

Closed Guide Bush with Sealing Rings

N 553



Suitability

- Design as for N 550, with sealing and stop rings fixed on both sides.
- When used in combination with shaft diameter d_w ISO-h3, preloading of the rotary stroke bearing is guaranteed.
 - Guide bush N 553 is designed for use in dirty environments.
 - The sealing rings prevent any dirt particles from penetrating. (The rubbing action of the sealing rings on the shaft affects the smooth running of the rotary stroke bearing slightly.)
 - Secure path limitation for the ball cage is ensured.

Features

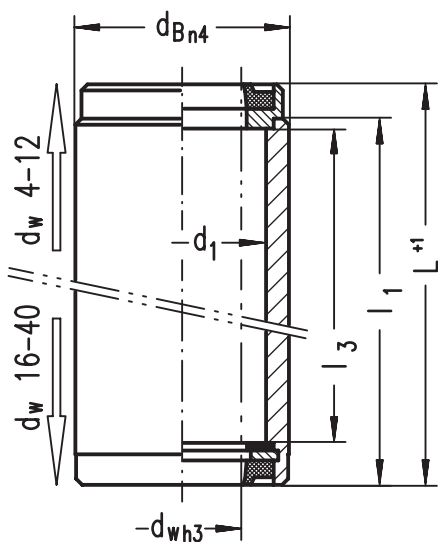
- Sealing and stop rings fixed on both sides.
- The closed guide bush and integrated ball cage form a separate component.
- Guide bore diameter d_1 is finely honed to ISO tolerance IT 3, R_z 0.5 – 1.5 μm depending on diameter.
- Roundness within 1/3 ISO-IT 3.
- Cylindricity within IT 1.
- Radial run-out of a shaft inserted under preloading is within 0.0005 mm.
- Outside diameter d_B n4 with radial run-out error within IT 4, ground to guide bore diameter d_1 , lead-in taper on one side.
- The maximum stroke path H_{max} of the rotary stroke bearing is determined from the length of guide bush l_3 and the length of the ball cage l_2 : $H_{\text{max}} = 2(l_3 - l_2)$.
- See page 37-41 for instructions on installation and servicing.

Material

- Special roller bearing steel 100 Cr 6 (1.2067 or 1.3505)
- Carefully heat-treated, hardness rating HRC 60–64/HV 720–815
- Steel stop rings
- Sealing rings NBR rubber in steel shell
- Maximum constant working temperature 100°C

Special designs

Other dimensions or designs based on workpiece drawings are available. These can also be produced using stainless steel (1.4112).



Order Information

Rotary stroke bearing consisting of:

Guide bush N 553/ $d_w/d_1/L$

Order No. 5009 . . .

Ball cage N 501/ $d_w/d_1/l_2$

Order No. 50010 . .

or

Ball cage N 500/ $d_w/d_1/l_2$

Order No. 50000 . .

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d_w	d_1	d_B	L	l_1	l_3	Order No.	Cage length l_2 /stroke H_{max} (Selected examples)					
4	7	10	26	20	18	5009039	12/12					
			36	30	28	5009040	20/16	12/32				
6	10	14	31	25	23	5009047	16/14					
			46	40	38	5009048	25/26	16/44				
			66	60	58	5009049	40/36	25/66	16/84			
8	13	18	38	30	28	5009055	25/6					
			48	40	38	5009056	30/16	25/26	20/36			
			73	65	63	5009057	40/46	30/66	25/76	20/86		
10	15	20	33	25	22	5009062	20/4					
			44	36	33	5009063	28/10	20/26				
			58	50	47	5009064	40/14	28/38	20/54			
			78	70	67	5009065	50/34	40/54	28/78	20/94		
12	17	22	33	25	22	5009070	20/4					
			44	36	33	5009071	28/10	20/26				
			58	50	47	5009072	40/14	28/38	20/54			
			83	75	72	5009073	50/44	40/64	28/88	20/104		
16	22	28	38	38	27	5009083	25/4					
			50	50	39	5009084	34/10	25/28				
			65	65	54	5009085	48/12	34/40	25/58			
			97	97	86	5009086	63/46	48/76	34/104	25/122		
20	26	32	49	49	36	5009095	28/16					
			63	63	50	5009096	48/4	40/20	28/44			
			71	71	58	5009097	56/4	48/20	40/36	28/60		
			119	119	106	5009098	80/52	68/76	56/100	48/116	40/132	28/156
25	31	38	70	70	56	5009106	51/10	40/32	30/52	23/66		
			86	86	72	5009107	68/8	58/28	51/42	40/64	30/84	23/98
			139	139	125	5009108	100/50	80/90	68/114	58/134	51/148	40/170
32	40	48	57	57	42	5009110	30/24	25/34				
			82	82	67	5009112	54/26	30/74	25/84			
			97	97	82	5009113	78/8	68/28	54/56	30/104	25/114	
			152	152	137	5009114	110/54	93/88	78/118	68/138	54/166	30/214
40	48	60	86	86	70	5009116	68/4	62/16	55/30	30/80	25/90	
			126	126	110	5009118	102/16	87/46	68/84	62/96	55/110	
			178	178	162	5009119	150/24	125/74	110/104	102/120	87/150	68/188

Stroke H

Dependent on length l_2 of the ball cage used.

$$H_{max} = 2 (l_3 - l_2)$$