

## Balls and Rollers

Balls ..... 457

Rollers ..... 461





## Balls and Rollers

balls

### Balls

LYC can produce many kinds of bearing steel balls and stainless steel balls ranged from 3.175mm to 152mm with the accuracy grade from G5 to G100. The vibration value of single ball is from Z1 to Z5. The balls are suitable to be applied in various industries of machinofacture, wind power, mining, metallurgy, transportation and aviation etc.

Symbols, definitions

$D_w$  nominal ball diameter

$D_{ws}$  single ball diameter

$V_{Dws}$  ball diameter variation

$V_{DwL}$  variation of ball lot diameter

$R_a$  surface roughness

Table 1 Hardness of Carbon Chromium Steel balls

$D_w$		Hardness
over	incl.	
mm		HRC
-	30	61~66
30	50	59~64
50	-	58~64

Table 2 Spherical Deviation and Surface Roughness

Grade	$V_{Dws}$	Spherical Deviation	$R_a$
	max	max	max
	$\mu\text{m}$	$\mu\text{m}$	$\mu\text{m}$
G3	0.08	0.08	0.010
G5	0.13	0.13	0.014
G10	0.25	0.25	0.020
G16	0.4	0.4	0.025
G20	0.5	0.5	0.032
G24	0.6	0.6	0.040
G28	0.7	0.7	0.050
G40	1	1	0.060
G60	1.5	1.5	0.080
G100	2.5	2.5	0.100
G200	5	5	0.150

Table 3 Tolerances of Hardened Carbon Chromium Steel Balls

Grade	$V_{DwL}$	Gauge Interval	Gauge		Subgauge Interval	Subgauge			
	max	$\mu\text{m}$	$\mu\text{m}$		$\mu\text{m}$	$\mu\text{m}$			
	$\mu\text{m}$	$\mu\text{m}$	$\mu\text{m}$		$\mu\text{m}$	$\mu\text{m}$			
G3	0.13	0.5	-0.5...0.5	0	+0.5...+5	0.1	-0.2,-0.1	0	+0.1,+0.2
G5	0.25	1	-5...-1	0	+1...+5	0.2	-0.4,-0.2	0	+0.2,+0.4
G10	0.5	1	-9...-1	0	+1...+9	0.2	-0.4,-0.2	0	+0.2,+0.4
G16	0.8	2	-10...-2	0	+2...+10	0.4	-0.8,-0.4	0	+0.4,+0.8
G20	1	2	-10...-2	0	+2...+10	0.4	-0.8,-0.4	0	+0.4,+0.8
G24	1.2	2	-12...-2	0	+2...+12	0.4	-0.8,-0.4	0	+0.4,+0.8
G28	1.4	2	-12...-2	0	+2...+12	0.4	-0.8,-0.4	0	+0.4,+0.8
G40	2	4	-16...-4	0	+4...+16	0.8	-1.6,-0.8	0	+0.8,+1.6
G60	3	6	-18...-6	0	+6...+18	1.2	-2.4,-1.2	0	+1.2,+2.4
G100	5	10	-40...-10	0	+10...+40	2	-4,-2	0	+2,+4
G200	10	15	-60...-15	0	+15...+60	3	-6,-3	0	+3,+6

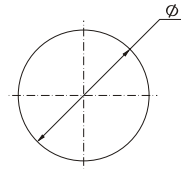
Table 4 Material for LYC balls

Material		Chemical Composition (%)			
Chinese Standard	Equivalent	C	Si	Mn	P
GCr15	AISI E52100	0.95~1.05	0.15~0.35	0.25~0.45	0.025max
GCr15SiMn	DIN 100CrMn6	0.95~1.05	0.40~0.65	0.95~1.25	0.025max
9Cr18Mo	AISI440C	0.95~1.10	0.80max	0.80max	0.035max
9Cr18	AISI440C	0.90~1.00	0.80max	0.80max	0.035max

Chemical Composition (%) (continue)					Standard	
S	Ni	Cr	Mo	Cu		
0.025max	0.30max	1.40~1.65	0.10max	0.25max	GB/T18254—2002	
0.025max		1.40~1.65				
0.030max		16.00~18.00	0.40~0.70			GB/T18254—2002
0.030max		17.00~19.00				GB/T1220-1992
					GB 3086-82	



balls



Nominal Diameter

The sizes of LYC balls

Nominal Dia. (φ)		Nominal Dia. (φ)		Nominal Dia. (φ)	
inch	metric	inch	metric	inch	metric
1/8	3.1750		10.5000	13/16	20.6375
	3.5000		11.0000		22.0000
5/32	3.9688	7/16	11.1125	7/8	22.2250
	4.0000	29/64	11.5094	29/32	23.0188
	4.5000	15/32	11.9062	15/16	23.8125
3/16	4.7625		12.0000		24.0000
	5.0000	31/64	12.3031		24.5000
	5.5000	1/2	12.7000		25.0000
7/32	5.5562		13.0000	1	25.4000
15/64	5.9531	17/32	13.4938		25.4000
	6.0000		14.0000		26.0000
1/4	6.3500	9/16	14.2875		26.5000
	6.5000		14.5000	1 1/16	26.9875
17/64	6.7469		15.0000		27.5000
	7.0000	19/32	15.0812		28.0000
9/32	7.1438	5/8	15.8750	1 1/8	28.5750
	7.5000		16.0000		29.0000
5/16	7.9375	21/32	16.6688		29.5000
	8.0000		17.0000		30.0000
	8.5000	11/16	17.4625	1 3/16	30.1625
11/32	8.7312		18.0000		30.5000
	9.0000	23/32	18.2562		31.0000
3/8	9.5250		18.5000		31.5000
	10.0000	3/4	19.0500	1 1/4	31.7500
13/32	10.3188	25/32	19.8438		32.0000

Nominal Dia. (φ)		Nominal Dia. (φ)	
inch	metric	inch	metric
	15/16		33.3375
	13/8		34.9250
	17/16	4	36.5125
	1 1/2		38.1000
	19/16		39.6875
			40.0000
	1 5/8		41.2750
	1 11/16	5	42.8625
	1 3/4	6	44.4450
			45.0000
	1 7/8		47.6250
	2		50.8000
	2 1/8		53.9750
			55.0000
	2 1/4		57.1500
			60.0000
	2 3/8		60.3250
	2 1/2		63.5000
			65.0000
	2 3/4		69.8500
			70.0000
			75.0000
	3		76.2000
			80.0000
	3 1/2		88.9000



**Rollers**

LYC is able to manufacture tapered, cylindrical and spherical rollers, there are more than 800 sizes (OD from 5 to 80mm) in different types and different tolerances. LYC also can manufacture the rollers in special profile as per clients' drawings to meet their individualized demands. Its products are suitable for the bearings used in the industries of machine building, motors, railways, mining, steel mill and precision instruments, etc.

