

1. TYPE

- 1: Standard for self-aligning ball bearings
- 2: Standard for self-aligning ball bearings

2. CAGE

- No Symbol: Standard cage
- J: Pressed steel cage
- T2: Plastic cage, nylon or teflon
- L1: Machined brass cage

3. RING MODIFICATION

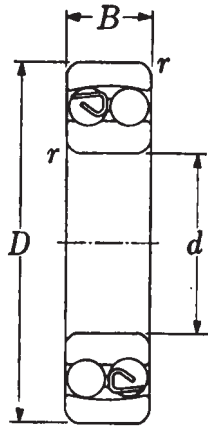
- K: 1:12 tapered bore

4. INTERNAL CLEARANCE

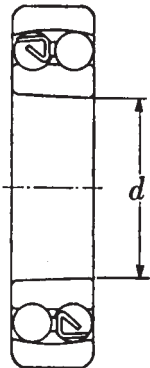
- C1: Radial clearance less than C2
- C2: Radial clearance less than normal
- C3: Radial clearance greater than normal
- C4: Radial clearance greater than C3
- C5: Radial clearance greater than C4
- CSXX: Special radial clearance;
XX is mean value in 0.001 mm units



Units: INCHES
Millimeters



**Cylindrical
Bore
12**



**Tapered
Bore
12K
Taper 1:12**

SELF-ALIGNING BALL BEARINGS								
Bearing No.		Bore	O.D.	Width	Fillet Radius	Basic Load Ratings (lbs)		Weight (lbs)
		<i>d</i>	<i>D</i>	<i>B</i>	<i>r</i>	Dynamic <i>C</i>	Static <i>C₀</i>	
1200	—	.3937 10	1.1811 30	.3543 9	.039 1.0	1,230	268	.075 —
01	—	.4724 12	1.2598 32	.3937 10	.039 1.0	1,260	286	.088 —
02	—	.5906 15	1.3780 35	.4331 11	.039 1.0	1,680	395	.108 —
1203	—	.6693 17	1.5748 40	.4724 12	.039 1.0	1,770	450	.161 —
04	1204K	.7874 20	1.8504 47	.5512 14	.059 1.5	2,230	585	.265 .260
05	05K	.9843 25	2.0472 52	.5906 15	.059 1.5	2,720	740	.311 .304
1206	1206K	1.1811 30	2.4409 62	.6299 16	.059 1.5	3,500	1,050	.485 .476
07	07K	1.3780 35	2.8346 72	.6693 17	.079 2.0	3,550	1,150	.712 .699
08	08K	1.5748 40	3.1496 80	.7087 18	.079 2.0	4,350	1,470	.919 .906
1209	1209K	1.7717 45	3.3465 85	.7480 19	.079 2.0	4,900	1,650	1.03 1.01
10	10K	1.9685 50	3.5433 90	.7874 20	.079 2.0	5,100	1,820	1.16 1.14
11	11K	2.1654 55	3.9370 100	.8268 21	.098 2.5	6,000	2,250	1.55 1.53
1212	1212K	2.3622 60	4.3307 110	.8661 22	.098 2.5	6,800	2,590	1.98 1.95
13	13K	2.5591 65	4.7244 120	.9055 23	.098 2.5	6,950	2,820	2.54 2.49
14	—	2.7559 70	4.9213 125	.9449 24	.098 2.5	7,800	3,100	2.78 —
1215	1215K	2.9528 75	5.1181 130	.9843 25	.098 2.5	8,750	3,550	3.00 2.95
16	16K	3.1496 80	5.5118 140	1.0236 26	.118 3.0	8,950	3,800	3.68 3.62
17	17K	3.3465 85	5.9055 150	1.1024 28	.118 3.0	11,000	4,650	4.56 4.50
1218	1218K	3.5433 90	6.2992 160	1.1811 30	.118 3.0	12,800	5,300	5.56 5.47
19	19K	3.7402 95	6.6929 170	1.2598 32	.138 3.5	14,300	6,100	6.83 6.72
20	20K	3.9370 100	7.0866 180	1.3386 34	.138 3.5	15,500	6,700	8.16 8.02
1221	—	4.1339 105	7.4803 190	1.4173 36	.138 3.5	16,700	7,300	9.63 —
22	1222K	4.3307 110	7.8740 200	1.4961 38	.138 3.5	18,100	7,950	11.4 11.2

