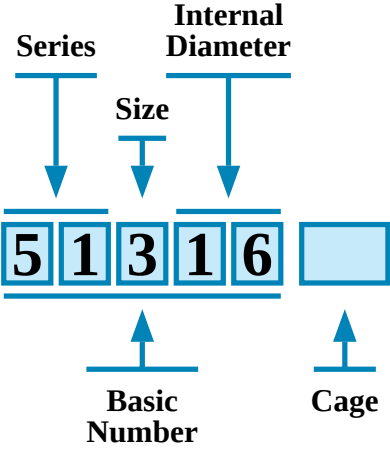




1. SERIES & SIZE

51, 53*:

Single direction thrust ball bearing

52, 54*:

Double direction thrust ball bearing

56:

Angular contact thrust ball bearing

29:

Spherical thrust roller bearing

29:

Single direction thrust ball bearing

9:

Single direction thrust ball bearing
2. CAGE

No Symbol:

Standard cage

J:

Pressed steel cage

L1:

Machined brass cage

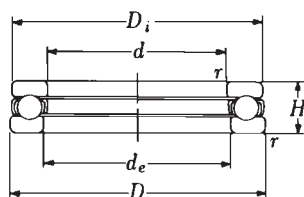
T2:

Plastic cage, nylon or teflon

* Self-aligning outside diameter



Units: INCHES
Millimeters



SINGLE DIRECTION THRUST BALL BEARINGS

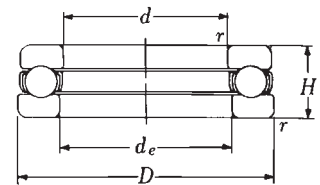
Bearing No.	d	d _e	D _i	D	H	r	Basic Load Ratings (lbs)		Weight (lbs)
							Dynamic C	Static C ₀	
51100	.3937 10	.433 11	.945 24	.9449 24	.3543 9	.020 .5	2,250	3,150	.046
01	.4724 12	.512 13	1.024 26	1.0236 26	.3543 9	.020 .5	2,320	3,450	.051
02	.5906 15	.630 16	1.102 28	1.1024 28	.3543 9	.020 .5	2,370	3,750	.053
51103	.6693 17	.709 18	1.181 30	1.1811 30	.3543 9	.020 .5	2,430	4,100	.057
04	.7874 20	.827 21	1.378 35	1.3780 35	.3937 10	.020 .5	3,200	5,550	.088
05	.9843 25	1.024 26	1.654 42	1.6535 42	.4331 11	.039 1.0	4,400	8,350	.132
51106	1.1811 30	1.260 32	1.850 47	1.8504 47	.4331 11	.039 1.0	4,600	9,500	.152
07	1.3780 35	1.457 37	2.047 52	2.0472 52	.4724 12	.039 1.0	4,600	10,000	.187
08	1.5748 40	1.654 42	2.362 60	2.3622 60	.5118 13	.039 1.0	6,050	14,100	.276
51109	1.7717 45	1.850 47	2.559 65	2.5591 65	.5512 14	.039 1.0	6,250	15,500	.326
10	1.9685 50	2.047 52	2.756 70	2.7559 70	.5512 14	.039 1.0	6,450	17,000	.355
11	2.1654 55	2.244 57	3.071 78	3.0709 78	.6299 16	.039 1.0	7,800	20,900	.498
51112	2.3622 60	2.441 62	3.346 85	3.3465 85	.6693 17	.059 1.5	9,300	25,300	.653
13	2.5591 65	2.638 67	3.543 90	3.5433 90	.7087 18	.059 1.5	9,400	26,400	.745
14	2.7559 70	2.835 72	3.740 95	3.7402 95	.7087 18	.059 1.5	9,700	28,500	.785
51115	2.9528 75	3.031 77	3.937 100	3.9370 100	.7480 19	.059 1.5	10,000	30,500	.880
16	3.1496 80	3.228 82	4.134 105	4.1339 105	.7480 19	.059 1.5	10,000	31,500	.930
17	3.3465 85	3.425 87	4.331 110	4.3307 110	.7480 19	.059 1.5	10,300	34,000	.979
51118	3.5433 90	3.622 92	4.724 120	4.7244 120	.8661 22	.059 1.5	13,400	42,500	1.51
20	3.9370 100	4.016 102	5.315 135	5.3150 135	.9843 25	.059 1.5	19,100	60,500	2.16
22	4.3307 110	4.409 112	5.709 145	5.7087 145	.9843 25	.059 1.5	19,600	64,500	2.36
51124	4.7244 120	4.803 122	6.102 155	6.1024 155	.9843 25	.059 1.5	20,000	69,000	2.45
26	5.1181 130	5.197 132	6.693 170	6.6929 170	1.1811 30	.059 1.5	23,300	79,000	3.81
28X	5.5113 140	5.591 142	7.008 178	7.0866 180	1.2205 31	.059 1.5	24,000	84,000	4.11
51130X	5.9055 150	5.984 152	7.402 188	7.4803 190	1.2205 31	.059 1.5	24,600	90,500	4.71
32X	6.2992 160	6.378 162	7.795 198	7.8740 200	1.2205 31	.059 1.5	25,100	96,000	5.04
34X	6.6929 170	6.772 172	8.386 213	8.4646 215	1.3386 34	.079 2.0	30,000	115,000	6.46
51136X	7.0866 180	7.205 183	8.740 222	8.8583 225	1.3386 34	.079 2.0	30,500	119,000	6.65
38X	7.4803 190	7.598 193	9.331 237	9.4488 240	1.4567 37	.079 2.0	38,500	148,000	8.64
40X	7.8740 200	7.992 203	9.724 247	9.8425 250	1.4567 37	.079 2.0	38,500	152,000	9.05
51144X	8.6614 220	8.780 223	10.512 267	10.6299 270	1.4567 37	.079 2.0	40,000	166,000	9.88
48X	9.4488 240	9.567 243	11.693 297	11.8110 300	1.7717 45	.098 2.5	51,000	210,000	15.8
52X	10.2362 260	10.354 263	12.480 317	12.5984 320	1.7717 45	.098 2.5	52,000	222,000	17.0

