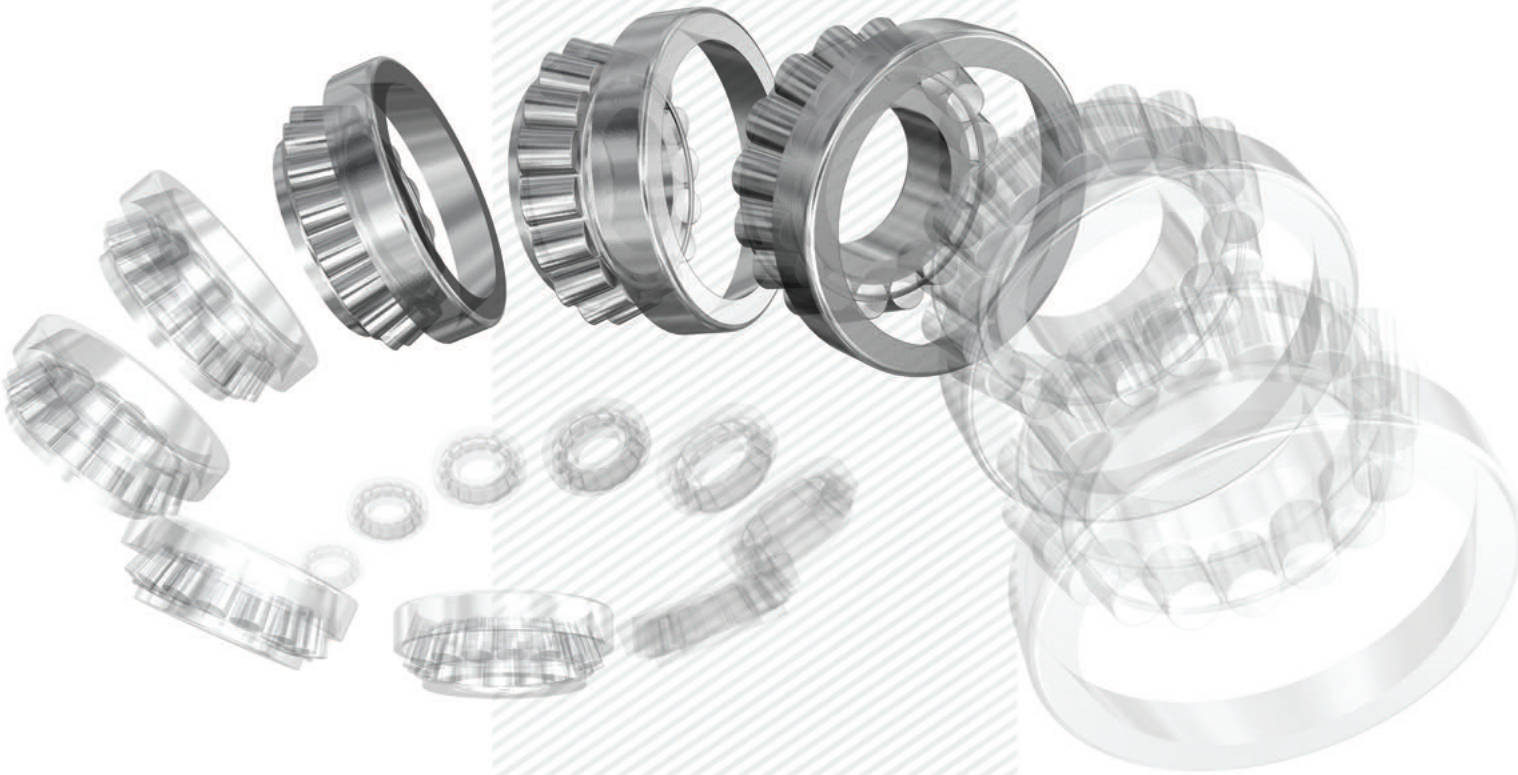
Koyo®

Inch Series

• General Bearings •

TAPERED ROLLER BEARINGS



JTEKT

JTEKT CORPORATION

JTEKT Koyo TOYODA

CAT. NO. B2009E-2

Koyo®

Inch Series

TAPERED ROLLER BEARINGS

CAT. NO. B2009E-2

Value & Technology

Publication of New Koyo Inch series Tapered Roller Bearing Catalog

Allow us to express our heartfelt appreciation for your valuable patronage.

At this time we are pleased to provide you with our new Koyo Inch Series Tapered Roller Bearing Catalog.

JTEKT Corporation has long enjoyed a strong reputation as a maker of inch-series tapered roller bearings from the time of its predecessor Koyo Seiko, and in recent years we have continued intense R&D activities to make improvements in such areas as the size, weight, and environmental friendliness of these bearings. The fruits of these efforts are reflected in the bearings described in this new catalog.

You will notice that this new catalogue has undergone a thorough revision from the previous version and contains model information based on the latest results.

We believe this catalogue will prove valuable to you in your selection and use of Koyo bearings, and we look forward to your continued patronage.

★The contents of this catalog are subject to change without prior notice. Every possible effort has been made to ensure that the data herein is correct; however, JTEKT cannot assume responsibility for any errors or omissions.

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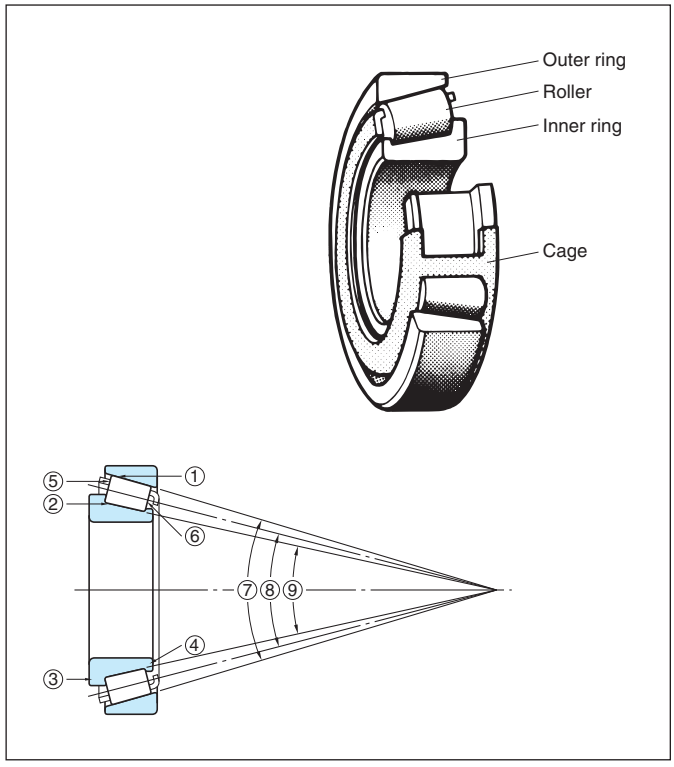
1 Structure of tapered roller bearings

Tapered roller bearings consist of outer ring, inner ring, rollers and a cage. This bearing contains tapered rollers for its rolling element which are guided by the inner ring back-face rib on the roller large end face.

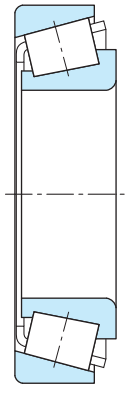
The raceway surfaces of inner ring and outer ring and the rolling contact surface of rollers are designed so that the respective apexes converge at a point on the bearing center line.

Bearings are classified into standard, intermediate and steep types, in accordance with their contact angle (α).
The larger the contact angle is, the greater the bearing resistance to axial load.



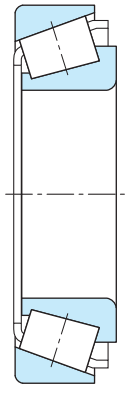
① Outer ring raceway
② Inner ring raceway
③ Inner ring backface rib
④ Inner ring front face rib
⑤ Roller large end face
⑥ Roller small end face
⑦ Included outer ring angle
⑧ Included roller center angle
⑨ Included inner ring angle

- Tapered roller bearing with standard contact angle



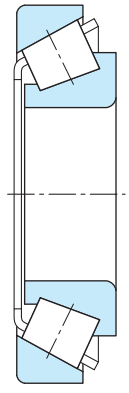
TS Type

- Tapered roller bearing with medium contact angle



TS Type

- Tapered roller bearing with steep contact angle



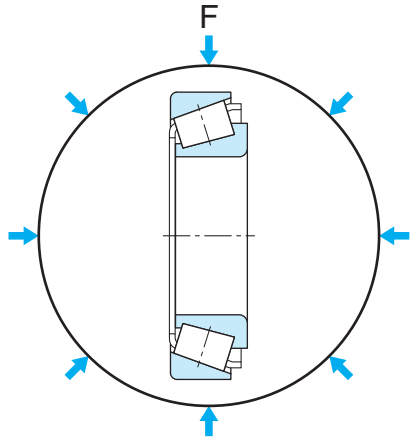
TSS Type

2 Outstanding features of tapered roller bearings

1) Higher load ratings

Tapered roller bearings with higher load ratings can accept radial loads or axial loads in one direction and combined radial and axial loads.

This type of bearing is suitable for use under heavy load or impact load.



2) The outer ring can be mounted separately from the inner ring assembly

Since the outer ring is separable from the inner ring assembly, the inner ring assembly can be installed on the shaft and the outer ring in the housing, individually.

This feature facilitates mounting of the bearing while making the design of the shaft and housing simpler. In addition, more options regarding the fitting practice employed are available than with any other type of bearing.

3) Mounted clearance is adjustable

In general, bearings of unitized design are supplied with a predetermined radial clearance which will vary according to fitting practice and application. Tapered roller bearings on the other hand can be adjusted at the time of installation by varying the axial location of either the inner ring assembly or outer ring.

3 Bearing service life

3.1 Bearing service life

When bearings rotate under load, material flakes from the surfaces of inner and outer rings or rolling elements by fatigue arising from repeated contact stress.

This phenomenon is called flaking.

The total number of bearing rotations until flaking occurs is regarded as the bearing "(fatigue) service life".

"(Fatigue) service life" differs greatly depending upon bearing structures, dimensions, materials, and processing methods.

Since this phenomenon results from fatigue distribution in bearing materials themselves, differences in bearing service life should be statistically considered.

When a group of identical bearings are rotated under the same conditions, the total number of revolutions until 90 % of the bearings are left without flaking (i.e. a service life of 90 % reliability) is defined as the basic rating life. In operation at a constant speed, the basic rating life can be expressed in terms of time.

3.2 Basic dynamic load ratings

Basic dynamic load ratings, C

The basic dynamic load rating is either pure radial (for radial bearings) or central axial load (for thrust bearings) of constant magnitude in a constant direction, under which the basic rating life of 1 million revolutions can be obtained, when the inner ring rotates while the outer ring is stationary, or vice versa. The basic dynamic load rating, which represents the capacity of a bearing under rolling fatigue, is specified as the basic dynamic radial load rating (C_r) for radial bearings, and basic dynamic axial load rating (C_a) for thrust bearings. These load ratings are listed in the specification table.

These values are prescribed by ISO 281/1990, and are subject to change by conformance to the latest ISO standards.

3.3 Calculation of service life

Generally, the relationship between the dynamic load rating, applied load and basic rating life of the bearing is expressed as follows :

$$L_{10} = \left(\frac{C}{P}\right)^{10/3} \quad \text{(3.1)}$$

where :

L_{10} : basic rating life $\times 10^6$ revolutions

C : basic dynamic load rating N

P : dynamic equivalent radial (or axial) load N

In case the bearing operates at a constant speed, it is often convenient to express the life in terms of hours which can be obtained by the following equation :

$$L_{10h} = \left(\frac{C}{P}\right)^{10/3} \frac{16\,667}{n} \quad \text{(3.2)}$$

where :

L_{10h} : life in terms of hours h

$$\left\{ \begin{aligned} L_{10h} &= L_{10} \times \frac{10^6}{60n} \\ &= \left(\frac{C}{P}\right)^{10/3} \frac{10^6}{60n} \\ &= \left(\frac{C}{P}\right)^{10/3} \frac{16\,667}{n} \end{aligned} \right\}$$

n : rotational speed min^{-1}

Life calculation can be further simplified by the use of service life coefficient (f_h) and coefficient of rotational speed (f_n) as tabulated in **Tables 3.3** and **3.4**.

$$L_{10h} = 500 \cdot f_h^{10/3} \quad \text{(3.3)}$$

$$f_h = f_n \cdot \frac{C}{P} \quad \text{(3.4)}$$

$$f_n = \left(\frac{33.3}{n}\right)^{3/10} \quad \text{(3.5)}$$

3.4 Correction of basic dynamic load rating for high temperature use and dimension stabilizing treatment

In high temperature operation, bearing material hardness deteriorates, as material compositions are altered. As a result, the basic dynamic load rating is diminished. Once altered, material composition is not recovered, even if operating temperatures return to normal.

Therefore, for bearings used in high temperature operation, the basic dynamic load rating should be corrected by multiplying the basic dynamic load rating values specified in the bearing specification table by the temperature coefficient values in **Table 3.1**.

Table 3.1 Temperature coefficient values

Bearing temperature, °C	125	150	175	200	250
Temperature coefficient	1	1	0.95	0.90	0.75

3.5 Modified rating life $L_{n\mathrm{m}}$

The life of rolling bearings was standardized as a basic rating life in the 1960s, but in actual applications, sometimes the actual life and the basic rating life have been quite different due to the lubrication status and the influence of the usage environment. To make the calculated life closer to the actual life, a corrected rating life has been considered since the 1980s. In this corrected rating life, bearing characteristic factor a_2 (a correction factor for the case in which the characteristics related to the life are changed due to the bearing materials, manufacturing process, and design) and usage condition factor a_3 (a correction factor that takes into account usage conditions that have a direct influence on the bearing life, such as the lubrication) or factor a_{23} formed from the interdependence of these two factors, are considered with the basic rating life. These factors were handled differently by each bearing manufacturer, but they have been standardized as a modified rating life in **ISO 281** in 2007. In 2013, **JIS B 1518** (dynamic load ratings and rating life) was amended to conform to the **ISO**.

The basic rating life (L_{10}) shown in **Equation (3.1)** is the (fatigue) life with a dependability of 90 % under normal usage conditions for rolling bearings that have standard factors such as internal design, materials, and manufacturing quality. **JIS B 1518**:2013 specifies a calculation method based on **ISO 281**:2007. To calculate accurate bearing life under a variety of operating conditions, it is necessary to consider elements such as the effect of changes in factors that can be anticipated when using different reliabilities and system approaches, and interactions between factors. Therefore, the specified calculation method considers additional stress due to the lubrication status, lubricant contamination, and fatigue load limit C_{u} (refer to p. 8) on the inside of the bearing. The life that uses this life modification factor a_{ISO}, which considers the above factors, is called modified rating life $L_{n\mathrm{m}}$ and is calculated with the following **Equation (3.6)**.

$$L_{n\mathrm{m}} = a_1 a_{\mathrm{ISO}} L_{10} \quad \cdots\cdots (3.6)$$

In this equation,

$L_{n\mathrm{m}}$: modified rating life 10^6 rotations

(This rating life has been modified for one of or a combination of the following: reliability of 90 % or higher, fatigue load limit, special bearing characteristics, lubrication contamination, and special operating conditions.)

L_{10} : basic rating life 10^6 rotations

(reliability: 90 %)

a_1 : life modification factor for reliability ····· refer to section (1)

a_{ISO} : life modification factor ····· refer to section (2)

[Remark]

When bearing dimensions are to be selected given $L_{n\mathrm{m}}$ greater than 90 % in reliability, the strength of shaft and housing must be considered.

(1) Life modification factor for reliability a_1

The term "reliability" is defined as "for a group of apparently identical rolling bearings, operating under the same conditions, the percentage of the group that is expected to attain or exceed a specified life" in **ISO 281**:2007. Values of a_1 used to calculate a modified rating life with a reliability of 90 % or higher (a failure probability of 10 % or less) are shown in **Table 3.2**.

Table 3.2 Life modification factor for reliability a_1

Reliability, %	$L_{n\mathrm{m}}$	a_1
90	$L_{10\mathrm{m}}$	1
95	$L_{5\mathrm{m}}$	0.64
96	$L_{4\mathrm{m}}$	0.55
97	$L_{3\mathrm{m}}$	0.47
98	$L_{2\mathrm{m}}$	0.37
99	$L_{1\mathrm{m}}$	0.25
99.2	$L_{0.8\mathrm{m}}$	0.22
99.4	$L_{0.6\mathrm{m}}$	0.19
99.6	$L_{0.4\mathrm{m}}$	0.16
99.8	$L_{0.2\mathrm{m}}$	0.12
99.9	$L_{0.1\mathrm{m}}$	0.093
99.92	$L_{0.08\mathrm{m}}$	0.087
99.94	$L_{0.06\mathrm{m}}$	0.080
99.95	$L_{0.05\mathrm{m}}$	0.077

(Citation from **JIS B 1518**:2013)

(2) Life modification factor a_{ISO}

a) System approach

The various influences on bearing life are dependent on each other. The system approach of calculating the modified life has been evaluated as a practical method for determining life modification factor a_{ISO} (ref. **Fig. 3.1**). Life modification factor a_{ISO} is calculated with the following equation. A diagram is available for each bearing type (radial ball bearings, radial roller bearings, thrust ball bearings, and thrust roller bearings). (Each diagram (**Fig. 3.2**) is a citation from **JIS B 1518**:2013.)

Note that in practical use, this is set so that life modification factor $a_{\mathrm{ISO}} \leqq 50$.

$$a_{\mathrm{ISO}} = f\left(\frac{e_{\mathrm{c}}\,C_{\mathrm{u}}}{P}, \kappa\right) \quad \cdots\cdots (3.7)$$

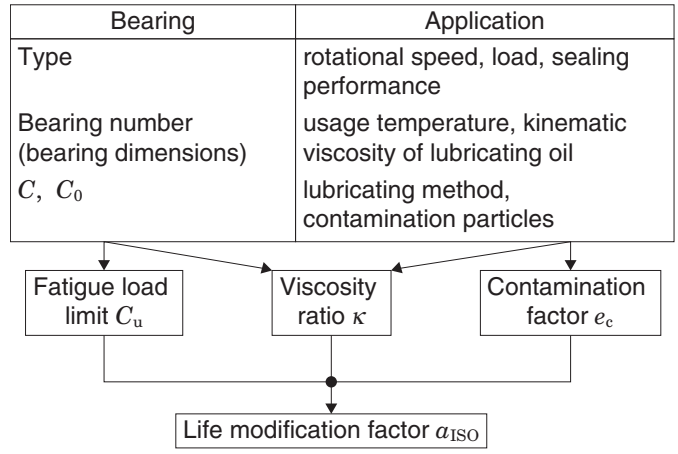


Fig. 3.1 System approach

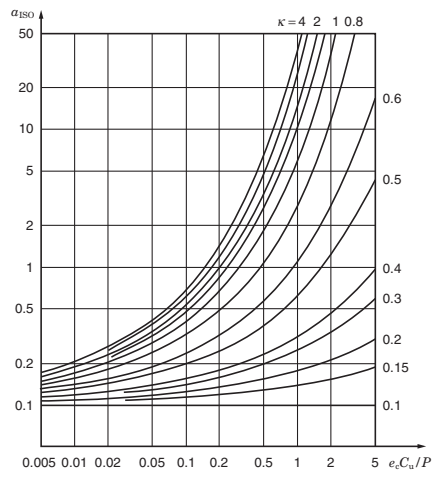


Fig. 3.2 Life modification factor a_{ISO} (Radial roller bearings)

(**Fig. 3.2** Citation from **JIS B 1518**:2013)

b) Fatigue load limit C_{u}

For regulated steel materials or alloy steel that has equivalent quality, the fatigue life is unlimited so long as the load condition does not exceed a certain value and so long as the lubrication conditions, lubrication cleanliness class, and other operating conditions are favorable. For general high-quality materials and bearings with high manufacturing quality, the fatigue stress limit is reached at a contact stress of approximately 1.5 GPa between the raceway and rolling elements. If one or both of the material quality and manufacturing quality are low, the fatigue stress limit will also be low.

The term "fatigue load limit" C_{u} is defined as "bearing load under which the fatigue stress limit is just reached in the most heavily loaded raceway contact" in **ISO 281**:2007. and is affected by factors such as the bearing type, size, and material.

For details on the fatigue load limits of special bearings and other bearings not listed in this catalog, contact JTEKT.

c) Contamination factor e_c

If solid particles in the contaminated lubricant are caught between the raceway and the rolling elements, indentations may form on one or both of the raceway and the rolling elements. These indentations will lead to localized increases in stress, which will decrease the life. This decrease in life attributable to the contamination of the lubricant can be calculated from the contamination level as contamination factor e_c.

D_{pw} shown in this table is the pitch diameter of ball/roller set, which is expressed simply as $D_{pw} = (D + d)/2$. (D: Outside diameter, d: Bore diameter)

For information such as details on special lubricating conditions or detailed investigations, contact JTEKT.

Table 3.3 Values of contamination factor e_c

Contamination level	e_c	
	$D_{pw} < 100$ mm	$D_{pw} \leqq 100$ mm
Extremely high cleanliness: The size of the particles is approximately equal to the thickness of the lubricant oil film, this is found in laboratory-level environments.	1	1
High cleanliness: The oil has been filtered by an extremely fine filter, this is found with standard grease-packed bearings and sealed bearings.	0.8 to 0.6	0.9 to 0.8
Standard cleanliness: The oil has been filtered by a fine filter, this is found with standard grease-packed bearings and shielded bearings.	0.6 to 0.5	0.8 to 0.6
Minimal contamination: The lubricant is slightly contaminated.	0.5 to 0.3	0.6 to 0.4
Normal contamination: This is found when no seal is used and a coarse filter is used in an environment in which wear debris and particles from the surrounding area penetrate into the lubricant.	0.3 to 0.1	0.4 to 0.2
High contamination: This is found when the surrounding environment is considerably contaminated and the bearing sealing is insufficient.	0.1 to 0	0.1 to 0
Extremely high contamination	0	0

(**Table 3.3** Citation from **JIS B 1518**:2013)

d) Viscosity ratio κ

The lubricant forms an oil film on the roller contact surface, which separates the raceway and the rolling elements. The status of the lubricant oil film is expressed by viscosity ratio κ, the actual kinematic viscosity at the operating temperature ν divided by the reference kinematic viscosity ν_1 as shown in the following equation.

A κ greater than 4, equal to 4, or less than 0.1 is not applicable.