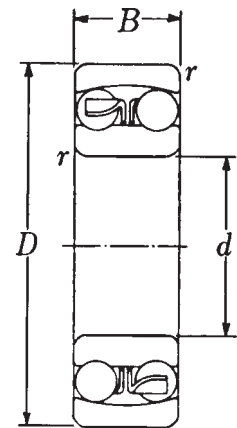
The *d* dimension for the tapered bore is measured from the side of the bearing with the smallest bore dimension.

SELF-ALIGNING BALL BEARINGS

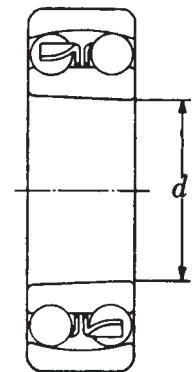
Units: **INCHES**
Millimeters



Bearing No.	Bore	O.D.	Width	Fillet Radius	Basic Load Ratings (lbs)		Weight (lbs)		
					Dynamic C	Static C_0	22	22K	
	d	D	B	r					
2200	—	.3937	1.1811	.5512	.039	1,640	360	.104	—
		10	30	14	1.0				
01	—	.4724	1.2598	.5512	.039	1,710	390	.117	—
		12	32	14	1.0				
02	—	.5906	1.3780	.5512	.039	1,730	415	.132	—
		15	35	14	1.0				
2203	—	.6693	1.5748	.6299	.039	2,200	545	.194	—
		17	40	16	1.0				
04	2204K	.7874	1.8504	.7087	.059	2,830	745	.309	.300
		20	47	18	1.5				
05	05K	.9843	2.0472	.7087	.059	2,760	775	.359	.348
		25	52	18	1.5				
2206	2206K	1.1811	2.4409	.7874	.059	3,400	1,020	.573	.560
		30	62	20	1.5				
07	07K	1.3780	2.8346	.9055	.079	4,850	1,480	.888	.873
		35	72	23	2.0				
08	08K	1.5748	3.1496	.9055	.079	5,000	1,650	1.11	1.09
		40	80	23	2.0				
2209	2209K	1.7717	3.3465	.9055	.079	5,200	1,830	1.20	1.18
		45	85	23	2.0				
10	10K	1.9685	3.5433	.9055	.079	5,200	1,900	1.30	1.27
		50	90	23	2.0				
11	11K	2.1654	3.9370	.9843	.098	5,950	2,220	1.79	1.75
		55	100	25	2.5				
2212	2212K	2.3622	4.3307	1.1024	.098	7,650	2,840	2.40	2.36
		60	110	28	2.5				
13	13K	2.5591	4.7244	1.2205	.098	9,750	3,700	3.22	3.15
		65	120	31	2.5				
14	—	2.7559	4.9213	1.2205	.098	9,850	3,850	3.35	—
		70	125	31	2.5				
2215	2215K	2.9528	5.1181	1.2205	.098	9,950	4,000	3.57	3.48
		75	130	31	2.5				
16	16K	3.1496	5.5118	1.2992	.118	10,900	4,450	4.43	4.34
		80	140	33	3.0				
17	17K	3.3465	5.9055	1.4173	.118	13,100	5,300	5.56	5.42
		85	150	36	3.0				
2218	2218K	3.5433	6.2992	1.5748	.118	15,800	6,450	7.50	7.34
		90	160	40	3.0				
19	19K	3.7402	6.6929	1.6929	.138	18,700	7,750	9.04	8.82
		95	170	43	3.5				
20	20K	3.9370	7.0866	1.8110	.138	21,100	8,650	11.0	10.7
		100	180	46	3.5				
2221	—	4.1339	7.4803	1.9685	.138	24,400	10,100	13.4	—
		105	190	50	3.5				
22	2222K	4.3307	7.8740	2.0866	.138	27,900	11,600	15.7	15.3
		110	200	53	3.5				



Cylindrical Bore
22

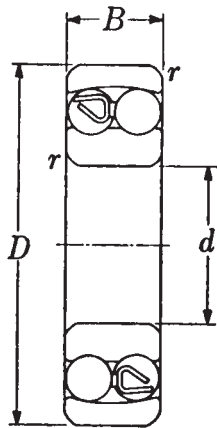


Tapered Bore
22K
Taper 1:12

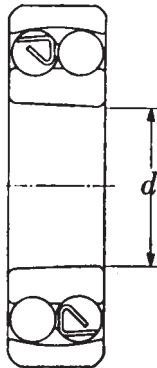
The d dimension for the tapered bore is measured from the side of the bearing with the smallest bore dimension.



