

03--313 Reconditioning and squaring connecting rod

Data

Engine	116.98	117.98
Center of connecting rod big end bore up to center of connecting rod small end bore (L in Fig. item 5)	<u>138,050</u> 137,950	<u>154,550</u> 154,450
Width of connecting rod at big end bore		<u>24,890</u> 24,857
Width of connecting rod at small end bore		<u>28,000</u> 27,900
Basic bore for connecting rod bearing shells (A in Fig. item 5)		<u>55,619</u> 55,600
Basic bore for connecting rod bushing (a in Fig. item 5)		<u>29,021</u> 29,000
Connecting rod bushing ID		<u>26,013</u> 26,007
Roughness of connecting rod bushing, inside		0,004
Permissible offset of big end bore in relation to small end bore	0,13	0,15
Permissible deviation from parallel alignment of axis: Big end bore in relation to small end bore	0,06	0,07
Permissible deviation of big end bore from concentricity		0,01
Permissible difference in weight of complete connecting rod within one engine		4 g

Tightening torque

Connecting rod nuts	Initial torque	40–50 NM
	Angle of rotation torque	90–100°

Conventional tool

Connecting rod testing and aligning tool	e. g. Walter Krupp GmbH D-5309 Meckenheim Model CL 6
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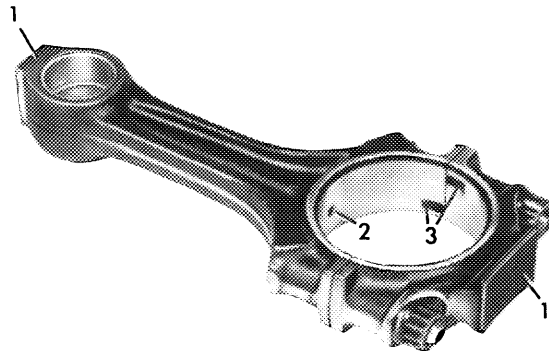
Note

Connecting rods which were overheated as a result of bearing damage (blue discoloration) should no longer be used.

Connecting rod and connecting rod cap are marked together. The connecting rod shaft should have no transverse score marks and notches.

Connecting rods with machined connecting rod bushing are supplied as spare parts.

When renewing connecting rods, pay attention to difference in weight of connecting rods.

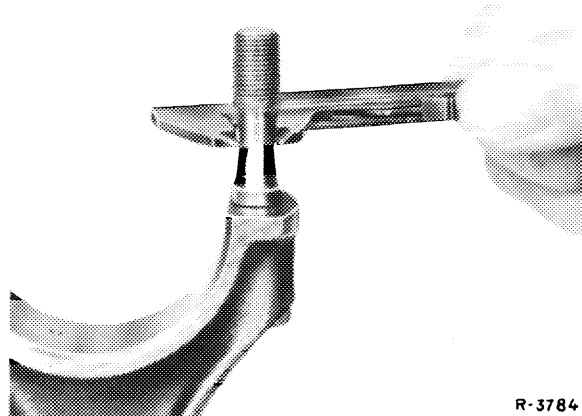


- 1 Weight compensation
- 2 Oil bore
- 3 Locking grooves

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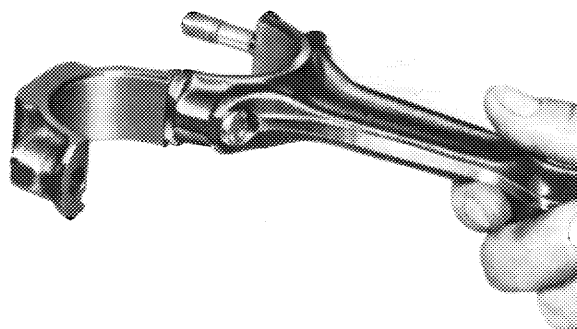
Reconditioning

1 Check connecting rod bolts and replace, if required (03-310).



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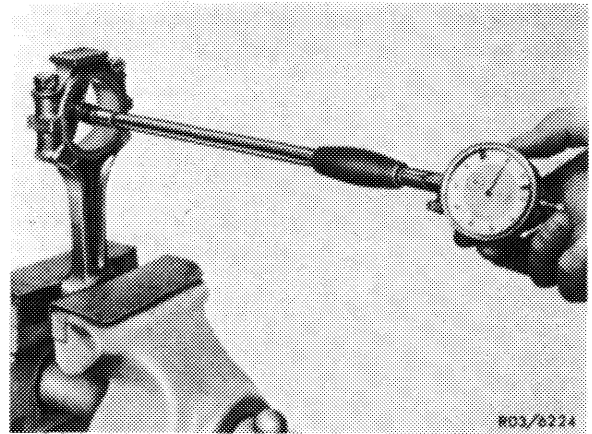
2 Check bores for connecting rod bolts. Mount connecting rod bearing cap on a connecting rod bolt. If the connecting rod bearing cap is moving downwards under its own weight, the connecting rod must be replaced.



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3 Mount connecting rod bearing cap and tighten connecting rod nuts to 40–50 Nm.

4 Measure connecting rod bearing bores. If basic bore exceeds a value of 55,62 mm or is conical in shape, refinish bearing cap supporting surface on a face plate up to max. 0.02 mm.

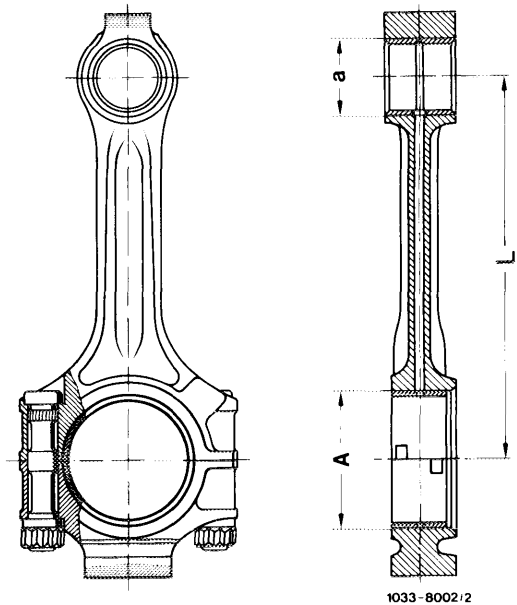


5 Press-in new connecting rod bushing in such a manner that the oil bores are in alignment. Pressing-in pressure at least 2500.

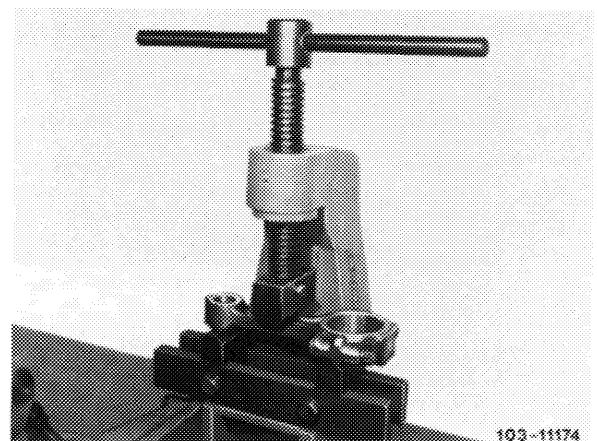
6 Machine or ream connecting rod bushing.

7 Refinish lateral contact surface of connecting rod on the face plate.

8 Square connecting rod by means of a connecting rod tester.



9 Align connecting rod bore in relation to connecting bushing bore (parallel alignment).



10 Check setoff of connecting rod bearing bore in relation to connecting rod bushing bore.