**Symbols, definitions**

$D_w$	nominal diameter	$V_{DwL}$	variation of roller lot diameter
$l$	central section of roller length	$V_{Dwp}$	variation of roller diameter in a single plane
$l_G$	roller diameter gauge interval	$V_{LwL}$	variation of lot length
$l_{GL}$	roller length gauge interval	$V_{\alpha\phi L}$	variation of lot taper angle
$L_w$	nominal length	$\Delta C_w$	deviation from circular form
$S_{Dw}$	circle run-out for reference faces	$\Delta 2\phi$	deviation for taper angle
$R_a$	surface roughness		

**1. Cylindrical Rollers**

Table 1.1 Dimensional and Form Accuracy of Cylindrical Rollers

Grade	$L_w$		$V_{LwL}$	$l_{GL}$	Guage	$S_{Dw}$ max
	over	incl.				
	mm		max	$\mu m$	$\mu m$	$\mu m$
0	—	26	6	6	-30,.....,-6, 0	3
	26	—				
I	—	26	10	6	-30,.....,-6, 0	5
	26	—				
II	—	26	14	6	-30,.....,-6, 0	6
	26	50				
III	—	26	20	8	-32,.....,-8, 0	10
	26	50				

Table 1.2 Surface Roughness for Cylindrical Rollers

Grade	Rolling Surface	$R_a$		Chamfer
		End Face		
		$\mu m$	max	
0	0.1	0.125	1.25	1.25
I	0.125	0.16	1.25	1.25
II	0.16	0.25	2.5	2.5
III	0.25	0.32	2.5	2.5

Table 1.3 Dinsional and Form Accuracy of Cylindrical Rollers

Grade	$D_w$		$V_{DwL}$ <sup>a</sup> max	$l_G$	Guage			$\Delta C_{ir}$ max
	over	incl.			$\mu m$			
	mm		$\mu m$	$\mu m$	$\mu m$			$\mu m$
0	—	18	1	1	-10,.....,-1	0	+1,.....,+5	0.3
	18	30						
I	—	18	2	1.5	-10,.....,-1	0	+1,.....,+5	0.4
	18	30						
II	—	18	3	1.5	-10,.....,-1	0	+1,.....,+5	0.5
	18	30						
III	—	18	4	1	-10,.....,-1	0	+1,.....,+5	1
	18	30						

<sup>a</sup> Suitable to the central section of roller length

**2. Spherical Rollers**

Table 2.1 Dimensional and Form Accuracy of Spherical Rollers

Grade	$D_w$		$V_{Dwp}$	$\Delta C_{ir}$	$S_{Dw}$	$V_{DwL}$
	over	incl.				
	mm		$\mu m$			
II	-	10	1.5	1.5	3.0	3.0
	10	18	1.5	1.5	4.0	3.0
	18	30	2.5	2.5	5.0	4.0
	30	50	3.0	3.0	6.0	5.0
	50	80	4.0	4.0	8.0	6.0
III	80	120	5.0	5.0	9.0	7.0
	-	10	2.0	2.0	5.0	4.0
	10	18	2.0	2.0	6.5	4.0
	18	30	3.0	3.0	8.5	5.0
	30	50	4.0	4.0	10.0	6.0
	50	80	5.0	5.0	12.0	7.0
	80	120	6.0	6.0	13.0	8.0



Table 2.2 Surface Roughness for Spherical Rollers

Grade	Rolling Surface	R <sub>a</sub>	
		Reference face max	Non-reference Face
μm			
II	0.125	0.40	2.50
	0.125	0.40	2.50
	0.160	0.40	2.50
	0.250	0.40	2.50
III	0.320	0.40	2.50
	0.400	0.63	5.00
	0.160	0.40	2.5
	0.160	0.40	2.5
	0.250	0.40	2.5
	0.320	0.40	2.5
	0.400	0.40	2.5
	0.630	0.63	5.0

3. Tapered Rollers

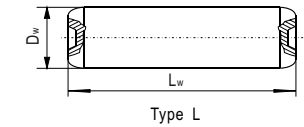
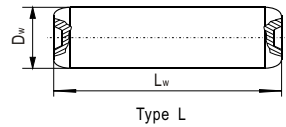
Table 3.1 Dimensional and Form Accuracy of Tapered Rollers

Grade	D <sub>w</sub>		V <sub>Dwp</sub>	ΔC <sub>r</sub>	S <sub>Dw</sub>	Δ2φ <sup>1)</sup>		V <sub>DwL</sub>	V <sub>zφL</sub> <sup>1)</sup>
	over	incl.				up	down		
	mm		μm		μm		μm		
0	-	10	0.3		1.0	+0.6	-0.6	1.0	0.6
	10	18	0.3		1.0	+0.7	-0.7	1.0	0.7
	18	30	0.4		2.0	+0.7	-0.7	1.0	0.7
I	-	10	0.5		2.0	+1.0	-1.0	1.0	1.0
	10	18	0.5		2.5	+1.0	-1.0	1.5	1.0
	18	30	0.8		3.0	+1.5	-1.5	2.0	1.5
II	-	10	1.2		3.0	+2.0	-2.0	2.0	2.0
	10	18	1.2		4.0	+2.0	-2.0	2.5	2.0
	18	30	1.5		5.0	+2.5	-2.5	3.0	2.5
	30	50	2.0		6.0	+3.0	-3.0	3.0	3.0
III	-	10	2.0		5.0	+2.0	-2.0	3.0	3.0
	10	18	2.0		6.5	+3.0	-3.0	3.0	3.0
	18	30	3.0		8.5	+4.0	-4.0	5.0	5.0
	30	50	3.0		10.0	+5.0	-5.0	5.0	5.0
	50	80	4.0		12.0	+5.0	-5.0	5.0	5.0

<sup>1)</sup> The value ranges in the effective length of rollers and expressed by the radial dimension variation.

Table 3.2 Surface Roughness for Tapered Rollers

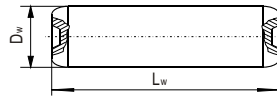
Grade	Rolling Surface	R <sub>a</sub>	
		Reference face max	Non-reference Face
μm			
0	0.04	0.1	1.25
I	0.08	0.125	1.25
II	0.125	0.16	2.5
III	D <sub>w</sub> ≤ 30mm	0.16	0.32
	D <sub>w</sub> > 30mm	0.25	



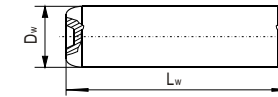
LYC Cylindrical Rollers

No.	Designations	Dimensions		Mass	Bearing No. for Reference
		D <sub>w</sub>	L <sub>w</sub>		
		mm		kg	
1	5×6	5	6	0.00092	Y30-2B
2	5×8	5	8	0.00122	NUTR205
3	5×9	5	9	0.00135	LY-N010
4	5.5×5.5	5.5	5.5	0.00101	N82/32M
5	6×6	6	6	0.00132	81108/P4
6	6×8	6	8	0.00176	
7	6×10	6	10	0.00219	NUTR3072X
8	6×12	6	12	0.00265	LY-NU15
9	6.35×31	6.35	31	0.00760	
10	6.35×41.28	6.35	41.28	0.01000	
11	6.5×6.5	6.5	6.5	0.00170	N204
12	6.5×20.5	6.5	20.5	0.00531	NA6915A.R200.250.S3
13	7×7	7	7	0.00208	NN3010K/P5
14	7×10	7	10	0.00288	
15	7×16	7	16	0.00479	
16	7×29.8	7	29.8	0.00893	LY-Z009
17	7.5×7.5	7.5	7.5	0.00256	N206
18	7.5×9	7.5	9	0.00300	NJ206ETM1
19	7.5×10	7.5	10	0.00380	NUTR310
20	7.5×11	7.5	11	0.00379	LY-N014
21	7.5×39.8	7.5	39.8	0.01370	
22	8×10	8	10	0.00391	NU1012M
23	8×12	8	12	0.00469	LY-N016
24	8×18	8	18	0.00704	
25	8.5×25	8.5	25	0.01100	NUTR60130X
26	9×9	9	9	0.00440	NCL303
27	9×10	9	10	0.00476	NU206E
28	9×12	10	11	0.00649	NJ305ETN1
29	9×14	10	14	0.00855	
30	9×18	10	16	0.00956	NUP2306M
31	9×21	10	20	0.01220	
32	9.525×50.8	10	24	0.01470	LY-N026
33	9.525×63.5	10	45.8	0.02820	
34	10×10	10	49.8	0.03057	NAV3956(3074956)
35	10×11	11	11	0.00780	NF307
36	10×14	11	12	0.00850	NF306E
37	10×16	11	15	0.01100	NJ2307M
38	10×20	11	27	0.01990	
39	10×24	11.56	14	0.01100	NUP2306EV
40	10×45.8	12	12	0.01050	N212
41	10×49.8	12	14	0.01230	NJ211
42	11×11	12	15.5	0.01330	
43	11×12	12	16	0.01340	LY-N036
44	11×15	12	18	0.01580	
45	11×27	12	21	0.01840	NU2307EF1
46	11.56×14	12	30	0.02640	
47	12×12	12.1	14	0.01260	NUP307EV/C9
48	12×14	12.5	48	0.04590	
49	12×15.5	12.5	62	0.05930	NA4860

