

BSA SERVICE SHEET No. 423

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MODEL C15 COMPLETE DISMANTLING OF THE ENGINE - GEARBOX UNIT

The procedure for complete dismantling of the engine and gearbox unit will be described from the point reached in the section on decarbonising (Service Sheet No. 421), continuing with dismantling of the gearbox (Service Sheet No. 422). Further dismantling will be assumed to commence at this point.

Pull out the distributor noting the way the clip is fitted (see Fig. C13A) inset.

Lift the tappets to the highest position and take out the camshaft, the tappets can now be withdrawn downwards into the timing chest. Note that the lubrication holes are facing towards the gearbox.

Take off the sump cover and filter.

Remove the three screws marked J (Fig. C14A) holding the oil pump and draw the pump down and out of the crankcase.

It is not advisable to attempt dismantling of the oil pump, should a fault be suspected a serviced unit can be obtained through your dealer.

Using a brass or copper drift $\frac{3}{8}$ in. dia. through the pump drive aperture, tap the distributor drive shaft and bush upwards clear of the mainshaft worm wheel.

Flatten the tab washer on the mainshaft, unscrew the nut (R/H thread) and with extractor 61 3256, fitted with legs 61 3588, pull off the mainshaft pinion.

The same extractor now fitted with legs number 61 3585 can be used to draw off the mainshaft worm wheel. If the Woodruff key is loose in the shaft it should be replaced, also take careful note of the way in which the worm wheel is fitted.

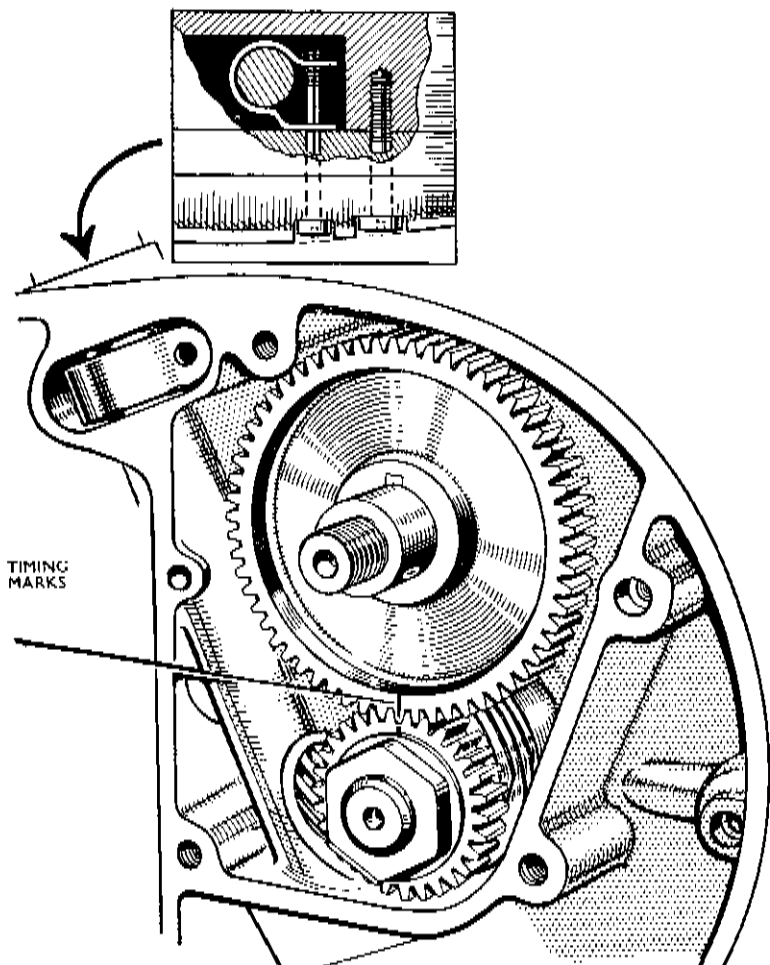


Fig. C13A. Valve Timing Marks.

Unscrew the four 5/16 in. nuts (two in the primary case and two at the base of the cylinder) and take out the three bolts at the front of the crankcase to split the case.

Part the case by drawing off the drive side together with the flywheel assembly.

Carefully tap out the flywheel assembly from the drive side half noting the position of the main shaft distance piece which has the chamfer facing inwards.

The spacer on the drive side shaft can be drawn off with tool number 61 3593 if necessary.

If any of the bushes in the crankcase are to be replaced the case should be heated in hot water and each replacement bush fitted immediately the old bush has been extracted and while the case is still hot.

Parting the Flywheels

The flywheels are a press fit on the crankpin and no attempt should be made to part them unless the services of an expert mechanic and fully equipped workshop are available.

Should the big end assembly require replacement it is

advisable to obtain a works reconditioned unit through the medium of your dealer.

If it has been decided that the big-end bearing must be replaced the flywheels should now be parted, using Service Tool number 61 3589 (Fig. C15A). Place the flywheels in the bolster and position the stripping bars Service Tool number 61 3590. Use the punch Service Tool number 61 3601 to drive out the crankpin. Take off the uppermost flywheel and reverse the lower one in the bolster. Again using Service Tool number 61 3601 drive out the crankpin.

Reassembly of the unit is described on Service Sheet number 424.

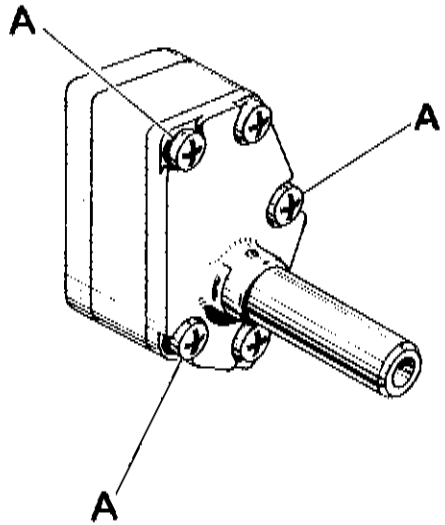


Fig. C14A. Oil Pump.

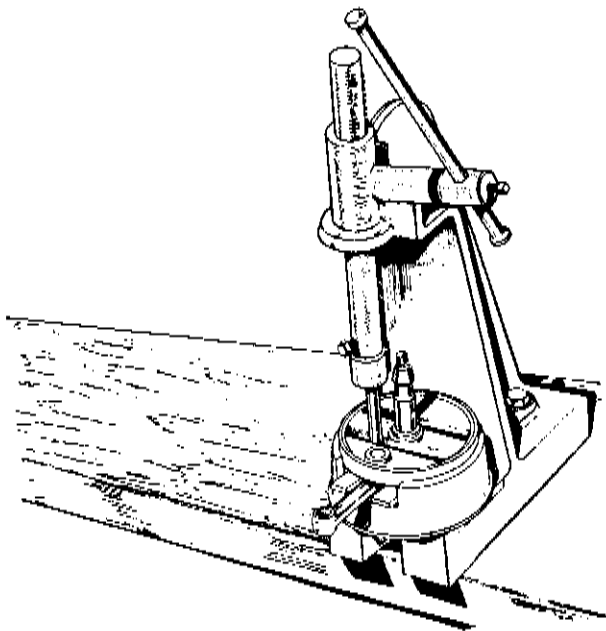


Fig. C15A. Parting the Flywheels with Service Tool 61 3589.