For details on lubricants such as grease and lubricants with extreme pressure additives, contact JTEKT.

$$\kappa = \frac{\nu}{\nu_1} \quad \cdots\cdots (3.8)$$

ν : Actual kinematic viscosity at the operating temperature; the viscosity of the lubricant at the operating temperature

ν_1 : Reference kinematic viscosity; determined according to the speed and pitch diameter of ball/roller set D_{pw} of the bearing (ref. Fig. 3.3)

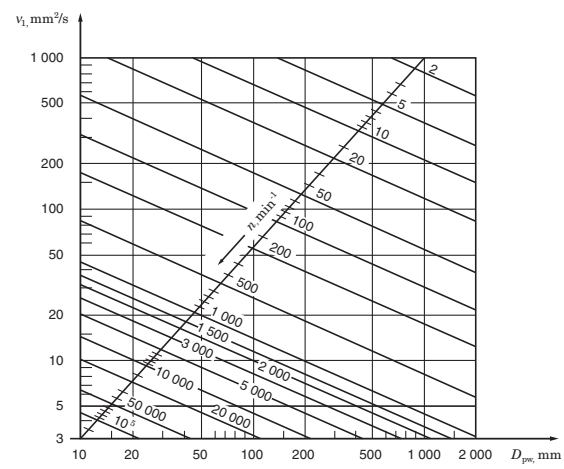


Fig. 3.3 Reference kinematic viscosity ν_1

(**Fig. 3.3** Citation from **JIS B 1518**:2013)

Table 3.4 Speed factor

Rotational speed n (min^{-1})	Coefficient of rotational speed f_n	Rotational speed n (min^{-1})	Coefficient of rotational speed f_n	Rotational speed n (min^{-1})	Coefficient of rotational speed f_n	Rotational speed n (min^{-1})	Coefficient of rotational speed f_n
10	1.435	**65**	0.819	**650**	0.410	**4 000**	0.238
11	1.395	**70**	0.800	**700**	0.401	**4 200**	0.234
12	1.359	**75**	0.784	**750**	0.393	**4 400**	0.231
13	1.326	**80**	0.769	**800**	0.385	**4 600**	0.228
14	1.297	**85**	0.756	**850**	0.379	**4 800**	0.225
15	1.271	**90**	0.742	**900**	0.372	**5 000**	0.222
16	1.246	**95**	0.731	**950**	0.366	**5 200**	0.220
17	1.224	**100**	0.719	**1 000**	0.361	**5 400**	0.217
18	1.203	**110**	0.699	**1 050**	0.355	**5 600**	0.215
19	1.184	**120**	0.681	**1 100**	0.350	**5 800**	0.213
20	1.166	**130**	0.665	**1 150**	0.346	**6 000**	0.211
21	1.149	**140**	0.650	**1 200**	0.341	**6 200**	0.209
22	1.133	**150**	0.637	**1 250**	0.337	**6 400**	0.207
23	1.118	**160**	0.625	**1 300**	0.333	**6 600**	0.205
24	1.104	**170**	0.613	**1 400**	0.326	**6 800**	0.203
25	1.090	**180**	0.603	**1 500**	0.319	**7 000**	0.201
26	1.077	**190**	0.593	**1 600**	0.313	**7 200**	0.199
27	1.065	**200**	0.584	**1 700**	0.307	**7 400**	0.198
28	1.054	**220**	0.568	**1 800**	0.302	**7 600**	0.196
29	1.043	**240**	0.553	**1 900**	0.297	**8 000**	0.193
30	1.032	**260**	0.540	**2 000**	0.293	**8 500**	0.190
31	1.022	**280**	0.528	**2 100**	0.289	**9 000**	0.187
32	1.012	**300**	0.517	**2 200**	0.285	**9 500**	0.184
33.3	1.000	**320**	0.507	**2 300**	0.281	**10 000**	0.181
34	0.994	**340**	0.498	**2 400**	0.277	**11 000**	0.176
36	0.977	**360**	0.490	**2 500**	0.274	**12 000**	0.171
38	0.962	**380**	0.482	**2 600**	0.271	**13 000**	0.167
40	0.947	**400**	0.475	**2 700**	0.268	**14 000**	0.163
42	0.933	**420**	0.467	**2 800**	0.265	**15 000**	0.160
44	0.920	**440**	0.461	**2 900**	0.262	**16 000**	0.157
46	0.908	**460**	0.455	**3 000**	0.259	**17 000**	0.154
48	0.896	**480**	0.449	**3 200**	0.254	**18 000**	0.152
50	0.886	**500**	0.444	**3 400**	0.250	**19 000**	0.149
55	0.866	**550**	0.432	**3 600**	0.246	**20 000**	0.147
60	0.838	**600**	0.420	**3 800**	0.242		

3.6 Basic static load rating

Excessive static load or impact load even at very low rotation causes partial permanent deformation of the rolling element and raceway contacting surfaces. This permanent deformation increases with the load; if it exceeds a certain limit, smooth rotation will be hindered.

The basic static load rating is the static load which responds to the calculated contact stress shown below, at the contact center between the raceway and rolling elements which receive the maximum load.

- Roller bearings ..... 4 000 MPa

The total extent of contact stress-caused permanent deformation on surfaces of rolling elements and raceway will be approximately 0.000 1 times greater than the rolling element diameter.

The basic static load rating for radial bearings is specified as the basic static radial load rating. This load ratings are listed in the bearing specification table, using C_{0r}.

This value is prescribed by ISO 78/1987 and is subject to change by conformance to the latest ISO standards.

3.7 Safety coefficient

The allowable static equivalent load for a bearing is determined by the basic static load rating of the bearing; however, bearing service life, which is affected by permanent deforma-

Table 3.5 Life factor

Service life coefficient f_h	L_{10} (10^6 rev.)	L_{10h} (h)	Service life coefficient f_h	L_{10} (10^6 rev.)	L_{10h} (h)	Service life coefficient f_h	L_{10} (10^6 rev.)	L_{10h} (h)
0.70	0.30	150	**2.45**	19.8	9 920	**4.20**	120	59 800
0.75	0.38	190	**2.50**	21.2	10 600	**4.25**	124	62 200
0.80	0.48	240	**2.55**	22.6	11 300	**4.30**	129	64 600
0.85	0.58	290	**2.60**	24.2	12 100	**4.35**	134	67 200
0.90	0.70	350	**2.65**	25.8	12 900	**4.40**	140	69 800
0.95	0.84	420	**2.70**	27.4	13 700	**4.45**	145	72 500
1.00	1.00	500	**2.75**	29.1	14 600	**4.50**	150	75 200
1.05	1.18	590	**2.80**	30.9	15 500	**4.55**	156	78 000
1.10	1.37	685	**2.85**	32.8	16 400	**4.60**	162	80 900
1.15	1.59	795	**2.90**	34.8	17 400	**4.65**	168	83 900
1.20	1.84	920	**2.95**	36.8	18 400	**4.70**	174	87 000
1.25	2.10	1 050	**3.00**	38.9	19 500	**4.75**	180	90 800
1.30	2.40	1 200	**3.05**	41.1	20 600	**4.80**	187	93 300
1.35	2.72	1 360	**3.10**	43.4	21 700	**4.85**	193	96 600
1.40	3.07	1 530	**3.15**	45.8	22 900	**4.90**	200	99 900
1.45	3.45	1 730	**3.20**	48.3	24 100	**4.95**	207	103 000
1.50	3.86	1 930	**3.25**	50.8	25 400	**5.00**	214	107 000
1.55	4.31	2 160	**3.30**	53.5	26 800	**5.10**	228	114 000
1.60	4.79	2 400	**3.35**	56.3	28 100	**5.20**	244	122 000
1.65	5.31	2 650	**3.40**	59.1	29 600	**5.30**	260	130 000
1.70	5.86	2 930	**3.45**	62.0	31 000	**5.40**	276	138 000
1.75	6.46	3 230	**3.50**	65.1	32 500	**5.50**	294	147 000
1.80	7.09	3 550	**3.55**	68.2	34 100	**5.60**	312	156 000
1.85	7.77	3 890	**3.60**	71.5	35 800	**5.70**	331	165 000
1.90	8.50	4 250	**3.65**	74.9	37 400	**5.80**	351	175 000
1.95	9.26	4 630	**3.70**	78.3	39 200	**5.90**	371	186 000
2.00	10.1	5 040	**3.75**	81.9	41 000	**6.00**	392	196 000
2.05	10.9	5 470	**3.80**	85.6	42 800	**6.50**	513	256 000
2.10	11.9	5 930	**3.85**	89.4	44 700	**7.00**	656	328 000
2.15	12.8	6 420	**3.90**	93.4	46 700	**7.50**	826	413 000
2.20	13.8	6 920	**3.95**	97.4	48 700	**8.00**	1 020	512 000
2.25	14.9	7 460	**4.00**	102	50 800	**8.50**	1 250	627 000
2.30	16.1	8 030	**4.05**	106	52 900	**9.00**	1 520	758 000
2.35	17.2	8 620	**4.10**	110	55 200	**9.50**	1 820	908 000
2.40	18.5	9 250	**4.15**	115	57 400	**10.00**	2 150	1 080 000

tion, differs in accordance with the performance required of the bearing and operating conditions.

Therefore, a safety coefficient is designated, based on empirical data, so as to ensure safety in relation to basic static load rating.

$$f_s = \frac{C_0}{P_0} \quad \cdots\cdots (3.9)$$

where :

f_s : safety coefficient (ref. **Table 3.5**)

C_0 : basic static load rating N

P_0 : static equivalent load N

Table 3.6 Values of safety coefficient f_s

Operating condition		f_s (min.) Ball bearing	f_s (min.) Roller bearing
With bearing rotation	When high accuracy is required	2	3
	Normal operation	1	1.5
	When impact load is applied	1.5	3
Without bearing rotation (occasional oscillation)	Normal operation	0.5	1
	When impact load or uneven distribution load is applied	1	2

[Remark] For spherical thrust roller bearings, $f_s \geqq 4$.

4 Equivalent load

4.1 Dynamic equivalent load

Bearings are used under various operating conditions; however, in most cases, bearings receive radial and axial load combined, while the load magnitude fluctuates during operation.

Therefore, it is impossible to directly compare the actual load and basic dynamic load rating.

The two are compared by replacing the loads applied to the shaft center with one of a constant magnitude and in a specific direction, that yields the same bearing service life as under actual load and rotational speed.

This theoretical load is referred to as the dynamic equivalent load (P).

4.1.1 Calculation of dynamic equivalent load

Dynamic equivalent loads for radial bearings and thrust bearings ($\alpha \neq 90°$) which receive a combined load of a constant magnitude in a specific direction can be calculated using the following equation,

$$P = XF_r + YF_a \quad \cdots\cdots (4.1)$$

where :

P : dynamic equivalent load — N

(for radial bearings, P_r : dynamic equivalent radial load; for thrust bearings, P_a : dynamic equivalent axial load)

F_r : radial load — N

F_a : axial load — N

X : radial load factor

Y : axial load factor

(values of X and Y are listed in the bearing specification table.)

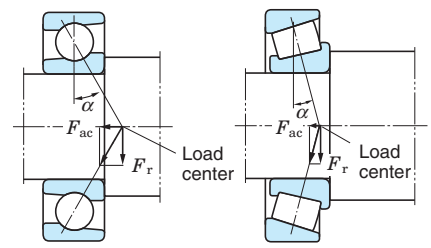
■ When $F_a/F_r \leqq e$ for single-row radial bearings, it is taken that $X = 1$, and $Y = 0$.
Hence, the dynamic equivalent load rating is $P_r = F_r$.

(Values of e, which designates the limit of F_a/F_r, are listed in the bearing specification table.)

■ For single-row tapered roller bearings, axial component forces (F_{ac}) are generated as shown in **Fig. 4.1**, therefore a pair of bearings is arranged face-to-face or back-to-back.

The axial component force can be calculated using the following equation.

$$F_{ac} = \frac{F_r}{2\,Y} \quad \cdots\cdots (4.2)$$

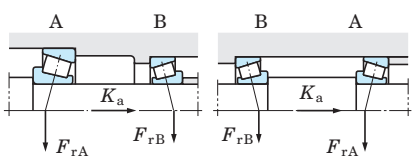


(Load center position is listed in the bearing specification table.)

Fig. 4.1 Axial component force

For instance, when radial loads F_{rA} and F_{rB} are on tapered roller bearings A and B as shown in **Table 4.1** and, in addition, a axial load K_a from the outside is on bearing A, the dynamic equivalent loads P_A and P_B on bearings A and B are as follows :

Table 4.1 Dynamic equivalent load calculation : when a pair of tapered roller bearings is arranged face-to-face or back-to-back.

Paired mounting		Loading condition	Bearing	Axial load	Dynamic equivalent load
Back-to-back arrangement	Face-to-face arrangement				
		$\frac{F_{rB}}{2\,Y_B} + K_a \geqq \frac{F_{rA}}{2\,Y_A}$	Bearing A	$\frac{F_{rB}}{2\,Y_B} + K_a$	$P_A = XF_{rA} + Y_A\left(\frac{F_{rB}}{2\,Y_B} + K_a\right)$ $P_A = F_{rA}$, where $P_A < F_{rA}$
			Bearing B	–	$P_B = F_{rB}$
		$\frac{F_{rB}}{2\,Y_B} + K_a < \frac{F_{rA}}{2\,Y_A}$	Bearing A	–	$P_A = F_{rA}$
			Bearing B	$\frac{F_{rA}}{2\,Y_A} - K_a$	$P_B = XF_{rB} + Y_B\left(\frac{F_{rA}}{2\,Y_A} - K_a\right)$ $P_B = F_{rB}$, where $P_B < F_{rB}$

4.2 Static equivalent load

The static equivalent load is a theoretical load calculated such that, during rotation at very low speed or when bearings are stationary, the same contact stress as that imposed under actual loading condition is generated at the contact center between raceway and rolling element to which the maximum load is applied.

For radial bearings, radial load passing through the bearing center is used for the calculation; for thrust bearings, axial load in a direction along the bearing axis is used.

The static equivalent load can be calculated using the following equations.

[Radial bearings] ··· The greater value obtained by the following two equations is used.

$$P_0 = X_0 F_r + Y_0 F_a \quad \cdots\cdots (4.3)$$

$$P_{0r} = F_r \quad \cdots\cdots (4.4)$$

where :

P_{0r}	: static equivalent radial load	N
P_{0a}	: static equivalent axial load	N
F_r	: radial load	N
F_a	: axial load	N
X_0	: static radial load factor	
Y_0	: static axial load factor	

(values of X_0 and Y_0 are listed in the bearing specification table.)

5 Bearing tolerances

5.1 Boundary tolerances for tapered roller bearings

Koyo Inch Series tapered roller bearings are manufactured to the five tolerance levels recognized by the ANSI/ABMA, Classes 4, 2, 3, 0 and 00, in order to ascending precision.

Metric J series For "J" prefix Bearing No. tapered roller bearings are produced in Classes PK, PN, PC and PB, in accordance with industry standards. These classes provide quality levels suitable for all applications. The higher grades have reduced runout tolerances, producing smoother rotation of the bearings with less noise and vibration.

Improved mounting fits are also obtained because of closer tolerances on bore and outside diameter. Tolerances class4 to class 00 and class PK to class PB are shown in **Table 5.1**, **5.2**. Koyo tapered roller bearings may be supplied in any precision desired.

Table 5.1 Tolerances and permissible values for Inch series tapered roller bearings

(1) Inner ring Unit : μm

Nominal bore diameter d				Deviation of a single bore diameter Δ_{ds}									
over		up to		Class 4		Class 2		Class 3		Class 0		Class 00	
mm	inch	mm	inch	upper	lower	upper	lower	upper	lower	upper	lower	upper	lower
–	–	**76.2**	**3.0**	+ 13	0	+13	0	+13	0	+13	0	+8	0
76.2	**3.0**	**304.8**	**12.0**	+ 25	0	+25	0	+13	0	+13	0	+8	0
304.8	**12.0**	**609.6**	**24.0**	+ 51	0	+51	0	+25	0	–	–	–	–
609.6	**24.0**	**914.4**	**36.0**	+ 76	0	–	–	+38	0	–	–	–	–
914.4	**36.0**	**1 219.2**	**48.0**	+102	0	–	–	+51	0	–	–	–	–
1 219.2	**48.0**	–	–	+127	0	–	–	+76	0	–	–	–	–

(2) Outer ring Unit : μm

Nominal outside diameter D				Deviation of a single outside diameter Δ_{Ds}									
over		up to		Class 4		Class 2		Class 3		Class 0		Class 00	
mm	inch	mm	inch	upper	lower	upper	lower	upper	lower	upper	lower	upper	lower
–	–	**304.8**	**12.0**	+ 25	0	+25	0	+13	0	+13	0	+8	0
304.8	**12.0**	**609.6**	**24.0**	+ 51	0	+51	0	+25	0	–	–	–	–
609.6	**24.0**	**914.4**	**36.0**	+ 76	0	+76	0	+38	0	–	–	–	–
914.4	**36.0**	**1 219.2**	**48.0**	+102	0	–	–	+51	0	–	–	–	–
1 219.2	**48.0**	–	–	+127	0	–	–	+76	0	–	–	–	–

(3) Assembled bearing width Unit : μm

Nominal bore diameter d				Deviation of the actual bearing width Δ_{Ts}									
over		up to		Class 4		Class 2		Class 3		Class 0		Class 00	
mm	inch	mm	inch	upper	lower	upper	lower	upper	lower	upper	lower	upper	lower
–	–	**101.6**	**4.0**	+203	0	+203	0	+203	–203	+203	–203	+203	–203
101.6	**4.0**	**266.7**	**10.5**	+356	–254	+203	0	+203	–203	+203	–203	+203	–203
266.7	**10.5**	**304.8**	**12.0**	+356	–254	+203	0	+203	–203	+203	–203	–	–
304.8	**12.0**	**609.6**	**24.0** 1)	–	–	+381	–381	+203	–203	–	–	–	–
304.8	**12.0**	**609.6**	**24.0** 2)	–	–	+381	–381	+381	–381	–	–	–	–
609.6	**24.0**	–	–	+381	–381	–	–	+381	–381	–	–	–	–

[Note] 1) Nominal outside dia. ≦ 508.0 mm (20.0 inches)., 2) Nominal outside diameter > 508.0 mm (20.0 inches).

(4) Radial runout of assmbled bearing inner ring / outer ring

Unit : μm

Nominal outside diameter D				Radial runout of assembled bearing K_{ia}, K_{ea}				
over		up to		Class 4	Class 2	Class 3	Class 0	Class 00
mm	inch	mm	inch	max.	max.	max.	max.	max.
–	–	**304.8**	**12.0**	51	38	8	4	2
304.8	**12.0**	**609.6**	**24.0**	51	38	18	–	–
609.6	**24.0**	**914.4**	**36.0**	76	51	51	–	–
914.4	**36.0**	–	–	76	–	76	–	–

Table 5.2 Tolerances for metric "J" series tapered roller bearings

(1) Bore diameter and width of inner ring and assembled bearing width

Unit : μm

Nominal bore diameter d (mm)		Deviation of a single bore diameter Δ_{ds}								Deviation of a single inner ring width Δ_{Bs}								Deviation of the actual bearing width Δ_{Ts}							
		Class PK		Class PN		Class PC		Class PB		Class PK		Class PN		Class PC		Class PB		Class PK		Class PN		Class PC		Class PB	
over	up to	upper	lower	upper	lower	upper	lower	upper	lower	upper	lower	upper	lower	upper	lower	upper	lower	upper	lower	upper	lower	upper	lower	upper	lower
10	**18**	0	–12	0	–12	0	– 7	0	– 5	0	–100	0	–50	0	–200	0	–200	+200	0	+100	0	+200	–200	+200	–200
18	**30**	0	–12	0	–12	0	– 8	0	– 6	0	–100	0	–50	0	–200	0	–200	+200	0	+100	0	+200	–200	+200	–200
30	**50**	0	–12	0	–12	0	–10	0	– 8	0	–100	0	–50	0	–200	0	–200	+200	0	+100	0	+200	–200	+200	–200
50	**80**	0	–15	0	–15	0	–12	0	– 9	0	–150	0	–50	0	–300	0	–300	+200	0	+100	0	+200	–200	+200	–200
80	**120**	0	–20	0	–20	0	–15	0	–10	0	–150	0	–50	0	–300	0	–300	+200	–200	+100	0	+200	–200	+200	–200
120	**180**	0	–25	0	–25	0	–18	0	–13	0	–200	0	–50	0	–300	0	–300	+350	–250	+150	0	+350	–250	+200	–250
180	**250**	0	–30	0	–30	0	–22	0	–15	0	–200	0	–50	0	–350	0	–350	+350	–250	+150	0	+350	–250	+200	–300
250	**315**	0	–35	0	–35	0	–22	0	–15	0	–200	0	–50	0	–350	0	–350	+350	–250	+200	0	+350	–300	+200	–300

(2) Outside diameter and width of outer ring and radial runout of assembled bearing inner ring / outer ring

Unit : μm

Nominal outside diameter D (mm)		Deviation of a single outside diameter Δ_{Ds}								Deviation of a single outer ring width Δ_{Cs}								Radial runout of assembled bearing K_{ia}, K_{ea}			
		Class PK		Class PN		Class PC		Class PB		Class PK		Class PN		Class PC		Class PB		Class PK	Class PN	Class PC	Class PB
over	up to	upper	lower	upper	lower	upper	lower	upper	lower	upper	lower	upper	lower	upper	lower	upper	lower	max.	max.	max.	max.
18	**30**	0	–12	0	–12	0	– 8	0	– 6	0	–150	0	–100	0	–150	0	–150	18	18	5	3
30	**50**	0	–14	0	–14	0	– 9	0	– 7	0	–150	0	–100	0	–150	0	–150	20	20	6	3
50	**80**	0	–16	0	–16	0	–11	0	– 9	0	–150	0	–100	0	–150	0	–150	25	25	6	4
80	**120**	0	–18	0	–18	0	–13	0	–10	0	–200	0	–100	0	–200	0	–200	35	35	6	4
120	**150**	0	–20	0	–20	0	–15	0	–11	0	–200	0	–100	0	–200	0	–200	40	40	7	4
150	**180**	0	–25	0	–25	0	–18	0	–13	0	–200	0	–100	0	–250	0	–250	45	45	8	4
180	**250**	0	–30	0	–30	0	–20	0	–15	0	–250	0	–100	0	–250	0	–250	50	50	10	5
250	**315**	0	–35	0	–35	0	–25	0	–18	0	–250	0	–100	0	–300	0	–300	60	60	11	5
315	**400**	0	–40	0	–40	0	–28	–	–	0	–250	0	–100	0	–300	–	–	70	70	13	–

6 Numbering system

The numbering system of the inch series tapered roller bearings is specified by the ABMA Standard as follows.

This will provide a guideline for identification of duty, angularity and dimensions of the inch series tapered roller bearings.

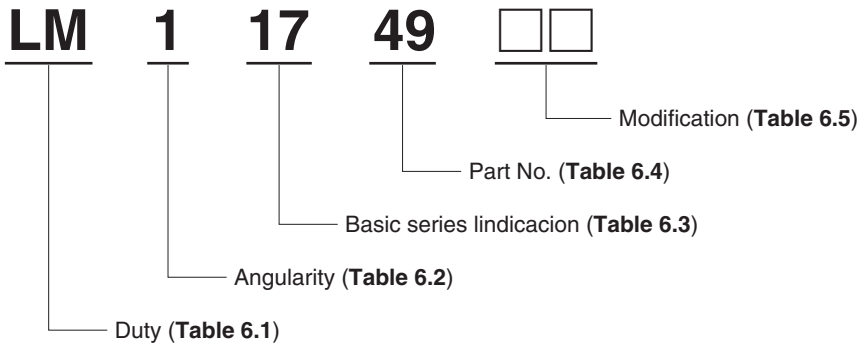


Table 6.1 Duty

Inch series tapered roller bearings will be divided into ten classes according to their duty as follows :

Code	Details
EL	Extra Light
LL	Lighter than Light
L	Light
LM	Light Medium
M	Medium
HM	Heavy Medium
H	Heavy
HH	Heavier than Heavy
EH	Extra Heavy
T	Thrust only

Table 6.2 Angularity

The first digit following the prefix letters will indicate approximately the included angle (α) of the outer race or the outer ring angle according to the following code.

