

05—225 Grinding camshaft bearing journals

Data

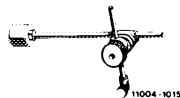
Roughness of camshaft bearing journals		0.003		
Permissible runout of center bearing journals and camshaft sprocket seat when mounting camshaft at outer bearing journals	Camshaft code number ¹⁾	00	05, 08	
	Camshaft sprocket seat	0.020	0.025	
	2nd bearing point	0.030	0.030	
	3rd bearing point	0.025	0.030	
Scleroscope hardness of cams		70—82	64—75	
Bearing points (Fig.)		a	b, c and d	
Standard dimension	Camshaft bearing dia.	<u>35.00</u>	<u>46.50</u>	<u>49.00</u> ²⁾
		35.02	46.52	49.02
	Journal dia.	<u>34.95</u>	<u>46.45</u>	<u>48.95</u> ²⁾
		34.93	46.43	48.93
Intermediate stage	Camshaft bearing dia. (color code grey)	<u>34.90</u>	<u>46.40</u>	<u>48.90</u> ²⁾
		34.92	46.42	48.92
	Journal dia.	<u>34.85</u>	<u>46.35</u>	<u>48.85</u> ²⁾
		34.83	46.33	48.83
Repair stage I	Camshaft bearing dia. (color code red)	<u>34.75</u>	<u>46.25</u>	<u>48.75</u> ²⁾
		34.77	46.27	48.77
	Journal dia.	<u>34.70</u>	<u>46.20</u>	<u>48.70</u> ²⁾
		34.68	46.18	48.68
Width A of journal a (Fig.)		<u>34.00</u>	—	
		34.04		
Bearing play	radial	0.050—0.084		
	axial	0.07—0.15		

¹⁾ Code number is punched into rear end of camshaft.

²⁾ Camshaft bearings and journal dia. on engine 617.950(USA) model year 1980 with increased output and engines 617.951/952.

Special tool

Dial gage holder for end play of camshaft (2 each)



363 589 02 21 00

Conventional tool

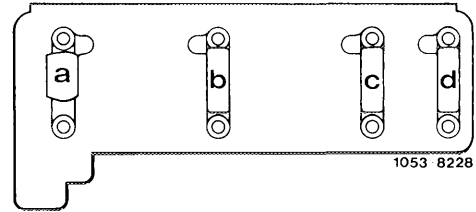
Dial gage A 1 DIN 878

e.g. made by Mahr, D-7300 Esslingen
Order No. 810

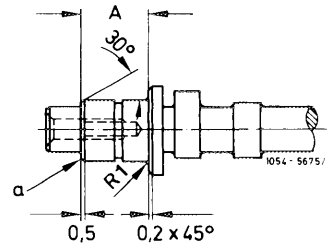
Note

In the event of repairs, regrind camshaft in accordance with available camshaft bearings.

Camshaft bearing journals are not hardened.

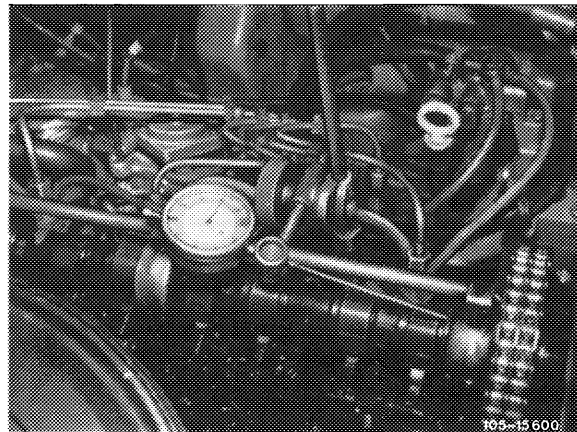


If dimension A is exceeded when grinding 1st bearing journal, also regrind face a.



Measuring end play

- 1 Screw on dial gage holder with threaded sleeve at front left.
- 2 Position dial gage at approx. 3 mm preload against thrust flange of camshaft.
- 3 Push camshaft toward the rear and set large needle to zero.



- 4 Push camshaft forward and determine end play.

Note: If the end play is too low, touch up 1st camshaft bearing at its face surfaces (arrow).

If the end play is too high, regrind face a on 1st bearing journal of camshaft.

