

Revisée

ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION

R 113

ROLLING BEARINGS

ACCESSORIES

2nd EDITION

January 1969

This second edition supersedes the first edition

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BRIEF HISTORY

The ISO Recommendation R 113, *Ball and roller bearings – Accessories*, was drawn up by Technical Committee ISO/TC 4, *Rolling bearings*, the Secretariat of which is held by the Sveriges Standardiseringskommission (SIS).

Work on this question by the Technical Committee led, in 1956, to the adoption of a Draft ISO Recommendation.

In November 1957, this Draft ISO Recommendation (No. 155) was circulated to all the ISO Member Bodies for enquiry. It was approved by 21 Member Bodies; one Member Body opposed the approval of the Draft.

This Draft ISO Recommendation was then submitted by correspondence to the ISO Council which decided, in May 1959, to accept it as an ISO Recommendation.

BRIEF HISTORY RELATING TO THE 2nd EDITION

In 1962, it was decided to revise section 2 of ISO Recommendation R 113-1959 and a Draft ISO Recommendation was established for this purpose.

In April 1965, this Draft ISO Recommendation (No. 643) was circulated to all the ISO Member Bodies for enquiry. It was approved, subject to a few modifications of an editorial nature, by the following Member Bodies :

Australia	India	Switzerland
Austria	Italy	Turkey
Brazil	Japan	U.A.R.
Canada	Netherlands	United Kingdom
Czechoslovakia	Poland	U.S.A.
France	Romania	Yugoslavia
Germany	Spain	
Hungary	Sweden	

No Member Body opposed the approval of the Draft.

This Draft ISO Recommendation was then submitted by correspondence to the ISO Council which decided, in January 1969, to accept it with a view to its incorporation in the 2nd edition of ISO Recommendation R 113-1959, the title of which has been modified as follows : *Rolling bearings – Accessories*.

This edition (2nd edition) cancels and replaces the first edition of ISO Recommendation R 113.

ROLLING BEARINGS ACCESSORIES

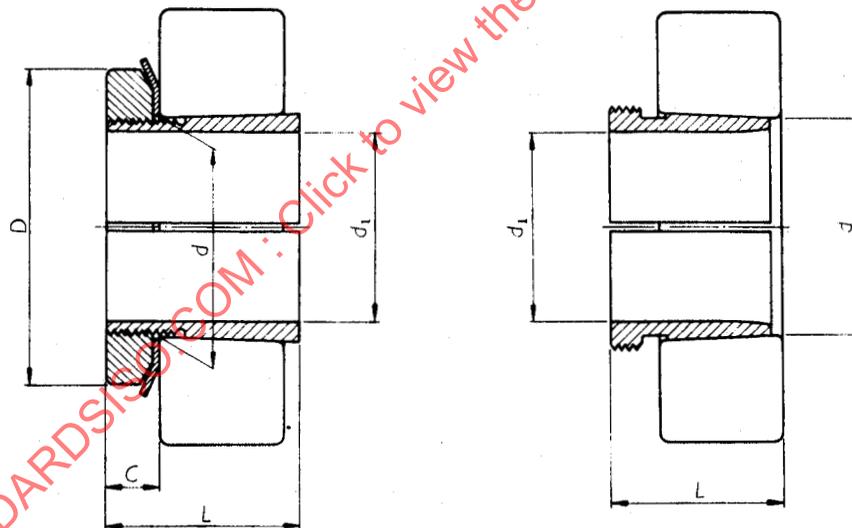
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1. TAPERED MOUNTING SLEEVES

BOUNDARY DIMENSIONS

Symbols



Adapter sleeve

Withdrawal sleeve

d = Bearing bore nominal diameter

d_1 = Sleeve bore diameter

C = Adapter sleeve nominal projection beyond bearing small bore face

D = Nut outside diameter

L = Length of adapter sleeve or nominal overall length of withdrawal sleeve and bearing ring

1.1 Adapter sleeves with taper 1:12

Dimensions in millimetres

Bearing bore nominal diameter <i>d</i>	<i>d</i> ₁	<i>C</i>	<i>D</i>	<i>L</i>				
				suitable for bearing dimension series				
				02	22 and 03	31	32	23
15	12	6	25	19	22	—	—	25
17	14	6	28	20	24	—	—	27
20	17	7	32	24	28	—	—	31
25	20	8	38	26	29	—	—	35
30	25	8	45	27	31	—	—	38
35	30	9	52	29	35	—	—	43
40	35	10	58	31	36	—	—	46
45	40	11	65	33	39	—	—	50
50	45	12	70	35	42	—	—	55
55	50	12	75	37	45	—	—	59
60	55	13	80	38	47	—	—	62
65	60	14	85	40	50	—	—	65
70	60	14	92	41	52	—	—	68
75	65	15	98	43	55	—	—	73
80	70	17	105	46	59	—	—	78
85	75	18	110	50	63	—	—	82
90	80	18	120	52	65	—	86	86
95	85	19	125	55	68	—	90	90
100	90	20	130	58	71	76	97	97
105	95	20	140	60	74	80	101	101
110	100	21	145	63	77	81	105	105
				<i>L</i>			<i>L</i>	
			<i>D</i>	suitable for bearing dimension series 30, 02 and 12		<i>D</i>	suitable for bearing dimension series 31, 22 03 and 13 32 and 23	
120	110	22	145	72	155	88	112	
130	115	23	155	80	165	92	121	
140	125	24	165	82	180	97	131	
150	135	26	180	87	195	111	139	
160	140	28	190	93	210	119	147	
170	150	29	200	101	220	122	154	
180	160	30	210	109	230	131	161	
190	170	31	220	112	240	141	169	
200	180	32	240	120	250	150	176	

