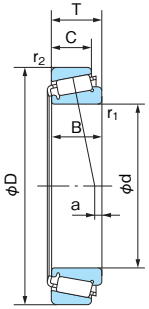
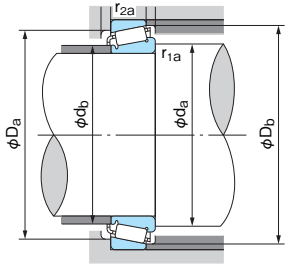
Tapered Roller Bearings

Inch Series

Bore Diameter: 15.875～30.163mm





■Dynamic equivalent radial load

Pr=XFr+YFa

$\frac{Fa}{Fr} \leqq e$		$\frac{Fa}{Fr} > e$	
X	Y	X	Y
1	0	0.4	Y_1

Values e and Y_1 from table.

■Static equivalent radial load

Larger value of following to be used:

Por=0.5Fr+Y_0Fa

Por=Fr

Values Y_0 from table.

1N=0.102kgf

Boundary dimensions (mm)							Bearing No.		Basic load rating		Limiting speed (min^{-1})		Abutment and fillet dimensions (mm)						Load center (mm) a (1)	Constant e	Axial load factor		Mass(kg) Reference		Bearing No.	
d	D	T	B	C	r_1 (min)	r_2 (min)	Cone	Cup	Cr (kN)	Cor (kN)	Grease	Oil	da	db	Da	Db	r_{1a}	r_{2a}			Y_1	Y_0	Cone	Cup	Cone	Cup
15.875	42.863	14.288	14.288	9.525	1.60	1.60	**H-11590**	**H-11520**	17.8	17.7	10000	14000	24.5	22.5	34.5	39.5	1.60	1.60	1.2	0.70	0.85	0.47	0.06	0.04	**H-11590**	**H-11520**
17.463	39.878	13.843	14.605	10.668	1.20	1.20	**H-LM11749R**	**H-LM11710**	25.4	26.0	11000	14000	23.0	21.5	34.0	37.0	1.20	1.20	5.2	0.29	2.10	1.15	0.058	0.028	**H-LM11749R**	**H-LM11710**
19.050	45.237	15.494	16.637	12.065	1.20	1.20	**H-LM11949**	**H-LM11910**	29.4	30.1	9400	13000	25.0	23.5	39.5	41.5	1.20	1.20	5.5	0.30	2.00	1.10	0.081	0.044	**H-LM11949**	**H-LM11910**
	49.225	18.034	19.050	14.288	1.20	1.20	**H-09067**	**H-09195**	37.7	37.7	8900	12000	25.5	24.0	42.0	44.5	1.20	1.20	7.4	0.27	2.26	1.24	0.114	0.065	**H-09067**	**H-09195**
	53.975	22.225	21.839	15.875	1.57	2.36	**H-21075**	**H-21212**	42	41.2	8400	11000	31.5	26.0	43.0	50.0	1.57	2.36	5.6	0.59	1.02	0.56	0.159	0.095	**H-21075**	**H-21212**
21.430	50.005	17.526	18.288	13.970	1.17	1.17	**H-M12649**	**H-M12610**	39.1	40.7	8500	11000	27.5	25.5	44.0	46.0	1.17	1.17	6.4	0.28	2.16	1.19	0.119	0.058	**H-M12649**	**H-M12610**
21.987	45.237	15.494	16.637	12.065	1.27	1.27	**H-LM12749**	**H-LM12710**	30.1	34.6	8900	12000	27.5	26.0	39.5	42.0	1.27	1.27	5.5	0.31	1.96	1.08	0.078	0.038	**H-LM12749**	**H-LM12710**
	45.975	15.494	16.637	12.065	1.27	1.27	**H-LM12749**	**H-LM12711**	30.1	34.6	8900	12000	27.5	26.0	40.0	42.5	1.27	1.27	5.5	0.31	1.96	1.08	0.078	0.043	**H-LM12749**	**H-LM12711**
22.225	52.388	19.368	20.168	14.288	1.60	1.60	**H-1380**	**H-1328**	36.7	37.9	8000	11000	29.5	29.5	45.0	48.5	1.60	1.60	7.7	0.29	2.05	1.13	0.132	0.066	**H-1380**	**H-1328**
