

JIS

JAPANESE INDUSTRIAL STANDARD

**Rolling bearings—
Boundary dimensions**

JIS B 1512—1995

Translated and Published

by

Japanese Standards Association

Printed in Japan

In the event of any doubt arising,
the original Standard in Japanese is to be final authority.

JAPANESE INDUSTRIAL STANDARD

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Rolling bearings — Boundary dimensions

B 1512-1995

1. Scope This Japanese Industrial Standard specifies the boundary dimensions of the rolling bearings (hereafter, referred to as "bearings").

Further, the following dimensions are specified in Annexes 1 to 5.

- (1) Snap ring groove dimensions and chamfer dimensions of radial bearings with snap ring groove
- (2) Flange dimensions of flanged radial ball bearings
- (3) Flange dimensions of flanged tapered roller bearings
- (4) Chamfer dimensions of ribless side and rib ring of bearing ring of single row cylindrical roller bearings
- (5) Chamfer dimensions of front face side of outer ring of angular contact ball bearings

Remarks 1. The following standard is cited in this Standard:

JIS B 0104 Rolling bearings — Vocabulary

2. The International Standards corresponding to this Standard are as given in the following:

ISO 15:1981 Rolling bearings — Radial bearings —
Boundary dimensions — General plan

ISO 104: 1979 Rolling bearings — Thrust bearings with flat
back faces — Boundary dimensions

ISO 355: 1977 Rolling bearings — Metric tapered roller
bearings — Boundary dimensions and series
designations

ISO 355/Addendum 1: 1980 Metric tapered roller bearings —
Double row bearings — Bound-
ary dimensions

ISO 355/Addendum 2: 1980 Metric tapered roller bearings —
Flanged cups — Boundary
dimensions

ISO 464: 1976 Rolling bearings with locating snap ring —
Dimensions

ISO 3030: 1974 Needle roller bearings — Needle roller and
cage assemblies — Metric series — Part 1:
Radial needle roller and cage assemblies —
Boundary dimensions and tolerances

ISO 3031: 1979 Needle roller bearings — Thrust needle
roller and cage assemblies, thrust washers —
Dimensions and tolerances

- ISO 3245: 1974 Rolling bearings — Needle roller bearings, drawn cup without inner ring — Metric series — Boundary dimensions and tolerances
- ISO 8443: 1985 Radial ball bearings with flanged outer ring — Flange dimensions
- ISO 12043: 1995 Cylindrical single-row roller bearings — Chamfers for inner and outer ring non-rib sides and loose ribs — Minimum dimensions
- ISO 12044: 1995 Angular contact single-row ball bearings — Chamfers for non-thrust side of angular contact ball bearings outer rings — Minimum dimensions

2. Definitions For the main terms used in this Standard, definitions in JIS B 0104 apply.

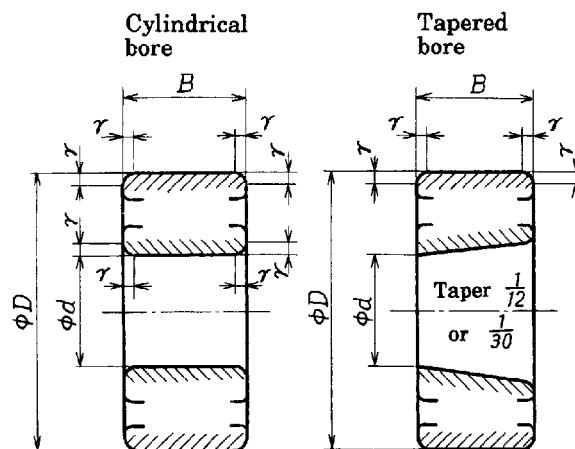
3. Quantitative symbols The quantitative symbols to be used in this Standard shall be in accordance with the following:

(1) Radial bearings

(excluding tapered roller bearings) (excluding tapered roller bearings)

- d : nominal bearing bore diameter
- D : nominal bearing outside diameter
- B : nominal bearing width
- r : chamfer dimension of inner and outer rings
- $r_{\min}$: smallest permissible single chamfer dimension of inner and outer rings

Fig. 1. Radial bearing



(2) Single row tapered roller bearings

- d : nominal bearing bore diameter
 D : nominal bearing outside diameter
 T : nominal assembled bearing width
 B : nominal inner ring width
 C : nominal outer ring width
 E : nominal diameter at small end of outer ring
 α : nominal contact angle
 r : chamfer dimension of inner ring
 r_1 : chamfer dimension of outer ring
 r_{smin} : smallest permissible single chamfer dimension of inner ring
 r_{lsmin} : smallest permissible single chamfer dimension of outer ring

Fig. 2. Single row tapered roller bearing

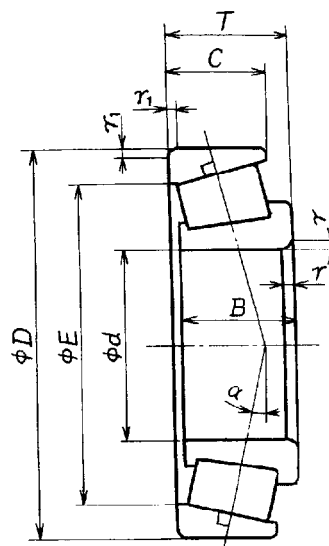
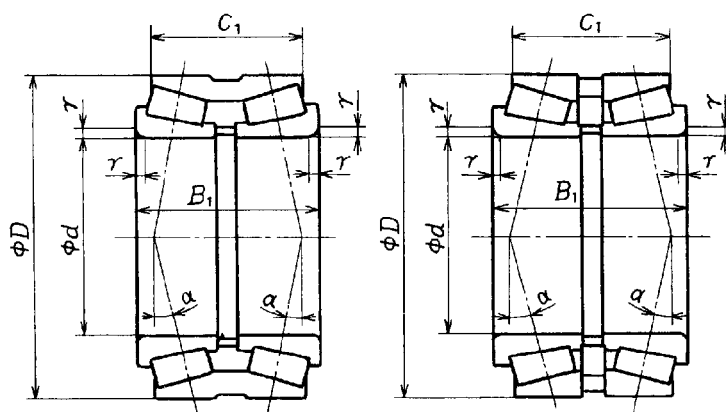
(3) Double row tapered roller bearings

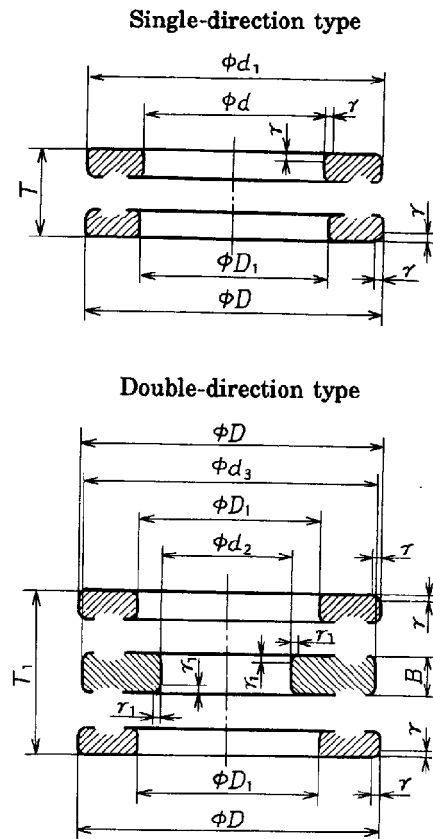
Fig. 3. Double row tapered roller bearing

- d : nominal bearing bore diameter
 D : nominal bearing outside diameter
 B_1 : nominal overall width of inner ring
 C_1 : nominal double row outer ring width or nominal overall width of outer ring
 r : chamfer dimension of inner ring
 r_{smin} : smallest permissible single chamfer dimension of inner ring
 α : nominal contact angle



