

**Coordination piston — cylinder**

Version <sup>1)</sup>	Group no.	Piston dia.	Cylinder dia.
Standard	0	90.845 - 90.855	90.898 - 90.908
	1	above 90.855 - 90.865	above 90.908 - 90.918
	2	above 90.865 - 90.875	above 90.918 - 90.928

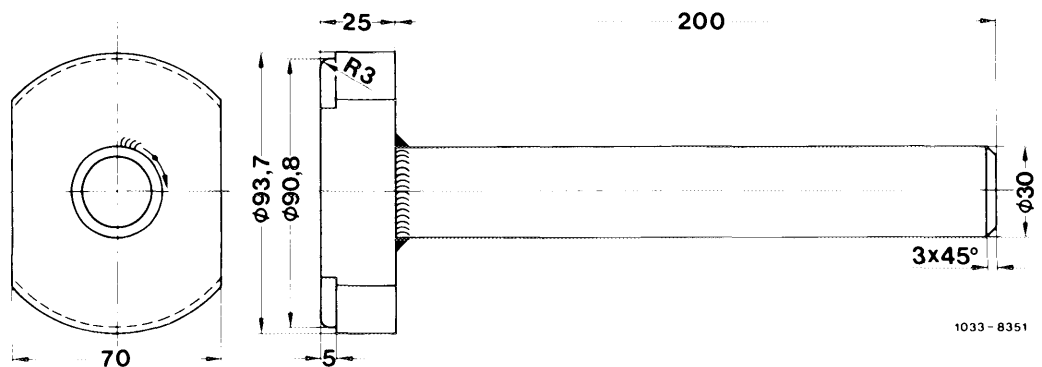
**Cylinder crankcase**

Basic bore in cylinder crankcase for cylinder liner	94.000 94.035
Permissible out-of-true of basic bore in cylinder crankcase	0.1
Roughness of cylinder crankcase parting surface	0.006—0.016

**Cylinder bore**

Permissible out-of-round and conicity of cylinder bore	0.014
Permissible roughness of cylinder bore	0.002—0.004
Permissible waviness of cylinder bore	50 % of roughness
Honing angle	25°
Chamfer of cylinder bores	refer to Fig.

**Self-made tool**



Mandrel for pressing or knocking out cylinder liners

## Note

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Always install approved cylinder liners only (refer to spare parts data).

Owing to different manufacturers, the cylinder liners are identified with notches at lower edge.

1 notch = Teves; 2 notches = Pleuco;  
3 notches = Wizemann; 4 notches = Brico

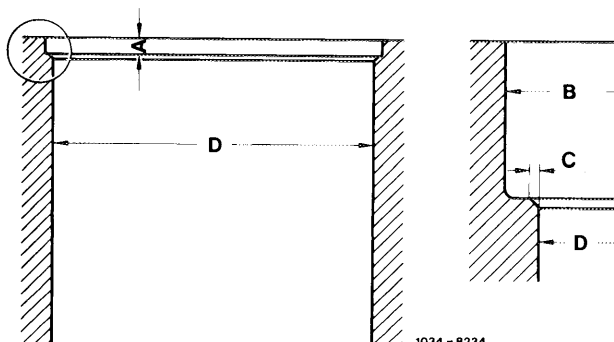
## Renewal

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1 Press out cylinder liners with self-made mandrel and a press or knock out with a hammer.

2 Thoroughly clean basic bore.

A = 4.3–4.6 mm  
B = 96.02–96.08 mm  
C = 0.25–0.35 mm  
D = 94.000–94.035 mm



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3 Measure basic bore (D) in cylinder crankcase.

If the out-of-true condition exceeds 0.1 mm, do not use cylinder crankcase any longer.

4 Position new cylinder liners. Place steel plate of pertinent size on liner flange and press-in liner with a press or knock in with a hammer.

After pressing or knocking in cylinder liner, leave for another approx. 7 seconds under press (setting pressure) or add a few setting blows with hammer.

5 Mill or grind off projecting liner flange. Remove as little as possible from cylinder crankcase parting surface. Guide milling cutter or grinding wheel centrally over cylinder bores.

6 Enlarge cylinder liner bores in two steps. For honing, leave an allowance of 0.03 mm in bores.

7 Chamfer cylinder liners.

8 Hone cylinder bores.

9 Measure cylinder bores and select pertinent pistons (02-316).