No.	Designations	Dimensions		Mass	Bearing No. for Reference
		D <sub>w</sub>	L <sub>w</sub>		
		mm		kg	
50	12×16	13	13	0.01340	
51	12×18	13	15	0.01550	NUP2207X1V/C9YB2
52	12×21	13	18	0.01850	
53	12×30	13	20	0.02050	NNF5030-2LSV/YA1
54	12.1×14	13	33	0.03410	
55	12.5×48	12.5	48	0.04590	
56	12.5×62	12.5	62	0.05930	NA4860
57	13×13	13	13	0.01340	
58	13×15	13	15	0.01550	NUP2207X1V/C9YB2
59	13×18	13	18	0.01850	
60	13×20	13	20	0.02050	NNF5030-2LSV/YA1
61	13×33	13	33	0.03410	
62	14×14	14	14	0.01600	N309
63	14×15	14	15	0.01770	NU308EPC/P5
64	14×17	14	17	0.01990	NUP309ENV
65	14×20	14	20	0.02400	N2309M
66	14×22	14	22	0.02590	NJ2308E
67	15×15	15	15	0.02060	N216M
68	15×16	15	16	0.02150	
69	15×17	15	17	0.02290	N215EF1
70	15×22	15	22	0.03020	NU2310M
71	15×25	15	25	0.03400	LY-N028
72	15×37.5	15	37.5	0.05150	
73	16×16	16	16	0.02500	
74	16×17	16	17	0.26300	NH310EF1
75	16×20	16	20	0.03080	130.36.2700.04/34
76	16×24	16	24	0.03670	NUJ2216EQ1/P63SO
77	16×27	16	27	0.04140	NJ2310EM/C9SO
78	16×36	16	36	0.05620	LY-N021
79	16×44.9	16	44.9	0.07020	
80	16×50	16	50	0.07780	NAL4120M/YA
81	16×61	16	61	0.09950	
82	16×80	16	80	0.12500	
83	17×17	17	17	0.03000	N311M
84	17×20	17	20	0.03500	FC2842125
85	17×24	17	24	0.04200	NU2311M
86	17×27	17	27	0.04720	FC2842155
87	18×18	18	18	0.03560	N312
88	18×19	18	19	0.03730	NU311EPC/P5
89	18×24	18	24	0.04600	
90	18×35	18	35	0.06820	FC3854200
91	18.5×18	18.5	18	0.03760	1797/235
92	19×19	19	19	0.04230	N313/V1
93	19×20	19	20	0.44000	NJ312EF1
94	19×28	19	28	0.06180	
95	19×32	19	32	0.06950	N2312EF1
96	20×20	20	20	0.04900	N314M
97	20×30	20	30	0.07200	
98	20×75	20	75	0.18400	



Type L

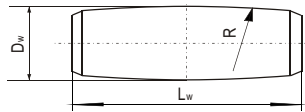


Type L

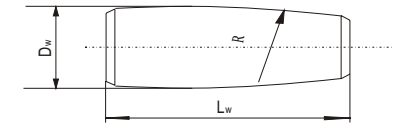
LYC Cylindrical Rollers

No.	Designations	Dimensions		Mass	Bearing No. for Reference
		D <sub>w</sub>	L <sub>w</sub>		
		mm		kg	
99	21×21	21	21	0.05600	NJ315Q1/S0
100	21×21.96	21	21.96	0.05870	NJ219ETN1/P54YB1
101	21×22	21	22	0.05870	NJ313E
102	21×30	21	30	0.08100	
103	21×32	21	32	0.08480	NU2313M
104	21×34	21	34	0.09020	FC4666206/SO
105	21×46	21	46	0.13400	LY-N018
106	22×12	22	12	0.03470	
107	22×21.5	22	21.5	0.06560	D2797/695G2
108	22×22	22	22	0.06560	N315M
109	22×24	22	24	0.07020	
110	22×26.5	22	26.5	0.07830	N612/C9
111	22×34	22	34	0.10100	LY-N006
112	22×48	22	48	0.14200	
113	23×34	23	34	0.10800	NNU4136X3
114	23×40	23	40	0.12800	LY-N012
115	23×48	23	48	0.15400	
116	24×12	24	12	0.04230	
117	24×16	24	16	0.05640	N224M
118	24×24	24	24	0.08200	NU2317M
119	24×36	24	36	0.12500	NU2315M
120	24×38	24	38	0.13400	FCDP5678275/HCYB
121	24×48	24	48	0.16600	FC5274200/YA
122	24×52	24	52	0.18000	2797/1010G2
123	25×24.5	25	24.5	0.09400	NU318EQ1/S0
124	25×25	25	25	0.09390	NU316EF1
125	25×27	25	27	0.10200	7397/2700G2/34
126	25×30	25	30	0.11500	NN4964K/W33
127	25×36	25	36	0.13800	NNAL6036X2M
128	25×80	25	80	0.30600	
129	26×26	26	26	0.10600	N317EF1
130	26×28	26	28	0.11200	
131	26×40	26	40	0.16500	NU636M
132	26×60	26	60	0.24700	2797/2768
133	28×27.5	28	27.5	0.13200	NU226EM
134	28×28	28	28	0.13300	NU228EL
135	28×30	28	30	0.14100	
136	28×44	28	44	0.26300	
137	30×29.5	30	29.5	0.16200	2797/870G2
138	30×30	30	30	0.16400	NU230EQ1/S0
139	30×36	30	36	0.19500	NN4968K
140	30×38	30	38	0.20700	FC6084240
141	30×40	30	40	0.12900	FC5882240A
142	30×46	30	46	0.24900	NF28/560M
143	30×47.956	30	47.956	0.26200	NJ3224X3Q1/S0
144	30×52	30	52	0.28400	FCD6084300
145	30×60	30	60	0.33000	NU3048EM
146	32×24	32	24	0.14450	N640M
147	32×32	32	32	0.19900	NU234EQ1/S0

No.	Designations	Dimensions		Mass	Bearing No. for Reference
		D <sub>w</sub>	L <sub>w</sub>		
		mm		kg	
148	32×36	32	36	0.22500	
149	32×51.948	32	51.948	0.32500	NJ3226X1Q1/S0
150	32×52	32	52	0.32600	NJ2320Q1/S0
151	32.15×36	32.15	36	0.22500	
152	34×34	34	34	0.23400	NU1052F1
153	34×46	34	46	0.31600	
154	34×50	34	50	0.35260	N646M
155	34×55	34	55	0.38600	NU2322EM
156	34×68	34	68	0.48100	NNTB626/YA
157	35×65	35	65	0.48700	FCD6896350
158	36×36	36	36	0.28600	NN3060K
159	38×22	38	22	0.19400	
160	38×38	38	38	0.32700	N661L
161	38×42.94	38	42.94	0.37700	LY-N013
162	38×61.952	38	61.952	0.54100	NJ2324EM/C9 SO
163	38×62	38	62	0.54100	NU2324EM
164	40×39.887	40	39.887	0.39000	N326EQ1H/P54
165	40×40	40	40	0.39000	NN3072K
166	40×58	40	58	0.55000	
167	40×65	40	65	0.63600	
168	40×65	40	65	0.63600	NU2326EM
169	40×70	40	70	0.68600	NU644M
170	40×80	40	80	0.78000	
171	45×45	45	45	0.55300	NU330EQ1/S0
172	45×75	45	75	0.92230	NU2334M
173	48×80	48	80	1.12000	NU2332EM1
174	50×50	50	50	0.76500	NU426Q1
175	52×52	52	52	0.85000	NU426M
176	52×90	52	90	1.47000	NU2336EM
177	54×54	54	54	0.97100	NJ428M



