

DIN 984:2021-06 (E)

Retaining rings with lugs (internal circlips) for use in bores

Contents		Page
Foreword		4
1	Scope	5
2	Normative references	5
3	Terms and definitions	5
4	Symbols	6
5	Dimensions and design details	7
6	Material	11
7	Finish	11
8	Testing	12
8.1	Testing the material	12
8.2	Bend and fracture test	12
8.3	Testing deformation	12
8.3.1	Testing the conical deformation	12
8.3.2	Testing the spiral flatness	13
8.4	Functional test (permanent set and grip test)	13
8.5	Acceptance inspection	14
9	Load-bearing capacity	14
9.1	General	14
9.2	Load bearing capacity of groove FN	14
9.3	Load bearing capacity of retaining ring FR	14
10	Design of the groove	16
10.1	Groove diameter d_2	16
10.2	Groove width m	16
10.3	Design of the groove base	16
11	Mounting the retaining ring	18
12	Designation	19
Figures	Figure 1 -- Retaining ring	7
	Figure 2 -- Installation example	7
	Figure 3 -- Bend test	12
	Figure 4 -- Testing conical deformation	12
	Figure 5 -- Testing spiral flatness	13
	Figure 6 -- Sharp-edged abutment	15
	Figure 7 -- Abutment with edge chamfering distance (chamfering or rounding)	15

Figure 8 -- Sharp-edged abutment against the retaining ring using a supporting ring	15
Figure 9 -- Groove shapes	16
Figure 10 -- Design of the groove base	17
Figure 11 -- Mounting using a taper	18
Tables Table 1 -- Design	8
Table 2 -- Hardness of retaining rings	11
Table 3 -- Corrosion protection of retaining rings	11
Table 4 -- Conical deformation	13
Table 5 -- Spiral flatness	13
Table 6 -- Characteristics	14