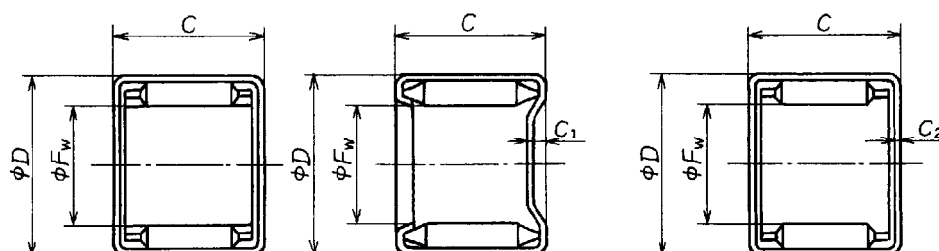
(4) Thrust bearing (flat back face type)

- d : nominal bore diameter of single-direction bearing
 d_1 : nominal outside diameter of shaft washer
 $d_{1\text{max}}$: largest permissible single outside diameter of shaft washer
 d_2 : nominal bore diameter of double-direction bearing
 d_3 : nominal outside diameter of central washer
 $d_{3\text{max}}$: largest permissible single outside diameter of central washer
 D : nominal bearing outside diameter
 D_1 : nominal bore diameter of housing washer
 $D_{1\text{min}}$: smallest permissible single bore diameter of housing washer
 T : nominal height of single-direction bearing
 T_1 : nominal height of double-direction bearing
 B : height of central washer
 r : chamfer dimension of shaft washer and housing washer
 r_{min} : smallest permissible single chamfer dimension of shaft washer and housing washer
 r_1 : chamfer dimension of central washer
 $r_{1\text{min}}$: smallest permissible single chamfer dimension of central washer

Fig. 4. Thrust bearings
(flat back face type)(5) Drawn cup needle roller bearing

- D : nominal bearing outside diameter
 F_w : roller complement nominal bore diameter
 C : nominal outer ring width
 C_1 : dimension from the profiled end drawn cup to the bottom face
 C_2 : thickness of flat end drawn cup

Fig. 5. Drawn cup needle roller bearings



(6) Needle roller and cage radial assembly E_w : nominal roller set outside diameter F_w : nominal roller set bore diameter B_c : nominal cage width

Fig. 6. Needle roller and cage radial assembly

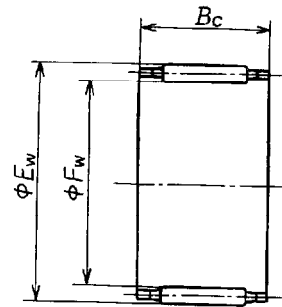
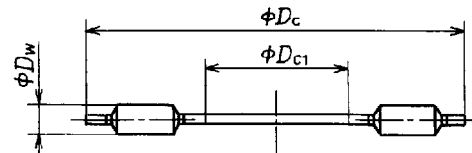
(7) Needle roller and cage thrust assembly D_c : nominal cage outside diameter D_{c1} : nominal cage inside diameter D_w : nominal diameter of needle roller

Fig. 7. Needle roller and cage thrust assembly



4. Boundary dimensions The boundary dimensions of bearings shall be in accordance with Attached Tables.

Further, summary of Attached Tables is shown in Table 1.

Table 1. Summary of Attached Tables

Type of bearing	Figure	Attached Table	Diameter series
(1) Radial bearings (excluding tapered roller bearings)	1	1-1	7
		1-2	8
		1-3	9
		1-4	0
		1-5	1
		1-6	2
		1-7	3
		1-8	4
(2) Single row tapered roller bearings	2	2-1	9
			0
			1
		2-2	2
		2-3	3
		2-4	—

Table 1. (continued)

Type of bearing		Figure	Attached Table	Diameter series
(3) Double row tapered roller bearings		3	3-1	0
			3-2	3
			3-3	—
(4) Thrust bearings (flat back face type)	Single-direction type	4	4-1	0
			4-2	1
			4-3	2
			4-4	3
			4-5	4
			4-6	5
	Double-direction type		4-7	2
			4-8	3
			4-9	4
(5) Drawn cup needle roller bearings		5	5-1	1D
			5-2	2D
(6) Needle roller and cage radial assembly		6	6-1	1C, 2C
			6-2	3C, 4C, 5C
(7) Needle roller and cage thrust assembly		7	7	—

Remarks 1. The chamfer dimensions shall be applicable only to the corners indicated by r or r_1 in Figs. 1 to 4, and shall be specified by the smallest permissible single chamfer dimension r_{min} or $r_{1\text{min}}$.

Further, the chamfer shape is not specified, however, it shall not extend to outside the circular arc of radius r_{min} or $r_{1\text{min}}$ contacting with the side face and inside diameter or outside diameter.

2. The chamfer dimension of radial bearings (excluding the tapered roller bearings) shall not necessarily be applied to the corners of the front side of inner ring of the angular contact ball bearing.

3. The basic value of the taper ratio of the tapered hole of the radial bearings (excluding the tapered roller bearings) shall be $\frac{1}{12}$ or $\frac{1}{30}$.

Attached Table 1-1. Radial bearings of diameter series 7

Unit: mm

<i>d</i>	<i>D</i>	Dimension series			
		17	27 ⁽¹⁾	37	17~37
		<i>B</i>			<i>r</i> _{min}
0.6	2	0.8	—	—	0.05
1	2.5	1	—	—	0.05
1.5	3	1	—	1.8	0.05
2	4	1.2	—	2	0.05
2.5	5	1.5	—	2.3	0.08
3	6	2	2.5	3	0.08
4	7	2	2.5	3	0.08
5	8	2	2.5	3	0.08
6	10	2.5	3	3.5	0.1
7	11	2.5	3	3.5	0.1
8	12	2.5	—	3.5	0.1
9	14	3	—	4.5	0.1
10	15	3	—	4.5	0.1
12	18	4	—	5	0.2
15	21	4	—	5	0.2
17	23	4	—	5	0.2
20	27	4	—	5	0.2
25	32	4	—	5	0.2
30	37	4	—	5	0.2

Note (1) This dimension series is not specified in ISO standard.