Code	Details
1	$0 < \alpha < 24^\circ$
2	$24^\circ \leqq \alpha < 25^\circ 30'$
3	$25^\circ 30' \leqq \alpha < 27^\circ$
4	$27^\circ \leqq \alpha < 28^\circ 30'$
5	$28^\circ 30' \leqq \alpha < 28^\circ 30'$
6	$30^\circ 30' < \alpha < 32^\circ 30'$
7	$32^\circ 30' \leqq \alpha < 36^\circ$
8	$36^\circ \leqq \alpha < 45^\circ$
9	$45^\circ \leqq \alpha$, but not thrust only
0	Thrust bearing only

Table 6.3 Basic series indication

The selection of the basic series indication in relation to the maximum theoretical bore of the bearing will then be in accord with the following tabulation :

Series indication	Max. bore range (inch)
00 to **19** incl.	**0 – 1**
20 to **99** incl.	**1 – 2**
000 to **029** incl.	
039 to **129** incl.	**2 – 3**
130 to **189** incl.	**3 – 4**
190 to **239** incl.	**4 – 5**
240 to **289** incl.	**5 – 6**
290 to **339** incl.	**6 – 7**
340 to **389** incl.	**7 – 8**
390 to **429** incl.	**8 – 9**

Table 6.4 Part No.

The 5th and 6th digits or the last two digits of the bearing number indicate the part number of the individual member of the bearing.

Bearing member	Code
Outer ring : (Cup)	Expressed by 10 to 19, and 10 is used for the outer ring of the minimum outside diameter of the series.
Inner ring : (Cone)	Expressed by 30 to 49, and 49 is used for the inner ring of the maximum bore size of the series.

Table 6.5 Modification

These codes indicate the special design features. Some examples are;

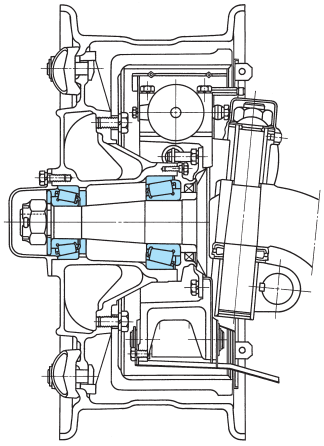
Code	Details
A	Bearing limit for overall width or size in master closer then standard.
B	Single outer ring with flange.
BR	Single or double outer ring or inner ring with snap ring.
BW	Single outer ring with flange and slotted.
CR	Rib outer ring.
CP	Chrome plated inner ring and outer ring.
D	Double inner ring or outer ring – minimum length.
DA	Spherical O.D. – double outer ring – self-aligning –

7 Typical applications

Automotive

• Front wheels

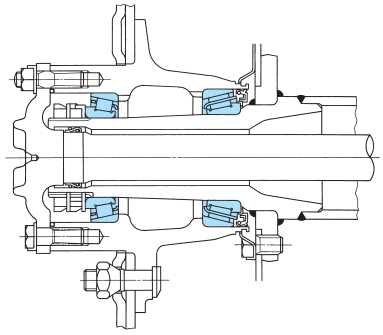
In general, automotive front wheel bearings are primarily subjected to radial loads. However, during cornering or running on bad roads, substantial moment loads can be imposed. Therefore, it is extremely important to select bearings which can absorb these moment loads without difficulty. At the present time, two tapered roller bearings are generally used in each front wheels of trucks.

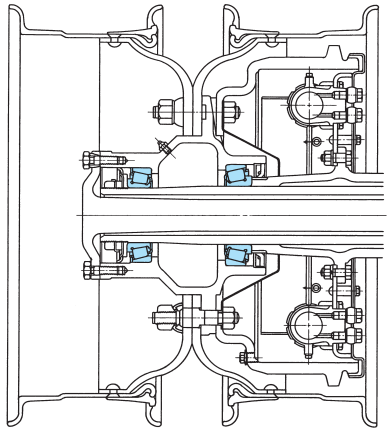


• Rear wheels

Tapered roller bearings are generally used in rear wheels of trucks and buses over 2 tons in gross vehicle weight.

Since the inner ring and outr ring can misalign during cornering, which can have an adverse affect on service life, bearings which offer superior performance under these conditions should be selected.



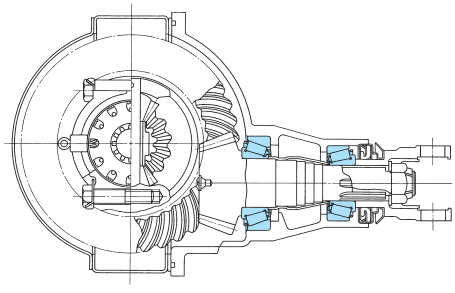


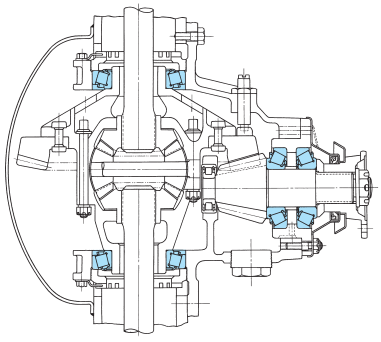
• Differentials

The bearings used in automotive differentials are preloaded to maintain accuracy between the drive pinion and ring gear. The accuracy of gear engagement affects greatly the performance of the differential as well as running noise.

From this point of view, it is necessary to select bearings which will provide optimum rigidity so that satisfactory engagement of the gears is obtained during operation. The pinion shaft is supported by either two tapered roller bearings (cantilever mount) mounted back to back, or two steep angle tapered roller bearings plus a single cylindrical roller bearing opposite the tapered roller bearings (straddle mount).

The differential ring gear is supported by tapered roller bearings mounted face to face.

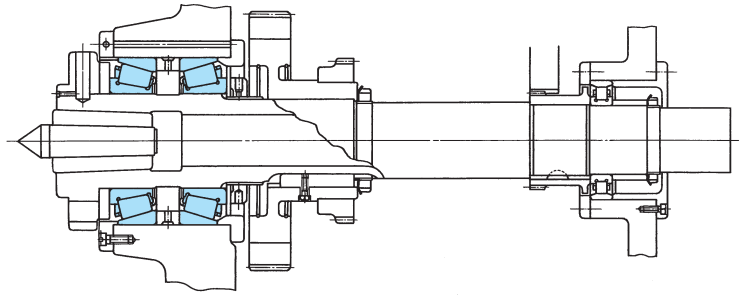




General industries

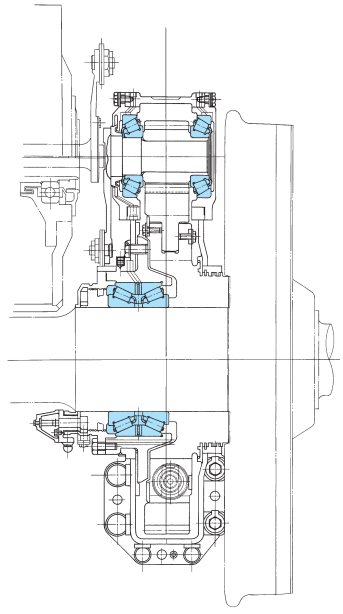
• Machine tool spindles

Tapered roller bearings are widely used to support spindles of various machine tools such as engine lathes and milling machines. Since these spindles require rigidity and accuracy of guidance in both radial and axial directions, a pair of tapered roller bearings are usually mounted in a back-to-back arrangement and adjusted to obtain the proper preload. In addition to providing rigid radial and axial support, tapered roller bearings simplify the machine structure and promote simple preload adjustment.

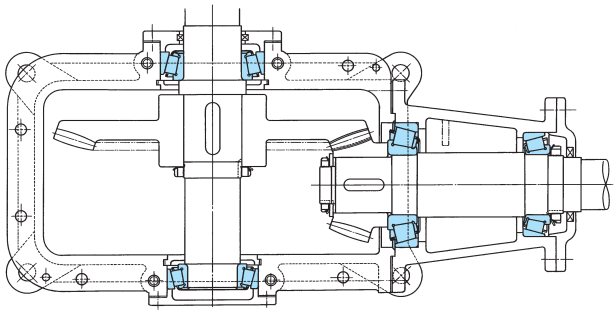


• Electric railway car gear units

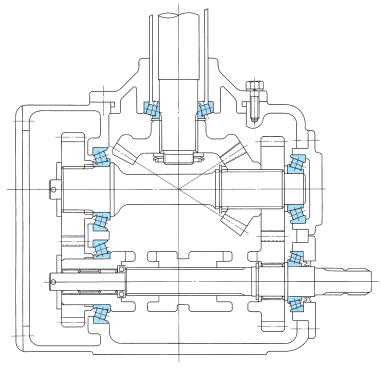
The driving axles of electric cars are equipped with gearing units to transmit the torque and rotation generated by the traction main motors. In the parallel cardan gear units (currently more widely used than square cardan gear units), both the pinion shaft and gear housing are generally fitted with tapered roller bearings.



• Bevel-gear units



• Farm equipment, transmission



Specification tables of tapered roller bearings

Series No.	Inner ring (Cone)	Page	Outer ring (Cup)	Page
335	334	45	332	39,41,43,45,
	335	49		47,49,51,53,
	335S	47		55,57,59
	336	57	332A	41,45,49,51,
	337	53		53,57
	338	41		
	339	51		
	339X	51		
	340	49		
	341	39		
	342	57		
	342A	57		
	342S	59		
	343	49		
	344	55		
	344A	55		
	346	47		
	347	53		
	348	43		
355	350	57	352	57,63
	350A	55	353	61
	355	59,61	354	59
	355A	61	354A	55,59,61,63
	355X	61	354X	55
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	39581	73	39528	69
	39585	77		
	39586	77		
	39590	79		
41000	41100	41	41286	41,43
	41106	41		
	41125	43		
	41126	43		
42000	42381	91	42584	91
42600	42683	81	42620	81,83,85
	42686	83	42624	83
	42686X	83		
	42687	83		
	42688	83		
	42690	85		
43000	43096	101	43312	101
	43112	101		
	43117	101		
	43118	101		
	43125	101		
	43131	101		
	43132	101		
44000	44126	101	44348	101
	44131	101		
	44143	101		
	44150	101		
	44156	101		
	44157	101		
	44158	101		

Series No.	Inner ring (Cone)	Page	Outer ring (Cup)	Page
44000	44162	101		
L44600R	L44640R	39	L44610	39,41
	L44643R	39		
	L44645R	41		
	L44649R	41		
45200	45280	61	45220	65,67
	45282	65	45221	61,67,69,71
	45284	67		
	45285	67		
	45287	69		
	45289	71		
	45290	71		
	45291	71		
L45400	L45449	43	L45410	43
46000	46143	53	46368	53,55,59,61
	46150	55	46369	53,61
	46151	55		
	46162	59		
	46175	61		
	46176	61		
46700R	46780R	97	46720	97
	46790AR	97		
	46790R	97		
	46792R	97		
47400R	47487R	79	47420	79,81
	47490R	81	47423	79
47600R	47675R	81	47620	83,85,87
	47678R	83	47620A	81,83,85,87
	47679R	83		
	47680R	83		
	47681R	85		
	47685R	85		
	47686R	87		
	47687R	87		
	47688R	87		
47800R	47880R	85	47820	85,89,91
	47885R	89		
	47890R	91		
	47896R	91		
48100	48190	93	48120	93
48200	48286	95	48220	95,97
	48290	97		
LM48500	LM48548	49	LM48510	49
48600	48684	97	48620	97
	48685	97		

Series No.	Inner ring (Cone)	Page	Outer ring (Cup)	Page
49000	49150	55	49368	55,59,61
	49162	59		
	49175	61		
	49176	61		
49500	49576	61	49520	61,65,67
	49577	61	49521	67
	49580	65	49522	61
	49581	65		
	49585	67		
52000	52375	91	52618	91,93
	52387	91	52630X	91
	52393	93	52637	91,93
	52400	93	52638	91
	52401	93		
53000	53150	101	53375	101
	53162	101	53387	101
	53176	101	53387X	101
	53177	101	53398	101
	53178	101		
55000	55175	103	55437	101,103
	55187	103	55443	103
	55196	103		
	55197	103		
	55200	103		
	55206	103		
55000CR	55175CR	101	55437	101,103
	55176CR	101		
	55187CR	103		
	55200CR	103		
56000	56418	93	56650	93
	56425	93		
56000R	56418R	93	56650	93
	56425R	93	56662	93
59000	59162	59	59412	59,61,65,67
	59175	61	59413	61
	59176	61	59425	61
	59187	65		
	59188	65		
	59200	67		
64000R	64433R	95	64700	95
	64450R	95		
65000	65200	69	65500	69,71,73,75
	65212	71	65501	69
	65225	73	65537	69
	65231	73		
	65235	73		
	65237	75		

Series No.	Inner ring (Cone)	Page	Outer ring (Cup)	Page
65000	65237A	75		
65300	65383	59	65320	59,61,65
	65384	61	65321	61
	65385	61		
	65390	65		
66000R	66187R	65	66461	65,67,73
	66200R	67	66462	65,69
	66212R	69		
	66225R	73		
66500	66583	71	66520	69,71,73,75
	66584	69		
	66585	75		
	66586	73		
	66587	73		
	66588	75		
	66589	73		
LM67000	LM67043	41	LM67010	41,45
	LM67048	45		
67300	67388	97	67320	97
			67322	97
68000	68450	95	68709	95
	68462	95	68712	95
	68463	95		
L68100	L68149	49,51	L68110	49
			L68111	51
69000	69350X	89	69630	89
	69354	89		
71000	71412	93	71750	93,95
	71425	93		
	71432	95		
	71437	95		
	71450	95		
	71453	95		
	71455	95		
72000	72187	103	72487	103
	72200	103	72500	103
	72212	103		
	72218	103		
	72225	103		
72000C	72200C	103	72487	103
	72212C	103		
	72225C	103		
LM72800	LM72849	39	LM72810	39
74000	74500	97	74850	97

Series No.	Inner ring (Cone)	Page	Outer ring (Cup)	Page
78000	78214	103	78537	103
	78215	103	78551	103
	78225	103		
	78238	103		
	78250	103		
	78255X	103		
LM78300	LM78349	51	LM78310	51
80300	80385	99	80325	99
HM81600	HM81649	37	HM81610	37
M84200	M84249	39	M84210	39
M86600R	M86643R	41	M86610	41,43,45
	M86647R	41		
	M86648R	45		
	M86649R	43		
M88000	M88040	41,43	M88010	41,43,45,47
	M88043	43	M88011	43
	M88046	45		
	M88048	47		
HM88500	HM88542	47	HM88510	47
	HM88547	47	HM88512	47
HM88600	HM88630	41	HM88610	41,45,47,49,
	HM88638	47		51
	HM88644	45,47	HM88611	45
	HM88648	51	HM88612	47
	HM88649	49		
HM89400	HM89440	47	HM89410	47
	HM89443	47	HM89411	47,49,51
	HM89446	49		
	HM89448	51		
	HM89449	51		
90000	90381	105	90744	105
95000	95475	95	95925	95,97
	95500	97		
98000	98316	85	98788	85,87,89,93
	98335	87		
	98350	89		
	98394X	93		
	98400	93		
L102800	L102849	59	L102810	59
LM102900	LM102949	63	LM102910	63
LM104900	LM104949	65	LM104911	65
L183400	L183448	99	L183410	99
HM212000	HM212044	75	HM212010	75,77,79
	HM212046	77	HM212011	77
	HM212047	77		
	HM212049	79		

Series No.	Inner ring (Cone)	Page	Outer ring (Cup)	Page
L217800	L217847	89	L217810	89
	L217849	89		
HM218200	HM218248	89	HM218210	89
HM220100	HM220149	93	HM220110	93
HH221400	HH221430	85	HH221410	85,89,91,93
	HH221431	85		
	HH221432	89		
	HH221434	89		
	HH221438	91		
	HH221440	91		
	HH221442	91		
	HH221447	93		
	HH221449	93		
HH224300	HH224332	91	HH224310	91,93,95
	HH224334	93		
	HH224335	93		
	HH224340	93		
	HH224346	95		
	HH224349	95		
M224700	M224749	95	M224710	95
LL225700	LL225749	97	LL225710	97
L225800	L225849	97	L225810	97
			L225818	97
HH228300	HH228340	95	HH228310	95,97
	HH228349	97		
243000	EE243190	99	243250	99
	EE243196	99		
244000	EE244180	99	244235	99
LM245800	LM245833	97	LM245810	97
	LM245846	97		
	LM245848	97		
M246900	M246932	97	M246910	97
	M246942	97		
	M246943	97		
	M246949	97		
M249700	M249732	97	M249710	97,99
	M249734	97		
	M249736	97		
	M249747	99		
	M249749	97		
M272700	M272749	99	M272710	99
M276400	M276449	99	M276410	99
L305600R	L305649R	65	L305610	65
L319200	L319245	91	L319210	91
	L319249	91		
LL319300	LL319349	91	LL319310	91
L327200	L327249	97	L327210	97

Series No.	Inner ring (Cone)	Page	Outer ring (Cup)	Page
M349500	M349547	97	M349510	97,99
	M349549	99		
350000	EE350701	105	351687	105
	EE350750	105		
380000	EE380080	105	380190	105
390000	EE390095	105	390200	105
H414200	H414235	77	H414210	77,79,81
	H414242	79		
	H414245	79		
	H414245A	79		
	H414249	81		
HH421200	HH421246	91	HH421210	91
L435000	L435049	97	L435010	97
L476500	L476548	99	L476510	99
	L476549	99		
LM501300	LM501349	57	LM501310	57
			LM501311	57
			LM501314	57
LM503300R	LM503349R	63	LM503310	63
HH506300	HH506348	65	HH506310	65
	HH506349	65	HH506311	65
HM516400	HM516447	85	HM516410	85,87
	HM516448	87		
	HM516449	87		
HM518400	HM518445	89	HM518410	89
L521900R	L521949R	93	L521910	93
LM522500	LM522546	93	LM522510	93,95
	LM522548	95		
	LM522549	95		
L540000	L540049	97	L540010	97
L555200	L555249	99	L555210	99
L570600	L570649	99	L570610	99
LL575300	LL575349	99	LL575310	99
LM603000	LM603049	63	LM603011	63
			LM603012	63
			LM603014	63
			LM603015	63
LM613400	LM613449	79	LM613410	79
HM617000	HM617045	87	HM617010	87
	HM617048	87		
	HM617049	87		
L623100	L623149	95	L623110	95
			L623114	95
HM624700	HM624749	95	HM624710	95
			HM624716	95
640000	EE640192	99	640260	99
649000	EE649240	99	649310	99

Series No.	Inner ring (Cone)	Page	Outer ring (Cup)	Page
LL713000	LL713049	79	LL713010	79
H715300	H715332	75	H715310	75
	H715334	75	H715311	75,77,79,81
	H715336	77		
	H715340	77		
	H715341	79		
	H715343	79		
	H715344	81		
	H715345	81		
LM770900	LM770945	99	LM770910	99
LM772700	LM772748	99	LM772710	99
776000	EE776430	99	776520	99
LL778100	LL778149	99	LL778110	99
HM801300	HM801346	53	HM801310	53,57
	HM801346X	53		
	HM801349	57		
M802000	M802048	57	M802011	57
HM803100	HM803145	57	HM803110	57,61
	HM803146	57		
	HM803149	61		
M804000	M804049	63	M804010	63
HM804800	HM804840	59	HM804810	59,61,63,65
	HM804842	61	HM804811	61
	HM804843	61		
	HM804846	63		
	HM804848	65		
	HM804849	65		
LM806600	LM806649	69	LM806610	69
HM807000	HM807035	59	HM807010	59,61,65,67,
	HM807040	61		69
	HM807044	65		
	HM807046	67		
	HM807049	69		
HM813800	HM813836	69	HM813810	71,75
	HM813840	71	HM813811	69,75,77,79,
	HM813841	75		81
	HM813841A	75		
	HM813842	77		
	HM813843	75		
	HM813844	79		
	HM813846	81		
	HM813849	81		
LM814800	LM814845	81	LM814810	81,85
	LM814849	85		
L879900	L879947	99	L879910	99

Series No.	Inner ring (Cone)	Page	Outer ring (Cup)	Page
HM903200	HM903241	101	HM903210	101,103
	HM903245	101		
	HM903248	103		
	HM903249	101		
M903300	M903345	101	M903310	101
HM907600	HM907635	101	HM907614	101,103
	HM907639	103		
	HM907643	103		
HM911200R	HM911242R	103	HM911210	103
	HM911245R	103		
	HM911249R	103		
H913800R	H913842R	103	H913810	103,105
	H913849R	105		
HH914400	HH914449	103	HH914412	103
HH923600	HH923649	105	HH923610	105
			HH923611	105
H924000	H924045	105	H924010	105
HH926700	HH926744	95	HH926710	95
	HH926749	95	HH926716	95
HM926700	HM926740	105	HM926710	105
	HM926747	105		
	HM926749	105		
HH932100	HH932132	105	HH932110	105
	HH932145	105		
H936300	H936340	105	H936310	105
	H936349	105	H936316	105
HH953700	HH953749	105	HH953710	105
H961600	H961649	105	H961610	105
LM961500	LM961548	105	LM961510	105

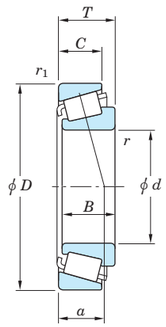
Metric "J" series

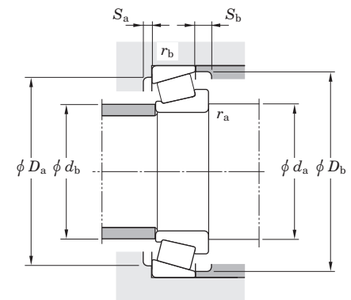
Series No.	Inner ring (Cone)	Page	Outer ring (Cup)	Page
JL69300	JL69349	107	JL69310	107
JLM104900	JLM104948	107	JLM104910	107
JM205100	JM205149	107	JM205110	107
JM207000	JM207049	107	JM207010	107
JH211700	JH211749	107	JH211710	107
	JH211749A	107		
JH217200	JH217249	107	JH217210	107
JH307700	JH307749	107	JH307710	107
JHM318400	JHM318448	107	JHM318410	107
JH415600	JH415647	107	JH415610	107
JLM506800	JLM506849	107	JLM506810	107
JLM508700	JLM508748	107	JLM508710	107
JM511900	JM511946	107	JM511910	107
JM515600	JM515649	107	JM515610	107
JHM516800	JHM516849	107	JHM516810	107
JHM522600	JHM522649	107	JHM522610	107
JHM534100	JHM534149	107	JHM534110	107
JM612900	JM612949	107	JM612910	107
JLM710900	JLM710949	107	JLM710910	107
JLM714100	JLM714149	107	JLM714110	107
JM714200	JM714249	107	JM714210	107
JM716600	JM716649	107	JM716610	107
JM718100	JM718149	107	JM718110	107
JM719100	JM719149	107	JM719113	107
JHM720200	JHM720249	107	JHM720210	107
JM720200	JM720249	107	JM720210	107
JM734400	JM734449	107	JM734410	107
JM736100	JM736149	107	JM736110	107
JM738200	JM738249	107	JM738210	107
JHM807000	JHM807045	107	JHM807012	107
JLM813000	JLM813049	107	JLM813010	107
JM822000	JM822049	107	JM822010	107
JHM840400	JHM840449	107	JHM840410	107

