

B.S.A. CYCLES LTD.

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PISTON RINGS

Piston rings must be perfectly bright and free in their grooves. Those showing brown patches or having excessive butt end clearance should be replaced by new ones.

When fitting replacement rings it is important that a correct butt end clearance be allowed when cold for expansion purposes.

In certain cases the rings have a 90° butt end joint, in others a 45° joint. The former require a clearance of .003"-.004" per inch of piston diameter, and the latter .002"-.003" per inch of piston diameter.

To check the butt end clearance, slide the piston into the cylinder barrel skirt first; insert the piston ring about half way down the bore, and push the piston up either by hand or in the case of a side valve cylinder by means of a rod, or a piece of wood passed through the compression plug hole, until the ring rests squarely on the crown of the piston. Allow the piston to slide away from the ring. Hold the ring firmly and check the butt end clearance by means of a feeler gauge. If the clearance be insufficient, the butt ends must be ground or filed as necessary.

While sufficient butt end clearance is essential, excessive clearance will reduce the effective life of the rings.

Having assembled the rings, make sure that the ring gaps are on opposite sides of the piston, and smear the sides of the piston generously with engine oil to obviate any risk of damage when first running after assembly.

IMPORTANT.

Hardened piston rings (this does not apply to scraper rings) must be used with hardened cylinders, but they must not be used with standard cast iron cylinders.