1.2 Withdrawal sleeves with taper 1:12

Dimensions in millimetres

Bearing bore nominal diameter <i>d</i>	<i>d</i> ₁	<i>L</i>							Screw thread
		suitable for bearing dimension series							
		02	30	03 and 13	22	31	32	23	
40	35	27	—	32	32	—	—	43	M 45×1.5
45	40	29	—	34	34	—	—	47	M 50×1.5
50	45	31	—	38	38	—	—	53	M 55×2
55	50	32	—	40	40	—	—	57	M 60×2
60	55	35	—	43	43	—	—	61	M 65×2
65	60	36	—	45	45	—	—	64	M 75×2
70	65	37	—	47	47	—	—	68	M 80×2
75	70	38	—	49	49	—	—	72	M 85×2
80	75	39	—	52	52	—	—	75	M 90×2
85	80	42	—	56	56	—	—	78	M 95×2
90	85	44	—	57	57	—	67	83	M 100×2
95	90	47	—	61	61	—	71	89	M 105×2
100	95	49	—	63	63	68	77	94	M 110×2
105	100	51	—	66	66	72	82	—	M 115×2
105	100	—	—	—	—	—	—	98	M 120×2
110	105	54	—	67	72	72	—	—	M 120×2
110	105	—	—	—	—	—	86	102	M 125×2
120	115	57	64	73	79	79	—	—	M 130×2
120	115	—	—	—	—	—	94	109	M 135×2
130	125	57	71	78	82	82	—	—	M 140×2
130	125	—	—	—	—	—	102	119	M 145×2
140	135	61	73	82	88	88	—	—	M 150×2
140	135	—	—	—	—	—	109	130	M 155×3
150	145	65	77	—	—	—	—	—	M 160×3
150	145	—	—	88	101	101	119	140	M 165×3
160	150	69	82	—	—	—	—	—	M 170×3
160	150	—	—	93	108	108	130	146	M 180×3
170	160	74	90	—	—	—	—	—	M 180×3
170	160	—	—	98	109	109	140	152	M 190×3
180	170	74	98	—	—	—	—	—	M 190×3
180	170	—	—	—	110	122	146	160	M 200×3
190	180	78	102	—	—	—	—	—	Tr 205×4
190	180	—	—	—	117	131	152	167	Tr 210×4

1.2 Withdrawal sleeves with taper 1:12 (concluded)

Dimensions in millimetres

Bearing bore nominal diameter <i>d</i>	<i>d</i> ₁	<i>L</i>						Screw thread
		suitable for bearing dimension series						
		02	30	22	31	32	23	
200	190	82	108	—	—	—	—	Tr 215×4
200	190	—	—	123	140	160	177	Tr 220×4
220	200	91	117	—	—	—	—	Tr 235×4
220	200	—	—	136	151	189	189	Tr 240×4
240	220	102	123	150	161	197	197	Tr 260×4
260	240	111	135	—	—	—	—	Tr 280×4
260	240	—	—	161	179	213	213	Tr 290×4
280	260	113	139	—	—	—	—	Tr 300×4
280	260	—	—	163	183	220	220	Tr 310×5
300	280	—	153	—	—	—	—	Tr 320×5
300	280	—	—	178	200	236	—	Tr 330×5
320	300	—	157	—	—	—	—	Tr 345×5
320	300	—	—	190	217	254	—	Tr 350×5
340	320	—	171	—	—	—	—	Tr 365×5
340	320	—	—	—	234	273	—	Tr 370×5
360	340	—	176	—	—	—	—	Tr 385×5
360	340	—	—	—	238	283	—	Tr 400×5
380	360	—	180	—	—	—	—	Tr 410×5
380	360	—	—	—	242	294	—	Tr 420×5
400	380	—	193	—	—	—	—	Tr 430×5
400	380	—	—	—	250	312	—	Tr 440×5
420	400	—	196	—	—	—	—	Tr 450×5
420	400	—	—	—	276	331	—	Tr 460×5
440	420	—	205	—	—	—	—	Tr 470×5
440	420	—	—	—	281	341	—	Tr 480×5
460	440	—	213	—	—	—	—	Tr 490×5
460	440	—	—	—	296	360	—	Tr 510×6
480	460	—	217	—	—	—	—	Tr 520×6
480	460	—	—	—	307	376	—	Tr 530×6
500	480	—	221	—	—	—	—	Tr 540×6
500	480	—	—	—	325	405	—	Tr 550×6