

03–310 Checking, renewing and tightening connecting rod bolts

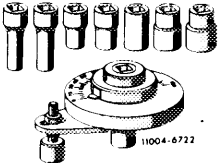
Dimensions of connecting rod bolt

Part no.	Thread dia.	Necked-down dia. 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			45000 N

Tightening of connecting rod nuts

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

Special tool

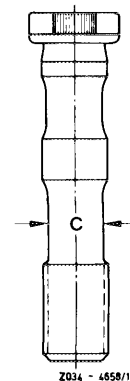
Angle of rotation tool		116 589 01 13 00
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Self-made tool

Steel plate	refer to Fig. item 3
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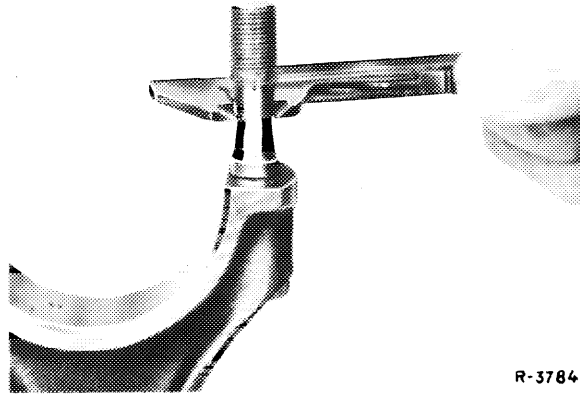
Checking

- 1 Measure minimum necked-down dia. prior to re-use.



Note: When the minimum necked-down dia. of 8.0 mm has been attained or is less than 7.2 mm, renew connecting rod bolt.

Knock-out connecting rod bolt only for replacement.

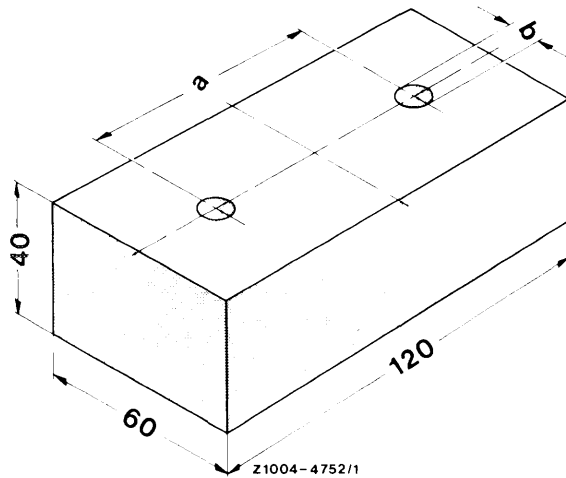


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Replacement

- 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 mandrel.

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



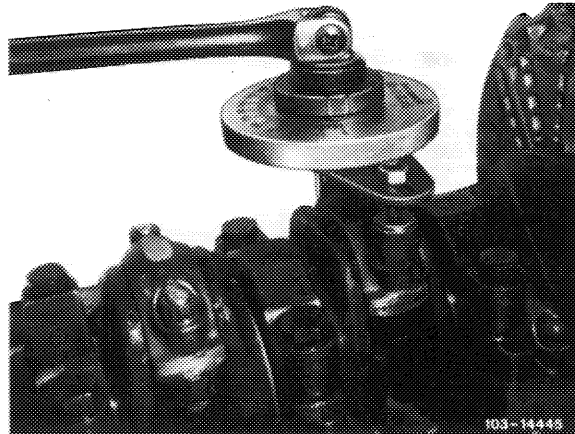
Hole spacing $a = 67$ mm
Bore $b = 11$ mm

Tightening

- 4 Lubricate nuts and threaded support.
- 5 Tighten connecting rod nuts to 40–50 Nm initial torque and 90–100° angle of rotation torque.

Attention!

Tighten connecting rod bolts knocked-in with a **hammer for the first time at 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.**