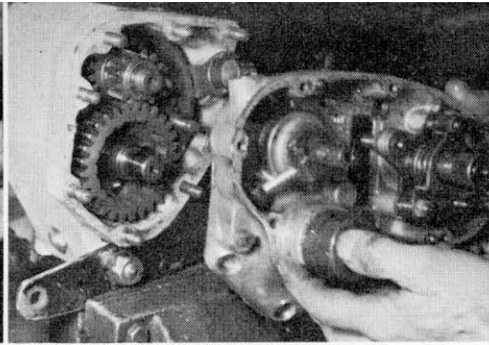
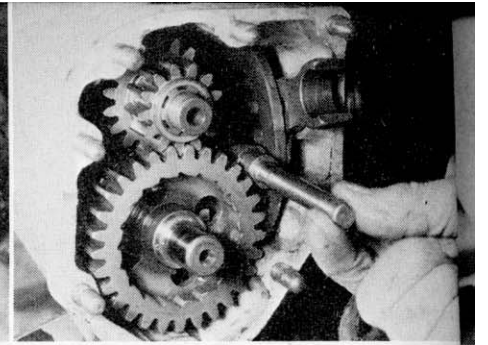


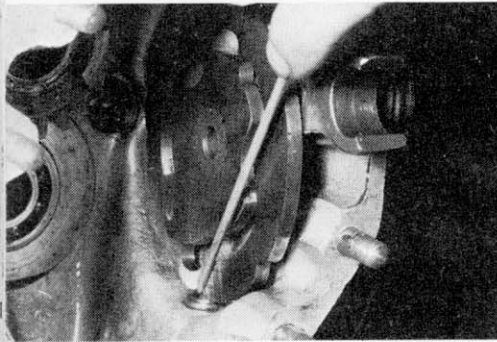
*Release the pinch bolts securing the kickstart and gear-change levers and remove the levers from their shafts. Undo the seven cheese-headed screws and take off cover*



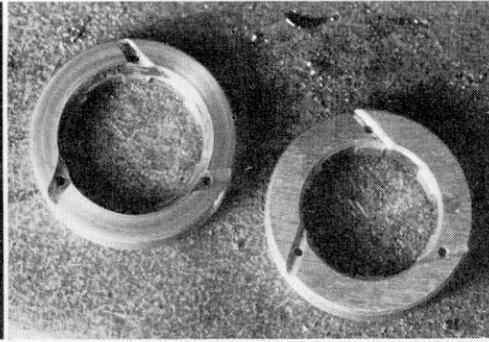
*Undo the clutch cable from clutch arm. Remove eight nuts securing back plate, and withdraw the plate. The kickstart crank, clutch worm and mainshaft bearing are on it*



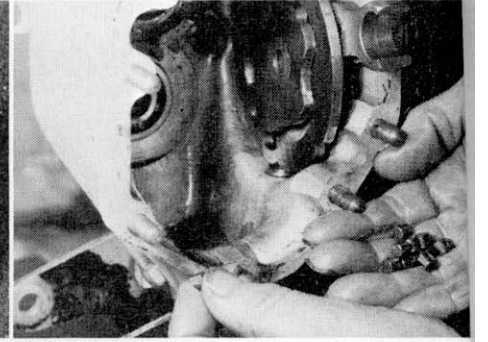
*Remove selector fork roller, then unscrew the selector fork spindle and withdraw from the box. Remove the low gear and kickstart pinions. Kickstart is one with ratchet*



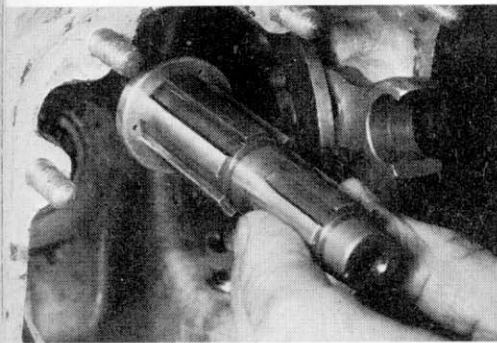
*There is no need to remove main gearwheel if it is in good condition, and it rarely needs replacing. Always check the selector plunger under cam plate—spring loaded*



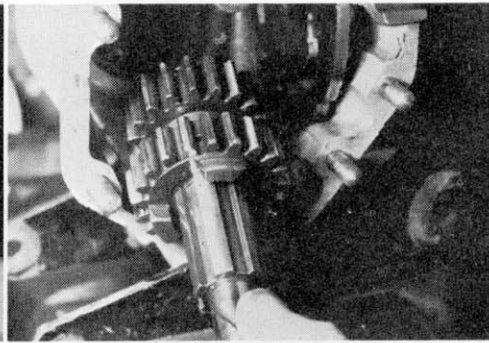
*On older Norton box the mainshaft thrust washer tended to wear, which made correct clutch adjustment almost impossible. The wear is shown as score lines and ridges*



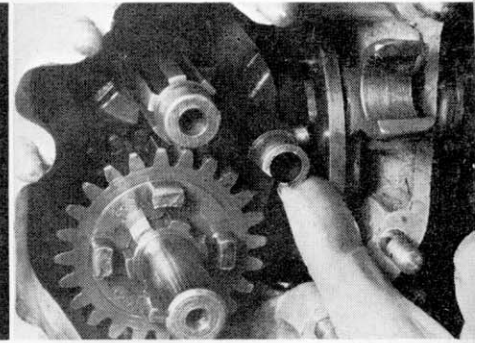
*Grease higher gear-race in main gearwheel and replace the 13 rollers. To retain the rollers in the race, roll a tube of cardboard and insert it. Saves time and temper*



