Engines 104.98 [1]

Allocation	Group No.[2]	Cylinder dia.	Piston dia.
Standard Ø 88.5	A	88.500 – 88.506	88.473 – 88.479
	X	88.506 – 88.512	88.478 – 88.486
	B	88.512 – 88.518	88.485 – 88.491
1st repair size + 0.5	A	89.000 – 89.006	88.973 – 88.979
	X	89.006 – 89.012	88.978 – 88.986
	B	89.012 – 89.018	88.985 – 88.991
2nd repair size + 1.0	A	89.500 – 89.506	89.473 – 89.479
	X	89.506 – 89.512	89.478 – 89.486
	B	89.512 – 89.518	89.485 – 89.491

Engines 104.94/99 [1]

Allocation	Group No.[2]	Cylinder dia.	Piston dia.
Standard Ø 89.9	A	89.900 – 89.906	89.873 – 89.879
	X	89.906 – 89.912	89.878 – 89.886
	B	89.912 – 89.918	89.885 – 89.891
1st repair size + 0.25	A	90.150 – 90.156	90.123 – 90.129
	X	90.156 – 90.162	90.128 – 90.136
	B	90.162 – 90.168	90.135 – 90.141
2nd repair size + 0.5	A	90.400 – 90.406	90.373 – 90.379
	X	90.406 – 90.412	90.378 – 90.386
	B	90.412 – 90.418	90.385 – 90.391

1) Except AMG engines
2) The group code letters are located on the piston crown and are stamped in the contact surface of the crankcase.

Wear limit in direction of travel and in transverse direction		0.10
Permissible deviation of cylinder shape	when new	0.007
	wear limit	0.05
Permissible deviation of rectangularity related to cylinder height		0.05
Averaged peak-to-valley height (Rz) after ceramic final honing		0.003 – 0.006
Permissible waviness (Wt)		50 % of peak-to-valley height
Chamfering of cylinder bores		see note
Honing angle		50 ± 10°

Commercially available tool

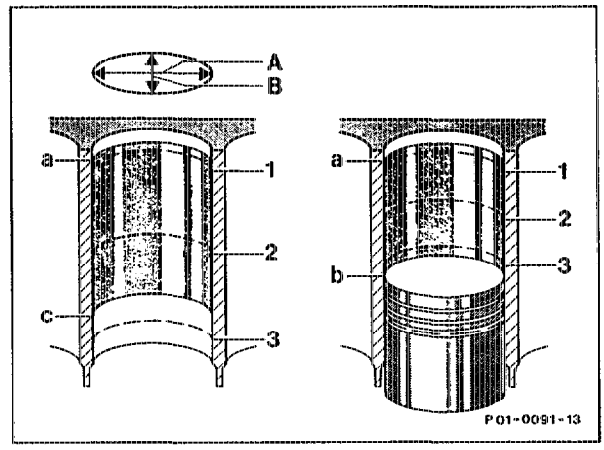
Quick callipers for internal measurements, dia. 80 – 100 mm

Note

When performing repairs, all the cylinder bores should be finished to the sizes of the existing pistons in accordance with the allocation table.

Measuring

Measure the cleaned cylinder bores with an internal measuring instrument at the 3 measuring points (1, 2 and 3) in the longitudinal and transverse directions.



Measuring points 1 – 3
A Longitudinal direction
B Transverse direction
a Upper reversal point of 1st piston ring
b Bottom dead centre of piston
c Lower reversal point of oil scraper ring