

INLET VALVE SEAT PROFILE

Fig. 9

The inlet valve faces and seats can be cut at 45 degrees in cases of emergency but this may have a deleterious effect on the performance of the engine.

### 36. Reassembly after Decarbonising

Before building up the engine, see that all parts are scrupulously clean and place them conveniently to hand on a clean sheet of brown paper.

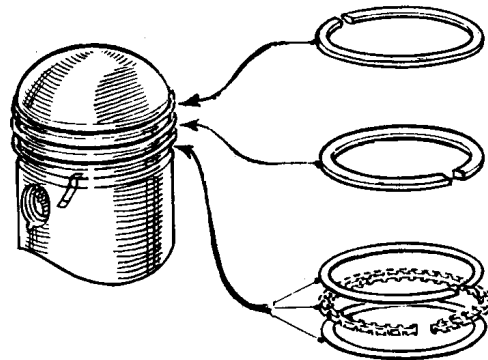
Check the piston ring gaps to find out whether excessive wear has taken place (see Subsection 34).

It is advisable to fit new gaskets to the cylinder base and cylinder head. Two paper gaskets are fitted to the base of each cylinder, one each side of the compression plate.

Smear clean oil over the pistons, having replaced the rings if these have been removed, lower the piston over the connecting rod and insert the gudgeon pin from the outer side. Fit the circlip and then fit the second piston in a similar manner.

Oil the cylinder bores and lower the barrels over the pistons and seat them gently on their gaskets.

Drop the push rods down their tunnels on to the tappet heads, shallow cups upwards.



CORRECT ASSEMBLY OF APEX OIL CONTROL RINGS

Fig. 10

Replace the cylinder heads as described in Subsection 27.

After the engine has been assembled, run it for a brief period at a speed which will ensure that the ignition has been advanced by the automatic advance device. If it is run too slowly "blueing" of the exhaust pipes may take place.

After the engine has been run for some time and has become thoroughly hot, go over all the cylinder head and other nuts to ensure that they are tight.

### 37. Cleaning the oil Filters

The oil filter is located at the top of the crankcase and is in the feed circuit to the big ends. (See Fig. 11).

The filter element is removed by unscrewing the nut holding the end cap in position. A small circular magnet supported on a short distance piece is also fitted over the fixing stud inside the filter for the purpose of collecting any ferrous particles which may be suspended in the oil. When reassembling the filter after cleaning, take care that no grit or other foreign matter is sticking to it. After replacing or renewing the felt filter, fill the filter housing with oil, level with the top of the finned cap, before fitting the hexagon sleeve nut.

The felt element should be taken out and washed in petrol after the first 500 miles and after every subsequent 2,000 miles. Fit a new element every 5,000 miles.

### 38. Overhaul of Oil Pump

Remove the timing cover as described in Subsection 19.

Remove the pump end plate followed by the pump disc, spring and plunger.

The spindle can be pulled out from the pump housing after undoing the nut on the forward end. This nut has a LEFT HAND thread. A hole is provided in the spindle and timing cover through which a  $\frac{3}{16}$  in. dia. tommy bar can be fitted to prevent the spindle turning whilst the nut is undone.