

The eight tappets operate in a light alloy housing held by studs and nuts to the cylinder head. This housing also carries the three pairs of renewable steel backed white-metal camshaft bearings.

Valve clearances are adjusted by using tappet shims of selected thickness between the valve stem ends and the inside flat face of the tappets.

Retiming of the camshaft, after replacing the cylinder head, is a very simple operation as it has not been necessary to have a vernier type of adjustment between the camshaft flange and camshaft sprocket wheel.

The crankshaft is a steel forging and is statically and dynamically balanced after machining. It runs on three main bearings. Its end thrust loads are taken on two semi-circular thrust rings that are located on each side of the upper half of the centre main bearing.

The connecting rods are made from steel stampings and have serrated butting faces at 50° from the vertical to allow easy removal through the cylinder bores. The two big end bolts screw into the tops of the rod and are secured by tab washers. Phosphor bronze bushes are pressed into the little end bores of the rods and the gudgeon pins are retained in the piston by circlips at their outer ends.

Light alloy pistons are used. These are fitted with two compression rings and one oil control ring. The top compression ring is chromium plated.

A large capacity oil pump is driven at half engine speed by skew (cross helical) gears at the front end of the crankshaft.

The distributor takes its drive from offset slots in the end of the oil pump drive gear.

A ghosted view of the oil passages in the cylinder block and cylinder head are shown in Fig. 16.

Full particulars are given in the Data Section of engine power output, compression ratio, compression pressure, valve clearances, ignition timing and all other necessary testings and dimensions.

## TORQUE SPANNER SETTINGS

THE CYLINDER HEAD BOLTS, MAIN BEARING FIXING BOLTS, AND OTHER BOLTS AND STUDS SCREW DIRECT INTO ADEQUATE LENGTHS OF THREADS IN THE ALLOY CASTINGS.

A VERY RELIABLE TORQUE SPANNER MUST ALWAYS BE USED WHEN TIGHTENING ALL BOLTS AND NUTS.

THE CORRECT TORQUE SPANNER SETTINGS ARE GIVEN AT THE END OF THE DATA SECTION.

## GENERATOR

To adjust belt tension (See Fig. 6)

The generator is driven from the engine crankshaft pulley by the belt which drives the water pump and fan.

The belt is correctly tensioned when a total of 1 in. (25 mm) movement can be obtained on the longest run of the belt.

To adjust the tension, slacken the nuts and bolts at the bottom front and rear of the generator, the link locating bolt and the screw through the slot in the strap.

Move the generator about its bottom two fixing bolts until the correct tension is obtained, then retighten all bolts shown by arrows in Fig. 6.

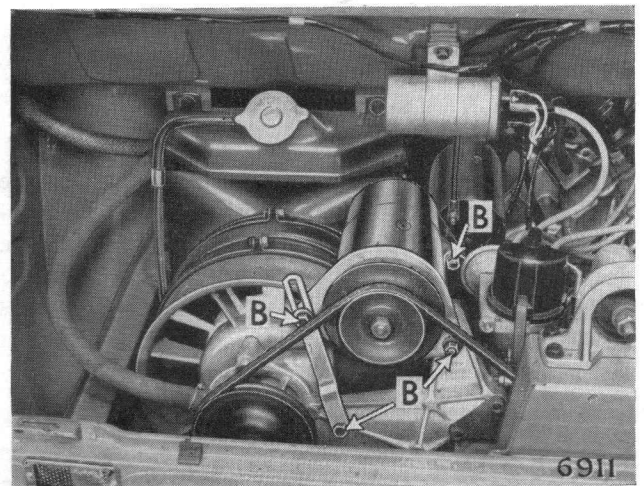


Fig 6. Generator driving belt adjustment points.