DISMANTLING AND REBUILDING FULL-WIDTH REAR WHEEL HUBS

Spring Frame Models

THE wheels are carried on adjustable, taper roller bearings. The bearing cups are a press fit in the spindle tunnel; the left-hand side bearing is located in the hub by a circlip lying in a groove at the end of the tunnel, and the right-hand side bearing is adjustable for position. It is moved axially by a screwed sleeve which is threaded into the right-hand end of the spindle tunnel and is locked into position by a circular nut.

Special Tools

To deal with the circular locking nut a hook-spanner is required. Part No. 010438. It can be obtained from the Service Department.

Dismantling

The numbers shown thus: (2), *refer to the numbered parts in the illustration.*

(a) Disconnect the Speedometer driving cable.

(b) Remove the lock-nut (16) which secures the speedometer-drive gearbox in position.

(c) Remove the wheel from the frame.

(d) Grasp the speedometer-drive gearbox with the fingers and firmly pull it away from the hub.

(e) Slacken the circular lock-nut (13).

(f) Unscrew and remove the adjusting sleeve (14). With it will come: the sleeve (2) upon which the speedometer-drive gearbox is mounted; the lock-nut (13) and the hub cover disc.

(g) Remove the oil-seal retaining washer (3), the oil seal (4) the oil-seal cup (5), and oil-seal distance piece (6). These can be hooked out with the shank of a small and narrow screwdriver.

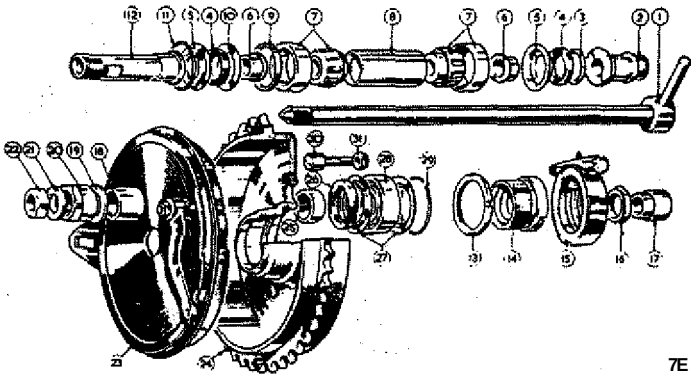
Removal of the Bearings

It is important that bearing parts are not mixed.. The roller race and its associated cup must be replaced together and not interchanged with those of another bearing.

(h) To facilitate removal of the bearing cups gently heat the hub shell

(i) Place on the outer face of the brake-side oil-seal distance piece (6) a short rod of 7/8-inch diameter — preferably a soft metal such as brass — and apply pressure so that the far bearing cup and the caged roller race are pushed out of the hub tunnel. The distance piece (8) and the caged roller race of the near bearing will also be ejected.

NOTE This operation can be performed by jarring the soft metal rod with a hammer, but the utmost care must be taken otherwise the bearings or hub shell may be damaged.



(h) Slide the right-hand, side roller race on to the spindle and seat is squarely into the inner recess of the distance piece (8).

(i) Refit the bearing cup with the open end facing inwards. It may be necessary to re-heat the hub to allow the cup to go into position without difficulty.
Do not crush the bearings together, leave some end play, the final adjustment is made later,
Withdraw the spindle.

(j) Refit: oil-seal distance piece (6). oil-seal cup (5) oil seal (4), and the small oil-seal retaining ring (3).

(k) Thread the speedometer gearbox sleeve (2) through the bearing adjusting sleeve (4) and insert the sleeve into the hub cover disc. Now screw the sleeve into the hub until it comes into contact with the bearing.,

(l) Before completing the assembly of the hub, the bearings must be adjusted.
For details see: *Maintenance Instruction No. 502.*

NOTE After adjusting the bearing and before tightening the circular lock nut (13) the hub cover disc must be placed in the correct position, that is, the hole in the disc face must be in line with the grease nipple located in the hub shell so that a grease-gun nozzle can be inserted through the hole and engage with the nipple. When the correct position has been found, tighten the lock nut (13).

(m) Push the speedometer gearbox on to its sleeve (2) *and ensure that the dogs engage with the slots in the adjusting sleeve* (14).

(n) Refit the lock-nut (16) but leave it slack.

(o) Refit the wheel in the frame and check that the bearing adjustment is correct. Readjust it if it is incorrect.

(p) Position the speedometer gearbox with the cross-piece uppermost and lying approximately horizontal.
Tighten the lock nut (16) and refit the speedometer driving cable.