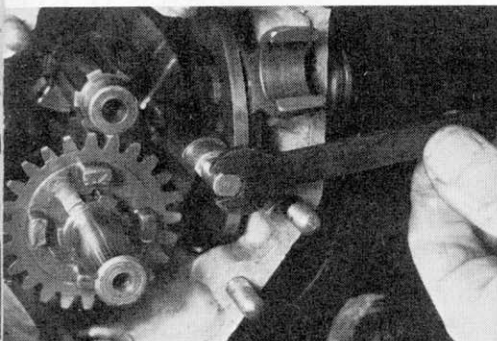
*Place the bronze thrust washer on mainshaft so that three oilways are against the main gearwheel. Remove paper tube from main gearwheel and gently slide in mainshaft*



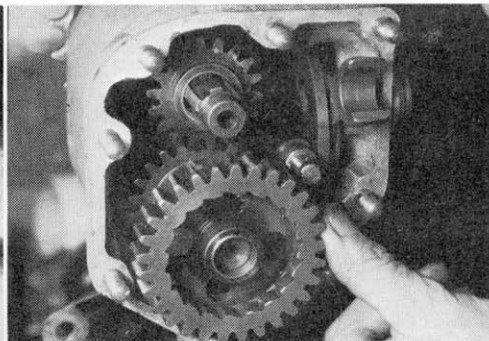
*Refit the layshaft fixed and free pinions, and replace layshaft. Turn the cam plate to its second gear position—with plunger in groove next to shallow neutral groove*



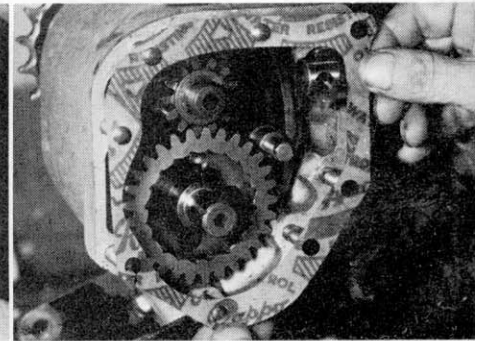
*Fit the selector fork to the mainshaft third gear, and then fit the gear and fork to the mainshaft. Replace the mainshaft resting selector on cam plate. Make sure gears mesh*



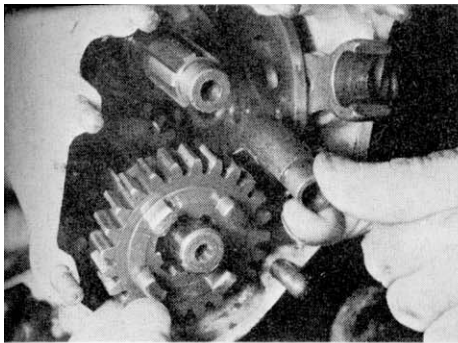
*Put second selector fork on to layshaft second gear and slide gear on the shaft. Line up both selector forks, and slide the selector spindle home. Screw up spindle*



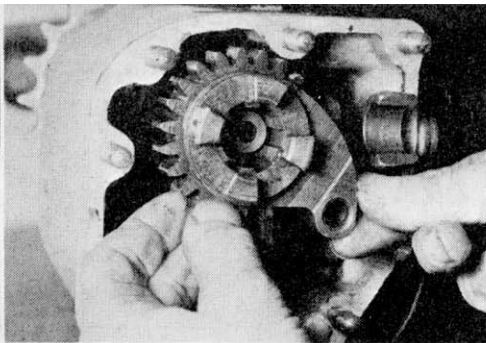
*Next mainshaft sliding pinion is replaced on the shaft with the dogs facing inwards. This is the replacement pinion. Replace the kickstart ratchet pinion on layshaft*



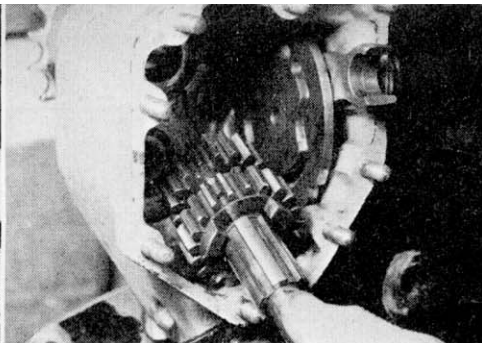
*Replace the low gear pinion. Remember to replace the selector fork roller before replacing the back plate. Locate the selector peg into the roller and tighten plate*



*With these removed, take the two dogged pinions from the layshaft. Remove also the floating pinion from the mainshaft. The layshaft and selector fork can now be removed*



*Put the main gearbox selector into third gear position, to facilitate removal of mainshaft sliding pinion. Lift the mainshaft selector fork to release. Withdraw mainshaft*



*Withdraw layshaft complete with the two remaining gears attached. At the back of box shell is the layshaft bearing. Check for wear, and if badly worn, remove by heating*

**GOT GEAR SNATCH? JERRY BRUNT OF AMC CURES IT ON A 1956**

# **NORTON BOX**

▶ The older Norton-Burman gearbox, like its AMC successor, revels in a reputation for quick, easy and positive gear changes.

We decided to show the older box being stripped and rebuilt, because although the

internals of both boxes are virtually the same, the older box has a bronze thrust washer that wears quickly. The replacement of this is shown, as is the replacement of a broken mainshaft sliding pinion.