SINGLE DIRECTION THRUST BALL BEARINGS

Units: INCHES
Millimeters

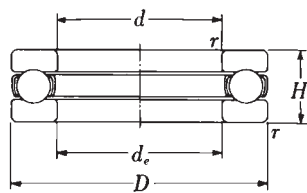


Bearing No.	d	d _e	D	H	r	Basic Load Ratings (lbs)		Weight (lbs)
						Dynamic C	Static C ₀	
51200	.3937	.472	1.0236	.4331	.039	2,850	3,850	.066
01	.10	.12	.26	.11	1.0	2,960	4,250	.075
	.4724	.551	1.1024	.4331	.039			
02	.12	.14	.28	.11	1.0	3,750	5,600	.101
	.5906	.669	1.2598	.4724	.039			
51203	.15	.17	.32	.12	1.0	3,850	6,150	.119
	.6693	.748	1.3780	.4724	.039			
04	.17	.19	.35	.12	1.0	5,000	8,500	.179
	.7874	.866	1.5748	.5512	.039			
05	.20	.22	.40	.14	1.0	6,250	11,300	.245
	.9843	1.063	1.8504	.5906	.039			
51206	.25	.27	.47	.15	1.0	6,600	13,100	.306
	1.1811	1.260	2.0472	.6299	.039			
07	.30	.32	.52	.16	1.0	8,800	17,600	.474
	1.3780	1.457	2.4409	.7087	.059			
08	.35	.37	.62	.18	1.5	10,600	22,100	.608
	1.5748	1.654	2.6772	.7480	.059			
51209	.40	.42	.68	.19	1.5	10,700	23,600	.699
	1.7717	1.850	2.8740	.7874	.059			
10	.45	.47	.73	.20	1.5	10,900	25,100	.833
	1.9685	2.047	3.0709	.8661	.059			
11	.50	.52	.78	.22	1.5	15,600	35,500	1.34
	2.1654	2.244	3.5433	.9843	.059			
51212	.55	.57	.90	.25	1.5	16,500	40,000	1.49
	2.3622	2.441	3.7402	1.0236	.059			
13	.60	.62	.95	.26	1.5	16,800	42,500	1.69
	2.5591	2.638	3.9370	1.0630	.059			
14	.65	.67	1.00	.27	1.5	17,100	44,500	1.75
	2.7559	2.835	4.1339	1.0630	.059			
51215	.70	.72	1.05	.27	1.5	17,400	47,000	1.93
	2.9528	3.031	4.3307	1.0630	.059			
16	.75	.77	1.10	.27	1.5	17,700	49,000	2.02
	3.1496	3.228	4.5276	1.1024	.059			
17	.80	.82	1.15	.28	1.5	21,400	59,500	2.76
	3.3465	3.465	4.9213	1.2205	.059			
51218	.85	.88	1.25	.31	1.5	26,200	73,000	3.75
	3.5433	3.661	5.3150	1.3780	.079			
20	.90	.93	1.35	.35	2.0	33,000	92,000	5.05
	3.9370	4.055	5.9055	1.4961	.079			
22	.100	.103	.150	.38	2.0	34,500	101,000	5.42
	4.3307	4.449	6.2992	1.4961	.079			
51224	.110	.113	.160	.38	2.0	34,500	106,000	5.97
	4.7244	4.843	6.6929	1.5354	.079			
26	.120	.123	.170	.39	2.0	43,000	127,000	9.03
	5.1181	5.236	7.4803	1.7717	.098			
28	.130	.133	.190	.45	2.5	43,500	133,000	10.2
	5.5118	5.630	7.8740	1.8110	.098			
	.140	.143	.200	.46	2.5			