Type D



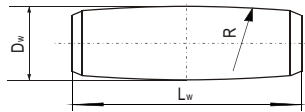
Type F

LYC Spherical Rollers

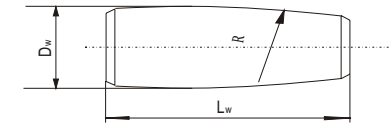
No.	Designations	Dimensions			Mass	Bearing No. for Reference
		D <sub>w</sub>	L <sub>w</sub>	R		
		mm			kg	
1	6.939×7.925	6.939	7.925	19.71	0.0021	20208
2	11×11.4	11	11.4	35.5	0.0089	20209
3	11.4×12	11.4	12	38	0.0090	22205CA
4	6.8×6.2	6.8	6.2	22.5	0.0017	22206C
5	8×7	8	7	27	0.0026	22210C
6	10×8.5	10	8.5	39.5	0.0050	22210CA
7	10×8	10	8	39.5	0.0048	22211C
8	11.5×9	11.5	9	44.3	0.0710	22212C
9	12.5×10	12.5	10	48.7	0.0093	22213C
10	13.5×11.5	13.5	11.5	63	0.0124	22214C
11	13.8×11.2	13.8	11.2	55	0.0127	22215C
12	13.5×11	13.5	11	58	0.0120	22216C
13	14.5×12	14.5	12	62	0.0150	22217C
14	16.6×13	16.6	13	66	0.0214	22218C
15	17.5×14.5	17.5	14.5	71.5	0.0250	22219C
16	18.5×16	18.5	16	74.5	0.0325	22220C
17	20×16.5	20	16.5	78	0.0400	22222C
18	22×20	22	20	89	0.0558	22224C
19	24×21.5	24	21.5	96	0.0750	22226C
20	25.5×24.4	25.5	24.4	103	0.0935	22228/W33
21	27.5×25.8	27.5	25.8	110.5	0.1150	22228CA/W33
22	28.5×25	28.5	25	112	0.1200	22230C
23	31×27	31	27	121	0.1460	22232CA/W33
24	32.5×30	32.5	30	129	0.1940	22238CA
25	37×34.8	37	34.8	51.5	0.2800	22244CA/W33
26	46×41	46	41	177	0.5040	22308C
27	13.3×11.9	13.3	11.9	39.5	0.0123	22309C
28	14.5×13	14.5	13	44	0.01600	22309C
29	16×14.6	16	14.6	48.5	0.02190	22310C
30	17×15.9	17	15.9	52.5	0.02690	22311C
31	18.5×17	18.5	17	57	0.03410	22312C
32	18×16.5	18	16.5	57.5	0.03060	22312CA/W33
33	19.5×17	19.5	17	61.5	0.03800	22313CA
34	20.5×19.5	20.5	19.5	66.5	0.05000	22314C
35	20.5×18.5	20.5	18.5	66	0.04430	22314CA/W33
36	22×20	22	20	70	0.05680	22315CCK
37	23×22	23	22	75	0.06800	22316C
38	22.5×25	22.5	25	84	0.09470	22318C
39	27×24	27	24	84	0.10300	22318CA
40	27.5×25	27.5	25	88.5	0.10800	22319CA/W33
41	29×27.5	29	27.5	95	0.14100	22320C
42	28.8×27.25	28.8	27.25	96.5	0.13000	22320CA
43	32×30.72	32	30.72	106.5	0.18000	22322CA
44	35×32.5	35	32.5	112.5	0.23300	22324CCK
45	37×33.67	37	33.67	124	0.26500	22326CA
46	40×38.5	40	38.5	133	0.36000	22328CA
47	42.5×39.63	42.5	39.63	142.5	0.41000	
48	20.5×24	20.5	24	96	0.05880	23126CA/W33
49	21×26.5	21	26.5	103	0.06770	23128CA/W33

No.	Designations	Dimensions			Mass	Bearing No. for Reference
		D <sub>w</sub>	L <sub>w</sub>	R		
		mm			kg	
50	23×30	23	30	113.5	0.09680	23130CA/W33
51	29.5×38.5	29.5	38.5	135	0.19300	23136C/W33
52	32×40	32	40	145	0.23700	23138CA/W33
53	37×48	37	48	168	0.37800	23144CA
54	38.5×49	38.5	49	182	0.41400	23148CA
55	17.5×20.5	17.5	20.5	72	0.03530	23218C
56	20.5×23.5	20.5	23.5	81	0.05560	23220C
57	22.5×27	22.5	27	90	0.07640	23220C
58	23.5×30	23.5	30	97	0.09170	23224C
59	25×32	25	32	84	0.11100	23226C
60	27.5×35	27.5	35	92	0.14700	23228C
61	30×38.5	30	38.5	124.5	0.19100	23230C/W33
62	33×40	33	40	41.5	0.24600	23232CA
63	34.5×44	34.5	44	51.5	0.29900	23234CA
64	35×45	35	45	59	0.31500	23236CA
65	37.5×48	37.5	48	180	0.38600	23238C
66	37.5×48	37.5	48	64	0.38600	23236CA
67	12.4×20	12.4	20	100	0.17300	23238CA/C3W3YB4
68	15×23	15	23	83	0.02940	24018C
69	18.5×27	18.5	27	97	0.05000	24022C
70	20×32	20	32	115	0.07240	24028C
71	29×47	29	47	55.5	0.22200	24032C
72	35×53.5	35	53.5	59.5	0.36800	24048CA/W33
73	17×27	17	27	68.6	0.04370	24052CA
74	20×31	20	31	77.3	0.06940	24122CA/W33
75	21×32	21	32	86.1	0.07970	24124CA
76	26×39	26	39	93.3	0.14800	24128CA/W33
77	32×47	32	47	109.3	0.27100	24130CA
78	36×56	36	56	117.5	0.40300	24138CA
79	15.5×24	15.5	24	84	0.03270	24140C/W33
80	20×32	20	32	92	0.06790	4053124Y
81	28.5×44	28.5	44	124.5	0.20000	405324Y
82	13.5×15.5	13.5	15.5	41.5	0.01530	E-3-314
83	16.5×20	16.5	20	51.5	0.02910	E3-315
84	14×18	14	18	59	0.01980	LY-2013
85	30×40	30	40	180	0.21200	23052
86	18×13	18	13	64	0.02520	
87	20.5×29	20.5	29	100	0.06720	
88	18.5×27.5	18.5	27.5	83	0.05220	
89	20×32.5	20	32.5	97	0.07240	
90	26×41	26	41	115	0.14700	
91	13.5×11.067	13.5	11.067	55.5	0.01190	
92	14×12.065	14	12.065	59.5	0.01390	
93	17×14.688	17	14.688	68.6	0.02700	
94	20×16.7	20	16.7	77.3	0.03800	
95	23×19.328	23	19.328	86.1	0.05800	
96	25×21.149	25	21.149	93.3	0.07500	
97	29.5×24.738	29.5	24.738	109.3	0.12200	
98	31×26.572	31	26.572	117.5	0.12200	