Attached Table 1-2. Radial bearings of diameter series 8

Unit: mm

<i>d</i>	<i>D</i>	Dimension series								
		08	18	28	38	48	58	68	08	18~68
		<i>B</i>								<i>r_{min}</i>
0.6	2.5	—	1	—	1.4	—	—	—	—	0.05
1	3	—	1	—	1.5	—	—	—	—	0.05
1.5	4	—	1.2	—	2	—	—	—	—	0.05
2	5	—	1.5	—	2.3	—	—	—	—	0.08
2.5	6	—	1.8	—	2.6	—	—	—	—	0.08
3	7	—	2	—	3	—	—	—	—	0.1
4	9	—	2.5	3.5	4	—	—	—	—	0.1
5	11	—	3	4	5	—	—	—	—	0.15
6	13	—	3.5	5	6	—	—	—	—	0.15
7	14	—	3.5	5	6	—	—	—	—	0.15
8	16	—	4	5	6	8	—	—	—	0.2
9	17	—	4	5	6	8	—	—	—	0.2
10	19	—	5	6	7	9	—	—	—	0.3
12	21	—	5	6	7	9	—	—	—	0.3
15	24	—	5	6	7	9	—	—	—	0.3
17	26	—	5	6	7	9	—	—	—	0.3
20	32	4	7	8	10	12	16	22	0.3	0.3
22	34	4	7	—	10	—	16	22	0.3	0.3
25	37	4	7	8	10	12	16	22	0.3	0.3
28	40	4	7	—	10	—	16	22	0.3	0.3
30	42	4	7	8	10	12	16	22	0.3	0.3
32	44	4	7	—	10	—	16	22	0.3	0.3
35	47	4	7	8	10	12	16	22	0.3	0.3
40	52	4	7	8	10	12	16	22	0.3	0.3
45	58	4	7	8	10	13	18	23	0.3	0.3
50	65	5	7	10	12	15	20	27	0.3	0.3
55	72	7	9	11	13	17	23	30	0.3	0.3
60	78	7	10	12	14	18	24	32	0.3	0.3
65	85	7	10	13	15	20	27	36	0.3	0.6
70	90	8	10	13	15	20	27	36	0.3	0.6
75	95	8	10	13	15	20	27	36	0.3	0.6
80	100	8	10	13	15	20	27	36	0.3	0.6
85	110	9	13	16	19	25	34	45	0.3	1
90	115	9	13	16	19	25	34	45	0.3	1
95	120	9	13	16	19	25	34	45	0.3	1
100	125	9	13	16	19	25	34	45	0.3	1
105	130	9	13	16	19	25	34	45	0.3	1
110	140	10	16	19	23	30	40	54	0.6	1
120	150	10	16	19	23	30	40	54	0.6	1
130	165	11	18	22	26	35	46	63	0.6	1.1
140	175	11	18	22	26	35	46	63	0.6	1.1
150	190	13	20	24	30	40	54	71	0.6	1.1
160	200	13	20	24	30	40	54	71	0.6	1.1
170	215	14	22	27	34	45	60	80	0.6	1.1
180	225	14	22	27	34	45	60	80	0.6	1.1

Attached Table 1-2. (continued)

Unit: mm

<i>d</i>	<i>D</i>	Dimension series								
		08	18	28	38	48	58	68	08	18~68
		<i>B</i>							<i>r</i> _{min}	
190	240	16	24	30	37	50	67	90	1	1.5
200	250	16	24	30	37	50	67	90	1	1.5
220	270	16	24	30	37	50	67	90	1	1.5
240	300	19	28	36	45	60	80	109	1	2
260	320	19	28	36	45	60	80	109	1	2
280	350	22	33	42	52	69	95	125	1.1	2
300	380	25	38	48	60	80	109	145	1.5	2.1
320	400	25	38	48	60	80	109	145	1.5	2.1
340	420	25	38	48	60	80	109	145	1.5	2.1
360	440	25	38	48	60	80	109	145	1.5	2.1
380	480	31	46	60	75	100	136	180	2	2.1
400	500	31	46	60	75	100	136	180	2	2.1
420	520	31	46	60	75	100	136	180	2	2.1
440	540	31	46	60	75	100	136	180	2	2.1
460	580	37	56	72	90	118	160	218	2.1	3
480	600	37	56	72	90	118	160	218	2.1	3
500	620	37	56	72	90	118	160	218	2.1	3
530	650	37	56	72	90	118	160	218	2.1	3
560	680	37	56	72	90	118	160	218	2.1	3
600	730	42	60	78	98	128	175	236	3	3
630	780	48	69	88	112	150	200	272	3	4
670	820	48	69	88	112	150	200	272	3	4
710	870	50	74	95	118	160	218	290	4	4
750	920	54	78	100	128	170	230	308	4	5
800	980	57	82	106	136	180	243	325	4	5
850	1 030	57	82	106	136	180	243	325	4	5
900	1 090	60	85	112	140	190	258	345	5	5
950	1 150	63	90	118	150	200	272	355	5	5
1 000	1 220	71	100	128	165	218	300	400	5	6
1 060	1 280	71	100	128	165	218	300	400	5	6
1 120	1 360	78	106	140	180	243	325	438	5	6
1 180	1 420	78	106	140	180	243	325	438	5	6
1 250	1 500	80	112	145	185	250	335	450	6	6
1 320	1 600	88	122	165	206	280	375	500	6	6
1 400	1 700	95	132	175	224	300	400	545	6	7.5
1 500	1 820	—	140	185	243	315	—	—	—	7.5
1 600	1 950	—	155	200	265	345	—	—	—	7.5
1 700	2 060	—	160	206	272	355	—	—	—	7.5
1 800	2 180	—	165	218	290	375	—	—	—	9.5
1 900	2 300	—	175	230	300	400	—	—	—	9.5
2 000	2 430	—	190	250	325	425	—	—	—	9.5

Attached Table 1-3. Radial bearings of diameter series 9

Unit: mm

<i>d</i>	<i>D</i>	Dimension series									
		09	19	29	39	49	59	69	09	19~39	49~69
		<i>B</i>							<i>r_{min}</i>		
1	4	—	1.6	—	2.3	—	—	—	—	0.1	—
1.5	5	—	2	—	2.6	—	—	—	—	0.15	—
2	6	—	2.3	—	3	—	—	—	—	0.15	—
2.5	7	—	2.5	—	3.5	—	—	—	—	0.15	—
3	8	—	3	—	4	—	—	—	—	0.15	—
4	11	—	4	—	5	—	—	—	—	0.15	—
5	13	—	4	—	6	10	—	—	—	0.2	0.15
6	15	—	5	—	7	10	—	—	—	0.2	0.15
7	17	—	5	—	7	10	—	—	—	0.3	0.15
8	19	—	6	—	9	11	—	—	—	0.3	0.2
9	20	—	6	—	9	11	—	—	—	0.3	0.3
10	22	—	6	8	10	13	16	22	—	0.3	0.3
12	24	—	6	8	10	13	16	22	—	0.3	0.3
15	28	—	7	8.5	10	13	18	23	—	0.3	0.3
17	30	—	7	8.5	10	13	18	23	—	0.3	0.3
20	37	7	9	11	13	17	23	30	0.3	0.3	0.3
22	39	7	9	11	13	17	23	30	0.3	0.3	0.3
25	42	7	9	11	13	17	23	30	0.3	0.3	0.3
28	45	7	9	11	13	17	23	30	0.3	0.3	0.3
30	47	7	9	11	13	17	23	30	0.3	0.3	0.3
32	52	7	10	13	15	20	27	36	0.3	0.6	0.6
35	55	7	10	13	15	20	27	36	0.3	0.6	0.6
40	62	8	12	14	16	22	30	40	0.3	0.6	0.6
45	68	8	12	14	16	22	30	40	0.3	0.6	0.6
50	72	8	12	14	16	22	30	40	0.3	0.6	0.6
55	80	9	13	16	19	25	34	45	0.3	1	1
60	85	9	13	16	19	25	34	45	0.3	1	1
65	90	9	13	16	19	25	34	45	0.3	1	1
70	100	10	16	19	23	30	40	54	0.6	1	1
75	105	10	16	19	23	30	40	54	0.6	1	1
80	110	10	16	19	23	30	40	54	0.6	1	1
85	120	11	18	22	26	35	46	63	0.6	1.1	1.1
90	125	11	18	22	26	35	46	63	0.6	1.1	1.1
95	130	11	18	22	26	35	46	63	0.6	1.1	1.1
100	140	13	20	24	30	40	54	71	0.6	1.1	1.1
105	145	13	20	24	30	40	54	71	0.6	1.1	1.1
110	150	13	20	24	30	40	54	71	0.6	1.1	1.1
120	165	14	22	27	34	45	60	80	0.6	1.1	1.1
130	180	16	24	30	37	50	67	90	1	1.5	1.5
140	190	16	24	30	37	50	67	90	1	1.5	1.5
150	210	19	28	36	45	60	80	109	1	2	2
160	220	19	28	36	45	60	80	109	1	2	2
170	230	19	28	36	45	60	80	109	1	2	2
180	250	22	33	42	52	69	95	125	1.1	2	2
190	260	22	33	42	52	69	95	125	1.1	2	2