Units: INCHES
Millimeters



SINGLE DIRECTION THRUST BALL BEARINGS

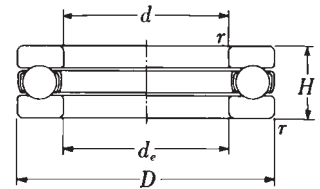
Bearing No.	<i>d</i>	<i>d_c</i>	<i>D</i>	<i>H</i>	<i>r</i>	Basic Load Ratings (lbs)		Weight (lbs)
						Dynamic <i>C</i>	Static <i>C₀</i>	
900	.3937 10	.402 10.2	.9843 25	.4724 12	.039 1.0	2,870	3,850	.066
02	.5906 15	.598 15.2	1.3780 35	.5512 14	.039 1.0	4,700	7,050	.146
04	.7874 20	.795 20.2	1.5748 40	.5512 14	.039 1.0	5,000	8,500	.174
905	.9843 25	.992 25.2	1.8898 48	.6102 15.5	.039 1.0	6,200	11,300	.271
06	1.1811 30	1.189 30.2	2.0866 53	.6102 15.5	.039 1.0	6,600	13,100	.306
07	1.3780 35	1.386 35.2	2.4409 62	.7087 18	.039 1.0	8,800	17,600	.498
908	1.5748 40	1.583 40.2	2.5197 64	.7087 18	.039 1.0	8,150	17,900	.476
09	1.7717 45	1.780 45.2	2.8740 73	.8661 22	.039 1.0	11,200	25,100	.787
10	1.9685 50	1.976 50.2	3.0709 78	.8661 22	.039 1.0	12,700	29,100	.833
911	2.1654 55	2.173 55.2	3.4646 88	.9646 24.5	.039 1.0	15,700	35,500	1.22
12	2.3622 60	2.370 60.2	3.5433 90	.9646 24.5	.039 1.0	13,100	32,500	1.17
13	2.5591 65	2.567 65.2	3.9370 100	1.0630 27	.059 1.5	16,200	40,000	1.65
914	2.7559 70	2.764 70.2	4.0551 103	1.0630 27	.059 1.5	16,600	42,500	1.63
15	2.9528 75	2.961 75.2	4.3307 110	1.0630 27	.059 1.5	17,400	47,000	1.85
16	3.1496 80	3.157 80.2	4.5276 115	1.1417 29	.059 1.5	19,400	53,000	2.11
917	3.3465 85	3.354 85.2	4.9213 125	1.2008 30.5	.059 1.5	25,000	66,500	2.71
18	3.5433 90	3.551 90.2	5.3150 135	1.2008 30.5	.059 1.5	29,900	80,000	3.26
20	3.9370 100	3.945 100.2	5.9055 150	1.2795 32.5	.059 1.5	35,000	95,500	4.30
922	4.3307 110	4.339 110.2	6.2992 160	1.5748 40	.079 2.0	39,000	106,000	5.71
24	4.7244 120	4.732 120.2	6.6929 170	1.6929 43	.079 2.0	41,000	118,000	6.59
26	5.1181 130	5.126 130.2	7.0866 180	1.8307 46.5	.079 2.0	41,500	124,000	7.61
928	5.5118 140	5.520 140.2	7.8740 200	2.0472 52	.079 2.0	52,500	157,000	11.2