Type D

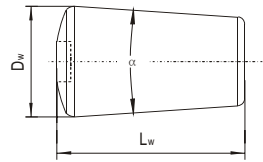


Type F

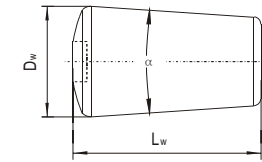
LYC Spherical Rollers

No.	Designations	Dimensions			Mass	Bearing No. for Reference
		D <sub>w</sub>	L <sub>w</sub>	R		
		mm			kg	
99	34×29.198	34	29.198	125.7	0.16300	
100	36×31.21	36	31.21	133.9	0.19300	
101	35.5×31.278	35.5	31.278	138.7	0.18800	
102	37×33.397	37	33.397	146.9	0.26200	22238
103	39×35.608	39	35.608	155.1	0.31700	
104	45×39.25	45	39.25	172	0.43100	
105	16.5×14.171	16.5	14.171	47.2	0.02070	
106	23×18.611	23	18.611	64.8	0.05400	
107	26×20.807	26	20.807	73.6	0.07800	
108	26×21.831	26	21.831	77.4	0.07880	
109	28.5×23.958	28.5	23.958	86	0.10100	
110	38×31.497	38	31.497	111.5	0.25500	
111	45×41.481	45	41.481	143.4	0.43000	
112	46×43.869	46	43.869	152	0.47300	
113	48×44.342	48	44.342	165.5	0.60100	
114	50×48.3	50	48.3	168	0.65000	
115	22×24.594	22	24.594	127	0.07100	
116	23×28.051	23	28.051	146	0.08800	
117	13.5×11.632	13.5	11.632	38.5	0.01220	22308
118	16.5×14.171	16.5	14.171	47.2	0.02070	22310
119	19.5×16.19	19.5	16.19	56	0.03200	22312
120	14×16.641	14	16.641	77	0.01910	23022
121	13.5×17.833	13.5	17.833	82	0.01900	23024
122	18×20.648	18	20.648	102.5	0.03940	23030
123	19×22.05	19	22.05	109.5	0.04690	23032
124	21×25.058	21	25.058	118.5	0.06490	23034
125	29×33.084	29	33.084	155	0.16300	23044
126	15.5×21.06	15.5	21.06	76	0.03000	23121
127	15.5×21.062	15.5	21.062	78	0.02800	23122
128	31×38.13	31	38.13	145.5	0.21200	23138
129	17.5×22.072	17.5	22.072	86.5	0.03930	24124
130	20.9×25.29	20.9	25.29	180	0.06280	29238
131	27×34.57	27	34.57	160.5	0.13600	29238
132	26.1×34.34	26.1	34.34	238.5	0.13300	29252
133	25.8×33.317	25.8	33.317	255.5	0.12700	29256
134	24.8×31.033	24.8	31.033	138	0.10000	29324
135	28×34.297	28	34.297	124	0.13900	29418
136	31×38.385	31	38.385	138	0.19000	29420
137	40×49.149	40	49.149	177	0.40500	29426
138	15.5×18.442	15.5	18.442	90.5	0.02730	
139	16×20.439	16	20.439	96	0.03060	
140	22.5×28.064	22.5	28.064	127	0.08310	
141	23.5×28.266	23.5	28.266	132	0.09160	
142	25×31.271	25	31.271	141	0.11400	
143	28×34.674	28	34.674	164.5	0.15900	
144	42×54.413	42	54.413	179.5	0.55000	
145	28.5×33.101	28.5	33.101	131	0.14000	
146	31×42.102	31	42.102	147.3	0.22300	
147	37×48.132	37	48.132	168	0.37800	

No.	Designations	Dimensions			Mass	Bearing No. for Reference
		D <sub>w</sub>	L <sub>w</sub>	R		
		mm			kg	
148	35×49.524	35	49.524	180.225	0.34800	
149	25.4×38.087	25.4	38.087	124.5	0.13800	
150	21×22.241	21	22.241	186	0.05760	
151	21×22.208	21	22.208	200	0.06160	
152	26×27.774	26	27.774	241	0.11300	
153	20.5×21.82	20.5	21.82	125.5	0.05380	
154	26×28.36	26	28.36	165	0.12300	
155	28×30.4	28	30.4	180	0.13200	
156	32×34.48	32	34.48	200	0.20900	
157	36×38.5	36	38.5	238	0.29400	
158	36×38.524	36	38.524	251	0.30000	
159	44×47.964	44	47.964	222	0.53700	
160	27.5×31.125	27.5	31.125	123	0.13600	23132K
161	40×47.212	40	47.212	163	0.43200	23240/W33
162	29.5×44.13	29.5	44.13	137.5	0.21700	24136/W33
163	33.8×32.846	33.8	32.846	106	0.20400	
164	26×33.034	26	33.034	166.5	0.13300	
165	25.4×38.087	25.4	38.087	124.5	0.13800	
166	18×24.867	18	24.867	111.5	0.05720	
167	31×33.658	31	33.658	150	0.18800	
168	35.5×60.149	35.5	60.149	169	0.41800	LZK-7



Type K

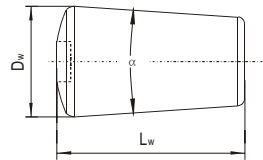


Type K

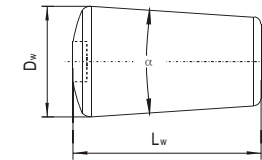
LYC Tapered Rollers

No.	Designations	Dimensions			Mass	Bearing No. for Reference
		$D_w$	$L_w$	R		
		mm			kg	
1	5.612×8.45×4°	5.612	8.45	4°	0.00146	30203
2	6.631×10.08×4°	6.631	10.08	4°	0.00242	30204
3	6.799×10.92×4°	6.799	10.92	4°	0.00274	30205
4	8.111×11.64×4°	8.111	11.64	4°	0.00420	30206
5	9.437×12.47×4°	9.437	12.47	4°	0.00615	30207
6	10.5×13.09×4°	10.5	13.09	4°	0.00803	30208
7	10.833×13.9×4°	10.833	13.9	4°	0.00906	30210
8	12.439×14.99×4°	12.439	14.99	4°	0.01300	30211
9	13.493×15.4×4°	13.493	15.4	4°	0.01570	30212
10	14.903×16.63×4°	14.903	16.63	4°	0.02080	30213
11	15.043×17.69×4°	15.043	17.69	4°	0.02240	30214
12	15.238×18.54×4°	15.238	18.54	4°	0.02400	30215
13	16.858×19.25×4°	16.858	19.25	4°	0.03060	30216
14	17.939×19.46×4°	17.939	19.46	4°	0.03530	30217
15	19.127×21.97×4°	19.127	21.97	4°	0.04510	30218
16	20.328×22.78×4°	20.328	22.78	4°	0.05290	30219
17	21.479×25.19×4°	21.479	25.19	4°	0.06510	30220
18	22.62×25.7×4°	22.62	25.7	4°	0.07380	30221
19	23.929×28.33×4°	23.929	28.33	4°	0.09100	30222
20	24.935×29.625×4°	24.935	29.625	4°	0.10300	30224
21	26.82×29.18×4°	26.82	29.18	4°	0.11800	30226
22	30.96×32.151×4°	30.96	32.151	4°	0.17500	30230
23	33.28×33.679×4°	33.28	33.679	4°	0.21200	30232
24	6.973×8.92×4°	6.973	8.92	4°	0.00241	30302
25	7.811×9.93×4°	7.811	9.93	4°	0.00337	30303
26	8.216×10.75×4°	8.216	10.75	4°	0.00402	30304
27	9.982×12.28×4°	9.982	12.28	4°	0.00682	30305
28	10.987×13.42×4°	10.987	13.42	4°	0.00903	30306
29	12.383×15.45×4°	12.383	15.45	4°	0.01320	30307
30	12.662×16.81×4°	12.662	16.81	4°	0.01490	30308
31	14.17×18.12×4°	14.17	18.12	4°	0.02020	30309
32	15.65×19.77×4°	15.65	19.77	4°	0.02690	30310
33	17.102×21.5×4°	17.102	21.5	4°	0.03500	31311
34	18.533×21.76×4°	18.533	21.76	4°	0.04180	30312
35	20.068×24.08×4°	20.068	24.08	4°	0.05420	30313
36	22.958×27.5×4°	22.958	27.5	4°	0.08100	30315
37	24.501×27.636×4°	24.501	27.636	4°	0.09340	30316
38	25.722×29.35×4°	25.722	29.35	4°	0.10900	30317
39	27.182×31.93×4°	27.182	31.93	4°	0.13200	30318
40	30.47×33.272×4°	30.47	33.272	4°	0.16400	30320
41	33.869×34.73×4°	33.869	34.73	4°	0.22600	30322
42	39.4×42.427×4°	39.4	42.427	4°	0.37200	30326
43	6.74×11.95×3°10'	6.74	11.95	3°10'	0.00300	30607
44	21.9×22.98×10°	21.9	22.98	10°	0.05490	30611
45	17×31.33×3°30'	17	31.33	3°30'	0.04930	30613
46	15.092×33.6×2°30'	15.092	33.6	2°30'	0.04230	30615
47	15.687×32.09×2°30'	15.687	32.09	2°30'	0.04400	30616
48	17×33.09×2°28'	17	33.09	2°28'	0.05370	30619
49	8.88×12.07×8°40'	8.88	12.07	8°40'	0.00466	31305