Attached Table 1-3. (continued)

Unit: mm

<i>d</i>	<i>D</i>	Dimension series									
		09	19	29	39	49	59	69	09	19~39	49~69
		<i>B</i>							<i>r</i> _{min}		
200	280	25	38	48	60	80	109	145	1.5	2.1	2.1
220	300	25	38	48	60	80	109	145	1.5	2.1	2.1
240	320	25	38	48	60	80	109	145	1.5	2.1	2.1
260	360	31	46	60	75	100	136	180	2	2.1	2.1
280	380	31	46	60	75	100	136	180	2	2.1	2.1
300	420	37	56	72	90	118	160	218	2.1	3	3
320	440	37	56	72	90	118	160	218	2.1	3	3
340	460	37	56	72	90	118	160	218	2.1	3	3
360	480	37	56	72	90	118	160	218	2.1	3	3
380	520	44	65	82	106	140	190	250	3	4	4
400	540	44	65	82	106	140	190	250	3	4	4
420	560	44	65	82	106	140	190	250	3	4	4
440	600	50	74	95	118	160	218	290	4	4	4
460	620	50	74	95	118	160	218	290	4	4	4
480	650	54	78	100	128	170	230	308	4	5	5
500	670	54	78	100	128	170	230	308	4	5	5
530	710	57	82	106	136	180	243	325	4	5	5
560	750	60	85	112	140	190	258	345	5	5	5
600	800	63	90	118	150	200	272	355	5	5	5
630	850	71	100	128	165	218	300	400	5	6	6
670	900	73	103	136	170	230	308	412	5	6	6
710	950	78	106	140	180	243	325	438	5	6	6
750	1 000	80	112	145	185	250	335	450	6	6	6
800	1 060	82	115	150	195	258	355	462	6	6	6
850	1 120	85	118	155	200	272	365	488	6	6	6
900	1 180	88	122	165	206	280	375	500	6	6	6
950	1 250	95	132	175	224	300	400	545	6	7.5	7.5
1 000	1 320	103	140	185	236	315	438	580	6	7.5	7.5
1 060	1 400	109	150	195	250	335	462	615	7.5	7.5	7.5
1 120	1 460	109	150	195	250	335	462	615	7.5	7.5	7.5
1 180	1 540	115	160	206	272	355	488	650	7.5	7.5	7.5
1 250	1 630	122	170	218	280	375	515	690	7.5	7.5	7.5
1 320	1 720	128	175	230	300	400	545	710	7.5	7.5	7.5
1 400	1 820	—	185	243	315	425	—	—	—	9.5	9.5
1 500	1 950	—	195	258	335	450	—	—	—	9.5	9.5
1 600	2 060	—	200	265	345	462	—	—	—	9.5	9.5
1 700	2 180	—	212	280	355	475	—	—	—	9.5	9.5
1 800	2 300	—	218	290	375	500	—	—	—	12	12
1 900	2 430	—	230	308	400	530	—	—	—	12	12

Attached Table 1-4. Radial bearings of diameter series 0

Unit: mm

<i>d</i>	<i>D</i>	Dimension series								
		00	10	20	30	40	50	60	00	10~60
		<i>B</i>							<i>r</i> _{min}	
1.5	6	—	2.5	—	3	—	—	—	—	0.15
2	7	—	2.8	—	3.5	—	—	—	—	0.15
2.5	8	—	2.8	—	4	—	—	—	—	0.15
3	9	—	3	—	5	—	—	—	—	0.15
4	12	—	4	—	6	—	—	—	—	0.2
5	14	—	5	—	7	—	—	—	—	0.2
6	17	—	6	—	9	—	—	—	—	0.3
7	19	—	6	8	10	—	—	—	—	0.3
8	22	—	7	9	11	14	19	25	—	0.3
9	24	—	7	10	12	15	20	27	—	0.3
10	26	—	8	10	12	16	21	29	—	0.3
12	28	7	8	10	12	16	21	29	0.3	0.3
15	32	8	9	11	13	17	23	30	0.3	0.3
17	35	8	10	12	14	18	24	32	0.3	0.3
20	42	8	12	14	16	22	30	40	0.3	0.6
22	44	8	12	14	16	22	30	40	0.3	0.6
25	47	8	12	14	16	22	30	40	0.3	0.6
28	52	8	12	15	18	24	32	43	0.3	0.6
30	55	9	13	16	19	25	34	45	0.3	1
32	58	9	13	16	20	26	35	47	0.3	1
35	62	9	14	17	20	27	36	48	0.3	1
40	68	9	15	18	21	28	38	50	0.3	1
45	75	10	16	19	23	30	40	54	0.6	1
50	80	10	16	19	23	30	40	54	0.6	1
55	90	11	18	22	26	35	46	63	0.6	1.1
60	95	11	18	22	26	35	46	63	0.6	1.1
65	100	11	18	22	26	35	46	63	0.6	1.1
70	110	13	20	24	30	40	54	71	0.6	1.1
75	115	13	20	24	30	40	54	71	0.6	1.1
80	125	14	22	27	34	45	60	80	0.6	1.1
85	130	14	22	27	34	45	60	80	0.6	1.1
90	140	16	24	30	37	50	67	90	1	1.5
95	145	16	24	30	37	50	67	90	1	1.5
100	150	16	24	30	37	50	67	90	1	1.5
105	160	18	26	33	41	56	75	100	1	2
110	170	19	28	36	45	60	80	109	1	2
120	180	19	28	36	46	60	80	109	1	2
130	200	22	33	42	52	69	95	125	1.1	2
140	210	22	33	42	53	69	95	125	1.1	2
150	225	24	35	45	56	75	100	136	1.1	2.1
160	240	25	38	48	60	80	109	145	1.5	2.1
170	260	28	42	54	67	90	122	160	1.5	2.1
180	280	31	46	60	74	100	136	180	2	2.1
190	290	31	46	60	75	100	136	180	2	2.1
200	310	34	51	66	82	109	150	200	2	2.1

Attached Table 1-4. (continued)

Unit: mm

<i>d</i>	<i>D</i>	Dimension series								
		00	10	20	30	40	50	60	00	10~60
		<i>B</i>							<i>r</i> _{min}	
220	340	37	56	72	90	118	160	218	2.1	3
240	360	37	56	72	92	118	160	218	2.1	3
260	400	44	65	82	104	140	190	250	3	4
280	420	44	65	82	106	140	190	250	3	4
300	460	50	74	95	118	160	218	290	4	4
320	480	50	74	95	121	160	218	290	4	4
340	520	57	82	106	133	180	243	325	4	5
360	540	57	82	106	134	180	243	325	4	5
380	560	57	82	106	135	180	243	325	4	5
400	600	63	90	118	148	200	272	355	5	5
420	620	63	90	118	150	200	272	355	5	5
440	650	67	94	122	157	212	280	375	5	6
460	680	71	100	128	163	218	300	400	5	6
480	700	71	100	128	165	218	300	400	5	6
500	720	71	100	128	167	218	300	400	5	6
530	780	80	112	145	185	250	335	450	6	6
560	820	82	115	150	195	258	355	462	6	6
600	870	85	118	155	200	272	365	488	6	6
630	920	92	128	170	212	290	388	515	6	7.5
670	980	100	136	180	230	308	425	560	6	7.5
710	1 030	103	140	185	236	315	438	580	6	7.5
750	1 090	109	150	195	250	335	462	615	7.5	7.5
800	1 150	112	155	200	258	345	475	630	7.5	7.5
850	1 220	118	165	212	272	365	500	670	7.5	7.5
900	1 280	122	170	218	280	375	515	690	7.5	7.5
950	1 360	132	180	236	300	412	560	730	7.5	7.5
1 000	1 420	136	185	243	308	412	560	750	7.5	7.5
1 060	1 500	140	195	250	325	438	600	800	9.5	9.5
1 120	1 580	145	200	265	345	462	615	825	9.5	9.5
1 180	1 660	155	212	272	355	475	650	875	9.5	9.5
1 250	1 750	—	218	290	375	500	—	—	—	9.5
1 320	1 850	—	230	300	400	530	—	—	—	12
1 400	1 950	—	243	315	412	545	—	—	—	12
1 500	2 120	—	272	355	462	615	—	—	—	12
1 600	2 240	—	280	365	475	630	—	—	—	12
1 700	2 360	—	290	375	500	650	—	—	—	15
1 800	2 500	—	308	400	530	690	—	—	—	15

