

03-310 Checking, renewing and tightening connecting rod bolts

Dimensions of connecting rod bolt

Part no.	Thread dia	Necked-down dia. c when new (fig. item 1)	Min. necked-down dia. c
615 038 02 71	M 10 x 1	8.4-0.1	8.0
Installation pressure of connecting rod bolt			45 000 N

Tightening of connecting rod nuts

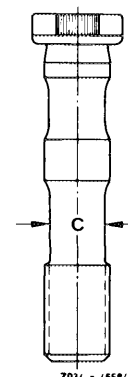
Initial tightening torques	40-50 Nm
Angle of rotation torque	90-100°

Self-made tool

Steel plate	refer to fig. item 3
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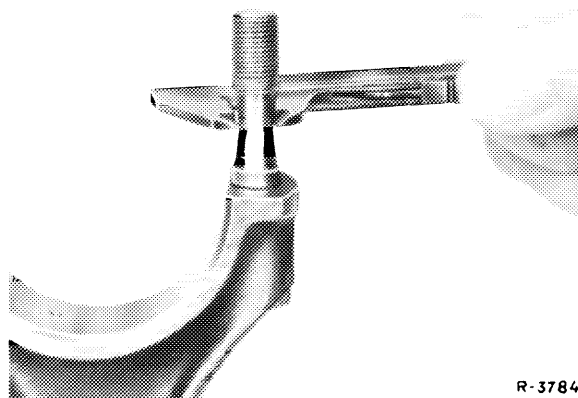
Checking

1 Measure minimum necked-down dia. prior to reuse.



Note: Replace connecting rod bolt if the minimum necked-down dia. of 7.2 mm is attained or less than that.

Knock out connecting rod bolt only when it is about to be replaced.



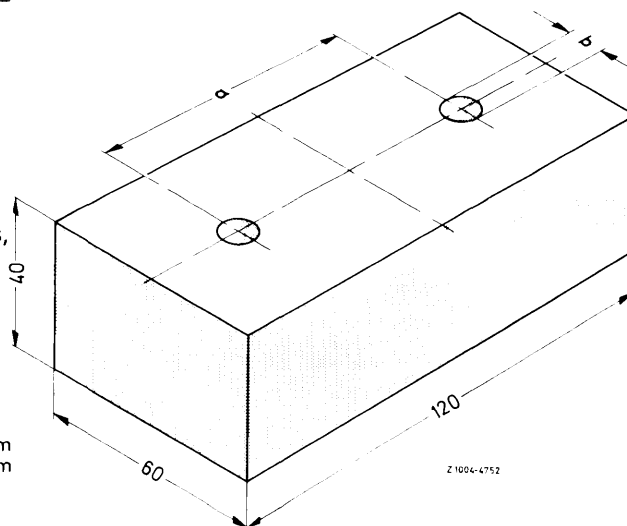
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Replacement

2 Knock out connecting rod bolts.

3 Press new connecting rod bolts into connecting rod at approx. 45 000 N or knock in with a hammer and a punch.

When knocking in or pressing in connecting rod bolts, set connecting rod on a ground steel plate.



Hole spacing a = 67 mm
Bore b = 11 mm

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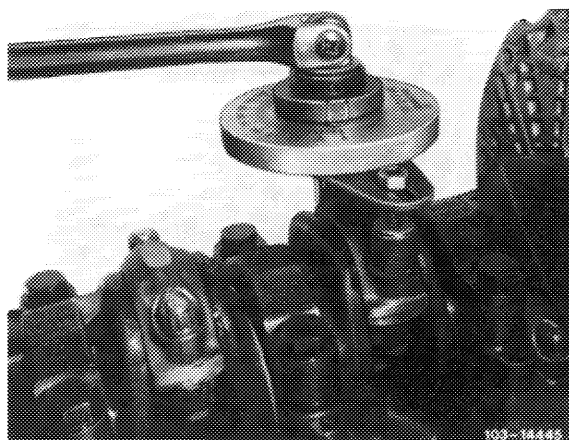
Tightening

4 Lubricate nuts and threaded support.

5 Tighten connecting rod nut to 40–50 Nm initial torque and then to 90–100° angle of rotation torque.

Attention!

Tighten connecting rod bolts knocked with a hammer for the first time to 60–70 Nm initial torque and 90–100° angle of rotation torque.



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This specification must be strictly observed, since otherwise the connecting rod nuts may become loose.

Note: If no angle of rotation tool is available, the connecting rod nuts can also be tightened by means of a normal socket wrench with tommy bar **in one step** by an angle of 90–100°. This angle should be estimated as accurately as possible. **To eliminate angle of rotation errors, do not use torque wrench for tightening according to angles of rotation.**