

Big-end Bearing Clearance, Check, measure with micrometer (Z 22 SE)



Measure

1. Fit the internal gauge and calibrate it with the micrometer (1).
Attach the big-end bearing caps to the connecting rods.

- Tightening torque **25 Nm + 50° + 50° + 10°**

- 1 Measure the diameter of the big-end bearings at 3 points.

- Use the inside micrometer to measure at the points I, II and III.

- 2 Measure the diameter of the big-end bearings at 3 points.

- Use the inside micrometer to measure at the points I, II and III.

- 3 Measure the diameter of the big-end bearings at 3 points.

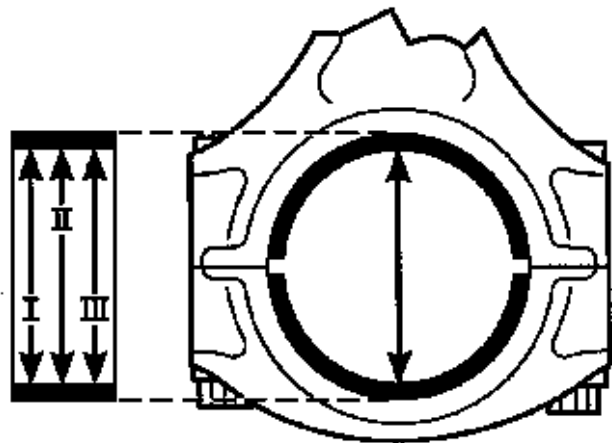
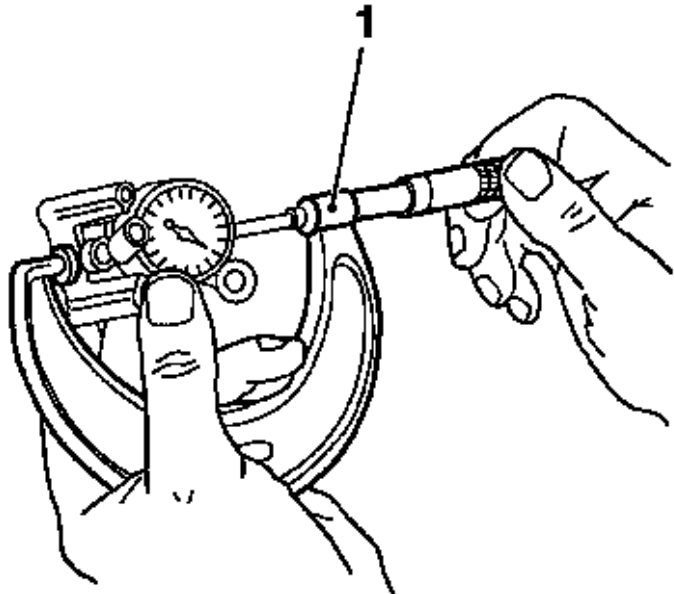
- Use the inside micrometer to measure at the points I, II and III.

- 4 Measure the diameter of the big-end bearings at 3 points.

- Use the inside micrometer to measure at the points I, II and III.

Calculate the mean value for the big-end bearing diameter.

- Formula: $I + II + III / 3$



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2.

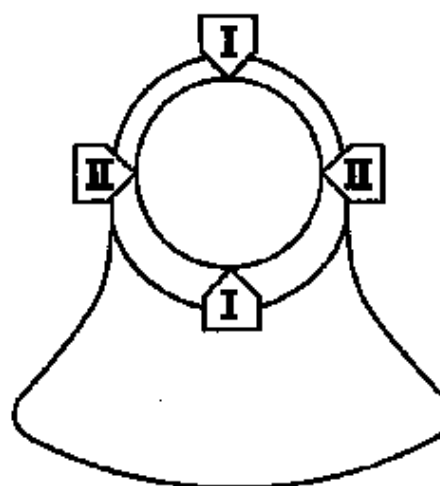
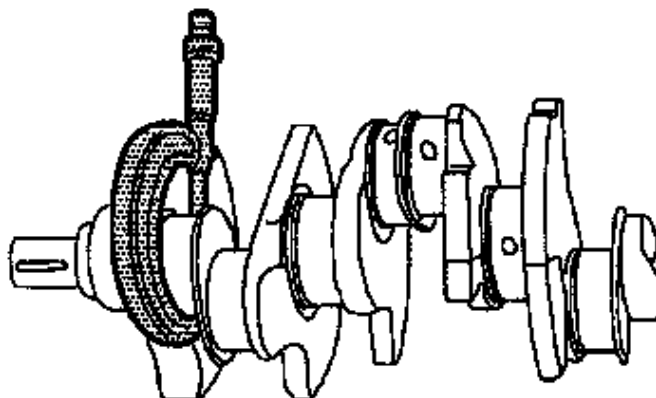
Determine the big-end bearing journal diameter.

- 1 Measure the diameter of the big-end bearing journals at 2 points.

- Use a micrometer to measure at the points I and II.

- 2 Measure the diameter of the big-end bearing journals at 2 points.

- Use a micrometer to measure at the points I and II.
- 3 Measure the diameter of the big-end bearing journals at 2 points.
- Use a micrometer to measure at the points I and II.
- 4 Measure the diameter of the big-end bearing journals at 2 points.
- Use a micrometer to measure at the points I and II.
- Calculate the mean value for the big-end bearing journal diameter.
- Formula: $I + II / 2$



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- Determine the big-end bearing clearance.
 - Formula: Mean big-end bearing diameter – mean big-end bearing journal diameter
- Comparison between specified values and actual values
 - Permissible big-end bearing clearance: **0,041 - 0,043 mm**