SINGLE DIRECTION THRUST BALL BEARINGS

Units: INCHES
Millimeters

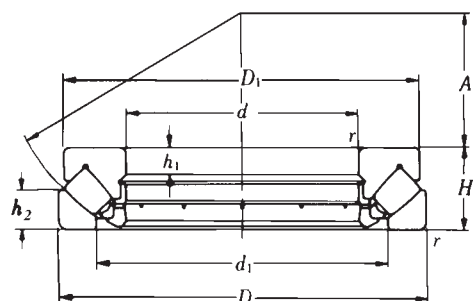


Bearing No.	d	d _e	D	H	r	Basic Load Ratings (lbs)		Weight (lbs)
						Dynamic C	Static C ₀	
2900	.3937	.402	1.0236	.4724	.039	2,850	3,850	.073
01	.4724	.480	1.1024	.4724	.039	2,960	4,250	.082
02	.5906	.598	1.2205	.4724	.039	3,200	5,150	.090
2903	.7087	.717	1.3780	.4724	.039	3,250	5,550	.099
04 ½	.7874	.795	1.4567	.4724	.039	3,350	6,000	.121
04	.8661	.874	1.6535	.5512	.039	4,250	7,800	.185
2905	.9843	.992	1.7717	.5512	.039	4,350	8,350	.207
06	1.1811	1.189	1.9685	.5512	.039	4,550	9,500	.238
07	1.3780	1.386	2.1654	.6299	.039	6,700	14,000	.304
2908	1.5748	1.583	2.3622	.6299	.039	7,050	15,700	.340
09	1.7717	1.780	2.6772	.6299	.039	7,250	17,400	.441
10	1.9685	1.976	2.9134	.7087	.039	8,650	21,100	.567
2911	2.1654	2.173	3.0709	.7087	.039	9,000	23,200	.582
12	2.3622	2.370	3.2283	.7087	.039	9,100	24,300	.595
13	2.5591	2.567	3.5433	.7874	.039	10,600	28,900	.820
2914	2.7559	2.764	3.7402	.7874	.039	11,000	31,500	.873
15	2.9528	2.961	3.9370	.7874	.039	11,400	34,000	.926
16	3.1496	3.157	4.3307	.8661	.039	12,900	38,500	1.31
2917	3.3465	3.354	4.5276	.8661	.039	13,300	41,500	1.40
18	3.5433	3.551	4.7244	.8661	.039	13,400	42,500	1.47
19	3.7402	3.748	5.1181	.9843	.039	12,500	40,000	2.09
2920	3.9370	3.945	5.3150	.9843	.039	19,100	60,500	2.17
22	4.3307	4.339	5.7087	.9843	.039	19,600	64,500	2.36
24	4.7244	4.732	6.2992	1.0630	.039	22,100	75,500	3.20