No.	Designations	Dimensions			Mass	Bearing No. for Reference
		$D_w$	$L_w$	R		
		mm			kg	
50	11.649×15.21×8°40'	11.649	15.21	8°40'	0.01020	31307
51	13.158×16.75×8°40'	13.158	16.75	8°40'	0.01440	31308
52	14.575×17.82×8°40'	14.575	17.82	8°40'	0.01890	31309
53	15.931×18.3×8°40'	15.931	18.3	8°40'	0.02350	31310
54	17.291×20.63×8°40'	17.291	20.63	8°40'	0.03100	31311
55	18.801×21.76×8°40'	18.801	21.76	8°40'	0.03880	31312
56	20.36×22.89×8°40'	20.36	22.89	8°40'	0.04810	31313
57	21.671×24.41×8°40'	21.671	24.41	8°40'	0.05810	31314
58	23.182×25.44×8°40'	23.182	25.44	8°40'	0.06960	31315
59	25.981×27.88×8°40'	25.981	27.88	8°40'	0.09640	31317
60	18.6×25.32×8°	18.6	25.32	8°	0.04360	31611
61	21×26.37×8°	21	26.37	8°	0.05880	31613
62	5.311×10.84×3°50'	5.311	10.84	3°50'	0.00160	32005
63	6.73×12.31×3°50'	6.73	12.31	3°50'	0.00300	32007
64	6.846×13.7×3°	6.846	13.7	3°	0.00353	32008
65	8.575×16.94×3°	8.575	16.94	3°	0.00685	32011
66	9.328×16.68×3°16'	9.328	16.68	3°16'	0.00799	32012
67	8.575×16.06×3°	8.575	16.06	3°	0.00650	32013
68	9.775×17.28×3°	9.775	17.28	3°	0.00920	32015
69	11.5×20.58×3°	11.5	20.58	3°	0.01510	32016
70	11.5×19.58×3°	11.5	19.58	3°	0.01440	32017
71	12.82×21.58×3°	12.82	21.58	3°	0.01980	32018
72	14.05×24.09×3°	14.05	24.09	3°	0.02650	32021
73	15.38×27.05×3°	15.38	27.05	3°	0.03560	32022
74	17.94×31.12×3°	17.94	31.12	3°	0.05580	32026
75	22.8×38.8×3°	22.8	38.8	3°	0.11300	32034
76	25.68×47.007×3°	25.68	47.007	3°	0.17200	32036
77	25.68×47.007×3°	25.68	47.007	3°	0.17200	32038
78	28×50.131×3°	28	50.131	3°	0.21900	32040
79	26×52.575×2°	26	52.575	2°	0.20200	32048
80	7.25×13.54×4°	7.25	13.54	4°	0.00380	32205
81	8.195×14.48×4°	8.195	14.48	4°	0.00520	32206
82	9.542×17.34×4°	9.542	17.34	4°	0.00846	32207
83	10.631×16.49×4°	10.631	16.49	4°	0.01020	32208
84	10.631×16.49×4°	10.631	16.49	4°	0.01020	32209
85	10.91×16.94×4°	10.91	16.94	4°	0.01100	32210
86	12.516×18.45×4°	12.516	18.45	4°	0.01580	32211
87	13.682×21.21×4°	13.682	21.21	4°	0.02170	32212
88	15.078×23.13×4°	15.078	23.13	4°	0.02870	32213
89	15.218×23.81×4°	15.218	23.81	4°	0.03010	32214
90	15.427×23.86×4°	15.427	23.86	4°	0.03100	32215
91	17.068×23.85×4°	17.068	23.85	4°	0.03830	32216
92	18.233×27.56×4°	18.233	27.56	4°	0.05010	32217
93	19.477×31.4×4°	19.477	31.4	4°	0.05460	32218
94	20.628×33.48×4°	20.628	33.48	4°	0.07740	32219
95	21.85×35.99×4°	21.85	35.99	4°	0.09320	32220
96	23×38.52×4°	23	38.52	4°	0.11000	32221
97	24.329×42.01×4°	24.329	42.01	4°	0.13400	32222
98	25.307×45.72×4°	25.307	45.72	4°	0.15700	32224



Type K

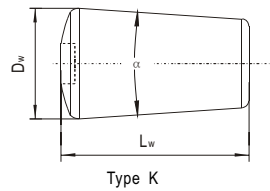
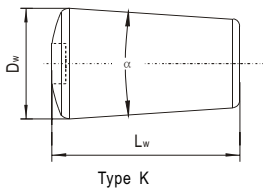