Units: INCHES
Millimeters



Cylindrical Bore
13



Tapered Bore
13K
Taper 1:12

SELF-ALIGNING BALL BEARINGS

Bearing No.		Bore	O.D.	Width		Fillet Radius	Basic Load Ratings (lbs)		Weight (lbs)	
<i>13</i>	<i>13K</i>	<i>d</i>	<i>D</i>	<i>B</i>	<i>B_f</i> ^①	<i>r</i>	<i>Dynamic C</i>	<i>Static C₀</i>	<i>13</i>	<i>13K</i>
1300	—	.3937 10	1.3780 35	.4331 11	—	.039 1.0	1,630	365	.128	—
01	—	.4724 12	1.4567 37	.4724 12	—	.059 1.5	2,130	485	.148	—
02	—	.5906 15	1.6535 42	.5118 13	—	.059 1.5	2,150	515	.207	—
1303	—	.6693 17	1.8504 47	.5512 14	—	.059 1.5	2,820	715	.287	—
04	1304K	.7874 20	2.0472 52	.5906 15	—	.079 2.0	2,790	750	.359	.355
05	05K	.9843 25	2.4409 62	.6693 17	—	.079 2.0	4,050	1,130	.567	.556
1306	1306K	1.1811 30	2.8346 72	.7480 19	—	.079 2.0	4,800	1,420	.853	.840
07	07K	1.3780 35	3.1496 80	.8268 21	—	.098 2.5	5,650	1,770	1.12	1.11
08	08K	1.5748 40	3.5433 90	.9055 23	—	.098 2.5	6,650	2,180	1.58	1.55
1309	1309K	1.7717 45	3.9370 100	.9843 25	—	.098 2.5	8,550	2,860	2.11	2.08
10	10K	1.9685 50	4.3307 110	1.0630 27	—	.118 3.0	9,750	3,150	2.67	2.62
11	11K	2.1654 55	4.7244 120	1.1417 29	—	.118 3.0	11,600	4,000	3.48	3.44
1312	1312K	2.3622 60	5.1181 130	1.2205 31	—	.138 3.5	12,900	4,700	4.32	4.25
13	13K	2.5591 65	5.5118 140	1.2992 33	—	.138 3.5	13,900	5,150	5.40	5.31
14	—	2.7559 70	5.9055 150	1.3780 35	—	.138 3.5	16,700	6,250	6.59	—
1315	1315K	2.9528 75	6.2992 160	1.4567 37	—	.138 3.5	17,800	6,750	7.85	7.74
16	16K	3.1496 80	6.6929 170	1.5354 39	—	.138 3.5	19,900	7,450	9.22	9.08
17	17K	3.3465 85	7.0866 180	1.6142 41	—	.157 4.0	22,000	8,500	11.0	10.8
1318	1318K	3.5433 90	7.4803 190	1.6929 43	1.772 45	.157 4.0	26,100	10,000	12.8	12.6
19	19K	3.7402 95	7.8740 200	1.7717 45	1.890 48	.157 4.0	29,600	11,400	14.7	14.5
20	20K	3.9370 100	8.4646 215	1.8504 47	2.047 52	.157 4.0	32,000	12,900	18.3	18.1
1321	—	4.1339 105	8.8583 225	1.9291 49	2.126 54	.157 4.0	35,000	14,500	22.0	—
22	1322K	4.3307 110	9.4488 240	1.9685 50	2.165 55	.157 4.0	37,000	16,100	26.0	25.8

① B_f is the combined width of the balls. Note that for bearings No. 1318(K) - 1322(K), the balls project beyond the ring face ($B_f > B$).

