

56. Reassembly of Crankcase

If the main bearings have been removed fit the replacement ball bearing in the driving side crankcase and the outer roller race in the timing side as described in Subsection 54. The outer race should be pressed home and then secured by making four equally spaced centre punch marks in the case so as to spread the aluminium over the radiused edge of the race.

Assembly of the two halves of the crankcase on to the crankshaft is easier if the crankcase is warmed while the crankshaft is cold. First fit the crankshaft assembly into the drive side crankcase, pulling the shaft right through the ball race and fitting the engine sprocket and nut. The nut must be tightened right home before the timing side crankcase is fitted otherwise the roller bearing inner race may be inadvertently moved along the shaft through the crankshaft entering too far into the timing side case. This can also happen, or a roller can be dislodged, if the rollers tilt out of the inner race and make assembly difficult. Wrapping a piece of string round the rollers will keep them in

place and ensure their easy entry into the outer race. The string must be long enough to be easily pulled free after assembly.

Before assembly make sure that all parts are scrupulously clean, put clean oil on bearings, remove all traces of old jointing compound and any protruding pieces of metal from the joint face by means of a scraper and put fresh jointing compound on the face between the two halves of the crankcase. Do not forget the distance piece W34062 between the driving side ball bearing and the crank web.

Bolt the two halves of the crankcase together before the jointing compound has set. Do not forget the two screws between the cylinder barrels (see Fig. 12).

57. Crankshaft Plugs

The oil passage through the big ends is sealed by two screwed aluminium plugs locked by a centre punch.

If the crankcase is taken out of the engine for any reason, the plugs should be removed and the oil passage cleared of sludge.

Gearbox and Clutch

58. Description of the Clutch

The clutch is built into the clutch sprocket and is mounted on the gearbox mainshaft which projects through into the primary chaincase.

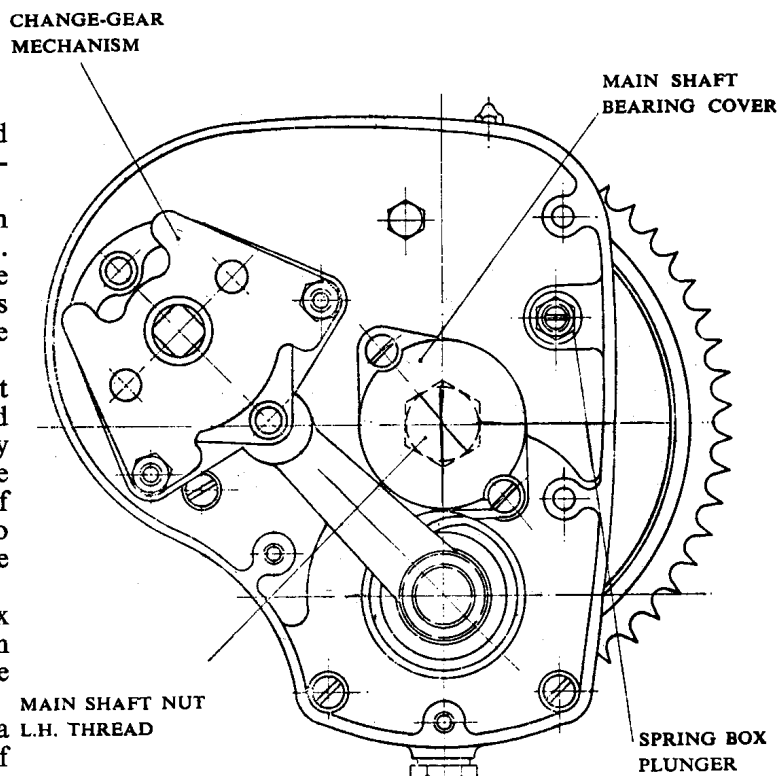
There are six driven plates which are plain and five driving plates, giving ten friction surfaces.

The driven plates comprise the clutch centre back plate, two dished and two flat steel plates on splines on the clutch centre drum, and the clutch front plate (see Fig. 14).

The driving plates include the clutch sprocket itself, which has a ring of friction material bonded to it and is located on the clutch centre drum by a ring of low friction material. There are four loose friction plates, having bonded-on segments of "J.17" synthetic cork based material, splined to the clutch outer drum, which is riveted to the clutch sprocket.

Pressure is applied to the clutch plates by six springs fitted between the outside of the clutch front plate and the inside of a star-shaped pressure plate.

The clutch operating mechanism consists of a lever mounted on the inside of the outer cover of the gearbox and operated by the control cable and handlebar lever. When the control is operated the clutch front plate is caused to move to the left,



GEARBOX WITH OUTER COVER REMOVED

Fig. 13