Attached Table 1-5. Radial bearings of diameter series 1

Unit: mm

<i>d</i>	<i>D</i>	Dimension series						
		01	11	21	31	41	01	11~41
		<i>B</i>					<i>r_{smin}</i>	
90	150	—	—	—	—	60	—	2
95	160	—	—	—	—	65	—	2
100	165	21	30	39	52	65	1.1	2
105	175	22	33	42	56	69	1.1	2
110	180	22	33	42	56	69	1.1	2
120	200	25	38	48	62	80	1.5	2
130	210	25	38	48	64	80	1.5	2
140	225	27	40	50	68	85	1.5	2.1
150	250	31	46	60	80	100	2	2.1
160	270	34	51	66	86	109	2	2.1
170	280	34	51	66	88	109	2	2.1
180	300	37	56	72	96	118	2.1	3
190	320	42	60	78	104	128	3	3
200	340	44	65	82	112	140	3	3
220	370	48	69	88	120	150	3	4
240	400	50	74	95	128	160	4	4
260	440	57	82	106	144	180	4	4
280	460	57	82	106	146	180	4	5
300	500	63	90	118	160	200	5	5
320	540	71	100	128	176	218	5	5
340	580	78	106	140	190	243	5	5
360	600	78	106	140	192	243	5	5
380	620	78	106	140	194	243	5	5
400	650	80	112	145	200	250	6	6
420	700	88	122	165	224	280	6	6
440	720	88	122	165	226	280	6	6
460	760	95	132	175	240	300	6	7.5
480	790	100	136	180	248	308	6	7.5
500	830	106	145	190	264	325	7.5	7.5
530	870	109	150	195	272	335	7.5	7.5
560	920	115	160	206	280	355	7.5	7.5
600	980	122	170	218	300	375	7.5	7.5
630	1 030	128	175	230	315	400	7.5	7.5
670	1 090	136	185	243	336	412	7.5	7.5
710	1 150	140	195	250	345	438	9.5	9.5
750	1 220	150	206	272	365	475	9.5	9.5
800	1 280	155	212	272	375	475	9.5	9.5
850	1 360	165	224	290	400	500	12	12
900	1 420	165	230	300	412	515	12	12
950	1 500	175	243	315	438	545	12	12
1 000	1 580	185	258	335	462	580	12	12
1 060	1 660	190	265	345	475	600	12	15
1 120	1 750	—	280	365	475	630	—	15
1 180	1 850	—	290	388	500	670	—	15
1 250	1 950	—	308	400	530	710	—	15
1 320	2 060	—	325	425	560	750	—	15
1 400	2 180	—	345	450	580	775	—	19
1 500	2 300	—	355	462	600	800	—	19

Attached Table 1-6. Radial bearings of diameter series 2

Unit: mm

<i>d</i>	<i>D</i>	Dimension series							
		82	02	12	22	32	42	82	02~42
		<i>B</i>						r_{min}	
3	10	2.5	4	—	—	5	—	0.1	0.15
4	13	3	5	—	—	7	—	0.15	0.2
5	16	3.5	5	—	—	8	—	0.15	0.3
6	19	4	6	—	—	10	—	0.2	0.3
7	22	5	7	—	—	11	—	0.3	0.3
8	24	5	8	—	—	12	—	0.3	0.3
9	26	6	8	—	—	13	—	0.3	0.3
10	30	7	9	—	14	14.3	—	0.3	0.6
12	32	7	10	—	14	15.9	—	0.3	0.6
15	35	8	11	—	14	15.9	20	0.3	0.6
17	40	8	12	—	16	17.5	22	0.3	0.6
20	47	9	14	—	18	20.6	27	0.3	1
22	50	9	14	—	18	20.6	27	0.3	1
25	52	10	15	—	18	20.6	27	0.3	1
28	58	10	16	—	19	23	30	0.6	1
30	62	10	16	—	20	23.8	32	0.6	1
32	65	11	17	—	21	25	33	0.6	1
35	72	12	17	—	23	27	37	0.6	1.1
40	80	13	18	—	23	30.2	40	0.6	1.1
45	85	13	19	—	23	30.2	40	0.6	1.1
50	90	13	20	—	23	30.2	40	0.6	1.1
55	100	14	21	—	25	33.3	45	0.6	1.5
60	110	16	22	—	28	36.5	50	1	1.5
65	120	18	23	—	31	38.1	56	1	1.5
70	125	18	24	—	31	39.7	56	1	1.5
75	130	18	25	—	31	41.3	56	1	1.5
80	140	19	26	—	33	44.4	60	1	2
85	150	21	28	—	36	49.2	65	1.1	2
90	160	22	30	—	40	52.4	69	1.1	2
95	170	24	32	—	43	55.6	75	1.1	2.1
100	180	25	34	—	46	60.3	80	1.5	2.1
105	190	27	36	—	50	65.1	85	1.5	2.1
110	200	28	38	—	53	69.8	90	1.5	2.1
120	215	—	40	42	58	76	95	—	2.1
130	230	—	40	46	64	80	100	—	3
140	250	—	42	50	68	88	109	—	3
150	270	—	45	54	73	96	118	—	3
160	290	—	48	58	80	104	128	—	3
170	310	—	52	62	86	110	140	—	4
180	320	—	52	62	86	112	140	—	4
190	340	—	55	65	92	120	150	—	4
200	360	—	58	70	98	128	160	—	4
220	400	—	65	78	108	144	180	—	4
240	440	—	72	85	120	160	200	—	4
260	480	—	80	90	130	174	218	—	5

Attached Table 1-6. (continued)

Unit: mm

<i>d</i>	<i>D</i>	Dimension series							
		82	02	12	22	32	42	82	02~42
		<i>B</i>						<i>r</i> _{min}	
280	500	—	80	90	130	176	218	—	5
300	540	—	85	98	140	192	243	—	5
320	580	—	92	105	150	208	258	—	5
340	620	—	92	118	165	224	280	—	6
360	650	—	95	122	170	232	290	—	6
380	680	—	95	132	175	240	300	—	6
400	720	—	103	140	185	256	315	—	6
420	760	—	109	150	195	272	335	—	7.5
440	790	—	112	155	200	280	345	—	7.5
460	830	—	118	165	212	296	365	—	7.5
480	870	—	125	170	224	310	388	—	7.5
500	920	—	136	185	243	336	412	—	7.5
530	980	—	145	200	258	355	450	—	9.5
560	1 030	—	150	206	272	365	475	—	9.5
600	1 090	—	155	212	280	388	488	—	9.5
630	1 150	—	165	230	300	412	515	—	12
670	1 220	—	175	243	315	438	545	—	12
710	1 280	—	180	250	325	450	560	—	12
750	1 360	—	195	265	345	475	615	—	15
800	1 420	—	200	272	355	488	615	—	15
850	1 500	—	206	280	375	515	650	—	15
900	1 580	—	218	300	388	515	670	—	15
950	1 660	—	230	315	412	530	710	—	15
1 000	1 750	—	243	330	425	560	750	—	15

