

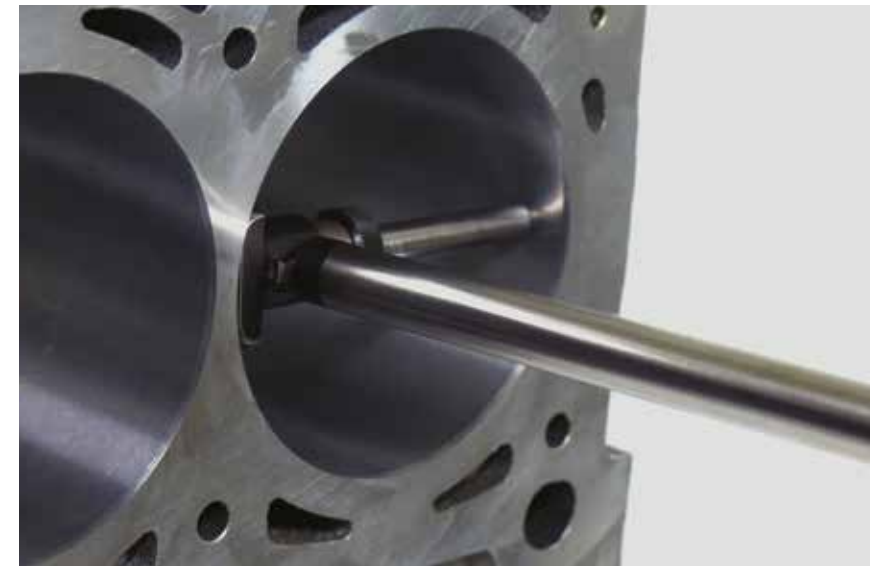
Piston fitting



1. Removal

- Mark the installation direction and position of the pistons, conrod caps, etc.
- Remove the cooling oil nozzles, if present, to avoid damaging them when fitting or removing the pistons.
- Carefully remove oil carbon from the cylinder to avoid damaging the piston during disassembly.

- Loosen the screw connections in the order indicated in the manufacturer specifications.
- Remove the piston and conrod from the cylinder.
- Remove the piston pin and disconnect the conrod from the piston (see the "Conrod fitting" poster for details).



2. Inspection

- If used parts are to be refitted, the dimensional accuracy of all individual parts must be checked.
- Remove oil carbon and other residue from the ring grooves.
- Check the conrod for damage and distortion.
- Check the cylinder surfaces for wear and damage.
- Check the cooling oil nozzles for damage and proper flow.
- If new pistons are to be fitted, the pin should always be replaced.

- Before fitting, the diameter of the new piston must be verified and compared.
- The diameter of the cylinder is equal to the diameter indicated on the piston crown plus the fitting clearance (for example, piston: $\varnothing 76.475 \text{ mm}$ + clearance: 0.035 mm = cylinder $\varnothing 76.510 \text{ mm}$).
- For pistons with a coated piston skirt, the measured diameter is 0.04 mm larger. This value must be taken into consideration in the calculation.



3. Fitting

- Note the installation markings prior to assembly.
- Thoroughly clean all parts and lubricate generously.
- Use only new circlips (see the "Conrod fitting" poster).
- Fit the piston rings as specified (see the "Piston ring fitting" poster).
- Use a clamping band to insert the piston into the cylinder.
- Carefully push the oiled piston into the cylinder. The piston rings must slide into the bore without much resistance. Take care not to damage them in the process.

- Fit the cooling oil nozzles.
- Tighten the connecting rod bolts in the order indicated in the manufacturer specification.
- Antifatigue bolts must always be replaced.
- In diesel engines, the piston protrusion must also be checked.
- The piston crown must not be turned when using hard-anodized pistons. These can be identified by the black coating on the crown.

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