TS type

d 7.938 ~ 20.638 mm

0.3125 ~ 0.8125 inch





$P = XF_r + YF_a$ $P_0 = 0.5\,F_r + Y_0F_a$ or $P_0 = F_r$			
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

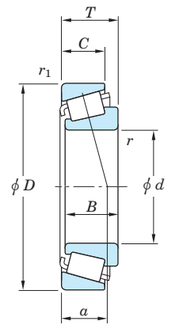
Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Con-stant	Axial load factors		Reference rating (kN) (500 rpm for 3 000 Hrs.)		Factor
d		D		T		B		C		r (min.)		r_1 (min.)		C_r	C_{0r}	C_u	Inner ring (Cone)	Outer ring (Cup)	a		d_a		d_b		D_a		D_b		e	Y_1	Y_0	Radial	Axial	K
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						
7.938	0.3125	31.991	1.2595	10.008	0.3940	10.785	0.4246	7.938	0.3125	0.5	0.02	1.2	0.05	13.4	9.30	1.25	**A2031**	**A2126**	7.1	0.28	12.5	0.49	12.5	0.49	26.0	1.02	29.0	1.14	0.40	1.48	0.82	3.10	2.15	1.45
9.525	0.3750	31.991	1.2595	10.008	0.3940	10.785	0.4246	7.938	0.3125	1.2	0.05	1.2	0.05	13.4	9.30	1.25	**A2037**	**A2126**	7.1	0.28	15.0	0.59	13.5	0.53	26.0	1.02	29.0	1.14	0.40	1.48	0.82	3.10	2.15	1.45
11.112	0.4375	31.991	1.2595	10.008	0.3940	14.351	0.5650	7.938	0.3125	0.8	0.03	1.2	0.05	13.4	9.30	1.25	**A2043**	**A2126**	7.1	0.28	15.5	0.61	14.5	0.57	26.0	1.02	29.0	1.14	0.40	1.48	0.82	3.10	2.15	1.45
	0.4375	34.988	1.3775	10.998	0.4330	10.988	0.4326	8.730	0.3437	1.2	0.05	1.2	0.05	15.7	11.9	1.55	**A4044**	**A4138**	8.3	0.33	17.5	0.69	15.5	0.61	29.0	1.14	32.0	1.26	0.45	1.33	0.73	3.65	2.80	1.29
11.986	0.4719	31.991	1.2595	10.008	0.3940	10.785	0.4246	7.938	0.3125	0.8	0.03	1.2	0.05	13.4	9.30	1.25	**A2047**	**A2126**	7.1	0.28	16.5	0.65	15.5	0.61	26.0	1.02	29.0	1.14	0.40	1.48	0.82	3.10	2.15	1.45
12.700	0.5000	34.988	1.3775	10.998	0.4330	10.988	0.4326	8.730	0.3437	1.2	0.05	1.2	0.05	15.7	11.9	1.55	**A4050**	**A4138**	8.3	0.33	18.5	0.73	17.0	0.67	29.0	1.14	32.0	1.26	0.45	1.33	0.73	3.65	2.80	1.29
14.989	0.5901	34.988	1.3775	10.998	0.4330	10.988	0.4326	8.730	0.3437	0.8	0.03	1.2	0.05	15.7	11.9	1.55	**A4059**	**A4138**	8.3	0.33	19.5	0.77	19.0	0.75	29.0	1.14	32.0	1.26	0.45	1.33	0.73	3.65	2.80	1.29
15.875	0.6250	34.988	1.3775	10.998	0.4330	10.998	0.4330	8.712	0.3430	1.2	0.05	1.2	0.05	18.1	14.3	1.90	**L21549**	**L21511**	7.6	0.30	21.5	0.85	19.5	0.77	29.0	1.14	32.5	1.28	0.32	1.88	1.04	4.15	2.25	1.83
	0.6250	39.992	1.5745	12.014	0.4730	11.153	0.4391	9.525	0.3750	1.2	0.05	1.2	0.05	18.2	15.1	2.00	**A6062**	**A6157**	10.3	0.41	22.0	0.87	20.5	0.81	34.0	1.34	37.0	1.46	0.53	1.14	0.63	4.20	3.75	1.11
	0.6250	41.275	1.6250	14.288	0.5625	14.681	0.5780	11.112	0.4375	1.2	0.05	2.0	0.08	27.3	20.5	2.85	**03062**	**03162**	9.3	0.37	21.5	0.85	20.0	0.79	34.0	1.34	37.5	1.48	0.31	1.93	1.06	6.30	3.35	1.88
	0.6250	42.862	1.6875	16.670	0.6563	16.670	0.6563	13.495	0.5313	1.6	0.06	1.6	0.06	38.2	29.5	4.15	**17580R**	**17520**	10.9	0.43	23.0	0.91	21.0	0.83	36.5	1.44	39.0	1.54	0.33	1.81	1.00	8.80	4.95	1.77
	0.6250	49.225	1.9380	19.845	0.7813	21.539	0.8480	14.288	0.5625	0.8	0.03	1.2	0.05	47.2	37.7	5.40	**09062**	**09195**	10.6	0.42	22.0	0.87	21.5	0.85	42.0	1.65	44.5	1.75	0.27	2.26	1.24	10.9	4.95	2.20
	0.6250	53.975	2.1250	22.225	0.8750	21.839	0.8598	15.875	0.6250	0.8	0.03	2.4	0.09	52.6	41.2	5.65	**21063**	**21212**	16.6	0.65	29.0	1.14	26.5	1.04	43.0	1.69	50.0	1.97	0.59	1.02	0.56	12.2	12.3	0.99
16.000	0.6299	47.000	1.8504	21.000	0.8268	21.000	0.8268	16.000	0.6299	1.0	0.04	2.0	0.08	45.4	37.7	5.05	**HM81649**	**HM81610**	15.0	0.59	27.5	1.08	23.0	0.91	37.5	1.48	43.0	1.69	0.55	1.10	0.60	10.5	9.85	1.07
16.993	0.6690	41.275	1.6250	11.905	0.4687	11.153	0.4391	8.730	0.3437	0.8	0.03	1.2	0.05	18.2	15.1	2.00	**A6067**	**A6162**	10.2	0.40	22.0	0.87	21.0	0.83	34.5	1.36	37.0	1.46	0.53	1.14	0.63	4.20	3.75	1.11
17.000	0.6693	49.225	1.9380	23.020	0.9063	21.539	0.8480	17.462	0.6875	2.0	0.08	1.6	0.06	47.2	37.7	5.40	**09099X**	**09196**	13.8	0.54	27.0	1.06	24.0	0.94	41.5	1.63	44.5	1.75	0.27	2.26	1.24	10.9	4.95	2.20
17.462	0.6875	39.878	1.5700	13.843	0.5450	14.605	0.5750	10.668	0.4200	1.2	0.05	1.2	0.05	31.8	26.0	3.60	**LM11749R**	**LM11710**	8.6	0.34	23.0	0.91	21.5	0.85	34.0	1.34	37.0	1.46	0.29	2.10	1.15	7.30	3.55	2.04
17.653	0.6950	49.225	1.9380	23.020	0.9063	21.539	0.8480	17.462	0.6875	2.4	0.09	1.6	0.06	47.2	37.7	5.40	**09070**	**09196**	13.8	0.54	26.0	1.02	24.0	0.94	41.5	1.63	44.5	1.75	0.27	2.26	1.24	10.9	4.95	2.20
18.000	0.7087	49.225	1.9380	23.020	0.9063	21.539	0.8480	17.462	0.6875	1.0	0.04	1.6	0.06	47.2	37.7	5.40	**09073X**	**09196**	13.8	0.54	23.0	0.91	24.0	0.94	41.5	1.63	44.5	1.75	0.27	2.26	1.24	10.9	4.95	2.20
19.004	0.7482	56.896	2.2400	19.368	0.7625	19.837	0.7810	15.875	0.6250	1.6	0.06	1.2	0.05	50.0	43.1	6.20	**1774**	**1729**	12.5	0.49	27.0	1.06	25.0	0.98	49.0	1.93	51.0	2.01	0.31	1.95	1.07	11.6	6.10	1.90
	0.7482	56.896	2.2400	19.368	0.7625	19.837	0.7810	15.875	0.6250	1.6	0.06	1.6	0.06	50.0	43.1	6.20	**1774**	**1729X**	12.5	0.49	27.0	1.06	25.0	0.98	49.0	1.93	52.0	2.05	0.31	1.95	1.07	11.6	6.10	1.90
19.050	0.7500	39.992	1.5745	12.014	0.4730	11.153	0.4391	9.525	0.3750	1.0	0.04	1.2	0.05	18.2	15.1	2.00	**A6075**	**A6157**	10.3	0.41	24.0	0.94	23.0	0.91	34.0	1.34	37.0	1.46	0.53	1.14	0.63	4.20	3.75	1.11
	0.7500	45.237	1.7810	15.494	0.6100	16.637	0.6550	12.065	0.4750	1.2	0.05	1.2	0.05	36.8	30.1	4.25	**LM11949**	**LM11910**	10.0	0.39	25.0	0.98	23.5	0.93	39.5	1.56	41.5	1.63	0.30	2.00	1.10	8.45	4.35	1.95
	0.7500	49.225	1.9380	19.845	0.7813	21.539	0.8480	14.288	0.5625	1.2	0.05	1.2	0.05	47.2	37.7	5.40	**09078**	**09195**	10.6	0.42	25.5	1.00	24.0	0.94	42.0	1.65	44.5	1.75	0.27	2.26	1.24	10.9	4.95	2.20
	0.7500	49.225	1.9380	21.209	0.8350	19.050	0.7500	17.462	0.6875	1.2	0.05	1.6	0.06	47.2	37.7	5.40	**09067**	**09196**	13.8	0.54	25.5	1.00	24.0	0.94	41.5	1.63	44.5	1.75	0.27	2.26	1.24	10.9	4.95	2.20
	0.7500	49.225	1.9380	23.020	0.9063	21.539	0.8480	17.462	0.6875	SP[1)]	SP[1)]	3.6	0.14	47.2	37.7	5.40	**09074**	**09194**	13.8	0.54	26.0	1.02	24.0	0.94	39.0	1.54	44.5	1.75	0.27	2.26	1.24	10.9	4.95	2.20
	0.7500	49.225	1.9380	23.020	0.9063	21.539	0.8480	17.462	0.6875	1.6	0.06	1.6	0.06	47.2	37.7	5.40	**09078X**	**09196**	13.8	0.54	25.5	1.00	24.0	0.94	41.5	1.63	44.5	1.75	0.27	2.26	1.24	10.9	4.95	2.20
	0.7500	53.975	2.1250	19.368	0.7625	19.837	0.7810	15.875	0.6250	1.6	0.06	0.8	0.03	50.0	43.1	6.20	**1775**	**1730**	12.5	0.49	27.0	1.06	25.0	0.98	48.5	1.91	50.0	1.97	0.31	1.95	1.07	11.6	6.10	1.90
	0.7500	53.975	2.1250	22.225	0.8750	21.839	0.8598	15.875	0.6250	1.6	0.06	0.4	0.02	52.6	41.2	5.65	**21075**	**21213**	16.6	0.65	31.5	1.24	26.5	1.04	43.0	1.69	50.0	1.97	0.59	1.02	0.56	12.2	12.3	0.99
	0.7500	66.421	2.6150	23.812	0.9375	25.433	1.0013	19.050	0.7500	3.6	0.14	1.2	0.05	83.8	75.2	11.2	**2693X**	**2631**	13.9	0.55	30.0	1.18	25.0	0.98	58.0	2.28	60.0	2.36	0.25	2.36	1.30	19.5	8.45	2.30
20.000	0.7874	50.005	1.9687	13.495	0.5313	14.260	0.5614	9.525	0.3750	1.6	0.06	1.0	0.04	33.3	28.8	4.05	**07079**	**07196**	10.8	0.43	27.5	1.08	26.0	1.02	44.5	1.75	47.0	1.85	0.40	1.49	0.82	7.65	5.25	1.46
	0.7874	53.975	2.1250	22.225	0.8750	21.839	0.8598	15.875	0.6250	2.0	0.08	2.4	0.09	52.6	41.2	5.65	**21078**	**21212**	16.6	0.65	31.5	1.24	26.5	1.04	43.0	1.69	50.0	1.97	0.59	1.02	0.56	12.2	12.3	0.99
20.638	0.8125	49.225	1.9380	19.845	0.7813	19.845	0.7813	15.875	0.6250	1.6	0.06	1.6	0.06	45.5	37.7	5.35	**12580**	**12520**	12.7	0.50	28.5	1.12	26.0	1.02	42.5	1.67	45.5	1.79	0.32	1.86	1.02	10.5	5.80	1.81

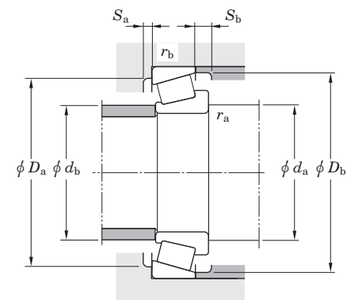
Note 1) SP indicates the specially chamfered from.

Koyo

TS type

d 21.430 ~ (25.400) mm
0.8437 ~ (1.0000) inch





$P = XF_r + YF_a$ $P_0 = 0.5\,F_r + Y_0F_a$ or $P_0 = F_r$			
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

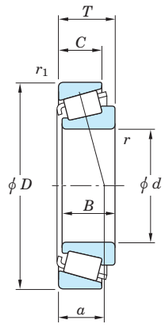
Boundary dimensions d mm	d inch	D mm	D inch	T mm	T inch	B mm	B inch	C mm	C inch	r (min.) mm	r (min.) inch	r_1 (min.) mm	r_1 (min.) inch	Basic load ratings (kN) C_r	C_{0r}	Fatigue load limit (kN) C_u	Bearing No. Inner ring (Cone)	Outer ring (Cup)	Load center a mm	a inch	Mounting dimensions d_a mm	d_a inch	d_b mm	d_b inch	D_a mm	D_a inch	D_b mm	D_b inch	Constant e	Axial load factors Y_1	Y_0	Reference rating (kN) (500 rpm for 3 000 Hrs.) Radial	Axial	Factor K
21.430	0.8437	50.005	1.9687	17.526	0.6900	18.288	0.7200	13.970	0.5500	1.2	0.05	1.2	0.05	48.8	40.7	5.80	**M12649**	**M12610**	11.1	0.44	27.5	1.08	25.5	1.00	44.0	1.73	46.0	1.81	0.28	2.16	1.19	11.2	5.35	2.10
21.987	0.8656	45.974	1.8100	15.494	0.6100	16.637	0.6550	12.065	0.4750	1.2	0.05	1.2	0.05	37.5	34.6	4.85	**LM12749**	**LM12711**	10.0	0.39	27.5	1.08	26.0	1.02	40.0	1.57	42.5	1.67	0.31	1.96	1.08	8.65	4.50	1.91
22.225	0.8750	50.005	1.9687	17.526	0.6900	18.288	0.7200	13.970	0.5500	1.2	0.05	1.2	0.05	48.8	40.7	5.80	**M12648**	**M12610**	11.1	0.44	28.5	1.12	26.5	1.04	44.0	1.73	46.0	1.81	0.28	2.16	1.19	11.2	5.35	2.10
	0.8750	50.005	1.9687	17.526	0.6900	18.288	0.7200	13.970	0.5500	1.2	0.05	1.2	0.05	48.8	40.7	5.80	**M12648A**	**M12610**	11.1	0.44	28.5	1.12	26.5	1.04	44.0	1.73	46.0	1.81	0.28	2.16	1.19	11.2	5.35	2.10
	0.8750	50.800	2.0000	15.011	0.5910	14.260	0.5614	12.700	0.5000	1.2	0.05	1.6	0.06	33.3	28.8	4.05	**07087**	**07210X**	12.3	0.48	28.5	1.12	27.0	1.06	44.5	1.75	47.5	1.87	0.40	1.49	0.82	7.65	5.25	1.46
	0.8750	52.388	2.0625	19.368	0.7625	20.168	0.7940	14.288	0.5625	1.6	0.06	1.6	0.06	45.9	37.9	5.45	**1380**	**1328**	11.6	0.46	29.5	1.16	29.5	1.16	45.0	1.77	48.5	1.91	0.29	2.05	1.13	10.7	5.35	2.00
	0.8750	53.975	2.1250	19.368	0.7625	20.168	0.7940	14.288	0.5625	1.6	0.06	1.6	0.06	45.9	37.9	5.45	**1380**	**1329**	11.6	0.46	29.5	1.16	29.5	1.16	46.0	1.81	49.0	1.93	0.29	2.05	1.13	10.7	5.35	2.00
	0.8750	56.896	2.2400	19.368	0.7625	19.837	0.7810	15.875	0.6250	1.2	0.05	1.2	0.05	50.0	43.1	6.20	**1755**	**1729**	12.5	0.49	29.0	1.14	27.5	1.08	49.0	1.93	51.0	2.01	0.31	1.95	1.07	11.6	6.10	1.90
	0.8750	57.150	2.2500	17.462	0.6875	17.462	0.6875	13.495	0.5313	1.6	0.06	1.6	0.06	47.2	42.7	6.10	**15572**	**15520**	12.7	0.50	32.5	1.28	30.5	1.20	51.0	2.01	53.0	2.09	0.35	1.73	0.95	10.8	6.40	1.69
	0.8750	57.150	2.2500	19.845	0.7813	19.355	0.7620	15.875	0.6250	0.8	0.03	1.6	0.06	60.8	57.1	8.25	**1975R**	**1922**	13.9	0.55	29.0	1.14	28.0	1.10	51.0	2.01	53.5	2.11	0.33	1.82	1.00	14.0	7.90	1.77
	0.8750	57.150	2.2500	22.225	0.8750	22.225	0.8750	17.462	0.6875	0.8	0.03	1.6	0.06	65.8	55.7	8.05	**1280**	**1220**	15.3	0.60	29.5	1.16	29.0	1.14	49.0	1.93	52.0	2.05	0.35	1.73	0.95	15.2	9.00	1.69
	0.8750	66.421	2.6150	23.812	0.9375	25.433	1.0013	19.050	0.7500	1.6	0.06	1.2	0.05	83.8	75.2	11.2	**2684**	**2631**	13.9	0.55	31.5	1.24	29.0	1.14	58.0	2.28	60.0	2.36	0.25	2.36	1.30	19.5	8.45	2.30
	0.8750	80.000	3.1496	20.996	0.8266	22.403	0.8820	17.826	0.7018	0.8	0.03	1.2	0.05	85.0	74.8	11.4	**341**	**332**	15.1	0.59	33.5	1.32	32.0	1.26	73.0	2.87	75.0	2.95	0.27	2.20	1.21	19.6	9.15	2.14
22.606	0.8900	47.000	1.8504	15.500	0.6102	15.500	0.6102	12.000	0.4724	1.6	0.06	1.0	0.04	35.0	32.8	4.45	**LM72849**	**LM72810**	12.3	0.48	30.0	1.18	28.0	1.10	40.5	1.59	44.0	1.73	0.47	1.27	0.70	8.05	6.50	1.24
23.812	0.9375	50.292	1.9800	14.224	0.5600	14.732	0.5800	10.668	0.4200	1.6	0.06	1.2	0.05	39.1	37.0	5.15	**L44640R**	**L44610**	10.8	0.43	30.5	1.20	28.5	1.12	44.5	1.75	47.0	1.85	0.37	1.60	0.88	8.95	5.70	1.56
	0.9375	52.000	2.0472	15.011	0.5910	14.260	0.5614	12.700	0.5000	1.6	0.06	2.0	0.08	33.3	28.8	4.05	**07093**	**07205**	12.3	0.48	30.5	1.20	28.5	1.12	44.5	1.75	48.0	1.89	0.40	1.49	0.82	7.65	5.25	1.46
	0.9375	56.896	2.2400	19.368	0.7625	19.837	0.7810	15.875	0.6250	0.8	0.03	1.2	0.05	50.0	43.1	6.20	**1779**	**1729**	12.5	0.49	29.5	1.16	28.5	1.12	49.0	1.93	51.0	2.01	0.31	1.95	1.07	11.6	6.10	1.90
	0.9375	56.896	2.2400	19.368	0.7625	19.837	0.7810	15.875	0.6250	0.8	0.03	1.6	0.06	50.0	43.1	6.20	**1779**	**1729X**	12.5	0.49	29.5	1.16	28.5	1.12	49.0	1.93	52.0	2.05	0.31	1.95	1.07	11.6	6.10	1.90
	0.9375	66.421	2.6150	23.812	0.9375	25.433	1.0013	19.050	0.7500	0.8	0.03	1.2	0.05	83.8	75.2	11.2	**2685**	**2631**	13.9	0.55	30.5	1.20	30.0	1.18	58.0	2.28	60.0	2.36	0.25	2.36	1.30	19.5	8.45	2.30
	0.9375	71.996	2.8345	19.000	0.7480	18.923	0.7450	15.875	0.6250	2.4	0.09	1.6	0.06	69.8	60.0	8.85	**26093**	**26283**	14.3	0.56	35.0	1.38	32.0	1.26	62.0	2.44	65.0	2.56	0.36	1.67	0.92	16.1	9.90	1.62
24.981	0.9835	50.005	1.9687	13.495	0.5313	14.260	0.5614	9.525	0.3750	1.6	0.06	1.0	0.04	33.3	28.8	4.05	**07098**	**07196**	10.8	0.43	31.0	1.22	29.0	1.14	44.5	1.75	47.0	1.85	0.40	1.49	0.82	7.65	5.25	1.46
	0.9835	62.000	2.4409	16.002	0.6300	16.566	0.6522	14.288	0.5625	1.6	0.06	1.6	0.06	47.4	40.6	5.80	**17098**	**17244**	12.7	0.50	33.0	1.30	30.5	1.20	54.0	2.13	57.0	2.24	0.38	1.57	0.86	10.9	7.15	1.53
25.000	0.9842	50.005	1.9687	13.495	0.5313	14.260	0.5614	9.525	0.3750	1.6	0.06	1.0	0.04	33.3	28.8	4.05	**07097**	**07196**	10.8	0.43	31.0	1.22	29.0	1.14	44.5	1.75	47.0	1.85	0.40	1.49	0.82	7.65	5.25	1.46
	0.9842	62.000	2.4409	16.002	0.6300	16.566	0.6522	14.288	0.5625	1.6	0.06	1.6	0.06	47.4	40.6	5.80	**17098X**	**17244**	12.7	0.50	33.0	1.30	30.5	1.20	54.0	2.13	57.0	2.24	0.38	1.57	0.86	10.9	7.15	1.53
	0.9842	66.421	2.6150	23.812	0.9375	25.433	1.0013	19.050	0.7500	2.0	0.08	1.2	0.05	83.8	75.2	11.2	**2694X**	**2631**	13.9	0.55	33.0	1.30	31.0	1.22	58.0	2.28	60.0	2.36	0.25	2.36	1.30	19.5	8.45	2.30
	0.9842	72.626	2.8593	30.162	1.1875	29.997	1.1810	23.812	0.9375	3.6	0.14	3.2	0.13	98.6	89.3	13.3	**3188X**	**3120**	20.3	0.80	40.0	1.57	35.0	1.38	61.0	2.40	67.0	2.64	0.33	1.80	0.99	23.0	13.1	1.76
25.400	1.0000	50.005	1.9687	13.495	0.5313	14.260	0.5614	9.525	0.3750	1.0	0.04	1.0	0.04	33.3	28.8	4.05	**07100**	**07196**	10.8	0.43	30.5	1.20	29.5	1.16	44.5	1.75	47.0	1.85	0.40	1.49	0.82	7.65	5.25	1.46
	1.0000	50.005	1.9687	13.495	0.5313	14.260	0.5614	9.525	0.3750	1.6	0.06	1.0	0.04	33.3	28.8	4.05	**07100S**	**07196**	10.8	0.43	31.5	1.24	29.5	1.16	44.5	1.75	47.0	1.85	0.40	1.49	0.82	7.65	5.25	1.46
	1.0000	50.005	1.9687	13.495	0.5313	14.260	0.5614	9.525	0.3750	3.2	0.13	1.0	0.04	33.3	28.8	4.05	**07100SA**	**07196**	10.8	0.43	35.0	1.38	29.5	1.16	44.5	1.75	47.0	1.85	0.40	1.49	0.82	7.65	5.25	1.46
	1.0000	50.292	1.9800	14.224	0.5600	14.732	0.5800	10.668	0.4200	1.2	0.05	1.2	0.05	39.1	37.0	5.15	**L44643R**	**L44610**	10.8	0.43	31.5	1.24	29.5	1.16	44.5	1.75	47.0	1.85	0.37	1.60	0.88	8.95	5.70	1.56
	1.0000	51.994	2.0470	15.011	0.5910	14.260	0.5614	12.700	0.5000	1.0	0.04	1.2	0.05	33.3	28.8	4.05	**07100**	**07204**	12.3	0.48	30.5	1.20	29.5	1.16	45.0	1.77	48.0	1.89	0.40	1.49	0.82	7.65	5.25	1.46
	1.0000	53.975	2.1250	19.368	0.7625	19.837	0.7810	15.875	0.6250	0.8	0.03	0.8	0.03	50.0	43.1	6.20	**1780**	**1730**	12.5	0.49	30.5	1.20	30.0	1.18	48.5	1.91	50.0	1.97	0.31	1.95	1.07	11.6	6.10	1.90
	1.0000	57.150	2.2500	17.462	0.6875	17.462	0.6875	13.495	0.5313	1.2	0.05	1.6	0.06	47.2	42.7	6.10	**15578**	**15520**	12.7	0.50	32.5	1.28	30.5	1.20	51.0	2.01	53.0	2.09	0.35	1.73	0.95	10.8	6.40	1.69
	1.0000	58.738	2.3125	19.050	0.7500	19.355	0.7620	15.080	0.5937	1.2	0.05	1.2	0.05	60.8	57.1	8.25	**1986R**	**1932**	13.1	0.52	32.5	1.28	30.5	1.20	52.0	2.05	54.0	2.13	0.33	1.82	1.00	14.0	7.90	1.77
	1.0000	59.530	2.3437	23.368	0.9200	23.114	0.9100	18.288	0.7200	0.8	0.03	1.6	0.06	63.0	57.1	7.95	**M84249**	**M84210**	18.2	0.72	36.0	1.42	32.5	1.28	49.5	1.95	56.0	2.20	0.55	1.10	0.60	14.6	13.6	1.07
	1.0000	60.325	2.3750	19.845	0.7813	19.355	0.7620	15.875	0.6250	3.6	0.14	1.2	0.05	60.8	57.1	8.25	**1994XR**	**1931**	13.9	0.55	37.0	1.46	30.5	1.20	52.0	2.05	55.0	2.17	0.33	1.82	1.00	14.0	7.90	1.77
	1.0000	61.912	2.4375	19.050	0.7500	20.638	0.8125	14.288	0.5625	0.8	0.03	2.0	0.08	55.7	50.7	7.30	**15101**	**15243**	13.2	0.52	32.5	1.28	31.5	1.24	55.0	2.17	58.0	2.28	0.35	1.71	0.94	12.9	7.75	1.67
	1.0000	62.000	2.4409	19.050	0.7500	20.638	0.8125	14.288	0.5625	3.6	0.14	1.2	0.05	55.7	50.7	7.30	**15100**	**15245**	13.2	0.52	38.0	1.50	31.5	1.24	55.0	2.17	58.0	2.28	0.35	1.71	0.94	12.9	7.75	1.67