Attached Table 1-7. Radial bearings of diameter series 3

Unit: mm

<i>d</i>	<i>D</i>	Dimension series						
		83	03	13	23	33	83	03~33
		<i>B</i>					<i>r</i> _{min}	
3	13	—	5	—	—	7	—	0.2
4	16	—	5	—	—	9	—	0.3
5	19	—	6	—	—	10	—	0.3
6	22	—	7	—	11	13	—	0.3
7	26	—	9	—	13	15	—	0.3
8	28	—	9	—	13	15	—	0.3
9	30	—	10	—	14	16	—	0.6
10	35	9	11	—	17	19	0.3	0.6
12	37	9	12	—	17	19	0.3	1
15	42	9	13	—	17	19	0.3	1
17	47	10	14	—	19	22.2	0.6	1
20	52	10	15	—	21	22.2	0.6	1.1
22	56	11	16	—	21	25	0.6	1.1
25	62	12	17	—	24	25.4	0.6	1.1
28	68	13	18	—	24	30	0.6	1.1
30	72	13	19	—	27	30.2	0.6	1.1
32	75	14	20	—	28	32	0.6	1.1
35	80	14	21	—	31	34.9	0.6	1.5
40	90	16	23	—	33	36.5	1	1.5
45	100	17	25	—	36	39.7	1	1.5
50	110	19	27	—	40	44.4	1	2
55	120	21	29	—	43	49.2	1.1	2
60	130	22	31	—	46	54	1.1	2.1
65	140	24	33	—	48	58.7	1.1	2.1
70	150	25	35	—	51	63.5	1.5	2.1
75	160	27	37	—	55	68.3	1.5	2.1
80	170	28	39	—	58	68.3	1.5	2.1
85	180	30	41	—	60	73	2	3
90	190	30	43	—	64	73	2	3
95	200	33	45	—	67	77.8	2	3
100	215	36	47	51	73	82.6	2.1	3
105	225	37	49	53	77	87.3	2.1	3
110	240	42	50	57	80	92.1	3	3
120	260	44	55	62	86	106	3	3
130	280	48	58	66	93	112	3	4
140	300	50	62	70	102	118	4	4
150	320	—	65	75	108	128	—	4
160	340	—	68	79	114	136	—	4
170	360	—	72	84	120	140	—	4
180	380	—	75	88	126	150	—	4
190	400	—	78	92	132	155	—	5
200	420	—	80	97	138	165	—	5
220	460	—	88	106	145	180	—	5
240	500	—	95	114	155	195	—	5
260	540	—	102	123	165	206	—	6

Attached Table 1-7. (continued)

Unit: mm

<i>d</i>	<i>D</i>	Dimension series						
		83	03	13	23	33	83	03~33
		<i>B</i>					<i>r</i> _{sm} in	
280	580	—	108	132	175	224	—	6
300	620	—	109	140	185	236	—	7.5
320	670	—	112	155	200	258	—	7.5
340	710	—	118	165	212	272	—	7.5
360	750	—	125	170	224	290	—	7.5
380	780	—	128	175	230	300	—	7.5
400	820	—	136	185	243	308	—	7.5
420	850	—	136	190	250	315	—	9.5
440	900	—	145	200	265	345	—	9.5
460	950	—	155	212	280	365	—	9.5
480	980	—	160	218	290	375	—	9.5
500	1 030	—	170	230	300	388	—	12
530	1 090	—	180	243	325	412	—	12
560	1 150	—	190	258	335	438	—	12
600	1 220	—	200	272	355	462	—	15
630	1 280	—	206	280	375	488	—	15
670	1 360	—	218	300	400	515	—	15
710	1 420	—	224	308	412	530	—	15
750	1 500	—	236	325	438	560	—	15
800	1 600	—	258	355	462	600	—	15
850	1 700	—	272	375	488	630	—	19
900	1 780	—	280	388	500	650	—	19
950	1 850	—	290	400	515	670	—	19
1 000	1 950	—	300	412	545	710	—	19

Attached Table 1-8. Radial bearings of diameter series 4

Unit: mm

<i>d</i>	<i>D</i>	Dimension series			<i>d</i>	<i>D</i>	Dimension series		
		04	24	04, 24			04	24	04, 24
		<i>B</i>		<i>r</i> _{min}			<i>B</i>		<i>r</i> _{min}
8	30	10	14	0.6	170	420	92	145	5
9	32	11	15	0.6	180	440	95	150	6
10	37	12	16	0.6	190	460	98	155	6
12	42	13	19	1	200	480	102	160	6
15	52	15	24	1.1	220	540	115	180	6
17	62	17	29	1.1	240	580	122	190	6
20	72	19	33	1.1	260	620	132	206	7.5
25	80	21	36	1.5	280	670	140	224	7.5
30	90	23	40	1.5	300	710	150	236	7.5
35	100	25	43	1.5	320	750	155	250	9.5
40	110	27	46	2	340	800	165	265	9.5
45	120	29	50	2	360	850	180	280	9.5
50	130	31	53	2.1	380	900	190	300	9.5
55	140	33	57	2.1	400	950	200	315	12
60	150	35	60	2.1	420	980	206	325	12
65	160	37	64	2.1	440	1 030	212	335	12
70	180	42	74	3	460	1 060	218	345	12
75	190	45	77	3	480	1 120	230	365	15
80	200	48	80	3	500	1 150	236	375	15
85	210	52	86	4	530	1 220	250	400	15
90	225	54	90	4	560	1 280	258	412	15
95	240	55	95	4	600	1 360	272	438	15
100	250	58	98	4	630	1 420	280	450	15
105	260	60	100	4	670	1 500	290	475	15
110	280	65	108	4					
120	310	72	118	5					
130	340	78	128	5					
140	360	82	132	5					
150	380	85	138	5					
160	400	88	142	5					