Type K

LYC Tapered Rollers

No.	Designations	Dimensions			Mass	Bearing No. for Reference
		D <sub>w</sub>	L <sub>w</sub>	R		
		mm			kg	
99	27.165x49.191x4°	27.165	49.191	4°	0.19500	32226
100	29.54x53.699x4°	29.54	53.699	4°	0.25100	32228
101	31.693x56.9x4°	31.693	56.9	4°	0.30700	32230
102	36.592x67.88x4°	36.592	67.88	4°	0.48600	32236
103	40.263x72.07x4°	40.263	72.07	4°	0.62700	32238
104	45.086x77.86x4°	45.086	77.86	4°	0.85400	32240
105	8.195x14.48x4°	8.195	14.48	4°	0.00523	32304
106	10.017x17.52x4°	10.017	17.52	4°	0.00946	32305
107	11.064x20.28x4°	11.064	20.28	4°	0.01330	32306
108	12.383x22.11x4°	12.383	22.11	4°	0.01820	32307
109	12.634x23.1x4°	12.634	23.1	4°	0.01970	32308
110	14.24x26.33x4°	14.24	26.33	4°	0.02850	32309
111	15.706x29.7x4°	15.706	29.7	4°	0.03900	32310
112	17.102x30.25x4°	17.102	30.25	4°	0.04760	32311
113	18.533x32.6x4°	18.533	32.6	4°	0.06020	32312
114	20.068x34.7x4°	20.068	34.7	4°	0.07520	32313
115	21.499x37.73x4°	21.499	37.73	4°	0.09390	32314
116	23.046x41.4x3°40'	23.046	41.4	3°40'	0.11800	32315
117	24.571x43.81x4°	24.571	43.81	4°	0.14200	32316
118	25.863x45.239x4°	25.863	45.239	4°	0.16300	32317
119	27.294x48.65x4°	27.294	48.65	4°	0.19500	32318
120	28.795x49.168x4°	28.795	49.168	4°	0.22000	32319
121	30.924x54.77x4°	30.924	54.77	4°	0.28200	32320
122	34.449x60.193x4°	34.449	60.193	4°	0.38500	32322
123	37.067x64.939x4°	37.067	64.939	4°	0.48100	32324
124	44x81.42x3°30'	44	81.42	3°30'	0.70000	32330
125	49.2x90.59x4°	49.2	90.59	4°	1.18000	32334
126	12.95x21.3x2°30'	12.95	21.3	2°30'	0.02020	32018X2/YA/P5
127	12.95x20.4x2°30'	12.95	20.4	2°30'	0.01940	32020X2
128	15.55x24.4x2°30'	15.55	24.4	2°30'	0.03360	32024X2/YA
129	18.15x29.1x2°30'	18.15	29.1	2°30'	0.05450	32028X2/YA
130	20.75x33.7x2°30'	20.75	33.7	2°30'	0.08250	32032X3/YA
131	25x42.066x2°	25	42.066	2°	0.15100	32038X4/YA
132	31.1x53.36x2°30'	31.1	53.36	2°30'	0.29000	32044X2
133	15.56x32.57x2°10'	15.56	32.57	2°10'	0.04450	32938
134	23x44.46x2°	23	44.46	2°	0.13400	32956
135	5.108x10x3°	5.108	10	3°	0.00150	L45449
136	5.605x11x3°7'	5.605	11	3°7'	0.00187	LM12749
137	5.701x9.2x3°26'	5.701	9.2	3°26'	0.00169	L4463
138	5.95x11.938x3°6'	5.95	11.938	3°6'	0.00160	JL69349
139	6.523x10.7x3°40'	6.523	10.7	3°40'	0.00253	LM11949
140	6.858x13.91x2°17'	6.858	13.91	2°17'	0.00369	KN102949
141	7.503x12.5x3°30'	7.503	12.5	3°30'	0.00388	LM48548
142	7.877x15.04x2°20'	7.877	15.04	2°20'	0.00530	LM104949
143	8.291x13.62x3°35'	8.291	13.62	3°35'	0.00510	LM501349
144	8.858x16.72x3°6'	8.858	16.72	3°6'	0.00722	JLM506848E
145	9.02x21.03x1°30'	9.02	21.03	1°30'	0.00980	LM119348D
146	10.415x22.41x4°57'	10.415	22.41	4°57'	0.01220	HM803146
147	12.511x27.62x4°30'	12.511	27.62	4°30'	0.02210	HM807048

No.	Designations	Dimensions			Mass	Bearing No. for Reference
		D <sub>w</sub>	L <sub>w</sub>	R		
		mm			kg	
148	14.5x26.51x2°	14.5	26.51	2°	0.01390	LM239504
149	15.458x31.03x2°45'	15.458	31.03	2°45'	0.04110	HM218248
150	15.875x28.649x3°30'	15.875	28.649	3°30'	0.03940	HM212047
151	16.08x33.58x2°20'	16.08	33.58	2°20'	0.04870	JM736149
152	17.648x29.95x3°36'	17.648	29.95	3°36'	0.05100	HM518445
153	19.7x25.33x7°40'	19.7	25.33	7°40'	0.04990	H913849
154	20.495x34.045x1°34'	20.495	34.045	1°34'	0.08360	LM247704
155	20.9x34.04x1°30'	20.9	34.04	1°30'	0.08700	L357004
156	22.564x41.26x1°46'	22.564	41.26	1°46'	0.12100	LM451304
157	24.57x39.1x3°26'	24.57	39.1	3°26'	0.13100	H221647NA
158	25.4x28.06x1°54'	25.4	28.06	1°54'	0.10700	LM249704
159	27.85x45.058x1°30'	27.85	45.058	1°30'	0.20500	LM263149Dw
160	28.762x50.13x3°29'40"	28.762	50.13	3°29'40"	0.22700	HM224334
161	30.346x45.614x2°40'	30.346	45.614	2°40'	0.23900	LM237504
162	33.35x45.905x2°	33.35	45.905	2°	0.29700	L770849Dw
163	11.3x23.1x4°	11.3	23.1	4°	0.01560	33209
164	11.53x24.08x3°10'	11.53	24.08	3°10'	0.01740	33113
165	14.32x31.76x2°	14.32	31.76	2°	0.03680	33021
166	14.35x34.06x1°56'	14.35	34.06	1°56'	0.03960	33022
167	15.124x30.76x3°50'	15.124	30.76	3°50'	0.03740	33213
168	15.547x32.98x2°16'	15.547	32.98	2°16'	0.04480	352936
169	17.75x29.69x2°16'	17.75	29.69	2°16'	0.05340	352122
170	19.74x43.16x3°40'	19.74	43.16	3°40'	0.08900	33219
171	25x43.48x2°	25	43.48	2°	0.15300	382952
172	29.1x53.13x3°	29.1	53.13	3°	0.25000	352136
173	30.55x31.135x2°50'	30.55	31.135	2°50'	0.16800	351044
174	31.2x30.1x3°30'	31.2	30.1	3°30'	0.17000	380641
175	31.96x53.605x2°20'	31.96	53.605	2°20'	0.31200	352138
176	32.006x41.175x2°30'	32.006	41.175	2°30'	0.24000	380652
177	37.4x63.166x3°	37.4	63.166	3°	0.49400	352144
178	5.5x8.23x2°	5.5	8.23	2°	0.00140	32908X2/P4
179	5.615x8.1x5°1'	5.615	8.1	5°1'	0.00140	LR306/46.673
180	6.196x9.32x4°	6.196	9.32	4°	0.00196	
181	6.63x10.06x3°50'	6.63	10.06	3°50'	0.00240	3506/42X3TN1-2RS
182	6.88x13.55x3°	6.88	13.55	3°	0.00350	3506/49-2LS
183	6.944x9.06x4°	6.944	9.06	4°	0.00231	3506/34X3TN1-2RS
184	7x15.55x3°	7	15.55	3°	0.00410	350610X3TN1-2RS
185	7.33x14.3x3°	7.33	14.3	3°	0.00420	32010/YB2
186	7.38x14.03x1°50'	7.38	14.03	1°50'	0.00440	32916/P5
187	7.785x13.34x3°33'20"	7.785	13.34	3°33'20"	0.00443	
188	8.105x13.05x3°	8.105	13.05	3°	0.00480	
189	8.19x13.442x13°30'	8.19	13.442	13°30'	0.00363	T135
190	8.209x16.78x3°	8.209	16.78	3°	0.00620	M201047
191	8.323x10.1x6°	8.323	10.1	6°	0.00350	LR306/40.62
192	8.585x11.85x6°	8.585	11.85	6°	0.00460	31305X2/YB2
193	8.636x15.12x4°20'	8.636	15.12	4°20'	0.00600	
194	8.697x14x4°	8.697	14	4°	0.00580	
195	8.996x17.85x3°	8.996	17.85	3°	0.00793	
196	9.066x16.77x3°30'	9.066	16.77	3°30'	0.00725	32209/YB2