	56.896	19.368	19.837	15.875	1.20	1.20	**H-1755**	**H-1729**	40.0	43.1	7600	10000	29.0	27.5	49.0	51.0	1.20	1.20	7.1	0.31	1.95	1.07	0.150	0.100	**H-1755**	**H-1729**
	57.150	22.225	22.225	17.463	0.80	1.60	**H-1280**	**H-1220**	52.6	55.7	7600	10000	29.5	29.0	49.0	52.0	0.80	1.60	7.9	0.35	1.73	0.95	0.189	0.105	**H-1280**	**H-1220**
23.812	56.896	19.368	19.837	15.875	0.80	1.20	**H-1779**	**H-1729**	40.0	43.1	7600	10000	29.5	28.5	49.0	51.0	0.80	1.20	7.1	0.31	1.95	1.07	0.141	0.100	**H-1779**	**H-1729**
25.400	50.292	14.224	14.732	10.668	1.20	1.20	**H-L44643R**	**H-L44610**	31.2	37.0	7800	10000	31.5	29.5	44.5	47.0	1.20	1.20	3.2	0.37	1.60	0.88	0.092	0.039	**H-L44643R**	**H-L44610**
	57.150	19.431	19.431	14.732	1.57	1.57	**H-M84548**	**H-M84510**	42.2	49.2	7300	9700	36.0	33.0	48.5	54.0	1.57	1.57	3.4	0.55	1.10	0.60	0.156	0.088	**H-M84548**	**H-M84510**
	61.999	19.050	20.638	14.288	3.60	1.20	**H-15100**	**H-15245**	44.6	50.7	6400	8600	38.0	31.5	55.0	58.0	3.60	1.20	5.7	0.35	1.71	0.94	0.215	0.081	**H-15100**	**H-15245**
	61.999	19.050	20.638	14.288	0.80	1.20	**H-15101**	**H-15245**	44.6	50.7	6400	8600	32.5	31.5	55.0	58.0	0.80	1.20	5.7	0.35	1.71	0.94	0.215	0.081	**H-15101**	**H-15245**
	64.292	21.433	21.433	16.670	1.57	1.57	**H-M86643R**	**H-M86610**	55.2	70.7	6400	8500	38.0	36.5	54.0	61.0	1.57	1.57	3.4	0.55	1.10	0.60	0.248	0.127	**H-M86643R**	**H-M86610**
	65.088	22.225	21.463	15.875	1.60	1.60	**H-23100**	**H-23256**	47.8	51.7	5600	7900	39.0	34.5	53.0	61.0	1.60	1.60	2.2	0.73	0.82	0.45	0.231	0.141	**H-23100**	**H-23256**
26.157	61.913	19.050	20.638	14.288	0.80	2.00	**H-15103**	**H-15243**	44.6	50.7	6400	8600	33.0	32.5	55.0	58.0	0.80	2.00	5.7	0.35	1.71	0.94	0.213	0.079	**H-15103**	**H-15243**
	61.999	19.050	20.638	14.288	0.80	1.20	**H-15103**	**H-15245**	44.6	50.7	6400	8600	33.0	32.5	55.0	58.0	0.80	1.20	5.7	0.35	1.71	0.94	0.213	0.081	**H-15103**	**H-15245**
26.988	50.292	14.224	14.732	10.668	3.60	1.20	**H-L44649R**	**H-L44610**	31.2	37	7800	10000	37.5	31.0	44.5	47.0	3.60	1.20	3.2	0.37	1.60	0.88	0.083	0.039	**H-L44649R**	**H-L44610**
	61.999	19.050	20.638	14.288	0.80	1.20	**H-15106**	**H-15245**	44.6	50.7	6400	8600	33.5	33.0	55.0	58.0	0.80	1.20	5.7	0.35	1.71	0.94	0.206	0.081	**H-15106**	**H-15245**