Attached Table 2-1. Single row tapered

<i>d</i>	Diameter series 9									Diameter series 0						
	<i>D</i>	Dimension series 29								<i>D</i>	Dimension series 20					
		<i>T</i>	<i>B</i>	<i>C</i>	r_{smn}	$r_{1\text{smn}}$	α	<i>E</i>	Dimension series of ISO 355		<i>T</i>	<i>B</i>	<i>C</i>	α	<i>E</i>	Dimension series of ISO 355
20	37	12	12	9	0.3	0.3	12°	29.621	2BD	42	15	15	12	14°	32.781	3CC
22	40	12	12	9	0.3	0.3	12°	32.665	2BC	44	15	15	11.5	14° 50'	34.708	3CC
25	42	12	12	9	0.3	0.3	12°	34.608	2BD	47	15	15	11.5	16°	37.393	4CC
28	45	12	12	9	0.3	0.3	12°	37.639	2BD	52	16	16	12	16°	41.991	4CC
30	47	12	12	9	0.3	0.3	12°	39.617	2BD	55	17	17	13	16°	44.438	4CC
32	52	14	15	10	0.6	0.6	12°	44.261	2BD	58	17	17	13	16° 50'	46.708	4CC
35	55	14	14	11.5	0.6	0.6	11°	47.220	2BD	62	18	18	14	16° 50'	50.510	4CC
40	62	15	15	12	0.6	0.6	10° 55'	53.388	2BC	68	19	19	14.5	14° 10'	56.897	3CD
45	68	15	15	12	0.6	0.6	12°	58.852	2BC	75	20	20	15.5	14° 40'	63.248	3CC
50	72	15	15	12	0.6	0.6	12° 50'	62.748	2BC	80	20	20	15.5	15° 45'	67.841	3CC
55	80	17	17	14	1	1	11° 39'	69.503	2BC	90	23	23	17.5	15° 10'	76.505	3CC
60	85	17	17	14	1	1	12° 27'	74.185	2BC	95	23	23	17.5	16°	80.634	4CC
65	90	17	17	14	1	1	13° 15'	78.849	2BC	100	23	23	17.5	17°	85.567	4CC
70	100	20	20	16	1	1	11° 53'	88.550	2BC	110	25	25	19	16° 10'	93.633	4CC
75	105	20	20	16	1	1	12° 31'	93.223	2BC	115	25	25	19	17°	98.358	4CC
80	110	20	20	16	1	1	13° 10'	97.974	2BC	125	29	29	22	15° 45'	107.334	3CC
85	120	23	23	18	1.5	1.5	12° 18'	106.599	2BC	130	29	29	22	16° 25'	117.788	4CC
90	125	23	23	18	1.5	1.5	12° 51'	111.282	2BC	140	32	32	24	15° 45'	119.948	3CC
95	130	23	23	18	1.5	1.5	13° 25'	116.082	2BC	145	32	32	24	16° 25'	124.927	4CC
100	140	25	25	20	1.5	1.5	12° 23'	125.717	2CC	150	32	32	24	17°	129.269	4CC
105	145	25	25	20	1.5	1.5	12° 51'	130.359	2CC	160	35	35	26	16° 30'	137.685	4DC
110	150	25	25	20	1.5	1.5	13° 20'	135.182	2CC	170	38	38	29	16°	146.290	4DC
120	165	29	29	23	1.5	1.5	13° 05'	148.464	2CC	180	38	38	29	17°	155.239	4DC
130	180	32	32	25	2	1.5	12° 45'	161.652	2CC	200	45	45	34	16° 10'	172.043	4EC
140	190	32	32	25	2	1.5	13° 30'	171.032	2CC	210	45	45	34	17°	180.720	4DC
150	210	38	38	30	2.5	2	12° 20'	187.926	2DC	225	48	48	36	17°	193.674	4EC
160	220	38	38	30	2.5	2	13°	197.962	2DC	240	51	51	38	17°	207.209	4EC
170	230	38	38	30	2.5	2	14° 20'	206.564	3DC	260	57	57	43	16° 30'	223.031	4EC
180	250	45	45	34	2.5	2	17° 45'	218.571	4DC	280	64	64	48	15° 45'	239.898	3FD
190	260	45	45	34	2.5	2	17° 39'	228.578	4DC	290	64	64	48	16° 25'	249.853	4FD
200	280	51	51	39	3	2.5	14° 45'	249.698	3EC	310	70	70	53	16°	266.039	4FD
220	300	51	51	39	3	2.5	15° 50'	267.685	3EC	340	76	76	57	16°	292.464	4FD
240	320	51	51	39	3	2.5	17°	286.952	4EC	360	76	76	57	17°	310.356	4FD
260	360	63.5	63.5	48	3	2.5	15° 50'	320.783	3EC	400	87	87	65	16° 10'	344.432	4FC
280	380	63.5	63.5	48	3	2.5	16° 05'	339.778	4EC	420	87	87	65	17°	361.811	4FC
300	420	76	76	57	4	3	14° 45'	374.706	3FD	460	100	100	74	16° 10'	395.676	4GD
320	440	76	76	57	4	3	15° 30'	393.406	3FD	480	100	100	74	17°	415.640	4GD
340	460	76	76	57	4	3	16° 15'	412.043	4FD	—	—	—	—	—	—	—
360	480	76	76	57	4	3	17°	430.612	4FD	—	—	—	—	—	—	—

roller bearings of diameter series 9, 0 and 1

Unit: mm

								Diameter series 1									d
Dimension series 30						Dimension series 20, 30		D	Dimension series 31								
T	B	C	α	E	Dimension series of ISO 355	r_{smin}	r_{ismin}		T	B	C	r_{smin}	r_{ismin}	α	E		Dimension series of ISO 355
—	—	—	—	—	—	0.6	0.6	—	—	—	—	—	—	—	—	—	20
—	—	—	—	—	—	0.6	0.6	—	—	—	—	—	—	—	—	—	22
17	17	14	10° 55'	38.278	2CE	0.6	0.6	—	—	—	—	—	—	—	—	—	25
—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	28
20	20	16	11°	45.283	2CE	1	1	—	—	—	—	—	—	—	—	—	30
—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	32
21	21	17	11° 30'	51.320	2CE	1	1	—	—	—	—	—	—	—	—	—	35
22	22	18	10° 40'	57.290	2BE	1	1	75	26	26	20.5	1.5	1.5	13° 20'	61.169	2CE	40
24	24	19	11° 05'	63.116	2CE	1	1	80	26	26	20.5	1.5	1.5	14° 20'	65.700	3CE	45
24	24	19	11° 55'	67.775	2CE	1	1	85	26	26	20	1.5	1.5	15° 20'	70.214	3CE	50
27	27	21	11° 45'	76.656	2CE	1.5	1.5	95	30	30	23	1.5	1.5	14°	78.893	3CE	55
27	27	21	11° 20'	80.422	2CE	1.5	1.5	100	30	30	23	1.5	1.5	14° 50'	83.522	3CE	60
27	27	21	13° 05'	85.257	2CE	1.5	1.5	110	34	34	26.5	1.5	1.5	14° 30'	91.653	3DE	65
31	31	25.5	10° 45'	95.021	2CE	1.5	1.5	120	37	37	29	2	1.5	14° 10'	99.733	3DE	70
31	31	25.5	11° 15'	99.400	2CE	1.5	1.5	125	37	37	29	2	1.5	14° 50'	104.358	3DE	75
36	36	29.5	10° 30'	107.750	2CE	1.5	1.5	130	37	37	29	2	1.5	15° 30'	108.970	3DE	80
36	36	29.5	11°	112.838	2CE	1.5	1.5	140	41	41	32	2.5	2	15° 10'	117.097	3DE	85
39	39	32.5	10° 10'	122.363	2CE	2	1.5	150	45	45	35	2.5	2	14° 50'	125.283	3DE	90
39	39	32.5	10° 30'	126.346	2CE	2	1.5	160	49	49	38	2.5	2	14° 35'	133.240	3EE	95
39	39	32.5	10° 50'	130.323	2CE	2	1.5	165	52	52	40	2.5	2	15° 10'	137.129	3EE	100
43	43	34	10° 40'	139.304	2DE	2.5	2	175	56	56	44	2.5	2	15° 05'	144.427	3EE	105
47	47	37	10° 50'	146.265	2DE	2.5	2	180	56	56	43	2.5	2	15° 35'	149.127	3EE	110
48	48	38	11° 30'	154.777	2DE	2.5	2	200	62	62	48	2.5	2	14° 50'	166.144	3FE	120
55	55	43	12° 50'	172.017	2EE	2.5	2	—	—	—	—	—	—	—	—	—	130
56	56	44	13° 30'	180.353	2DE	2.5	2	—	—	—	—	—	—	—	—	—	140
59	59	46	13° 40'	194.260	2EE	3	2.5	—	—	—	—	—	—	—	—	—	150
—	—	—	—	—	—	3	2.5	—	—	—	—	—	—	—	—	—	160
—	—	—	—	—	—	3	2.5	—	—	—	—	—	—	—	—	—	170
—	—	—	—	—	—	3	2.5	—	—	—	—	—	—	—	—	—	180
—	—	—	—	—	—	3	2.5	—	—	—	—	—	—	—	—	—	190
—	—	—	—	—	—	3	2.5	—	—	—	—	—	—	—	—	—	200
—	—	—	—	—	—	4	3	—	—	—	—	—	—	—	—	—	220
—	—	—	—	—	—	4	3	—	—	—	—	—	—	—	—	—	240
—	—	—	—	—	—	5	4	—	—	—	—	—	—	—	—	—	260
—	—	—	—	—	—	5	4	—	—	—	—	—	—	—	—	—	280
—	—	—	—	—	—	5	4	—	—	—	—	—	—	—	—	—	300
—	—	—	—	—	—	5	4	—	—	—	—	—	—	—	—	—	320
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	340
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	360

