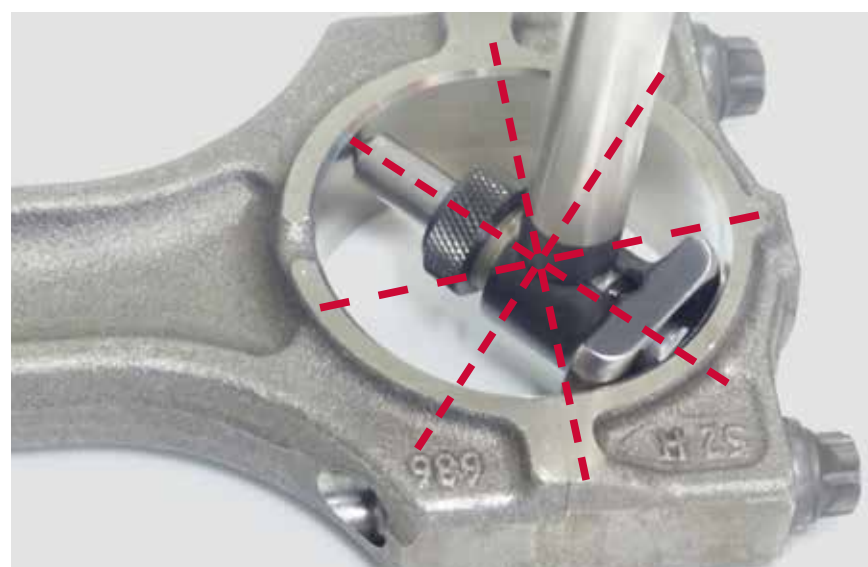


Bearing fitting



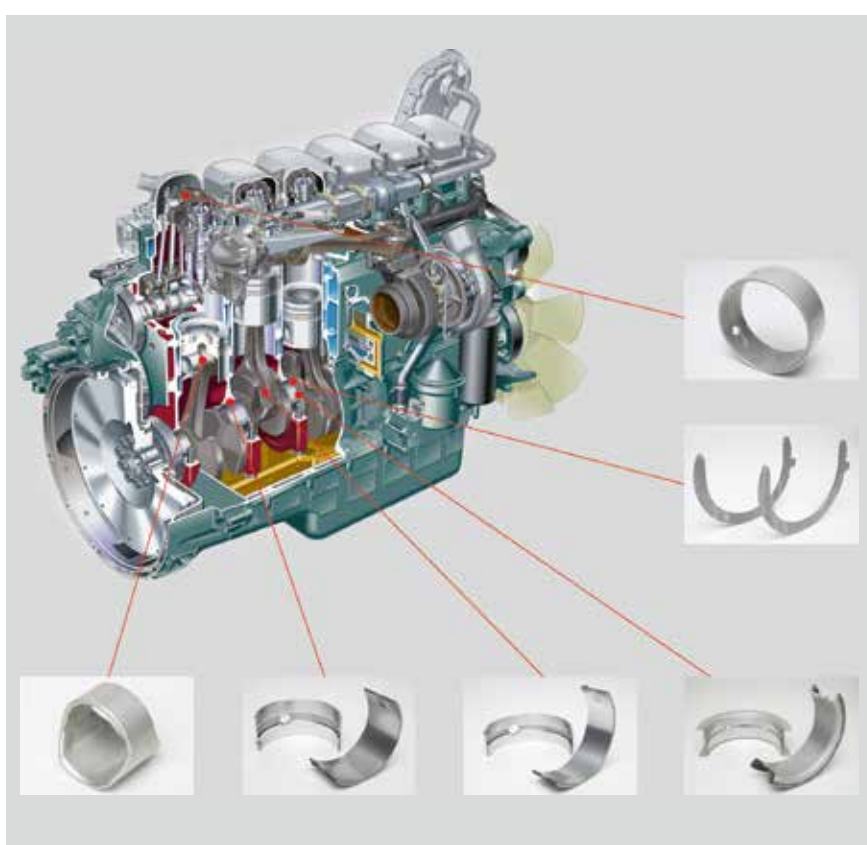
1. Removal

- Mark the installation direction and position on bearing shells, conrod caps, main bearing caps, and other parts.
- Cracked conrods must not be interchanged or twisted. These can be identified by the rough structure of the fracture surface.
- Loosen the screw joint according to the manufacturer specifications—bearing distortion may otherwise occur.
- Remove the piston and conrod—refer to the “Piston fitting” and “Conrod fitting” posters for details.
- Press out the conrod bushing if worn or damaged.



2. Inspection

- If used parts are to be refitted, the dimensional accuracy of all individual parts must be checked.
- Check the conrod for damage and distortion—refer to the “Conrod fitting” poster for details.
- Measure the diameter of the big end bore without bearing shells, as assembled.
- Measure the roundness and ovality in three offset measurements.
- Check the crankshaft for runout and cylindricity.
- If the crankshaft has been reworked, bearing shells in appropriate undersize grades must be used.
- The oil feeder bores must be cleanly deburred and free of residue.
- Prior to fitting: compare the old bearing shells against the new ones.



3. Fitting

- Note the installation markings prior to assembly.
- If new conrod and piston pin bushings are to be fitted, they must be carefully pressed in.
- To ensure dimensional accuracy and roundness, the new bushings must then be fine-bored.
- Note the installation markings.
- Thoroughly clean and lubricate the parts.
- Ensure that the oil feeder bores for the bearing shells are accurately positioned—the oil supply will be interrupted if fitted improperly, possibly resulting in serious consequential damage.
- Bearing shells come in different versions: solid bearings, two-component bearings, and three-component bearings.
- Three-layer bearing shells are also available as so-called sputter bearings—these can be identified by the lettering on the outer side.
- Sputter bearings have a defined installation position: in the top half in the conrod and in the bottom half as a main bearing. These fitting positions correspond to the force flow from the piston to the crankshaft.
- Check the crankshaft axial clearance as assembled.
- Important: Bearing shells must not be reworked. This excludes conrod and piston pin bushings.

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