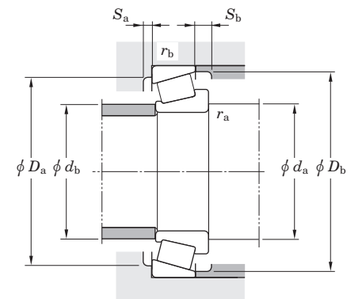
Note 1) SP indicates the specially chamfered from.

Koyo

TS type

d (25.400) ~ (28.575) mm
(1.0000) ~ (1.1250) inch





$P = XF_r + YF_a$ $P_0 = 0.5\,F_r + Y_0F_a$ or $P_0 = F_r$			
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

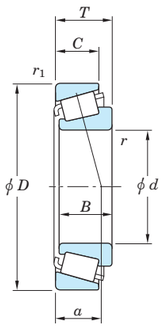
Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Constant	Axial load factors		Reference rating (kN) (500 rpm for 3 000 Hrs.)		Factor
d		D		T		B		C		r (min.)		r_1 (min.)		C_r	C_{0r}	C_u	Inner ring (Cone)	Outer ring (Cup)	a		d_a		d_b		D_a		D_b		e	Y_1	Y_0	Radial	Axial	K
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						
25.400	1.0000	63.500	2.5000	19.050	0.7500	20.638	0.8125	14.288	0.5625	0.8	0.03	1.2	0.05	55.7	50.7	7.30	**15101**	**15250R**	13.2	0.52	32.5	1.28	31.5	1.24	55.0	2.17	59.0	2.32	0.35	1.71	0.94	12.9	7.75	1.67
	1.0000	63.500	2.5000	20.638	0.8125	20.638	0.8125	15.875	0.6250	3.6	0.14	1.2	0.05	55.7	50.7	7.30	**15100**	**15250**	15.0	0.59	38.0	1.50	31.5	1.24	55.0	2.17	59.0	2.32	0.35	1.71	0.94	12.9	7.75	1.67
	1.0000	63.500	2.5000	20.638	0.8125	20.638	0.8125	15.875	0.6250	3.6	0.14	1.6	0.06	55.7	50.7	7.30	**15100**	**15250X**	15.0	0.59	38.0	1.50	31.5	1.24	55.0	2.17	59.0	2.32	0.35	1.71	0.94	12.9	7.75	1.67
	1.0000	63.500	2.5000	20.638	0.8125	20.638	0.8125	15.875	0.6250	1.6	0.06	1.6	0.06	55.7	50.7	7.30	**15102**	**15250X**	15.0	0.59	34.0	1.34	31.5	1.24	55.0	2.17	59.0	2.32	0.35	1.71	0.94	12.9	7.75	1.67
	1.0000	64.292	2.5312	21.432	0.8438	21.432	0.8438	16.670	0.6563	1.6	0.06	1.6	0.06	69.1	70.7	9.90	**M86643R**	**M86610**	18.0	0.71	38.0	1.50	36.5	1.44	54.0	2.13	61.0	2.40	0.55	1.10	0.60	16.0	14.9	1.07
	1.0000	66.421	2.6150	23.812	0.9375	25.433	1.0013	19.050	0.7500	1.2	0.05	1.2	0.05	83.8	75.2	11.2	**2687**	**2631**	13.9	0.55	33.5	1.32	31.5	1.24	58.0	2.28	60.0	2.36	0.25	2.36	1.30	19.5	8.45	2.30
	1.0000	68.262	2.6875	22.225	0.8750	22.225	0.8750	17.462	0.6875	0.8	0.03	1.6	0.06	63.7	61.1	8.80	**02473**	**02420**	17.1	0.67	34.5	1.36	33.5	1.32	59.0	2.32	63.0	2.48	0.42	1.44	0.79	14.8	10.5	1.41
	1.0000	68.262	2.6875	22.225	0.8750	22.225	0.8750	17.462	0.6875	0.8	0.03	0.8	0.03	63.7	61.1	8.80	**02473**	**02421**	17.1	0.67	34.5	1.36	33.5	1.32	59.0	2.32	63.0	2.48	0.42	1.44	0.79	14.8	10.5	1.41
	1.0000	72.000	2.8346	19.000	0.7480	18.923	0.7450	15.875	0.6250	1.6	0.06	1.6	0.06	69.8	60.0	8.85	**26100**	**26283**	14.3	0.56	34.5	1.36	32.5	1.28	62.0	2.44	65.0	2.56	0.36	1.67	0.92	16.1	9.90	1.62
	1.0000	72.233	2.8438	25.400	1.0000	25.400	1.0000	19.842	0.7812	0.8	0.03	2.4	0.09	83.8	87.4	12.4	**HM88630**	**HM88610**	20.7	0.81	39.5	1.56	39.5	1.56	60.0	2.36	69.0	2.72	0.55	1.10	0.60	19.6	18.3	1.07
	1.0000	72.626	2.8593	24.608	0.9688	24.257	0.9550	17.462	0.6875	2.4	0.09	1.6	0.06	77.3	60.5	8.75	**41100**	**41286**	20.7	0.81	41.0	1.61	36.5	1.44	61.0	2.40	68.0	2.68	0.60	1.00	0.55	17.9	18.4	0.97
	1.0000	72.626	2.8593	30.162	1.1875	29.997	1.1810	23.812	0.9375	0.8	0.03	0.8	0.03	98.6	89.3	13.3	**3189**	**3130**	20.3	0.80	35.5	1.40	35.0	1.38	63.0	2.48	67.0	2.64	0.33	1.80	0.99	23.0	13.1	1.76
	1.0000	72.626	2.8593	30.162	1.1875	29.997	1.1810	23.812	0.9375	2.0	0.08	3.2	0.13	98.6	89.3	13.3	**3189X**	**3120**	20.3	0.80	37.5	1.48	35.0	1.38	61.0	2.40	67.0	2.64	0.33	1.80	0.99	23.0	13.1	1.76
	1.0000	80.000	3.1496	21.000	0.8268	22.403	0.8820	17.826	0.7018	0.8	0.03	1.2	0.05	85.0	74.8	11.4	**338**	**332**	15.1	0.59	36.5	1.44	35.0	1.38	73.0	2.87	75.0	2.95	0.27	2.20	1.21	19.6	9.15	2.14
	1.0000	80.000	3.1496	24.176	0.9518	22.403	0.8820	21.000	0.8268	0.8	0.03	2.4	0.09	85.0	74.8	11.4	**338**	**332A**	18.3	0.72	36.5	1.44	35.0	1.38	71.0	2.80	75.0	2.95	0.27	2.20	1.21	19.6	9.15	2.14
25.987	1.0231	50.292	1.9800	14.224	0.5600	14.732	0.5800	10.668	0.4200	3.6	0.14	1.2	0.05	39.1	37.0	5.15	**L44645R**	**L44610**	10.8	0.43	36.5	1.44	31.0	1.22	44.5	1.75	47.0	1.85	0.37	1.60	0.88	8.95	5.70	1.56
	1.0231	57.150	2.2500	17.462	0.6875	17.462	0.6875	13.495	0.5313	3.6	0.14	1.6	0.06	47.2	42.7	6.10	**15579X**	**15520**	12.7	0.50	38.5	1.52	32.0	1.26	51.0	2.01	53.0	2.09	0.35	1.73	0.95	10.8	6.40	1.69
26.157	1.0298	63.500	2.5000	20.638	0.8125	20.638	0.8125	15.875	0.6250	0.8	0.03	1.2	0.05	55.7	50.7	7.30	**15103**	**15250**	15.0	0.59	33.5	1.32	33.0	1.30	55.0	2.17	59.0	2.32	0.35	1.71	0.94	12.9	7.75	1.67
26.162	1.0300	66.421	2.6150	23.812	0.9375	25.433	1.0013	19.050	0.7500	1.6	0.06	1.2	0.05	83.8	75.2	11.2	**2682**	**2631**	13.9	0.55	34.5	1.36	32.0	1.26	58.0	2.28	60.0	2.36	0.25	2.36	1.30	19.5	8.45	2.30
26.975	1.0620	57.150	2.2500	19.845	0.7813	19.355	0.7620	15.875	0.6250	0.8	0.03	1.6	0.06	60.8	57.1	8.25	**1987R**	**1922**	13.9	0.55	32.5	1.28	31.5	1.24	51.0	2.01	53.5	2.11	0.33	1.82	1.00	14.0	7.90	1.77
26.987	1.0625	72.626	2.8593	24.608	0.9688	24.257	0.9550	17.462	0.6875	2.4	0.09	1.6	0.06	77.3	60.5	8.75	**41106**	**41286**	20.7	0.81	42.0	1.65	36.5	1.44	61.0	2.40	68.0	2.68	0.60	1.00	0.55	17.9	18.4	0.97
26.988	1.0625	50.292	1.9800	14.224	0.5600	14.732	0.5800	10.668	0.4200	3.6	0.14	1.2	0.05	39.1	37.0	5.15	**L44649R**	**L44610**	10.8	0.43	37.5	1.48	31.0	1.22	44.5	1.75	47.0	1.85	0.37	1.60	0.88	8.95	5.70	1.56
	1.0625	57.150	2.2500	19.845	0.7813	19.355	0.7620	15.875	0.6250	3.2	0.13	1.6	0.06	60.8	57.1	8.25	**1997XR**	**1922**	13.9	0.55	37.5	1.48	31.5	1.24	51.0	2.01	53.5	2.11	0.33	1.82	1.00	14.0	7.90	1.77
	1.0625	60.325	2.3750	19.842	0.7812	17.462	0.6875	15.875	0.6250	3.6	0.14	1.6	0.06	47.2	42.7	6.10	**15580**	**15523**	15.1	0.59	38.5	1.52	32.0	1.26	51.0	2.01	54.0	2.13	0.35	1.73	0.95	10.8	6.40	1.69
	1.0625	62.000	2.4409	19.050	0.7500	20.638	0.8125	14.288	0.5625	0.8	0.03	1.2	0.05	55.7	50.7	7.30	**15106**	**15245**	13.2	0.52	33.5	1.32	33.0	1.30	55.0	2.17	58.0	2.28	0.35	1.71	0.94	12.9	7.75	1.67
	1.0625	66.421	2.6150	23.812	0.9375	25.433	1.0013	19.050	0.7500	1.6	0.06	1.2	0.05	83.8	75.2	11.2	**2688**	**2631**	13.9	0.55	35.0	1.38	33.0	1.30	58.0	2.28	60.0	2.36	0.25	2.36	1.30	19.5	8.45	2.30
28.575	1.1250	57.150	2.2500	17.462	0.6875	17.462	0.6875	13.495	0.5313	3.6	0.14	1.6	0.06	47.2	42.7	6.10	**15590**	**15520**	12.7	0.50	39.0	1.54	33.5	1.32	51.0	2.01	53.0	2.09	0.35	1.73	0.95	10.8	6.40	1.69
	1.1250	57.150	2.2500	19.845	0.7813	19.355	0.7620	15.875	0.6250	0.8	0.03	1.6	0.06	60.8	57.1	8.25	**1985R**	**1922**	13.9	0.55	34.0	1.34	33.5	1.32	51.0	2.01	53.5	2.11	0.33	1.82	1.00	14.0	7.90	1.77
	1.1250	57.150	2.2500	19.845	0.7813	19.355	0.7620	15.875	0.6250	3.6	0.14	1.6	0.06	60.8	57.1	8.25	**1988R**	**1922**	13.9	0.55	39.5	1.56	33.5	1.32	51.0	2.01	53.5	2.11	0.33	1.82	1.00	14.0	7.90	1.77
	1.1250	59.131	2.3280	15.875	0.6250	16.764	0.6600	11.811	0.4650	SP[1)]	SP[1)]	1.2	0.05	44.8	43.1	6.05	**LM67043**	**LM67010**	13.0	0.51	40.5	1.59	34.0	1.34	52.0	2.05	56.0	2.20	0.41	1.46	0.80	10.3	7.25	1.42
	1.1250	62.000	2.4409	19.050	0.7500	20.638	0.8125	14.288	0.5625	3.6	0.14	1.2	0.05	55.7	50.7	7.30	**15112**	**15245**	13.2	0.52	40.0	1.57	34.0	1.34	55.0	2.17	58.0	2.28	0.35	1.71	0.94	12.9	7.75	1.67
	1.1250	62.000	2.4409	19.050	0.7500	20.638	0.8125	14.288	0.5625	0.8	0.03	1.2	0.05	55.7	50.7	7.30	**15113**	**15245**	13.2	0.52	34.5	1.36	34.0	1.34	55.0	2.17	58.0	2.28	0.35	1.71	0.94	12.9	7.75	1.67
	1.1250	64.292	2.5312	21.432	0.8438	21.432	0.8438	16.670	0.6563	1.6	0.06	1.6	0.06	69.1	70.7	9.90	**M86647R**	**M86610**	18.0	0.71	40.0	1.57	38.0	1.50	54.0	2.13	61.0	2.40	0.55	1.10	0.60	16.0	14.9	1.07
	1.1250	66.421	2.6150	23.812	0.9375	25.433	1.0013	19.050	0.7500	1.2	0.05	1.2	0.05	83.8	75.2	11.2	**2689**	**2631**	13.9	0.55	36.0	1.42	34.0	1.34	58.0	2.28	60.0	2.36	0.25	2.36	1.30	19.5	8.45	2.30
	1.1250	66.421	2.6150	23.812	0.9375	25.433	1.0013	19.050	0.7500	4.8	0.19	1.2	0.05	83.8	75.2	11.2	**2689X**	**2631**	13.9	0.55	42.0	1.65	34.0	1.34	58.0	2.28	60.0	2.36	0.25	2.36	1.30	19.5	8.45	2.30
	1.1250	66.421	2.6150	25.400	1.0000	25.357	0.9983	20.638	0.8125	2.4	0.09	3.2	0.13	89.2	85.1	12.7	**2578**	**2520**	16.0	0.63	39.0	1.54	35.0	1.38	57.0	2.24	62.5	2.46	0.27	2.19	1.21	20.7	9.65	2.14
	1.1250	68.262	2.6875	22.225	0.8750	22.225	0.8750	17.462	0.6875	0.8	0.03	1.6	0.06	63.7	61.1	8.80	**02474**	**02420**	17.1	0.67	36.5	1.44	36.0	1.42	59.0	2.32	63.0	2.48	0.42	1.44	0.79	14.8	10.5	1.41
	1.1250	68.262	2.6875	22.225	0.8750	22.225	0.8750	17.462	0.6875	2.4	0.09	1.6	0.06	70.2	71.1	10.0	**M88040**	**M88010**	19.2	0.76	42.0	1.65	39.0	1.54	58.0	2.28	65.0	2.56	0.55	1.10	0.60	16.3	15.2	1.07

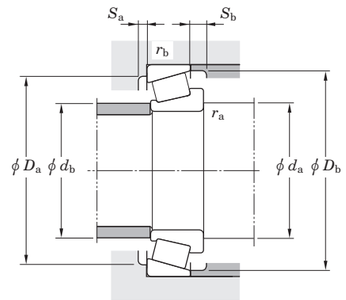
Note 1) SP indicates the specially chamfered from.

