

The piston-cylinder clearance, when new, is 0.015 to 0.025 mm or an average of 0.02 mm (.0008 in.). The wear limit is 0.10 mm (.004 in.).

Piston-cylinder pairs which have reached or exceeded the wear limit must be replaced by a pair of the same size group.

Note:

Light alloy cylinders are not all the same height but are available in four different sizes.

Only cylinders of equal height may be installed under one cylinder head. The cylinder height group is marked on the cylinder base inside a small triangle (Fig. 168) in sizes 5, 6, 7 or 8.

34 EN

Removing and Installing Pistons

Special Tools: P 1a Electric piston heater
P 2 Piston pin drift
P 20 Piston ring gap file
VW 121b Piston ring pliers

The pistons have offset piston pins and must therefore be installed in the engine with the front marking toward the flywheel. The marking shows a crankshaft, flywheel, and arrow which must be oriented so that the arrow points to the flywheel of the engine.

combustion takes place causing a slight noise. By off-setting the piston pin this movement is accomplished silently under relatively low pressures. Worn pistons which normally cause objectionable noise are kept quiet.

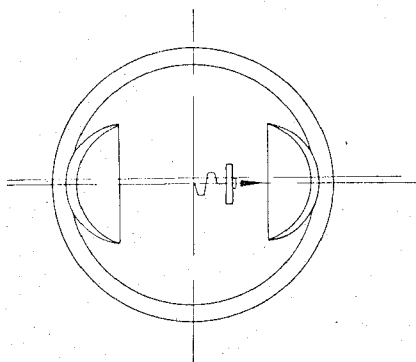


Fig. 169

By off-setting the piston pins it is possible for the piston to be forced against the thrust face of the power stroke before combustion takes place. The connecting rod angle reaches a perpendicular relation to the piston before TDC and thereby transfers the pressure from the compression stroke thrust face to the power stroke thrust face under low pressure. This slight movement normally occurs at the same time

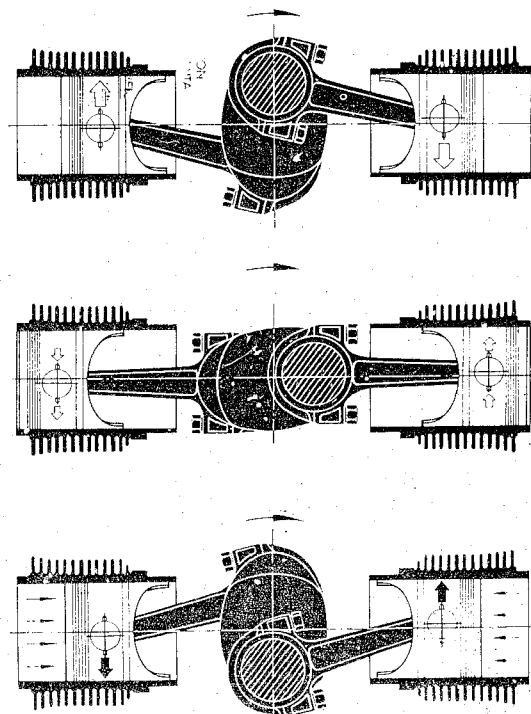


Fig. 170