

01-4190 Widening camshaft bearing bores (repair size)

Inspection data in mm

		New	Wear limit
Camshaft bearing journal \varnothing	Standard size	30.93 – 30.95 mm	–
	Repair size	31.43 – 31.45 mm	–
Camshaft bearing bore \varnothing	Standard size	31.00 – 31.03 mm	–
	Repair size	31.50 – 31.53 mm	–
Camshaft bearing bores	Peak-to-valley height	0.003 – 0.006	–
	Permissible difference from cylinder shap	0.012	–
	Permissible misalignment of 1st bearing bore to 7th bearing bore	0.04	–
Permissible difference in concentricity of center bearing points and of camshaft gear seat when mounted in outer bearing points	Camshaft gear seat	0.025 mm	–
	Bearing points 2, 3, 4	0.030 mm	–
Camshaft bearing play	radial	0.05 – 0.09 mm	0.11 mm
	axial	0.03 – 0.11 mm	0.15 mm
Scleroscopic hardness of cams		70 – 82	63

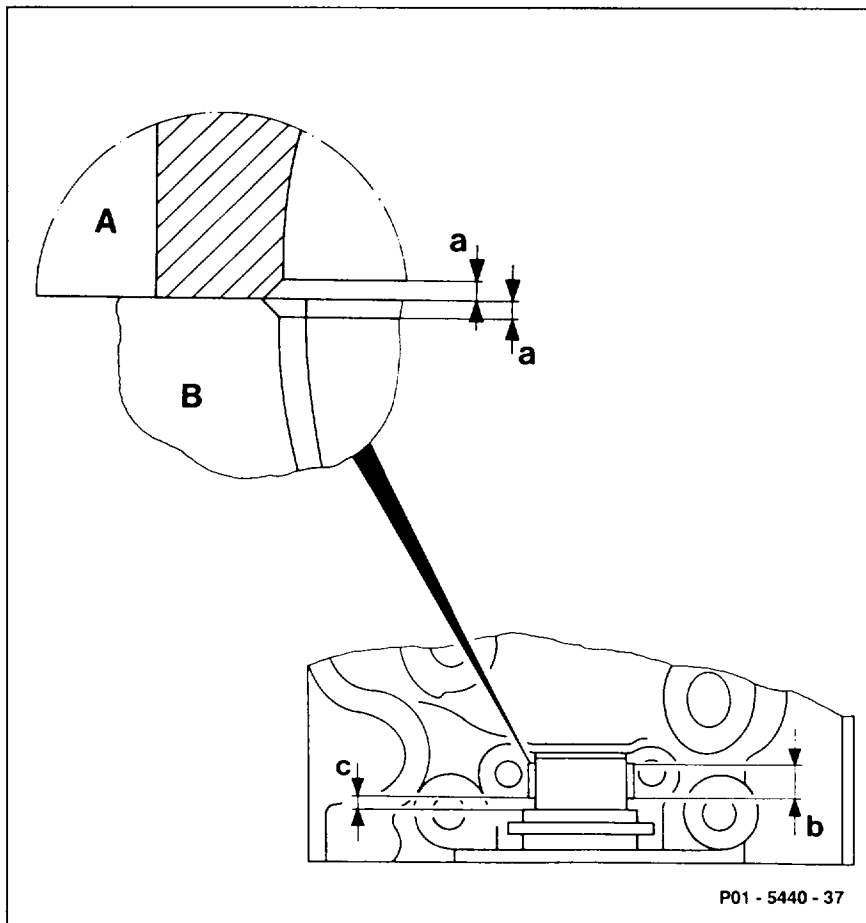
Note

If bearing seizure or severe scoring exists, the camshaft bearing bores may be widened by 0.5 mm and a camshaft with oversized bearing journals installed.

Note

Code number of this camshaft, see (05-2150).
Install numbered camshaft bearing caps each
with two dowel sleeves and tighten to 15 Nm.
Bore camshaft bearing bores.

Do not widen half-bore on rear of cylinder head.
for mounting cylinder head cover gasket.



- A Camshaft bearing cap
- B Cylinder head
- a 0.32 mm
- b 12 mm
- c 3 mm

After widening the bearing bores, the oil pockets on the contact surface between camshaft bearing bracket and cylinder head at the camshaft bearings must be machined to the dimensions (a), (b) and (c) otherwise the lubrication film will shear off.