Koyo

TS type

d (28.575) ~ (30.162) mm
(1.1250) ~ (1.1875) inch





$P = XF_r + YF_a$ $P_0 = 0.5\,F_r + Y_0F_a$ or $P_0 = F_r$			
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

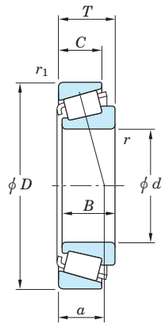
Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

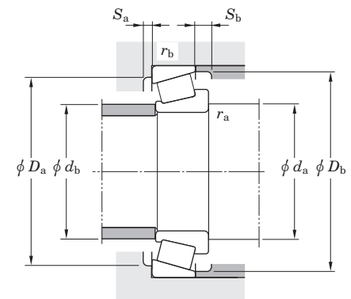
Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Constant	Axial load factors		Reference rating (kN) (500 rpm for 3 000 Hrs.)		Factor
d		D		T		B		C		r (min.)		r_1 (min.)		C_r	C_{0r}	C_u	Inner ring (Cone)	Outer ring (Cup)	a		d_a		d_b		D_a		D_b		e	Y_1	Y_0	Radial	Axial	K
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						
28.575	1.1250	68.262	2.6875	22.225	0.8750	22.225	0.8750	17.462	0.6875	2.4	0.09	2.4	0.09	70.2	71.1	10.0	**M88040**	**M88011**	19.2	0.76	42.0	1.65	39.0	1.54	58.0	2.28	65.0	2.56	0.55	1.10	0.60	16.3	15.2	1.07
	1.1250	72.000	2.8346	19.000	0.7480	18.923	0.7450	15.875	0.6250	1.6	0.06	1.6	0.06	59.4	60.0	7.25	**26112**	**26283**	14.3	0.56	37.0	1.46	35.0	1.38	62.0	2.44	65.0	2.56	0.36	1.67	0.92	16.1	9.90	1.62
	1.1250	72.626	2.8593	24.608	0.9688	24.257	0.9550	17.462	0.6875	4.8	0.19	1.6	0.06	77.3	60.5	8.75	**41125**	**41286**	20.7	0.81	48.0	1.89	36.5	1.44	61.0	2.40	68.0	2.68	0.60	1.00	0.55	17.9	18.4	0.97
	1.1250	72.626	2.8593	24.608	0.9688	24.257	0.9550	17.462	0.6875	1.6	0.06	1.6	0.06	77.3	60.5	8.75	**41126**	**41286**	20.7	0.81	41.5	1.63	36.5	1.44	61.0	2.40	68.0	2.68	0.60	1.00	0.55	17.9	18.4	0.97
	1.1250	72.626	2.8593	30.162	1.1875	29.997	1.1810	23.812	0.9375	3.6	0.14	3.2	0.13	98.6	89.3	13.3	**3192**	**3120**	20.3	0.80	42.5	1.67	37.0	1.46	61.0	2.40	67.0	2.64	0.33	1.80	0.99	23.0	13.1	1.76
	1.1250	72.626	2.8593	30.162	1.1875	29.997	1.1810	23.812	0.9375	1.2	0.05	3.2	0.13	98.6	89.3	13.3	**3198**	**3120**	20.3	0.80	39.0	1.54	37.0	1.46	61.0	2.40	67.0	2.64	0.33	1.80	0.99	23.0	13.1	1.76
	1.1250	73.025	2.8750	22.225	0.8750	22.225	0.8750	17.462	0.6875	0.8	0.03	3.2	0.13	68.8	65.7	9.55	**02872**	**02820**	18.4	0.72	37.5	1.48	37.0	1.46	62.0	2.44	68.0	2.68	0.45	1.32	0.73	16.0	12.4	1.29
	1.1250	73.025	2.8750	22.225	0.8750	22.225	0.8750	17.462	0.6875	0.8	0.03	0.8	0.03	68.8	65.7	9.55	**02872**	**02830**	18.4	0.72	37.5	1.48	37.0	1.46	64.0	2.52	69.0	2.72	0.45	1.32	0.73	16.0	12.4	1.29
	1.1250	80.962	3.1875	22.225	0.8750	22.225	0.8750	17.462	0.6875	0.8	0.03	0.8	0.03	68.8	65.7	9.55	**02872**	**02831**	18.4	0.72	37.5	1.48	37.0	1.46	67.0	2.64	69.0	2.72	0.45	1.32	0.73	16.0	12.4	1.29
29.000	1.1417	50.292	1.9800	14.224	0.5600	14.732	0.5800	10.668	0.4200	3.6	0.14	1.2	0.05	36.3	37.2	5.15	**L45449**	**L45410**	10.9	0.43	39.5	1.56	33.0	1.30	44.5	1.75	48.0	1.89	0.37	1.62	0.89	8.35	5.25	1.58
	1.1417	66.421	2.6150	23.812	0.9375	25.433	1.0013	19.050	0.7500	1.0	0.04	1.2	0.05	83.8	75.2	11.2	**2695X**	**2631**	13.9	0.55	35.0	1.38	34.0	1.34	58.0	2.28	60.0	2.36	0.25	2.36	1.30	19.5	8.45	2.30
29.367	1.1562	66.421	2.6150	23.812	0.9375	25.433	1.0013	19.050	0.7500	3.6	0.14	1.2	0.05	83.8	75.2	11.2	**2690**	**2631**	13.9	0.55	41.0	1.61	35.0	1.38	58.0	2.28	60.0	2.36	0.25	2.36	1.30	19.5	8.45	2.30
	1.1562	66.421	2.6150	23.812	0.9375	25.433	1.0013	19.050	0.7500	0.8	0.03	1.2	0.05	83.8	75.2	11.2	**2691**	**2631**	13.9	0.55	35.5	1.40	35.0	1.38	58.0	2.28	60.0	2.36	0.25	2.36	1.30	19.5	8.45	2.30
29.985	1.1805	72.626	2.8593	30.162	1.1875	29.997	1.1810	23.812	0.9375	0.8	0.03	3.2	0.13	98.6	89.3	13.3	**3190S**	**3120**	20.3	0.80	39.0	1.54	38.0	1.50	61.0	2.40	67.0	2.64	0.33	1.80	0.99	23.0	13.1	1.76
29.987	1.1806	62.000	2.4409	16.002	0.6300	16.566	0.6522	14.288	0.5625	1.6	0.06	1.6	0.06	47.4	40.6	5.80	**17118**	**17244**	12.7	0.50	37.0	1.46	34.5	1.36	54.0	2.13	57.0	2.24	0.38	1.57	0.86	10.9	7.15	1.53
	1.1806	62.000	2.4409	19.050	0.7500	20.638	0.8125	14.288	0.5625	1.2	0.05	1.2	0.05	55.7	50.7	7.30	**15117**	**15245**	13.2	0.52	36.5	1.44	35.0	1.38	55.0	2.17	58.0	2.28	0.35	1.71	0.94	12.9	7.75	1.67
	1.1806	71.996	2.8345	19.000	0.7480	18.923	0.7450	15.875	0.6250	1.6	0.06	2.0	0.08	69.8	60.0	8.85	**26118**	**26283S**	14.3	0.56	38.0	1.50	36.0	1.42	62.0	2.44	65.0	2.56	0.36	1.67	0.92	16.1	9.90	1.62
	1.1806	72.000	2.8346	19.000	0.7480	18.923	0.7450	15.875	0.6250	1.6	0.06	1.6	0.06	69.8	60.0	8.85	**26118**	**26283**	14.3	0.56	38.0	1.50	36.0	1.42	62.0	2.44	65.0	2.56	0.36	1.67	0.92	16.1	9.90	1.62
30.000	1.1811	62.000	2.4409	16.002	0.6300	16.566	0.6522	14.288	0.5625	1.6	0.06	1.6	0.06	47.4	40.6	5.80	**17118S**	**17244**	12.7	0.50	37.0	1.46	34.5	1.36	54.0	2.13	57.0	2.24	0.38	1.57	0.86	10.9	7.15	1.53
	1.1811	68.956	2.7148	19.845	0.7813	19.202	0.7560	15.875	0.6250	0.8	0.03	3.2	0.13	57.7	55.0	7.95	**14118**	**14274A**	15.5	0.61	37.0	1.46	36.5	1.44	59.0	2.32	63.0	2.48	0.38	1.57	0.86	13.4	8.70	1.53
	1.1811	69.012	2.7170	19.845	0.7813	19.583	0.7710	15.875	0.6250	3.6	0.14	1.2	0.05	57.7	55.0	7.95	**14117A**	**14276**	15.5	0.61	42.5	1.67	39.5	1.56	60.0	2.36	63.0	2.48	0.38	1.57	0.86	13.4	8.70	1.53
	1.1811	69.012	2.7170	19.845	0.7813	19.583	0.7710	15.875	0.6250	3.6	0.14	3.2	0.13	57.7	55.0	7.95	**14118A**	**14274**	15.5	0.61	42.5	1.67	39.5	1.56	59.0	2.32	63.0	2.48	0.38	1.57	0.86	13.4	8.70	1.53
	1.1811	69.850	2.7500	23.812	0.9375	25.357	0.9983	19.050	0.7500	3.6	0.14	1.2	0.05	89.2	85.1	12.7	**2586**	**2523**	14.4	0.57	42.0	1.65	35.5	1.40	61.0	2.40	64.0	2.52	0.27	2.19	1.21	20.7	9.65	2.14
	1.1811	71.996	2.8345	19.000	0.7480	18.923	0.7450	15.875	0.6250	1.6	0.06	1.6	0.06	69.8	60.0	8.85	**26118S**	**26283**	14.3	0.56	38.0	1.50	36.0	1.42	62.0	2.44	65.0	2.56	0.36	1.67	0.92	16.1	9.90	1.62
	1.1811	72.085	2.8380	29.522	1.1623	26.721	1.0520	18.415	0.7250	3.6	0.14	2.4	0.09	57.7	55.0	7.95	**14120A**	**14283**	22.6	0.89	42.5	1.67	39.5	1.56	60.0	2.36	63.0	2.48	0.38	1.57	0.86	13.4	8.70	1.53
	1.1811	72.626	2.8593	30.162	1.1875	29.997	1.1810	23.812	0.9375	3.6	0.14	3.2	0.13	98.6	89.3	13.3	**3190**	**3120**	20.3	0.80	43.0	1.69	38.0	1.50	61.0	2.40	67.0	2.64	0.33	1.80	0.99	23.0	13.1	1.76
	1.1811	80.000	3.1496	21.000	0.8268	22.403	0.8820	17.826	0.7018	0.8	0.03	1.2	0.05	85.0	74.8	11.4	**348**	**332**	15.1	0.59	39.5	1.56	39.5	1.56	73.0	2.87	75.0	2.95	0.27	2.20	1.21	19.6	9.15	2.14
	1.1811	88.501	3.4843	26.988	1.0625	29.083	1.1450	22.225	0.8750	0.8	0.03	1.6	0.06	123	112	17.2	**416**	**414**	16.9	0.67	39.5	1.56	39.5	1.56	77.0	3.03	80.0	3.15	0.26	2.28	1.25	28.6	12.9	2.22
	1.1811	88.501	3.4843	26.988	1.0625	29.083	1.1450	22.225	0.8750	0.8	0.03	3.2	0.13	123	112	17.2	**416**	**414A**	16.9	0.67	39.5	1.56	39.5	1.56	76.0	2.99	79.0	3.11	0.26	2.28	1.25	28.6	12.9	2.22
30.112	1.1855	62.000	2.4409	19.050	0.7500	20.638	0.8125	14.288	0.5625	0.8	0.03	1.2	0.05	55.7	50.7	7.30	**15116**	**15245**	13.2	0.52	36.0	1.42	35.5	1.40	55.0	2.17	58.0	2.28	0.35	1.71	0.94	12.9	7.75	1.67
30.162	1.1875	58.738	2.3125	14.684	0.5781	15.080	0.5937	10.716	0.4219	3.6	0.14	1.0	0.04	37.0	33.3	4.60	**08118**	**08231**	13.5	0.53	41.5	1.63	35.0	1.38	52.0	2.05	55.0	2.17	0.48	1.26	0.69	8.45	6.85	1.23
	1.1875	62.000	2.4409	16.002	0.6300	16.566	0.6522	14.288	0.5625	1.6	0.06	1.6	0.06	47.4	40.6	5.80	**17119**	**17244**	12.7	0.50	37.0	1.46	34.5	1.36	54.0	2.13	57.0	2.24	0.38	1.57	0.86	10.9	7.15	1.53
	1.1875	64.292	2.5312	21.432	0.8438	21.432	0.8438	16.670	0.6563	1.6	0.06	1.6	0.06	69.1	70.7	9.90	**M86649R**	**M86610**	18.0	0.71	41.0	1.61	38.0	1.50	54.0	2.13	61.0	2.40	0.55	1.10	0.60	16.0	14.9	1.07
	1.1875	68.262	2.6875	22.225	0.8750	22.225	0.8750	17.462	0.6875	0.8	0.03	1.6	0.06	63.7	61.1	8.80	**02477**	**02420**	17.1	0.67	38.0	1.50	36.0	1.42	59.0	2.32	63.0	2.48	0.42	1.44	0.79	14.8	10.5	1.41
	1.1875	68.262	2.6875	22.225	0.8750	22.225	0.8750	17.462	0.6875	2.4	0.09	1.6	0.06	70.2	71.1	10.0	**M88043**	**M88010**	19.2	0.76	43.5	1.71	39.5	1.56	58.0	2.28	65.0	2.56	0.55	1.10	0.60	16.3	15.2	1.07
	1.1875	69.850	2.7500	23.812	0.9375	25.357	0.9983	19.050	0.7500	2.4	0.09	1.6	0.06	89.2	85.1	12.7	**2558**	**2523S**	14.4	0.57	40.0	1.57	36.5	1.44	61.0	2.40	64.0	2.52	0.27	2.19	1.21	20.7	9.65	2.14
	1.1875	69.850	2.7500	23.812	0.9375	25.357	0.9983	19.050	0.7500	0.8	0.03	1.2	0.05	89.2	85.1	12.7	**2559**	**2523**	14.4	0.57	37.0	1.46	36.5	1.44	61.0	2.40	64.0	2.52	0.27	2.19	1.21	20.7	9.65	2.14
	1.1875	72.022	2.8355	23.812	0.9375	25.357	0.9983	19.050	0.7500	2.4	0.09	0.8	0.03	89.2	85.1	12.7	**2558**	**2525**	14.4	0.57	40.0	1.57	36.5	1.44	64.0	2.52	65.0	2.56	0.27	2.19	1.21	20.7	9.65	2.14

Note 1) SP indicates the specially chamfered from.

TS type

d (30.162) ~ (31.750) mm
(1.1875) ~ (1.2500) inch





$P = XF_r + YF_a$ $P_0 = 0.5\,F_r + Y_0F_a$ or $P_0 = F_r$			
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

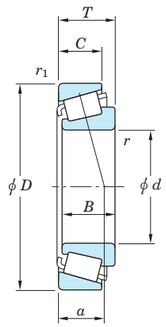
Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

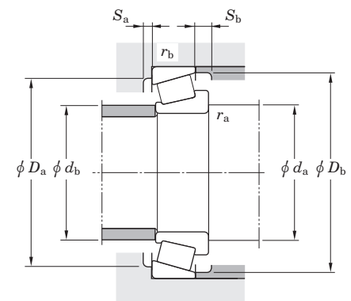
Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Con-stant	Axial load factors		Reference rating (kN) (500 rpm for 3 000 Hrs.)		Factor
d		D		T		B		C		r (min.)		r_1 (min.)		C_r	C_{0r}	C_u	Inner ring (Cone)	Outer ring (Cup)	a		d_a		d_b		D_a		D_b		e	Y_1	Y_0	Radial	Axial	K
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						
30.162	1.1875	72.626	2.8593	30.162	1.1875	29.997	1.1810	23.812	0.9375	0.8	0.03	0.8	0.03	98.6	89.3	13.3	**3187**	**3130**	20.3	0.80	39.0	1.54	38.5	1.52	63.0	2.48	67.0	2.64	0.33	1.80	0.99	23.0	13.1	1.76
	1.1875	72.626	2.8593	30.162	1.1875	29.997	1.1810	23.812	0.9375	3.6	0.14	3.2	0.13	98.6	89.3	13.3	**3191**	**3120**	20.3	0.80	44.0	1.73	38.5	1.52	61.0	2.40	67.0	2.64	0.33	1.80	0.99	23.0	13.1	1.76
	1.1875	76.200	3.0000	30.162	1.1875	29.997	1.1810	23.812	0.9375	3.6	0.14	0.8	0.03	98.6	89.3	13.3	**3191**	**3129**	20.3	0.80	44.0	1.73	38.5	1.52	65.0	2.56	69.0	2.72	0.33	1.80	0.99	23.0	13.1	1.76
	1.1875	79.375	3.1250	29.370	1.1563	29.771	1.1721	23.812	0.9375	0.8	0.03	3.2	0.13	109	105	15.7	**3474**	**3420**	20.8	0.82	41.0	1.61	40.0	1.57	67.0	2.64	74.0	2.91	0.37	1.64	0.90	25.5	15.9	1.60
	1.1875	80.000	3.1496	21.000	0.8268	22.403	0.8820	17.826	0.7018	0.8	0.03	1.2	0.05	85.0	74.8	11.4	**334**	**332**	15.1	0.59	39.5	1.56	39.5	1.56	73.0	2.87	75.0	2.95	0.27	2.20	1.21	19.6	9.15	2.14
	1.1875	80.000	3.1496	24.176	0.9518	22.403	0.8820	21.000	0.8268	0.8	0.03	2.4	0.09	85.0	74.8	11.4	**334**	**332A**	18.3	0.72	39.5	1.56	39.5	1.56	71.0	2.80	75.0	2.95	0.27	2.20	1.21	19.6	9.15	2.14
	1.1875	80.035	3.1510	21.432	0.8438	20.940	0.8244	15.875	0.6250	1.6	0.06	1.6	0.06	71.6	65.9	9.70	**28118**	**28317**	16.9	0.67	40.0	1.57	37.5	1.48	69.0	2.72	73.0	2.87	0.40	1.49	0.82	16.5	11.3	1.46
30.213	1.1895	62.000	2.4409	19.050	0.7500	20.638	0.8125	14.288	0.5625	3.6	0.14	1.2	0.05	55.7	50.7	7.30	**15118**	**15245**	13.2	0.52	41.5	1.63	35.5	1.40	55.0	2.17	58.0	2.28	0.35	1.71	0.94	12.9	7.75	1.67
	1.1895	62.000	2.4409	19.050	0.7500	20.638	0.8125	14.288	0.5625	1.6	0.06	1.2	0.05	55.7	50.7	7.30	**15119**	**15245**	13.2	0.52	37.5	1.48	35.5	1.40	55.0	2.17	58.0	2.28	0.35	1.71	0.94	12.9	7.75	1.67
	1.1895	62.000	2.4409	19.050	0.7500	20.638	0.8125	14.288	0.5625	0.8	0.03	1.2	0.05	55.7	50.7	7.30	**15120**	**15245**	13.2	0.52	36.0	1.42	35.5	1.40	55.0	2.17	58.0	2.28	0.35	1.71	0.94	12.9	7.75	1.67
30.226	1.1900	69.012	2.7170	19.845	0.7813	19.583	0.7710	15.875	0.6250	0.8	0.03	3.2	0.13	57.7	55.0	7.95	**14116**	**14274**	15.5	0.61	37.0	1.46	36.5	1.44	59.0	2.32	63.0	2.48	0.38	1.57	0.86	13.4	8.70	1.53
30.955	1.2187	64.292	2.5312	21.432	0.8438	21.432	0.8438	16.670	0.6563	2.4	0.09	1.6	0.06	69.1	70.7	9.90	**M86648R**	**M86610**	18.0	0.71	41.0	1.61	38.0	1.50	54.0	2.13	61.0	2.40	0.55	1.10	0.60	16.0	14.9	1.07
31.623	1.2450	66.675	2.6250	20.638	0.8125	20.638	0.8125	15.875	0.6250	1.6	0.06	1.6	0.06	58.1	54.5	7.90	**1674**	**1620**	15.7	0.62	45.0	1.77	38.5	1.52	58.0	2.28	61.0	2.40	0.37	1.62	0.89	13.5	8.55	1.57
31.750	1.2500	58.738	2.3125	14.684	0.5781	15.080	0.5937	10.716	0.4219	1.0	0.04	1.0	0.04	37.0	33.3	4.60	**08125**	**08231**	13.5	0.53	37.5	1.48	36.0	1.42	52.0	2.05	55.0	2.17	0.48	1.26	0.69	8.45	6.85	1.23
	1.2500	59.131	2.3280	15.875	0.6250	16.764	0.6600	11.811	0.4650	SP[1)]	SP[1)]	1.2	0.05	44.8	43.1	6.05	**LM67048**	**LM67010**	13.0	0.51	42.5	1.67	36.0	1.42	52.0	2.05	56.0	2.20	0.41	1.46	0.80	10.3	7.25	1.42
	1.2500	62.000	2.4409	18.161	0.7150	19.050	0.7500	14.288	0.5625	SP[1)]	SP[1)]	1.2	0.05	55.7	50.7	7.30	**15123**	**15245**	13.2	0.52	42.5	1.67	36.5	1.44	55.0	2.17	58.0	2.28	0.35	1.71	0.94	12.9	7.75	1.67
	1.2500	62.000	2.4409	19.050	0.7500	20.638	0.8125	14.288	0.5625	3.6	0.14	1.2	0.05	55.7	50.7	7.30	**15125**	**15245**	13.2	0.52	42.5	1.67	36.5	1.44	55.0	2.17	58.0	2.28	0.35	1.71	0.94	12.9	7.75	1.67
	1.2500	62.000	2.4409	19.050	0.7500	20.638	0.8125	14.288	0.5625	0.8	0.03	1.2	0.05	55.7	50.7	7.30	**15126**	**15245**	13.2	0.52	37.0	1.46	36.5	1.44	55.0	2.17	58.0	2.28	0.35	1.71	0.94	12.9	7.75	1.67
	1.2500	66.421	2.6150	25.400	1.0000	25.357	0.9983	20.638	0.8125	0.8	0.03	3.2	0.13	89.2	85.1	12.7	**2580**	**2520**	16.0	0.63	38.5	1.52	37.5	1.48	57.0	2.24	62.5	2.46	0.27	2.19	1.21	20.7	9.65	2.14
	1.2500	66.421	2.6150	25.400	1.0000	25.357	0.9983	20.638	0.8125	3.6	0.14	3.2	0.13	89.2	85.1	12.7	**2582**	**2520**	16.0	0.63	44.0	1.73	37.5	1.48	57.0	2.24	62.5	2.46	0.27	2.19	1.21	20.7	9.65	2.14
	1.2500	68.262	2.6875	22.225	0.8750	22.225	0.8750	17.462	0.6875	3.6	0.14	1.6	0.06	63.7	61.1	8.80	**02475**	**02420**	17.1	0.67	44.5	1.75	38.5	1.52	59.0	2.32	63.0	2.48	0.42	1.44	0.79	14.8	10.5	1.41
	1.2500	68.262	2.6875	22.225	0.8750	22.225	0.8750	17.462	0.6875	1.6	0.06	1.6	0.06	63.7	61.1	8.80	**02475A**	**02420**	17.1	0.67	42.0	1.65	38.0	1.50	59.0	2.32	63.0	2.48	0.42	1.44	0.79	14.8	10.5	1.41
	1.2500	68.262	2.6875	22.225	0.8750	22.225	0.8750	17.462	0.6875	0.8	0.03	1.6	0.06	63.7	61.1	8.80	**02476**	**02420**	17.1	0.67	39.0	1.54	38.5	1.52	59.0	2.32	63.0	2.48	0.42	1.44	0.79	14.8	10.5	1.41
	1.2500	68.262	2.6875	22.225	0.8750	22.225	0.8750	17.462	0.6875	1.6	0.06	1.6	0.06	70.2	71.1	10.0	**M88046**	**M88010**	19.2	0.76	43.0	1.69	40.5	1.59	58.0	2.28	65.0	2.56	0.55	1.10	0.60	16.3	15.2	1.07
	1.2500	68.956	2.7148	19.845	0.7813	19.583	0.7710	15.875	0.6250	3.6	0.14	3.2	0.13	57.7	55.0	7.95	**14125**	**14274A**	15.5	0.61	44.0	1.73	37.5	1.48	59.0	2.32	63.0	2.48	0.38	1.57	0.86	13.4	8.70	1.53
	1.2500	69.012	2.7170	26.982	1.0623	26.721	1.0520	15.875	0.6250	4.3	0.17	3.2	0.13	57.7	55.0	7.95	**14123A**	**14274**	22.6	0.89	44.0	1.73	40.0	1.57	59.0	2.32	63.0	2.48	0.38	1.57	0.86	13.4	8.70	1.53
	1.2500	71.973	2.8336	27.000	1.0630	25.400	1.0000	21.443	0.8442	1.6	0.06	1.6	0.06	83.8	87.4	12.4	**HM88644**	**HM88611**	22.3	0.88	45.0	1.77	42.5	1.67	60.0	2.36	69.0	2.72	0.55	1.10	0.60	19.6	18.3	1.07
	1.2500	72.034	2.8360	30.162	1.1875	29.997	1.1810	23.812	0.9375	0.8	0.03	2.8	0.11	98.6	89.3	13.3	**3188**	**3126**	20.3	0.80	40.0	1.57	39.5	1.56	61.0	2.40	67.0	2.64	0.33	1.80	0.99	23.0	13.1	1.76
	1.2500	72.233	2.8438	25.400	1.0000	25.400	1.0000	19.842	0.7812	1.6	0.06	2.4	0.09	83.8	87.4	12.4	**HM88644**	**HM88610**	20.7	0.81	45.0	1.77	42.5	1.67	60.0	2.36	69.0	2.72	0.55	1.10	0.60	19.6	18.3	1.07
	1.2500	72.626	2.8593	28.575	1.1250	29.997	1.1810	22.225	0.8750	0.8	0.03	3.2	0.13	98.6	89.3	13.3	**3188**	**3125**	18.7	0.74	40.0	1.57	39.5	1.56	61.0	2.40	67.0	2.64	0.33	1.80	0.99	23.0	13.1	1.76
	1.2500	72.626	2.8593	30.162	1.1875	29.997	1.1810	23.812	0.9375	0.8	0.03	0.8	0.03	98.6	89.3	13.3	**3188**	**3130**	20.3	0.80	40.0	1.57	39.5	1.56	63.0	2.48	67.0	2.64	0.33	1.80	0.99	23.0	13.1	1.76
	1.2500	72.626	2.8593	30.162	1.1875	29.997	1.1810	23.812	0.9375	1.6	0.06	0.8	0.03	98.6	89.3	13.3	**3188S**	**3130**	20.3	0.80	41.5	1.63	39.5	1.56	63.0	2.48	67.0	2.64	0.33	1.80	0.99	23.0	13.1	1.76
	1.2500	72.626	2.8593	30.162	1.1875	29.997	1.1810	23.812	0.9375	3.6	0.14	0.8	0.03	98.6	89.3	13.3	**3193**	**3130**	20.3	0.80	45.5	1.79	39.5	1.56	63.0	2.48	67.0	2.64	0.33	1.80	0.99	23.0	13.1	1.76
	1.2500	72.626	2.8593	30.162	1.1875	29.997	1.1810	23.812	0.9375	2.4	0.09	3.2	0.13	98.6	89.3	13.3	**3199**	**3120**	20.3	0.80	42.5	1.67	39.5	1.56	61.0	2.40	67.0	2.64	0.33	1.80	0.99	23.0	13.1	1.76
	1.2500	73.025	2.8750	22.225	0.8750	22.225	0.8750	17.462	0.6875	3.6	0.14	3.2	0.13	68.8	65.7	9.55	**02875**	**02820**	17.1	0.67	45.5	1.79	39.5	1.56	62.0	2.44	68.0	2.68	0.45	1.32	0.73	16.0	12.4	1.29
	1.2500	73.025	2.8750	22.225	0.8750	22.225	0.8750	17.462	0.6875	3.6	0.14	0.8	0.03	68.8	65.7	9.55	**02875**	**02830**	17.1	0.67	45.5	1.79	39.5	1.56	64.0	2.52	69.0	2.72	0.45	1.32	0.73	16.0	12.4	1.29
	1.2500	73.025	2.8750	22.225	0.8750	22.225	0.8750	17.462	0.6875	0.8	0.03	3.2	0.13	68.8	65.7	9.55	**02876**	**02820**	17.1	0.67	40.0	1.57	39.5	1.56	62.0	2.44	68.0	2.68	0.45	1.32	0.73	16.0	12.4	1.29
	1.2500	73.025	2.8750	22.225	0.8750	23.812	0.9375	17.462	0.6875	3.6	0.14	3.2	0.13	80.3	78.1	11.5	**2875**	**2820**	16.3	0.64	44.5	1.75	39.0	1.54	62.0	2.44	68.0	2.68	0.37	1.63	0.89	18.6	11.7	1.59

Note 1) SP indicates the specially chamfered from.