	63.500	20.638	20.638	15.875	0.80	1.20	**H-15106**	**H-15250**	44.6	50.7	6400	8600	33.5	33.0	56.0	59.0	0.80	1.20	5.7	0.35	1.71	0.94	0.206	0.112	**H-15106**	**H-15250**
	63.500	20.638	20.638	15.875	0.80	1.60	**H-15106**	**H-15250X**	44.6	50.7	6400	8600	33.5	33.0	55.0	59.0	0.80	1.60	5.7	0.35	1.71	0.94	0.206	0.111	**H-15106**	**H-15250X**
28.575	57.150	19.845	19.355	15.875	3.60	1.60	**H-1988R**	**H-1922**	48.8	57.1	7000	9300	39.5	33.5	51.0	53.5	3.60	1.60	5.9	0.33	1.82	1.00	0.151	0.076	**H-1988R**	**H-1922**
	61.999	19.050	20.638	14.288	3.60	1.20	**H-15112**	**H-15245**	44.6	50.7	6400	8600	40.0	34.0	55.0	58.0	3.60	1.20	5.7	0.35	1.71	0.94	0.193	0.081	**H-15112**	**H-15245**
	63.500	20.638	20.638	15.875	3.60	1.20	**H-15112**	**H-15250**	44.6	50.7	6400	8600	40.0	34.0	56.0	59.0	3.60	1.20	5.7	0.35	1.71	0.94	0.193	0.112	**H-15112**	**H-15250**
	64.292	21.433	21.433	16.670	1.60	1.60	**H-M86647R**	**H-M86610**	55.2	70.7	6400	8500	40.0	38.0	54.0	61.0	1.60	1.60	3.4	0.55	1.10	0.60	0.225	0.127	**H-M86647R**	**H-M86610**
	68.263	22.225	22.225	17.463	0.80	1.60	**H-02474**	**H-02420**	51.0	61.1	6000	8000	36.5	36.0	59.0	63.0	0.80	1.60	5.1	0.42	1.44	0.79	0.252	0.150	**H-02474**	**H-02420**
	73.025	22.225	22.225	17.463	0.80	3.20	**H-02872**	**H-02820**	55.0	65.7	5500	7400	37.5	37.0	62.0	68.0	0.80	3.20	3.7	0.45	1.32	0.73	0.319	0.158	**H-02872**	**H-02820**
29.000	50.292	14.224	14.732	10.668	3.60	1.27	**H-L45449**	**H-L45410**	28.9	37.2	7600	10000	39.5	33.0	44.5	48.0	3.60	1.27	3.3	0.37	1.62	0.89	0.079	0.036	**H-L45449**	**H-L45410**
29.987	61.999	19.050	20.638	14.288	1.20	1.20	**H-15117**	**H-15245**	44.6	50.7	6400	8600	36.5	35.0	55.0	58.0	1.20	1.20	5.7	0.35	1.71	0.94	0.184	0.081	**H-15117**	**H-15245**
30.000	72.085	22.385	19.202	18.415	0.80	2.40	**H-14118**	**H-14283**	46.1	55	5900	7800	37.0	36.5	60.0	65.0	0.80	2.40	4.4	0.38	1.57	0.86	0.224	0.21	**H-14118**	**H-14283**
30.163	64.292	21.433	21.433	16.670	1.57	1.57	**H-M86649R**	**H-M86610**	55.2	70.7	6400	8500	41.0	38.0	54.0	61.0	1.57	1.57	3.4	0.55	1.10	0.60	0.213	0.127	**H-M86649R**	**H-M86610**
	68.263	22.225	22.225	17.463	2.40	1.60	**H-M88043**	**H-M88010**	56.1	71.1	6000	7900	43.5	39.5	58.0	65.0	2.40	1.60	3.0	0.55	1.10	0.60	0.258	0.144	**H-M88043**	**H-M88010**

Note: (1) Minus value of load center "a" indicates that the center is located outside of cone backface.