless ones would be much harder to cut.



Front hub: red arrow shows hole in hub through which the split pin is inserted. Blue arrow shows head of split pin, holding nut in place. Bottom right is the sharpened 7/16" Whitworth box spanner which can chisel through the split pin

Box spanner for cutting the split pin in the front stub axle

Once the axle nut was removed, the front hubs could be removed in one piece, using a tripod hub-puller, which we used, rather than the Austin puller, because the hub thread was damaged. I tried the same on the rear hub, but it won't work, as the inner part of the rear hub is fixed to the axle casing.

One of the wheel studs was slightly loose, but this does not matter, as it tightens against the inner hub once the road wheel nut is tightened.
On reassembly, we packed the hubs with high melting point (red) grease, forcing it through the hole in the outer hubs, (red dot in 1st photo) and also packed the grease caps (blue dot in 1st photo) on the front hubs.