TS type

d (31.750) ~ 33.338 mm
(1.2500) ~ 1.3125 inch





$P = XF_r + YF_a$ $P_0 = 0.5\,F_r + Y_0F_a$ or $P_0 = F_r$			
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

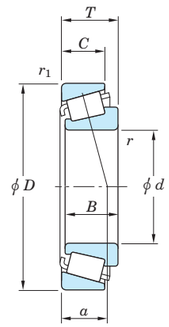
Boundary dimensions d mm	d inch	D mm	D inch	T mm	T inch	B mm	B inch	C mm	C inch	r (min.) mm	r (min.) inch	r_1 (min.) mm	r_1 (min.) inch	Basic load ratings (kN) C_r	C_{0r}	Fatigue load limit (kN) C_u	Bearing No. Inner ring (Cone)	Outer ring (Cup)	Load center a mm	a inch	Mounting dimensions d_a mm	d_a inch	d_b mm	d_b inch	D_a mm	D_a inch	D_b mm	D_b inch	Constant e	Axial load factors Y_1	Y_0	Reference rating (kN) (500 rpm for 3 000 Hrs.) Radial	Axial	Factor K
31.750	1.2500	73.025	2.8750	22.225	0.8750	23.812	0.9375	17.462	0.6875	0.8	0.03	0.8	0.03	80.3	78.1	11.5	**2879**	**2821**	16.3	0.64	39.0	1.54	39.0	1.54	65.0	2.56	68.0	2.68	0.37	1.63	0.89	18.6	11.7	1.59
	1.2500	73.025	2.8750	26.543	1.0450	25.400	1.0000	21.000	0.8268	1.6	0.06	2.4	0.09	83.8	87.4	12.4	**HM88644**	**HM88612**	21.8	0.86	45.0	1.77	42.5	1.67	60.0	2.36	69.0	2.72	0.55	1.10	0.60	19.6	18.3	1.07
	1.2500	73.025	2.8750	26.988	1.0625	26.975	1.0620	22.225	0.8750	3.6	0.14	1.6	0.06	97.2	94.1	13.9	**23685**	**23620**	18.8	0.74	45.0	1.77	40.0	1.57	64.0	2.52	68.0	2.68	0.37	1.62	0.89	22.6	14.2	1.58
	1.2500	73.025	2.8750	29.370	1.1563	27.783	1.0938	23.020	0.9063	1.2	0.05	3.2	0.13	93.0	101	14.2	**HM88542**	**HM88510**	23.4	0.92	45.5	1.79	42.5	1.67	59.0	2.32	70.0	2.76	0.55	1.10	0.60	21.7	20.3	1.07
	1.2500	73.812	2.9060	29.370	1.1563	27.783	1.0938	23.020	0.9063	1.2	0.05	3.2	0.13	93.0	101	14.2	**HM88542**	**HM88512**	23.4	0.92	45.5	1.79	42.5	1.67	59.0	2.32	70.0	2.76	0.55	1.10	0.60	21.7	20.3	1.07
	1.2500	76.200	3.0000	29.370	1.1563	28.575	1.1250	23.020	0.9063	0.8	0.03	0.8	0.03	99.5	107	15.2	**HM89440**	**HM89411**	23.9	0.94	45.5	1.79	44.5	1.75	65.0	2.56	73.0	2.87	0.55	1.10	0.60	23.2	21.7	1.07
	1.2500	79.375	3.1250	29.370	1.1563	29.771	1.1721	23.812	0.9375	1.6	0.06	3.2	0.13	109	105	15.7	**3476X**	**3420**	20.8	0.82	43.0	1.69	41.0	1.61	67.0	2.64	74.0	2.91	0.37	1.64	0.90	25.5	15.9	1.60
	1.2500	80.000	3.1496	21.000	0.8268	22.403	0.8820	17.826	0.7018	0.8	0.03	1.2	0.05	85.0	74.8	11.4	**346**	**332**	15.1	0.59	40.0	1.57	39.5	1.56	73.0	2.87	75.0	2.95	0.27	2.20	1.21	19.6	9.15	2.14
	1.2500	80.167	3.1562	29.370	1.1563	29.771	1.1721	23.812	0.9375	1.2	0.05	3.2	0.13	109	105	15.7	**3476**	**3422**	20.8	0.82	43.0	1.69	41.0	1.61	68.0	2.68	74.0	2.91	0.37	1.64	0.90	25.5	15.9	1.60
	1.2500	95.250	3.7500	27.783	1.0938	29.901	1.1772	22.225	0.8750	0.8	0.03	0.8	0.03	129	122	18.8	**443**	**432A**	18.4	0.72	42.0	1.65	41.0	1.61	84.0	3.31	87.0	3.43	0.28	2.11	1.16	30.0	14.6	2.06
31.986	1.2593	72.233	2.8438	25.400	1.0000	25.400	1.0000	19.842	0.7812	3.2	0.13	2.4	0.09	83.8	87.4	12.4	**HM88638**	**HM88610**	20.7	0.81	48.5	1.91	42.5	1.67	60.0	2.36	69.0	2.72	0.55	1.10	0.60	19.6	18.3	1.07
32.004	1.2600	72.000	2.8346	19.000	0.7480	18.923	0.7450	15.875	0.6250	1.6	0.06	1.6	0.06	69.8	60.0	8.85	**26126**	**26283**	14.3	0.56	39.5	1.56	37.5	1.48	62.0	2.44	65.0	2.56	0.36	1.67	0.92	16.1	9.90	1.62
32.542	1.2812	72.626	2.8593	30.162	1.1875	29.997	1.1810	23.812	0.9375	0.8	0.03	3.2	0.13	98.6	89.3	13.3	**3194**	**3120**	20.3	0.80	41.0	1.61	40.0	1.57	61.0	2.40	67.0	2.64	0.33	1.80	0.99	23.0	13.1	1.76
33.338	1.3125	66.421	2.6150	25.400	1.0000	25.357	0.9983	20.638	0.8125	0.8	0.03	3.2	0.13	89.2	85.1	12.7	**2581**	**2520**	16.0	0.63	39.5	1.56	39.0	1.54	57.0	2.24	62.5	2.46	0.27	2.19	1.21	20.7	9.65	2.14
	1.3125	66.421	2.6150	25.400	1.0000	25.357	0.9983	20.638	0.8125	3.6	0.14	3.2	0.13	89.2	85.1	12.7	**2585**	**2520**	16.0	0.63	45.0	1.77	39.0	1.54	57.0	2.24	62.5	2.46	0.27	2.19	1.21	20.7	9.65	2.14
	1.3125	66.675	2.6250	20.638	0.8125	20.638	0.8125	15.875	0.6250	3.6	0.14	1.6	0.06	58.1	54.5	7.90	**1680**	**1620**	15.7	0.62	45.0	1.77	38.5	1.52	58.0	2.28	61.0	2.40	0.37	1.62	0.89	13.5	8.55	1.58
	1.3125	68.262	2.6875	22.225	0.8750	22.225	0.8750	17.462	0.6875	0.8	0.03	1.6	0.06	70.2	71.1	10.0	**M88048**	**M88010**	19.2	0.76	42.5	1.67	41.0	1.61	58.0	2.28	65.0	2.56	0.55	1.10	0.60	16.3	15.2	1.07
	1.3125	68.956	2.7148	19.845	0.7813	19.583	0.7710	15.875	0.6250	3.6	0.14	3.2	0.13	57.7	55.0	7.95	**14130**	**14274A**	15.5	0.61	45.0	1.77	38.5	1.52	59.0	2.32	63.0	2.48	0.38	1.57	0.86	13.4	8.70	1.53
	1.3125	68.956	2.7148	19.845	0.7813	19.583	0.7710	15.875	0.6250	0.8	0.03	3.2	0.13	57.7	55.0	7.95	**14131**	**14274A**	15.5	0.61	39.5	1.56	38.5	1.52	59.0	2.32	63.0	2.48	0.38	1.57	0.86	13.4	8.70	1.53
	1.3125	69.012	2.7170	22.385	0.8813	19.583	0.7710	18.415	0.7250	3.6	0.14	2.4	0.09	57.7	55.0	7.95	**14130**	**14277**	18.0	0.71	45.0	1.77	38.5	1.52	59.0	2.32	63.0	2.48	0.38	1.57	0.86	13.4	8.70	1.53
	1.3125	69.723	2.7450	19.050	0.7500	18.923	0.7450	19.050	0.7500	3.6	0.14	1.6	0.06	69.8	60.0	8.85	**26131**	**26274**	14.3	0.56	44.5	1.75	38.5	1.52	62.0	2.44	65.0	2.56	0.36	1.67	0.92	16.1	9.90	1.62
	1.3125	72.000	2.8346	19.000	0.7480	18.923	0.7450	15.875	0.6250	3.6	0.14	1.6	0.06	59.4	60.0	7.25	**26131**	**26283**	14.3	0.56	44.5	1.75	38.5	1.52	62.0	2.44	65.0	2.56	0.36	1.67	0.92	16.1	9.90	1.62
	1.3125	72.000	2.8346	19.000	0.7480	18.923	0.7450	15.875	0.6250	1.6	0.06	1.6	0.06	69.8	60.0	8.85	**26132**	**26283**	14.3	0.56	40.5	1.59	38.0	1.50	62.0	2.44	65.0	2.56	0.36	1.67	0.92	16.1	9.90	1.62
	1.3125	72.238	2.8440	20.638	0.8125	20.638	0.8125	15.875	0.6250	3.6	0.14	1.2	0.05	62.3	61.3	8.90	**16131**	**16284**	16.6	0.65	46.0	1.81	39.5	1.56	63.0	2.48	67.0	2.64	0.40	1.49	0.82	14.4	9.90	1.46
	1.3125	72.626	2.8593	30.162	1.1875	29.997	1.1810	23.812	0.9375	3.6	0.14	1.8	0.07	98.6	89.3	13.3	**3196**	**3130**	20.3	0.80	47.0	1.85	40.5	1.59	63.0	2.48	67.0	2.64	0.33	1.80	0.99	23.0	13.1	1.76
	1.3125	72.626	2.8593	30.162	1.1875	29.997	1.1810	23.812	0.9375	0.8	0.03	0.8	0.03	98.6	89.3	13.3	**3197**	**3130**	20.3	0.80	41.5	1.63	40.5	1.59	63.0	2.48	67.0	2.64	0.33	1.80	0.99	23.0	13.1	1.76
	1.3125	73.025	2.8750	22.225	0.8750	23.812	0.9375	17.462	0.6875	3.6	0.14	0.8	0.03	80.3	78.1	11.5	**2876**	**2821**	16.3	0.64	46.0	1.81	40.0	1.57	65.0	2.56	68.0	2.68	0.37	1.63	0.89	18.6	11.7	1.59
	1.3125	73.025	2.8750	23.812	0.9375	25.654	1.0100	19.050	0.7500	1.6	0.06	0.8	0.03	92.6	92.2	13.8	**2790R**	**2735X**	15.9	0.63	42.0	1.65	40.0	1.57	66.0	2.60	69.0	2.72	0.30	1.98	1.09	21.5	11.1	1.93
	1.3125	73.025	2.8750	29.370	1.1563	27.783	1.0938	23.020	0.9063	0.8	0.03	3.2	0.13	93.0	101	14.2	**HM88547**	**HM88510**	23.4	0.92	45.5	1.79	42.6	1.68	59.0	2.32	70.0	2.76	0.55	1.10	0.60	21.7	20.3	1.07
	1.3125	74.612	2.9375	23.812	0.9375	25.654	1.0100	19.050	0.7500	3.6	0.14	0.8	0.03	92.6	92.2	13.8	**2785R**	**2736**	15.9	0.63	46.0	1.81	40.0	1.57	66.0	2.60	70.0	2.76	0.30	1.98	1.09	21.5	11.1	1.93
	1.3125	76.200	3.0000	19.000	0.7480	18.923	0.7450	15.875	0.6250	3.6	0.14	1.6	0.06	69.8	60.0	8.85	**26131**	**26300**	14.3	0.56	44.5	1.75	38.5	1.52	64.0	2.52	67.0	2.64	0.36	1.67	0.92	16.1	9.90	1.62
	1.3125	76.200	3.0000	23.812	0.9375	25.654	1.0100	19.050	0.7500	3.6	0.14	0.8	0.03	92.6	92.2	13.8	**2785R**	**2729**	15.9	0.63	46.0	1.81	40.0	1.57	68.0	2.68	70.0	2.76	0.30	1.98	1.09	21.5	11.1	1.93
	1.3125	76.200	3.0000	29.370	1.1563	28.575	1.1250	23.020	0.9063	0.8	0.03	3.2	0.13	99.5	107	15.2	**HM89443**	**HM89410**	23.9	0.94	46.5	1.83	44.6	1.76	62.0	2.44	73.0	2.87	0.55	1.10	0.60	23.2	21.7	1.07
	1.3125	76.200	3.0000	29.370	1.1563	28.575	1.1250	23.812	0.9375	0.8	0.03	1.2	0.05	101	97.4	14.4	**31590**	**31521**	21.6	0.85	43.0	1.69	42.5	1.67	66.0	2.60	72.0	2.83	0.40	1.49	0.82	23.6	16.2	1.46
	1.3125	79.375	3.1250	29.370	1.1563	29.771	1.1721	23.812	0.9375	3.6	0.14	3.2	0.13	109	105	15.7	**3477**	**3420**	20.8	0.82	47.5	1.87	41.0	1.61	67.0	2.64	74.0	2.91	0.37	1.64	0.90	25.5	15.9	1.60
	1.3125	79.375	3.1250	29.370	1.1563	29.771	1.1721	23.812	0.9375	0.8	0.03	3.2	0.13	109	105	15.7	**3483**	**3420**	20.8	0.82	41.0	1.61	41.0	1.61	67.0	2.64	74.0	2.91	0.37	1.64	0.90	25.5	15.9	1.60
	1.3125	80.000	3.1496	21.000	0.8268	22.403	0.8820	17.826	0.7018	0.8	0.03	1.2	0.05	85.0	74.8	11.4	**335S**	**332**	15.1	0.59	41.5	1.63	40.5	1.59	73.0	2.87	75.0	2.95	0.27	2.20	1.21	19.6	9.15	2.14
	1.3125	80.167	3.1562	29.370	1.1563	29.771	1.1721	23.812	0.9375	3.6	0.14	3.2	0.13	109	105	15.7	**3477**	**3422**	20.8	0.82	47.5	1.87	41.0	1.61	68.0	2.68	74.0	2.91	0.37	1.64	0.90	25.5	15.9	1.60

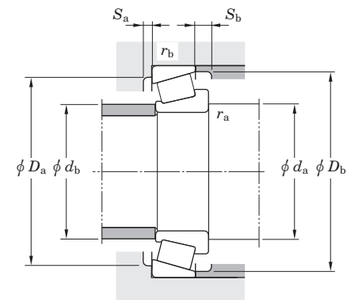
Note 1) SP indicates the specially chamfered from.

Koyo

TS type

d 34.925 ~ (34.980) mm
1.3750 ~ (1.3772) inch





$P = XF_r + YF_a$ $P_0 = 0.5\,F_r + Y_0F_a$ or $P_0 = F_r$			
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