22
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Attached Table 2-2. Single row tapered

<i>d</i>	<i>D</i>	Dimension series											
		02						22					
		<i>T</i>	<i>B</i>	<i>C</i>	α	<i>E</i>	Dimension series of ISO 355	<i>T</i>	<i>B</i>	<i>C</i>	α	<i>E</i>	Dimension series of ISO 355
17	40	13.25	12	11	12° 57' 10"	31.408	2DB	17.25	16	14	11° 45'	31.170	2DD
20	47	15.25	14	12	12° 57' 10"	37.304	2DB	19.25	18	15	11° 28'	35.810	2DD
25	52	16.25	15	13	14° 02' 10"	41.135	3CC	19.25	18	16	13° 30'	41.331	2CD
28	58	—	—	—	—	—	—	20.25	19	16	—	—	—
30	62	17.25	16	14	14° 02' 10"	49.990	3DB	21.25	20	17	14° 02' 10"	48.982	3DC
32	65	18.25	17	15	14°	52.500	3DB	22	21.5	17	—	—	—
35	72	18.25	17	15	14° 02' 10"	58.844	3DB	24.25	23	19	14° 02' 10"	57.087	3DC
40	80	19.75	18	16	14° 02' 10"	65.730	3DB	24.75	23	19	14° 02' 10"	64.715	3DC
45	85	20.75	19	16	15° 06' 34"	70.440	3DB	24.75	23	19	15° 06' 34"	69.610	3DC
50	90	21.75	20	17	15° 38' 32"	75.078	3DB	24.75	23	19	15° 38' 32"	74.226	3DC
55	100	22.75	21	18	15° 06' 34"	84.197	3DB	26.75	25	21	15° 06' 34"	82.837	3DC
60	110	23.75	22	19	15° 06' 34"	91.876	3EB	29.75	28	24	15° 06' 34"	90.236	3EC
65	120	24.75	23	20	15° 06' 34"	101.934	3EB	32.75	31	27	15° 06' 34"	99.484	3EC
70	125	26.25	24	21	15° 38' 32"	105.748	3EB	33.25	31	27	15° 38' 32"	103.765	3EC
75	130	27.25	25	22	16° 10' 20"	110.408	4DB	33.25	31	27	16° 10' 20"	108.932	4DC
80	140	28.25	26	22	15° 38' 32"	119.169	3EB	35.25	33	28	15° 38' 32"	117.466	3EC
85	150	30.5	28	24	15° 38' 32"	126.685	3EB	38.5	36	30	15° 38' 32"	124.970	3EC
90	160	32.5	30	26	15° 38' 32"	134.901	3FB	42.5	40	34	15° 38' 32"	132.615	3FC
95	170	34.5	32	27	15° 38' 32"	143.385	3FB	45.5	43	37	15° 38' 32"	140.259	3FC
100	180	37	34	29	15° 38' 32"	151.310	3FB	49	46	39	15° 38' 32"	148.184	3FC
105	190	39	36	30	15° 38' 32"	159.795	3FB	53	50	43	15° 38' 32"	155.269	3FC
110	200	41	38	32	15° 38' 32"	168.548	3FB	56	53	46	15° 38' 32"	164.022	3FC
120	215	43.5	40	34	16° 10' 20"	181.257	4FB	61.5	58	50	16° 10' 20"	174.825	4FD
130	230	43.75	40	34	16° 10' 20"	196.420	4FB	67.75	64	54	16° 10' 20"	187.088	4FD
140	250	45.75	42	36	16° 10' 20"	212.270	4FB	71.75	68	58	16° 10' 20"	204.046	4FD
150	270	49	45	38	16° 10' 20"	227.408	4GB	77	73	60	16° 10' 20"	219.157	4CD
160	290	52	48	40	16° 10' 20"	244.958	4GB	84	80	67	16° 10' 20"	234.942	4GD
170	310	57	52	43	16° 10' 20"	262.483	4GB	91	86	71	16° 10' 20"	251.873	4GD
180	320	57	52	43	16° 41' 57"	270.928	4GB	91	86	71	16° 41' 57"	259.938	4GD
190	340	60	55	46	16° 10' 20"	291.083	4GB	97	92	75	16° 10' 20"	279.024	4GD
200	360	64	58	48	16° 10' 20"	307.196	4GB	104	98	82	15° 10'	294.880	3GD

roller bearings of diameter series 2

Unit: mm

												<i>d</i>	
22C						32						02~32	
<i>T</i>	<i>B</i>	<i>C</i>	α	<i>E</i>	Dimension series of ISO 355	<i>T</i>	<i>B</i>	<i>C</i>	α	<i>E</i>	Dimension series of ISO 355	<i>r</i> _{sm1n}	<i>r</i> _{1sm1n}
17.25	16	14	—	—	—	—	—	—	—	—	—	1	1
19.25	18	15	19°	33.708	5DD	—	—	—	—	—	—	1	1
19.25	18	15	21° 15'	37.555	5CD	22	22	18	13° 10'	40.441	2DE	1	1
20.25	19	16	20° 34'	42.436	5DD	24	24	19	12° 45'	45.846	2DE	1	1
21.25	20	17	20° 34'	46.389	5DC	25	25	19.5	12° 50'	49.524	2DE	1	1
22	21.5	17	20°	48.523	5DC	26	26	20.5	13°	51.791	2DE	1	1
24.25	23	19	21° 10'	53.052	5DC	28	28	22	13° 15'	57.186	2DE	1.5	1.5
24.75	23	19	20°	61.438	5DC	32	32	25	13° 25'	63.405	2DE	1.5	1.5
24.75	23	19	21° 35'	66.138	5DC	32	32	25	14° 25'	68.075	3DE	1.5	1.5
24.75	23	18	21° 20'	72.169	5DC	32	32	24.5	15° 25'	72.727	3DE	1.5	1.5
—	—	—	—	—	—	35	35	27	14° 55'	81.240	3DE	2	1.5
—	—	—	—	—	—	38	38	29	15° 05'	89.032	3EE	2	1.5
—	—	—	—	—	—	41	41	32	14° 35'	97.863	3EE	2	1.5
—	—	—	—	—	—	41	41	32	15° 15'	102.275	3EE	2	1.5
—	—	—	—	—	—	41	41	31	15° 55'	106.675	3EE	2	1.5
—	—	—	—	—	—	46	46	35	15° 50'	114.582	3EE	2.5	2
—	—	—	—	—	—	49	49	37	15° 35'	112.894	3EE	2.5	2
—	—	—	—	—	—	55	55	42	15° 40'	129.820	3FE	2.5	2
—	—	—	—	—	—	58	58	44	15° 15'	138.642	3FE	3	2.5
—	—	—	—	—	—	63	63	48	15° 05'	145.949	3FE	3	2.5
—	—	—	—	—	—	68	68	52	15°	153.622	3FE	3	2.5
—	—	—	—	—	—	—	—	—	—	—	—	3	2.5
—	—	—	—	—	—	—	—	—	—	—	—	3	2.5
—	—	—	—	—	—	—	—	—	—	—	—	4	3
—	—	—	—	—	—	—	—	—	—	—	—	4	3
—	—	—	—	—	—	—	—	—	—	—	—	4	3
—	—	—	—	—	—	—	—	—	—	—	—	4	3
—	—	—	—	—	—	—	—	—	—	—	—	5	4
—	—	—	—	—	—	—	—	—	—	—	—	5	4
—	—	—	—	—	—	—	—	—	—	—	—	5	4
—	—	—	—	—	—	—	—	—	—	—	—	5	4