

Checking the centrifugal advance action

Disconnect vacuum feed pipe, still observing the "stationary" line on the crankshaft pulley rim, gradually increase the engine speed. The distance between the line on the crankshaft pulley rim and the pointer on the timing case will increase, showing that the centrifugal advance mechanism has begun to operate over its speed range. Jerky movements of the timing line whilst accelerating or decelerating indicates sticky centrifugal advance mechanism.

Checking the vacuum advance action

The throttle should be opened to give an engine speed of 1,200 to 1,500 R.P.M. or until the vacuum connection drilling in the carburettor has been uncovered by the butterfly valve. With the engine running under these conditions, the vacuum connection of the distributor diaphragm should be alternately disconnected and reconnected whilst observing the line on the crankshaft damper rim. This should retard and advance as the end of the vacuum pipe is removed and refitted. Blockage of the vacuum feed pipe, vacuum feed hole, or jamming of the contact breaker point mounting plate, will prevent correct vacuum action.

DISTRIBUTOR

To remove and refit

Remove high tension leads from plug terminals, noting their positions. Disconnect high tension lead at coil. Disconnect low tension lead at distributor body. Disconnect vacuum pipe. Remove two setbolts securing the distributor to the timing cover and withdraw distributor.

Refitting is a reversal of the above, making sure that the distributor offset driving dogs engage properly.

To fit replacement distributor

Before refitting a replacement distributor, turn the engine so that the timing mark on the crankshaft pulley comes opposite to the fixed pointer above the crankshaft pulley. This brings the distributor driving slots in oil pump gear to the position illustrated in Fig. 23.

Install replacement distributor.

The distributor rotor is now adjacent to No. 1 H.T. connection in the distributor cap. No. 1 H.T. lead should be fitted to this connection and No. 1 cylinder spark plug and the other H.T. leads to give the correct firing order

of 1, 3, 4, 2. No. 1 cylinder is the one nearest to the crankshaft pulley. The distributor rotor rotates in an anti-clockwise direction as seen when the distributor cap is removed.

Set the ignition timing by one of the methods previously described.

LUBRICATION

General description

The lubrication system and direction of the oil flow is shown in colour and by black arrows in Fig. 16.

Oil pressure is generated by an oil pump which is mounted below the distributor in the timing cover. The pump is driven by a gear on the crankshaft pulley end of the crankshaft.

Oil is drawn from the sump through a submerged gauze filter, and is delivered by the oil pump to an internal passage way feeding to the full flow oil filter through which oil passes before it reaches the main oil gallery, on the filter side of the engine. From this gallery the oil is fed into the oil ways feeding to each main bearing, and to a single passage feeding up to the camshaft bearings and valve gear.

Drilled passages in the crankshaft allow oil to flow from the main bearings to the crankpins to lubricate the big end bearings. The cylinder walls, pistons and little end bearings are lubricated by the oil which leaves the bearings and thrown up by the rotating crankshaft.

The tappets are lubricated by oil that leaves the camshaft bearings and by separate holes that feed oil to the maximum thrust side of numbers 1, 2 and 6 tappets.

Oil drains from the valve gear into the timing case and lubricates the timing chain and driving sprockets.

A pressure relief valve, in the full flow oil filter body, controls the oil pressure and returns excess oil circulated by the pump direct to the sump.