Units: INCHES
Millimeters



SPHERICAL ROLLER THRUST BEARINGS

Bearing No.	d	D	H	D ₁	d ₁	h ₁	h ₂	A	r	Basic Load Ratings (lbs)		Weight (lbs)
										Dynamic C	Static C ₀	
29230	5.9055 150	8.4646 215	1.5354 39	8.1890 208	7.01 178	.551 14	.748 19.0	3.228 82	.098 2.5	76,500	300,000	9.85
32	6.2992 160	8.8583 225	1.5354 39	8.6220 219	7.40 188	.551 14	.748 19.0	3.386 86	.098 2.5	80,500	325,000	10.4
34	6.6929 170	9.4488 240	1.6535 42	9.1732 233	7.80 198	.591 15	.787 20.0	3.622 92	.098 2.5	95,500	395,000	12.8
29236	7.0866 180	9.8425 250	1.6535 42	9.5669 243	8.19 208	.591 15	.787 20.0	3.819 97	.098 2.5	101,000	430,000	13.5
38	7.4803 190	10.6299 270	1.8898 48	10.3150 262	8.78 223	.591 15	.945 24.0	4.094 104	.118 3.0	119,000	500,000	18.8
40	7.8740 200	11.0236 280	1.8898 48	10.6693 271	9.29 236	.591 15	.945 24.0	4.252 108	.118 3.0	120,000	515,000	19.6
29244	8.6614 220	11.8110 300	1.8898 48	11.4961 292	10.00 254	.591 15	.945 24.0	4.606 117	.118 3.0	125,000	560,000	22.0
48	9.4488 240	13.3858 340	2.3622 60	12.9921 330	11.14 283	.748 19	1.181 30.0	5.118 130	.138 3.5	185,000	810,000	36.8
52	10.2362 260	14.1732 360	2.3622 60	13.7795 350	11.89 302	.748 19	1.181 30.0	5.472 139	.138 3.5	195,000	885,000	40.8
29256	11.0236 280	14.9606 380	2.3622 60	14.5669 370	12.72 323	.748 19	1.181 30.0	5.906 150	.138 3.5	197,000	910,000	43.0
29317	3.3465 85	5.9055 150	1.5354 39	5.6496 143.5	4.49 114	.512 13	.748 19.0	1.969 50	.098 2.5	59,500	185,000	6.33
18	3.5433 90	6.1024 155	1.5354 39	5.8465 148.5	4.61 117	.512 13	.748 19.0	2.047 52	.098 2.5	64,000	206,000	6.75
20	3.9370 100	6.6929 170	1.6535 42	6.4173 163	5.08 129	.551 14	.819 20.8	2.283 58	.098 2.5	78,000	260,000	8.62
29322	4.3307 110	7.4803 190	1.8898 48	7.1654 182	5.63 143	.630 16	.906 23.0	2.520 64	.118 3.0	99,500	335,000	12.3
24	4.7244 120	8.2677 210	2.1260 54	7.8740 200	6.26 159	.709 18	1.024 26.0	2.756 70	.138 3.5	120,000	400,000	16.9
26	5.1181 130	8.8583 225	2.2835 58	8.4646 215	6.73 171	.748 19	1.102 28.0	2.992 76	.138 3.5	138,000	475,000	20.8
29328	5.5118 140	9.4488 240	2.3622 60	9.0551 230	7.20 183	.787 20	1.142 29.0	3.228 82	.138 3.5	154,000	530,000	24.5
30	5.9055 150	9.8425 250	2.3622 60	9.4488 240	7.64 194	.787 20	1.142 29.0	3.425 87	.138 3.5	151,000	535,000	25.6
32	6.2992 160	10.6299 270	2.6378 67	10.2362 260	8.19 208	.906 23	1.260 32.0	3.622 92	.157 4.0	185,000	645,000	34.0
29334	6.6929 170	11.0236 280	2.6378 67	10.6299 270	8.50 216	.906 23	1.260 32.0	3.780 96	.157 4.0	192,000	685,000	35.7
36	7.0866 180	11.8110 300	2.8740 73	11.4173 290	9.13 232	.984 25	1.378 35.0	4.055 103	.157 4.0	224,000	805,000	45.6
38	7.4803 190	12.5984 320	3.0709 78	12.1260 308	9.69 246	1.063 27	1.496 38.0	4.331 110	.197 5.0	258,000	955,000	55.3
29340	7.8740 200	13.3858 340	3.3465 85	12.7953 325	10.28 261	1.142 29	1.614 41.0	4.567 116	.197 5.0	288,000	1,030,000	68.8
44	8.6614 220	14.1732 360	3.3465 85	13.5827 345	11.02 280	1.142 29	1.614 41.0	4.921 125	.197 5.0	310,000	1,170,000	73.4
48	9.4488 240	14.9606 380	3.3465 85	14.3701 365	11.81 300	1.142 29	1.614 41.0	5.315 135	.197 5.0	310,000	1,180,000	78.3
29352	10.2362 260	16.5354 420	3.7402 95	15.9449 405	12.95 329	1.260 32	1.772 45.0	5.827 148	.236 6.0	385,000	1,530,000	115
56	11.0236 280	17.3228 440	3.7402 95	16.6535 423	13.70 348	1.260 32	1.811 46.0	6.220 158	.236 6.0	405,000	1,630,000	120