LYC Tapered Rollers

No.	Designations	Dimensions			Mass	Bearing No. for Reference
		D <sub>w</sub>	L <sub>w</sub>	R		
		mm			kg	
197	9.087×18.06×3°	9.087	18.06	3°	0.00818	
198	9.1×19.92×6°	9.1	19.92	6°	0.00790	32306AN
199	9.232×18.06×3°30'	9.232	18.06	3°30'	0.00845	
200	9.3×9.301×14°50'	9.3	9.301	14°50'	0.00375	LY-9004
201	9.367×15.8×5°30'	9.367	15.8	5°30'	0.00710	30306X2B/YB2
202	9.59×16.107×5°4'	9.59	16.107	5°4'	0.00800	
203	10×13.5×8°	10	13.5	8°	0.00650	
204	10.336×13.81×8°40'	10.336	13.81	8°40'	0.00725	31306/YB2
205	10.422×18.62×5°21'	10.422	18.62	5°21'	0.01040	M802048
206	10.601×22.26×3°16'	10.601	22.26	3°16'	0.01350	
207	10.634×20.94×6°	10.634	20.94	6°	0.01170	323/32
208	10.737×14.27×3°7'30"	10.737	14.27	3°7'30"	0.00930	37431A
209	10.77×22.273×3°5'	10.77	22.273	3°5'	0.01400	
210	11.35×20.65×6°	11.35	20.65	6°	0.01330	32307CN
211	11.4×21.83×3°10'	11.4	21.83	3°10'	0.01550	
212	11.92×15.63×5°	11.92	15.63	5°	0.01200	30211X2
213	12.35×25.8×3°50'	12.35	25.8	3°50'	0.02080	33910/YB2
214	12.4×22.08×2°50'	12.4	22.08	2°50'	0.01900	30616/YB2
215	12.5×29.05×1°40'	12.5	29.05	1°40'	0.02590	
216	12.7×22.87×6°	12.7	22.87	6°	0.01850	32308CN
217	13.2×29.56×2°	13.2	29.56	2°	0.02910	33019/YB2
218	13.3×22.97×2°30'	13.3	22.97	2°30'	0.02300	33114X2
219	13.752×25.5×3°10'	13.752	25.5	3°10'	0.02660	594A
220	13.8×33.9×3°30'	13.8	33.9	3°30'	0.03400	306/47
221	13.9×33.1×3°20'	13.9	33.1	3°20'	0.03390	DUF65168110
222	14.5×28.11×3°20'	14.5	28.11	3°20'	0.03220	DUF55168100
223	15.15×20.365×8°	15.15	20.365	8°	0.02300	30309X2B
224	15.47×30.27×2°10'	15.47	30.27	2°10'	0.04110	352026X2
225	15.64×30.18×1°50'	15.64	30.18	1°50'	0.04240	352936X2
226	15.76×33.11×3°14'	15.76	33.11	3°14'	0.04450	33118TN1
227	16×21.6×1°30'	16	21.6	1°30'	0.03270	D1007856
228	16.6×35.745×1°50'	16.6	35.745	1°50'	0.05620	352940X2
229	16.93×33.23×3°26'	16.93	33.23	3°26'	0.05160	LY-3026
230	17.081×31.76×3°	17.081	31.76	3°	0.05130	
231	17.58×29.08×2°	17.58	29.08	2°	0.05180	352936X2/YA4
232	17.8×36.15×3°50'	17.8	36.15	3°50'	0.06080	
233	18.278×34.13×3°10'	18.278	34.13	3°10'	0.06270	NA759
234	18.49×38.05×2°	18.49	38.05	2°	0.07400	352940X2/YA1
235	19.093×36.09×2°4'	19.093	36.09	2°4'	0.07500	352944X2
236	19.43×32.045×1°31'	19.43	32.045	1°31'	0.07080	32948/YB2
237	19.447×28.08×1°46'	19.447	28.08	1°46'	0.06180	37941K
238	19.6×42.13×3°	19.6	42.13	3°	0.08820	350620D1
239	20×35.054×2°10'	20	35.054	2°10'	0.08020	352948X2
240	20×35.1×2°	20	35.1	2°	0.07900	
241	20.8×26.56×8°	20.8	26.56	8°	0.05790	30313X2B
242	21.6×44.12×3°46'	21.6	44.12	3°46'	0.11000	33220/YB2
243	22×32.11×2°20'	22	32.11	2°20'	0.08940	M541349
244	22.8×38.76×3°	22.8	38.76	3°	0.11300	
245	23×21.775×7°52'	23	21.775	7°52'	0.06150	LY-9003

No.	Designations	Dimensions			Mass	Bearing No. for Reference
		D <sub>w</sub>	L <sub>w</sub>	R		
		mm			kg	
246	23.24×27.535×1°3'	23.24	27.535	1°3'	0.09220	LY-3019
247	24.3×28.456×3°30'	24.3	28.456	3°30'	0.09500	32006X2
248	24.755×31.339×8°	24.755	31.339	8°	0.09740	
249	24.805×38.106×3°	24.805	38.106	3°	0.13200	LY-3023
250	24.914×45.11×3°10'30"	24.914	45.11	3°10'30"	0.15500	
251	25×43.48×2°	25	43.48	2°	0.15600	32952X2
252	25×43.17×1°30'	25	43.17	1°30'	0.15900	352956X2
253	25.361×50.06×1°50'4"	25.361	50.06	1°50'4"	0.18500	M249749
254	25.381×50.057×1°50'4"	25.381	50.057	1°50'4"	0.18500	47T513627
255	25.505×46.078×2°16'	25.505	46.078	2°16'	0.17000	37248WF
256	25.772×48.774×1°35'	25.772	48.774	1°35'	0.18800	M257204
257	26×52.575×2°	26	52.575	2°	0.20200	352048X2
258	26.05×47.084×2°30'	26.05	47.084	2°30'	0.18000	352132X2
259	26.4×33.164×3°40'	26.4	33.164	3°40'	0.13000	LY-3029
260	26.46×48.085×2°	26.46	48.085	2°	0.19300	EE135111D
261	27.1×51.07×1°50'	27.1	51.07	1°50'	0.21600	M252304
262	27.54×38.277×2°	27.54	38.277	2°	0.17000	250KVE3601AEg
263	27.58×42.116×2°40'	27.58	42.116	2°40'	0.18200	350641D
264	28×50.568×1°30'	28	50.568	1°30'	0.23100	382968/HC C9
265	29.8×31.51×2°30'	29.8	31.51	2°30'	0.16300	382952X3
266	30×36.369×8°10'	30	36.369	8°10'	0.16600	45T202211-1F2
267	30.18×46.386×1°46'	30.18	46.386	1°46'	0.24600	EE330116D
268	30.679×47.7×2°24'	30.679	47.7	2°24'	0.25700	47T563927AwH
269	31.1×53.358×2°30'	31.1	53.358	2°30'	0.29000	382044/HCYB2
270	32.026×41.129×2°30'	32.026	41.129	2°30'	0.24300	382052X2
271	33.6×59.55×2°	33.6	59.55	2°	0.37000	352052X2
272	35.719×60.173×3°10'	35.719	60.173	3°10'	0.42700	EE420804
273	38.4×84.62×2°30'	38.4	84.62	2°30'	0.69200	46T504125GWH
274	38.52×51.15×3°	38.52	51.15	3°	0.43200	240KBE031+L
275	40.45×45.592×8°40'	40.45	45.592	8°40'	0.38300	31326DF
276	42.668×55.467×7°30'	42.668	55.467	7°30'	0.51600	LY-3018
277	43×80.23×3°20'	43	80.23	3°20'	0.60000	32244X2
278	45.72×62.23×3°2'30"	45.72	62.23	3°2'30"	0.73800	3-757
279	46×41.96×3°30'	46	41.96	3°30'	0.51500	31244
280	24.74×47.46×2°20'	24.74	47.46	2°20'	0.16300	352226X2-2RZ
281	18.557×41.965×1°48'	18.557	41.965	1°48'	0.08200	RT-641125
282	22.213×50.055×1°54'	22.213	50.055	1°54'	0.14200	RT-641134
283	10.786×13.9×4°	10.786	13.9	4°	0.00900	B3-709
284	14.261×16.1×4°	14.261	16.1	4°	0.01700	B3-710