



## **Fitting Thin Wall Pre-finished Cylinder Liners**

It is essential to follow specific procedures when fitting replacing thin wall pre-finished cylinder liners.

The shape of its housing projects itself into the cylinder bore through a thin wall liner. The internal surface of the cylinder liner will reflect imperfections such as distorted or unclean parent bores. Piston rings cannot form a perfect seal on distorted or misshaped cylinder bores. This may result in a lack of performance and high oil consumption. In addition, foreign matter left in the parent bores may lead to localised overheating and further liner distortion, plus possible piston scuffing and seizure.

When overhauling engines that have such liners, take the follow precautions:

1. Thoroughly clean all foreign matter and residue from the cylinder block parent bores.
2. Check the diameter of the parent bores and for distortion. If distortion is present, fit an unfinished liner. Boring the cylinder to size will produce a true bore.
3. Machine the block to accept an outside diameter oversize liner when:
  - The parent bore is too large to allow a satisfactory fit for the replacement liner
  - Block distortion cannot be remedied by fitting an unfinished liner
4. Replace the block if fitting an outside diameter oversize liner will not correct the problem.