Data

Peak-to-valley height of camshaft journals		0.003			

Permissible eccentricity of center bearings and of cam-shaft sprocket seat, with camshaft mounted at outer bearings	Camshaft code [1]	02	06.10	00	08
	Camshaft sprocket seat	0.012	0.025	0.020	0.020
	2nd bearing (b)	0.012	0.025	0.030	0.030
	3rd bearing (c)	—	—	0.025	0.025

Bearings (illustration)		a		b, c and d	

Normal size	Camshaft bearing dia.	$\dfrac{35.00}{35.02}$		$\dfrac{46.50}{46.52}$	$\dfrac{49.00}{49.02}$ [2]
	Journal dia.	$\dfrac{34.95}{34.93}$		$\dfrac{46.45}{46.43}$	$\dfrac{48.95}{48.93}$ [2]

Intermediate stage	Camshaft bearing dia. (grey color code)	$\dfrac{34.90}{34.92}$		$\dfrac{46.40}{46.42}$	$\dfrac{48.90}{48.92}$ [2]
	Journal dia.	$\dfrac{34.85}{34.83}$		$\dfrac{46.35}{46.33}$	$\dfrac{48.85}{48.83}$ [2]

Repair stage	Camshaft bearing dia. (red color code)	$\dfrac{34.75}{34.77}$		$\dfrac{46.25}{46.27}$	$\dfrac{48.75}{48.77}$ [2]
	Journal dia.	$\dfrac{34.70}{34.68}$		$\dfrac{46.20}{46.18}$	$\dfrac{48.70}{48.68}$ [2]

Width A of journal a (illustration)		$\dfrac{34.00}{34.04}$		—	

Bearing play	radial	0.050–0.084			
	axial	0.07–0.15			

[1] The code is stamped in the aft camshaft end.
[2] Camshaft bearing and journal diameters of uprated engines (camshaft code No. 10).

Special tool

Dial gauge holder for end camshaft play (two)		121 589 00 21 00
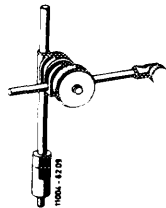
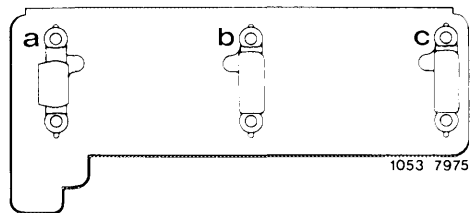## Commercially available tool

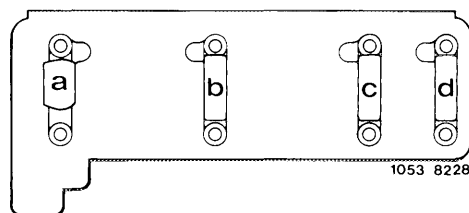| Dial gauge A 1 DIN 878	e. g. Mahr, 7300 Esslingen order No. 810

Note

In event of repair regrind camshaft to suit existing camshaft bearings.

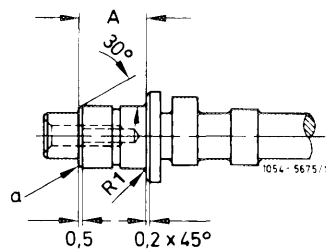The camshaft journals are not hardened.

Engines 615, 616

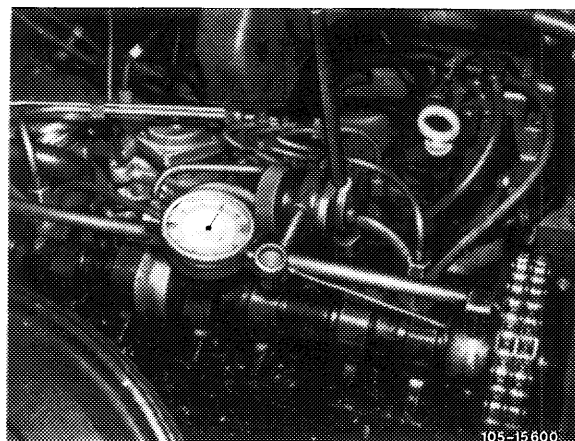

1053 7975

Engine 617

1053 8228

End face a will have to be reground if dimension A is exceeded by grinding No. 1 journal.

Measuring end play

1 Using threaded sleeve, attach dial gauge holder at front left.

2 Preload dial gauge by about 3 mm on thrust collar of camshaft.

3 Force camshaft aft and set large pointer to zero.

4 Force camshaft forward and measure end play.

Note: Faces of No. 1 camshaft bearing (arrow) will have to be dressed if end play is inadequate.

End face a of No. 1 camshaft journal will need regrinding if end play is excessive.

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