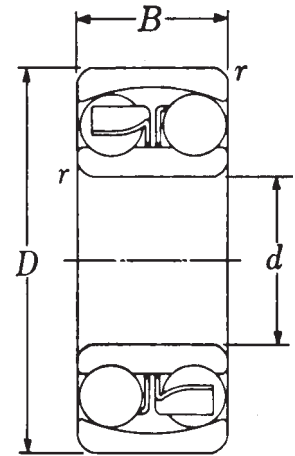
The d dimension for the tapered bore is measured from the side of the bearing with the smallest bore dimension.

SELF-ALIGNING BALL BEARINGS

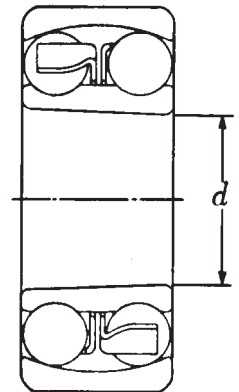
Units: **INCHES**
Millimeters



Bearing No.		Bore	O.D.	Width	Fillet Radius	Basic Load Ratings (lbs)		Weight (lbs)	
23	23K	<i>d</i>	<i>D</i>	<i>B</i>	<i>r</i>	Dynamic <i>C</i>	Static <i>C</i> ₀	23	23K
2300	—	.3937 10	1.3780 35	.6693 17	.039 1.0	2,270	485	.183	—
01	—	.4724 12	1.4567 37	.6693 17	.059 1.5	2,640	610	.201	—
02	—	.5906 15	1.6535 42	.6693 17	.059 1.5	2,700	650	.251	—
2303	—	.6693 17	1.8504 47	.7480 19	.059 1.5	3,250	800	.348	—
04	2304K	.7874 20	2.0472 52	.8268 21	.079 2.0	4,050	1,060	.461	.452
05	05K	.9843 25	2.4409 62	.9449 24	.079 2.0	5,500	1,480	.739	.721
2306	2306K	1.1811 30	2.8346 72	1.0630 27	.079 2.0	7,050	1,970	1.10	1.08
07	07K	1.3780 35	3.1496 80	1.2205 31	.098 2.5	8,850	2,530	1.49	1.45
08	08K	1.5748 40	3.5433 90	1.2992 33	.098 2.5	10,100	3,050	2.04	1.99
2309	2309K	1.7717 45	3.9370 100	1.4173 36	.098 2.5	12,200	3,750	2.71	2.65
10	10K	1.9685 50	4.3307 110	1.5748 40	.118 3.0	14,500	4,550	3.62	3.53
11	11K	2.1654 55	4.7244 120	1.6929 43	.118 3.0	16,900	5,400	4.63	4.52
2312	2312K	2.3622 60	5.1181 130	1.8110 46	.138 3.5	19,600	6,350	5.73	5.58
13	13K	2.5591 65	5.5118 140	1.8898 48	.138 3.5	21,600	7,300	7.12	6.94
14	—	2.7559 70	5.9055 150	2.0079 51	.138 3.5	24,600	8,450	8.60	—
2315	2315K	2.9528 75	6.2992 160	2.1654 55	.138 3.5	27,700	9,650	10.4	10.2
16	16K	3.1496 80	6.6929 170	2.2835 58	.138 3.5	28,800	10,200	13.4	13.1
17	17K	3.3465 85	7.0866 180	2.3622 60	.157 4.0	31,500	11,500	15.5	15.2
2318	2318K	3.5433 90	7.4803 190	2.5197 64	.157 4.0	34,000	12,900	18.6	18.2
19	19K	3.7402 95	7.8740 200	2.6378 67	.157 4.0	37,000	14,500	21.6	21.1
20	20K	3.9370 100	8.4646 215	2.8740 73	.157 4.0	43,000	17,800	27.3	26.7
2321	—	4.1339 105	8.8583 225	3.0315 77	.157 4.0	46,000	19,500	31.5	—
22	2322K	4.3307 110	9.4488 240	3.1496 80	.157 4.0	48,500	21,300	38.1	37.3



Cylindrical Bore
23



Tapered Bore
23K
Taper 1:12

The *d* dimension for the tapered bore is measured from the side of the bearing with the smallest bore dimension.