SPHERICAL ROLLER THRUST BEARINGS

Units: INCHES
Millimeters



SPHERICAL ROLLER THRUST BEARINGS												
Bearing No.										Basic Load Ratings (lbs)		Weight (lbs)
	<i>d</i>	<i>D</i>	<i>H</i>	<i>D</i> ₁	<i>d</i> ₁	<i>h</i> ₁	<i>h</i> ₂	<i>A</i>	<i>r</i>	<i>Dynamic C</i>	<i>Static C</i> _o	
29412	2.3622 60	5.1181 130	1.6535 42	4.8425 123	3.50 89	.591 15	.787 20	1.496 38	.098 2.5	63,500	181,000	5.75
13	2.5591 65	5.5118 140	1.7717 45	5.2362 133	3.78 96	.630 16	.827 21	1.654 42	.118 3	74,000	212,000	7.36
14	2.7559 70	5.9055 150	1.8898 48	5.5906 142	4.06 103	.669 17	.906 23	1.732 44	.118 3	82,000	234,000	8.95
29415	2.9528 75	6.2992 160	2.0079 51	5.9843 152	4.29 109	.709 18	.945 24	1.850 47	.118 3	94,000	268,000	10.5
16	3.1496 80	6.6929 170	2.1260 54	6.3780 162	4.61 117	.748 19	1.024 26	1.969 50	.138 3.5	103,000	310,000	13.0
17	3.3465 85	7.0866 180	2.2835 58	6.6929 170	4.92 125	.827 21	1.102 28	2.126 54	.138 3.5	110,000	335,000	15.5
29418	3.5433 90	7.4803 190	2.3622 60	7.0866 180	5.20 132	.866 22	1.142 29	2.205 56	.138 3.5	123,000	380,000	18.0
20	3.9370 100	8.2677 210	2.6378 67	7.8740 200	5.75 146	.945 24	1.260 32	2.441 62	.157 4	154,000	480,000	24.7
22	4.3307 110	9.0551 230	2.8740 73	8.6614 220	6.38 162	1.024 26	1.378 35	2.717 69	.157 4	190,000	590,000	32.4
29424	4.7244 120	9.8425 250	3.0709 78	9.2913 236	6.85 174	1.142 29	1.457 37	2.913 74	.197 5	219,000	690,000	40.1
26	5.1181 130	10.6299 270	3.3465 85	10.0394 255	7.44 189	1.220 31	1.614 41	3.189 81	.197 5	242,000	795,000	50.3
28	5.5118 140	11.0236 280	3.3465 85	10.5512 268	7.83 199	1.220 31	1.614 41	3.386 86	.197 5	251,000	845,000	54.2
29430	5.9055 150	11.8110 300	3.5433 90	11.2205 285	8.43 214	1.260 32	1.732 44	3.622 92	.197 5	288,000	980,000	65.9
32	6.2992 160	12.5984 320	3.7402 95	12.0472 306	9.02 229	1.339 34	1.772 45	3.898 99	.236 6	335,000	1,160,000	79.8
34	6.6929 170	13.3858 340	4.0551 103	12.7559 324	9.57 243	1.457 37	1.969 50	4.094 104	.236 6	370,000	1,300,000	97.7
29436	7.0866 180	14.1732 360	4.2913 109	13.4646 342	10.04 255	1.535 39	2.047 52	4.331 110	.236 6	415,000	1,400,000	116
38	7.4803 190	14.9606 380	4.5276 115	14.1732 360	10.67 271	1.614 41	2.165 55	4.606 117	.236 6	450,000	1,530,000	134
40	7.8740 200	15.7480 400	4.8031 122	14.9606 380	11.26 286	1.693 43	2.323 59	4.803 122	.236 6	500,000	1,720,000	159
29444	8.6614 220	16.5354 420	4.8031 122	15.7480 400	12.13 308	1.693 43	2.283 58	5.197 132	.315 8	515,000	1,820,000	165
48	9.4488 240	17.3228 440	4.8031 122	16.5354 420	12.83 326	1.693 43	2.323 59	5.591 142	.315 8	540,000	1,950,000	176
52	10.2362 260	18.8976 480	5.1969 132	18.1102 460	14.06 357	1.890 48	2.520 64	6.063 154	.315 8	615,000	2,250,000	229
29456	11.0236 280	20.4724 520	5.7087 145	19.4882 495	15.24 387	2.047 52	2.677 68	6.535 166	.315 8	750,000	2,790,000	295