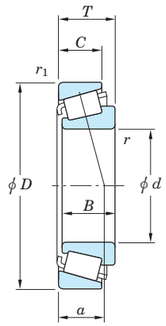
Boundary dimensions d mm	d inch	D mm	D inch	T mm	T inch	B mm	B inch	C mm	C inch	r (min.) mm	r (min.) inch	r_1 (min.) mm	r_1 (min.) inch	Basic load ratings (kN) C_r	C_{0r}	Fatigue load limit (kN) C_u	Bearing No. Inner ring (Cone)	Outer ring (Cup)	Load center a mm	a inch	Mounting dimensions d_a mm	d_a inch	d_b mm	d_b inch	D_a mm	D_a inch	D_b mm	D_b inch	Constant e	Axial load factors Y_1	Y_0	Reference rating (kN) (500 rpm for 3 000 Hrs.) Radial	Axial	Factor K
34.925	1.3750	65.088	2.5625	18.034	0.7100	18.288	0.7200	13.970	0.5500	SP[1]	SP[1]	1.2	0.05	60.0	58.5	8.40	**LM48548**	**LM48510**	14.3	0.56	46.0	1.81	40.0	1.57	58.0	2.28	61.0	2.40	0.38	1.59	0.88	13.8	8.90	1.55
	1.3750	68.956	2.7148	19.845	0.7813	19.583	0.7710	15.875	0.6250	1.6	0.06	3.2	0.13	57.7	55.0	7.95	**14137A**	**14274A**	15.5	0.61	42.0	1.65	40.0	1.57	59.0	2.32	63.0	2.48	0.38	1.57	0.86	13.4	8.70	1.53
	1.3750	68.956	2.7148	19.845	0.7813	19.583	0.7710	15.875	0.6250	3.6	0.14	3.2	0.13	57.7	55.0	7.95	**14138A**	**14274A**	15.5	0.61	46.0	1.81	40.0	1.57	59.0	2.32	63.0	2.48	0.38	1.57	0.86	13.4	8.70	1.53
	1.3750	69.012	2.7170	26.982	1.0623	26.721	1.0520	15.875	0.6250	0.8	0.03	1.2	0.05	57.7	55.0	7.95	**14136A**	**14276**	22.6	0.89	40.0	1.57	38.0	1.50	60.0	2.36	63.0	2.48	0.38	1.57	0.86	13.4	8.70	1.53
	1.3750	72.233	2.8438	25.400	1.0000	25.400	1.0000	19.842	0.7812	2.4	0.09	2.4	0.09	83.8	87.4	12.4	**HM88649**	**HM88610**	20.7	0.81	48.5	1.91	42.5	1.67	60.0	2.36	69.0	2.72	0.55	1.10	0.60	19.6	18.3	1.07
	1.3750	72.238	2.8440	20.638	0.8125	20.638	0.8125	15.875	0.6250	3.6	0.14	1.2	0.05	62.3	61.3	8.90	**16137**	**16284**	16.6	0.65	46.5	1.83	40.5	1.59	63.0	2.48	67.0	2.64	0.40	1.49	0.82	14.4	9.90	1.46
	1.3750	73.025	2.8750	22.225	0.8750	22.225	0.8750	17.462	0.6875	3.6	0.14	3.2	0.13	68.8	65.7	9.55	**02877**	**02820**	18.4	0.72	48.5	1.91	42.0	1.65	62.0	2.44	68.0	2.68	0.45	1.32	0.73	16.0	12.4	1.29
	1.3750	73.025	2.8750	22.225	0.8750	22.225	0.8750	17.462	0.6875	3.6	0.14	0.8	0.03	68.8	65.7	9.55	**02877**	**02830**	18.4	0.72	48.5	1.91	42.0	1.65	64.0	2.52	69.0	2.72	0.45	1.32	0.73	16.0	12.4	1.29
	1.3750	73.025	2.8750	22.225	0.8750	22.225	0.8750	17.462	0.6875	0.8	0.03	3.2	0.13	68.8	65.7	9.55	**02878**	**02820**	18.4	0.72	42.5	1.67	42.0	1.65	62.0	2.44	68.0	2.68	0.45	1.32	0.73	16.0	12.4	1.29
	1.3750	73.025	2.8750	22.225	0.8750	23.812	0.9375	17.462	0.6875	3.6	0.14	3.2	0.13	80.3	78.1	11.5	**2877**	**2820**	16.3	0.64	47.5	1.87	41.0	1.61	62.0	2.44	68.0	2.68	0.37	1.63	0.89	18.6	11.7	1.59
	1.3750	73.025	2.8750	22.225	0.8750	23.812	0.9375	17.462	0.6875	0.8	0.03	0.8	0.03	80.3	78.1	11.5	**2878**	**2821**	16.3	0.64	42.5	1.67	41.0	1.61	65.0	2.56	68.0	2.68	0.37	1.63	0.89	18.6	11.7	1.59
	1.3750	73.025	2.8750	23.812	0.9375	24.608	0.9688	19.050	0.7500	1.6	0.06	0.8	0.03	90.1	87.3	13.1	**25877R**	**25821**	15.8	0.62	43.0	1.69	40.5	1.59	65.0	2.56	68.0	2.68	0.29	2.07	1.14	20.9	10.4	2.02
	1.3750	73.025	2.8750	23.812	0.9375	24.608	0.9688	19.050	0.7500	3.6	0.14	2.4	0.09	90.1	87.3	13.1	**25878R**	**25820**	15.8	0.62	47.0	1.85	40.5	1.59	64.0	2.52	68.0	2.68	0.29	2.07	1.14	20.9	10.4	2.02
	1.3750	73.025	2.8750	23.812	0.9375	25.654	1.0100	19.050	0.7500	5.2	0.20	0.8	0.03	92.6	92.2	13.8	**2786R**	**2735X**	15.9	0.63	51.0	2.01	41.0	1.61	66.0	2.60	69.0	2.72	0.30	1.98	1.09	21.5	11.1	1.93
	1.3750	73.025	2.8750	26.988	1.0625	26.975	1.0620	22.225	0.8750	3.6	0.14	1.6	0.06	97.2	94.1	13.9	**23690**	**23620**	18.8	0.74	49.0	1.93	42.0	1.65	64.0	2.52	68.0	2.68	0.37	1.62	0.89	22.6	14.2	1.58
	1.3750	76.200	3.0000	20.638	0.8125	20.940	0.8244	15.507	0.6105	1.6	0.06	1.2	0.05	71.6	65.9	9.70	**28137**	**28300**	16.5	0.65	43.5	1.71	41.0	1.61	68.0	2.68	71.0	2.80	0.40	1.49	0.82	16.5	11.3	1.46
	1.3750	76.200	3.0000	23.812	0.9375	25.654	1.0100	19.050	0.7500	0.8	0.03	1.6	0.06	92.6	92.2	13.8	**2793R**	**2729X**	15.9	0.63	42.0	1.65	41.0	1.61	67.0	2.64	70.0	2.76	0.30	1.98	1.09	21.5	11.1	1.93
	1.3750	76.200	3.0000	23.812	0.9375	25.654	1.0100	19.050	0.7500	3.6	0.14	3.2	0.13	92.6	92.2	13.8	**2796R**	**2720**	15.9	0.63	47.5	1.87	41.0	1.61	66.0	2.60	70.0	2.76	0.30	1.98	1.09	21.5	11.1	1.93
	1.3750	76.200	3.0000	29.370	1.1563	28.575	1.1250	23.020	0.9063	3.6	0.14	0.8	0.03	99.5	107	15.2	**HM89446**	**HM89411**	23.9	0.94	53.0	2.09	44.5	1.75	65.0	2.56	73.0	2.87	0.55	1.10	0.60	23.2	21.7	1.07
	1.3750	76.200	3.0000	29.370	1.1563	28.575	1.1250	23.812	0.9375	3.6	0.14	1.2	0.05	101	97.4	14.4	**31593**	**31521**	21.6	0.85	50.0	1.97	43.5	1.71	66.0	2.60	72.0	2.83	0.40	1.49	0.82	23.6	16.2	1.46
	1.3750	76.200	3.0000	29.370	1.1563	28.575	1.1250	23.812	0.9375	1.6	0.06	3.2	0.13	101	97.4	14.4	**31594**	**31520**	21.6	0.85	46.0	1.81	43.5	1.71	64.0	2.52	72.0	2.83	0.40	1.49	0.82	23.6	16.2	1.46
	1.3750	79.375	3.1250	29.370	1.1563	29.771	1.1721	23.812	0.9375	3.6	0.14	3.2	0.13	109	105	15.7	**3478**	**3420**	20.8	0.82	50.0	1.97	43.5	1.71	67.0	2.64	74.0	2.91	0.37	1.64	0.90	25.5	15.9	1.60
	1.3750	79.375	3.1250	29.370	1.1563	29.771	1.1721	23.812	0.9375	0.8	0.03	3.2	0.13	109	105	15.7	**3482**	**3420**	20.8	0.82	44.0	1.73	43.5	1.71	67.0	2.64	74.0	2.91	0.37	1.64	0.90	25.5	15.9	1.60
	1.3750	80.000	3.1496	21.000	0.8268	22.403	0.8820	17.826	0.7018	0.8	0.03	1.2	0.05	85.0	74.8	11.4	**335**	**332**	15.1	0.59	42.5	1.67	41.5	1.63	73.0	2.87	75.0	2.95	0.27	2.20	1.21	19.6	9.15	2.14
	1.3750	80.000	3.1496	21.000	0.8268	22.403	0.8820	17.826	0.7018	1.2	0.05	1.2	0.05	85.0	74.8	11.4	**340**	**332**	15.1	0.59	43.5	1.71	41.5	1.63	73.0	2.87	75.0	2.95	0.27	2.20	1.21	19.6	9.15	2.14
	1.3750	80.000	3.1496	21.000	0.8268	22.403	0.8820	17.826	0.7018	3.6	0.14	1.2	0.05	85.0	74.8	11.4	**343**	**332**	15.1	0.59	47.5	1.87	41.5	1.63	73.0	2.87	75.0	2.95	0.27	2.20	1.21	19.6	9.15	2.14
	1.3750	80.000	3.1496	24.176	0.9518	22.403	0.8820	21.000	0.8268	0.8	0.03	2.4	0.09	85.0	74.8	11.4	**335**	**332A**	18.3	0.72	42.5	1.67	41.5	1.63	71.0	2.80	75.0	2.95	0.27	2.20	1.21	19.6	9.15	2.14
	1.3750	80.000	3.1496	24.176	0.9518	22.403	0.8820	21.000	0.8268	3.6	0.14	2.4	0.09	85.0	74.8	11.4	**343**	**332A**	18.3	0.72	47.5	1.87	41.5	1.63	71.0	2.80	75.0	2.95	0.27	2.20	1.21	19.6	9.15	2.14
	1.3750	80.000	3.1496	29.370	1.1563	30.391	1.1965	23.812	0.9375	3.6	0.14	3.2	0.13	114	106	16.2	**3379**	**3325**	18.7	0.74	48.0	1.89	41.5	1.63	70.0	2.76	75.0	2.95	0.27	2.20	1.21	26.6	12.4	2.14
	1.3750	80.035	3.1510	24.608	0.9688	23.698	0.9330	18.512	0.7288	0.8	0.03	1.6	0.06	91.6	91.6	13.3	**27875**	**27820**	22.2	0.87	45.5	1.79	44.5	1.75	68.0	2.68	75.0	2.95	0.56	1.07	0.59	21.2	20.3	1.04
	1.3750	85.725	3.3750	30.162	1.1875	30.162	1.1875	23.812	0.9375	3.6	0.14	1.2	0.05	135	136	20.3	**3872**	**3821**	22.9	0.90	53.0	2.09	46.0	1.81	75.0	2.95	81.0	3.19	0.40	1.49	0.82	31.5	21.7	1.46
	1.3750	85.725	3.3750	30.162	1.1875	30.162	1.1875	23.812	0.9375	0.8	0.03	3.2	0.13	135	136	20.3	**3872A**	**3820**	22.9	0.90	46.0	1.81	46.0	1.81	73.0	2.87	81.0	3.19	0.40	1.49	0.82	31.5	21.7	1.46
	1.3750	87.312	3.4375	30.162	1.1875	30.886	1.2160	23.812	0.9375	3.6	0.14	3.2	0.13	120	120	18.2	**3581R**	**3525**	20.5	0.81	48.0	1.89	45.5	1.79	75.0	2.95	81.0	3.19	0.31	1.96	1.08	27.9	14.6	1.91
	1.3750	88.501	3.4843	26.988	1.0625	29.083	1.1450	22.225	0.8750	0.8	0.03	1.6	0.06	123	112	17.2	**417**	**414**	16.9	0.67	42.5	1.67	42.0	1.65	77.0	3.03	80.0	3.15	0.26	2.28	1.25	28.6	12.9	2.22
	1.3750	90.488	3.5625	39.688	1.5625	40.386	1.5900	33.338	1.3125	3.6	0.14	3.2	0.13	166	169	25.9	**4368**	**4335**	25.6	1.01	51.0	2.01	46.0	1.81	77.0	3.03	85.0	3.35	0.28	2.11	1.16	38.8	18.9	2.06
	1.3750	95.250	3.7500	27.783	1.0938	29.901	1.1772	22.225	0.8750	0.8	0.03	2.4	0.09	129	122	18.8	**449**	**432**	18.4	0.72	44.0	1.73	43.5	1.71	83.0	3.27	87.0	3.43	0.28	2.11	1.16	30.0	14.6	2.06
34.976	1.3770	68.262	2.6875	15.875	0.6250	16.520	0.6504	11.908	0.4688	1.6	0.06	1.6	0.06	57.6	53.8	7.70	**19138R**	**19268**	14.5	0.57	42.5	1.67	40.5	1.59	61.0	2.40	65.0	2.56	0.44	1.35	0.74	13.2	10.0	1.32
	1.3770	68.956	2.7148	19.845	0.7813	19.583	0.7710	15.875	0.6250	1.2	0.05	3.2	0.13	57.7	55.0	7.95	**14139**	**14274A**	15.5	0.61	41.5	1.63	40.0	1.57	59.0	2.32	63.0	2.48	0.38	1.57	0.86	13.4	8.70	1.53
	1.3770	80.000	3.1496	21.006	0.8270	20.940	0.8244	15.875	0.6250	1.6	0.06	1.6	0.06	71.6	65.9	9.70	**28138**	**28315**	16.5	0.65	43.5	1.71	41.0	1.61	69.0	2.72	73.0	2.87	0.40	1.49	0.82	16.5	11.3	1.46
34.980	1.3772	59.131	2.3280	15.875	0.6250	16.764	0.6600	11.938	0.4700	SP[1]	SP[1]	1.2	0.05	44.9	48.5	6.85	**L68149**	**L68110**	13.2	0.52	45.5	1.79	39.0	1.54	53.0	2.09	56.0	2.20	0.42	1.44	0.79	10.3	7.35	1.41

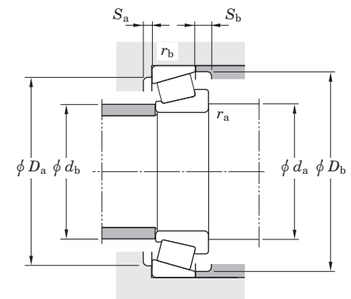
Note 1) SP indicates the specially chamfered from.

Koyo

TS type

d (34.980) ~ (36.512) mm
(1.3772) ~ (1.4375) inch





$P = XF_r + YF_a$ $P_0 = 0.5\,F_r + Y_0F_a$ or $P_0 = F_r$			
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

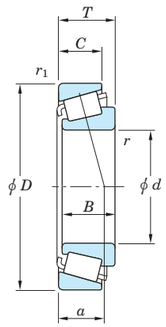
Boundary dimensions d mm	d inch	D mm	D inch	T mm	T inch	B mm	B inch	C mm	C inch	r (min.) mm	r (min.) inch	r_1 (min.) mm	r_1 (min.) inch	Basic load ratings (kN) C_r	Basic load ratings (kN) C_{0r}	Fatigue load limit (kN) C_u	Bearing No. Inner ring (Cone)	Bearing No. Outer ring (Cup)	Load center a mm	Load center a inch	Mounting dimensions d_a mm	d_a inch	d_b mm	d_b inch	D_a mm	D_a inch	D_b mm	D_b inch	Constant e	Axial load factors Y_1	Axial load factors Y_0	Reference rating (kN) (500 rpm for 3 000 Hrs.) Radial	Reference rating (kN) Axial	Factor K
34.980	1.3772	59.975	2.3612	15.875	0.6250	16.764	0.6600	11.938	0.4700	SP[1]	SP[1]	1.2	0.05	44.9	48.5	6.85	**L68149**	**L68111**	13.2	0.52	45.5	1.79	39.0	1.54	53.0	2.09	56.0	2.20	0.42	1.44	0.79	10.3	7.35	1.41
34.988	1.3775	61.973	2.4399	16.700	0.6575	17.000	0.6693	13.599	0.5354	SP[1]	SP[1]	1.0	0.04	51.2	52.8	7.45	**LM78349**	**LM78310**	14.5	0.57	46.0	1.81	40.0	1.57	54.0	2.13	59.0	2.32	0.44	1.35	0.74	11.8	8.95	1.32
	1.3775	65.987	2.5979	20.638	0.8125	20.638	0.8125	16.670	0.6563	3.6	0.14	2.4	0.09	70.7	67.0	10.3	**M38547**	**M38511**	15.1	0.59	46.0	1.81	39.5	1.56	59.0	2.32	62.0	2.44	0.35	1.70	0.93	15.7	9.50	1.66
35.000	1.3780	73.025	2.8750	26.988	1.0625	26.975	1.0620	22.225	0.8750	3.6	0.14	0.8	0.03	97.2	94.1	13.9	**23691**	**23621**	18.8	0.74	49.0	1.93	42.0	1.65	63.0	2.48	68.0	2.68	0.37	1.62	0.89	22.6	14.2	1.58
	1.3780	77.788	3.0625	26.988	1.0625	26.975	1.0620	22.225	0.8750	3.6	0.14	0.8	0.03	97.2	94.1	13.9	**23691**	**23623**	18.8	0.74	49.0	1.93	42.0	1.65	65.0	2.56	71.0	2.80	0.37	1.62	0.89	22.6	14.2	1.58
	1.3780	79.375	3.1250	23.812	0.9375	25.400	1.0000	19.050	0.7500	0.8	0.03	0.8	0.03	101	105	15.8	**26883R**	**26822**	16.4	0.65	42.5	1.67	42.0	1.65	71.0	2.80	74.0	2.91	0.32	1.88	1.04	23.5	12.8	1.83
	1.3780	79.375	3.1250	29.370	1.1563	29.771	1.1721	23.812	0.9375	1.6	0.06	3.2	0.13	109	105	15.7	**3480**	**3420**	20.8	0.82	44.5	1.75	42.5	1.67	67.0	2.64	74.0	2.91	0.37	1.64	0.90	25.5	15.9	1.60
	1.3780	79.375	3.1250	29.370	1.1563	29.771	1.1721	23.812	0.9375	3.6	0.14	3.2	0.13	109	105	15.7	**3492X**	**3420**	20.8	0.82	49.0	1.93	44.0	1.73	67.0	2.64	74.0	2.91	0.37	1.64	0.90	25.5	15.9	1.60
	1.3780	80.000	3.1496	21.000	0.8268	22.403	0.8820	17.826	0.7018	0.8	0.03	1.2	0.05	85.0	74.8	11.4	**339**	**332**	15.1	0.59	42.5	1.67	41.5	1.63	73.0	2.87	75.0	2.95	0.27	2.20	1.21	19.6	9.15	2.14
	1.3780	80.000	3.1496	21.000	0.8268	22.403	0.8820	17.826	0.7018	2.0	0.08	1.2	0.05	85.0	74.8	11.4	**339X**	**332**	15.1	0.59	45.5	1.79	41.5	1.63	73.0	2.87	75.0	2.95	0.27	2.20	1.21	19.6	9.15	2.14
	1.3780	80.000	3.1496	24.176	0.9518	22.403	0.8820	21.000	0.8268	0.8	0.03	1.2	0.05	85.0	74.8	11.4	**339**	**332A**	18.3	0.72	42.5	1.67	41.5	1.63	71.0	2.80	75.0	2.95	0.27	2.20	1.21	19.6	9.15	2.14
	1.3780	80.167	3.1562	25.400	1.0000	25.400	1.0000	20.638	0.8125	0.8	0.03	3.2	0.13	101	105	15.8	**26883R**	**26820**	18.0	0.71	42.5	1.67	42.0	1.65	69.0	2.72	74.0	2.91	0.32	1.88	1.04	23.5	12.8	1.83
	1.3780	88.501	3.4843	26.988	1.0625	29.083	1.1450	22.225	0.8750	0.8	0.03	1.6	0.06	123	112	17.2	**421**	**414**	16.9	0.67	42.5	1.67	42.0	1.65	77.0	3.03	80.0	3.15	0.26	2.28	1.25	28.6	12.9	2.22
	1.3780	88.501	3.4843	26.988	1.0625	29.083	1.1450	22.225	0.8750	0.8	0.03	3.2	0.13	123	112	17.2	**421**	**414A**	16.9	0.67	42.5	1.67	42.0	1.65	76.0	2.99	79.0	3.11	0.26	2.28	1.25	28.6	12.9	2.22
	1.3780	95.250	3.7500	27.783	1.0938	29.901	1.1772	22.225	0.8750	3.6	0.14	2.4	0.09	129	122	18.8	**441**	**432**	18.4	0.72	49.0	1.93	43.5	1.71	83.0	3.27	87.0	3.43	0.28	2.11	1.16	30.0	14.6	2.06
35.306	1.3900	73.025	2.8750	22.225	0.8750	23.812	0.9375	17.462	0.6875	3.6	0.14	3.2	0.13	80.3	78.1	11.5	**2880**	**2820**	16.3	0.64	48.0	1.89	42.0	1.65	62.0	2.44	68.0	2.68	0.37	1.63	0.89	18.6	11.7	1.59
35.717	1.4062	72.233	2.8438	25.400	1.0000	25.400	1.0000	19.842	0.7812	3.6	0.14	2.4	0.09	83.8	87.4	12.4	**HM88648**	**HM88610**	20.7	0.81	52.0	2.05	42.5	1.67	60.0	2.36	69.0	2.72	0.55	1.10	0.60	19.6	18.3	1.07
36.449	1.4350	73.025	2.8750	22.225	0.8750	22.225	0.8750	17.462	0.6875	0.8	0.03	3.2	0.13	68.8	65.7	9.55	**02884**	**02820**	18.4	0.72	44.5	1.75	42.0	1.65	62.0	2.44	69.0	2.72	0.45	1.32	0.73	16.0	12.4	1.29
36.487	1.4365	73.025	2.8750	23.812	0.9375	24.608	0.9688	19.050	0.7500	1.6	0.06	0.8	0.03	90.1	87.3	13.1	**25880R**	**25821**	15.8	0.62	44.0	1.73	42.0	1.65	65.0	2.56	68.0	2.68	0.29	2.07	1.14	20.9	10.4	2.02
	1.4365	73.025	2.8750	23.812	0.9375	25.654	1.0100	19.050	0.7500	1.6	0.06	0.8	0.03	92.6	92.2	13.8	**2780R**	**2735X**	15.9	0.63	44.5	1.75	42.5	1.67	66.0	2.60	69.0	2.72	0.30	1.98	1.09	21.5	11.1	1.93
	1.4365	73.025	2.8750	23.812	0.9375	25.654	1.0100	19.050	0.7500	3.6	0.14	0.8	0.03	92.6	92.2	13.8	**2794R**	**2735X**	15.9	0.63	49.0	1.93	42.5	1.67	66.0	2.60	69.0	2.72	0.30	1.98	1.09	21.5	11.1	1.93
	1.4365	79.375	3.1250	25.400	1.0000	25.654	1.0100	20.638	0.8125	1.6	0.06	3.2	0.13	92.6	92.2	13.8	**2780R**	**2734**	17.5	0.69	44.5	1.75	42.5	1.67	68.0	2.68	70.0	2.76	0.30	1.98	1.09	21.5	11.1	1.93
	1.4365	80.167	3.1562	29.370	1.1563	30.391	1.1965	23.812	0.9375	3.6	0.14	3.2	0.13	114	106	16.2	**3378**	**3320**	18.7	0.74	49.0	1.93	44.5	1.75	70.0	2.76	75.0	2.95	0.27	2.20	1.21	26.6	12.4	2.14
	1.4365	81.755	3.2187	29.370	1.1563	30.391	1.1965	23.812	0.9375	3.6	0.14	3.2	0.13	114	106	16.2	**3378**	**3329**	18.7	0.74	49.0	1.93	44.5	1.75	71.0	2.80	75.0	2.95	0.27	2.20	1.21	26.6	12.4	2.14
36.512	1.4375	68.262	2.6875	15.875	0.6250	16.520	0.6504	11.908	0.4688	1.6	0.06	1.6	0.06	57.6	53.8	7.70	**19143R**	**19268**	14.5	0.57	44.0	1.73	42.0	1.65	61.0	2.40	65.0	2.56	0.44	1.35	0.74	13.2	10.0	1.32
	1.4375	69.012	2.7170	19.050	0.7500	19.050	0.7500	15.083	0.5938	3.6	0.14	0.8	0.03	61.7	62.0	8.95	**13682**	**13620**	16.1	0.63	48.0	1.89	41.5	1.63	62.0	2.44	65.0	2.56	0.40	1.49	0.82	14.2	9.75	1.46
	1.4375	71.438	2.8125	15.875	0.6250	16.520	0.6504	11.908	0.4688	1.6	0.06	1.0	0.04	57.6	53.8	7.70	**19143R**	**19281**	14.5	0.57	44.0	1.73	42.0	1.65	63.0	2.48	66.0	2.60	0.44	1.35	0.74	13.2	10.0	1.32
	1.4375	71.996	2.8345	17.018	0.6700	16.520	0.6504	14.288	0.5625	1.6	0.06	1.6	0.06	57.6	53.8	7.70	**19143R**	**19283**	15.7	0.62	44.0	1.73	42.0	1.65	63.0	2.48	66.0	2.60	0.44	1.35	0.74	13.2	10.0	1.32
	1.4375	71.996	2.8345	19.000	0.7480	20.638	0.8125	14.237	0.5605	3.6	0.14	1.6	0.06	62.3	61.3	8.90	**16143**	**16282**	15.0	0.59	48.5	1.91	42.0	1.65	63.0	2.48	67.0	2.64	0.40	1.49	0.82	14.4	9.90	1.46
	1.4375	72.238	2.8440	20.638	0.8125	20.638	0.8125	15.875	0.6250	3.6	0.14	1.2	0.05	62.3	61.3	8.90	**16143**	**16284**	16.6	0.65	48.5	1.91	42.0	1.65	63.0	2.48	67.0	2.64	0.40	1.49	0.82	14.4	9.90	1.46
	1.4375	76.200	3.0000	29.370	1.1563	28.575	1.1250	23.020	0.9063	0.8	0.03	0.8	0.03	99.5	107	15.2	**HM89448**	**HM89411**	23.9	0.94	48.5	1.91	44.5	1.75	65.0	2.56	73.0	2.87	0.55	1.10	0.60	23.2	21.7	1.07
	1.4375	76.200	3.0000	29.370	1.1563	28.575	1.1250	23.020	0.9063	3.6	0.14	0.8	0.03	99.5	107	15.2	**HM89449**	**HM89411**	23.9	0.94	54.0	2.13	44.5	1.75	65.0	2.56	73.0	2.87	0.55	1.10	0.60	23.2	21.7	1.07
	1.4375	76.200	3.0000	29.370	1.1563	28.575	1.1250	23.812	0.9375	3.6	0.14	1.2	0.05	101	97.4	14.4	**31597**	**31521**	21.6	0.85	51.0	2.01	44.5	1.75	66.0	2.60	72.0	2.83	0.40	1.49	0.82	23.6	16.2	1.46
	1.4375	79.375	3.1250	23.812	0.9375	25.400	1.0000	19.050	0.7500	0.8	0.03	0.8	0.03	101	105	15.8	**26877R**	**26822**	16.4	0.65	44.0	1.73	43.0	1.69	71.0	2.80	74.0	2.91	0.32	1.88	1.04	23.5	12.8	1.83
	1.4375	79.375	3.1250	29.370	1.1563	29.771	1.1721	23.812	0.9375	0.8	0.03	3.2	0.13	109	105	15.7	**3479**	**3420**	20.8	0.82	45.5	1.79	44.5	1.75	67.0	2.64	74.0	2.91	0.37	1.64	0.90	25.5	15.9	1.60
	1.4375	82.550	3.2500	23.812	0.9375	25.400	1.0000	19.050	0.7500	3.6	0.14	2.0	0.08	96.8	100	15.1	**25570**	**25519**	17.5	0.69	51.0	2.01	45.0	1.77	73.0	2.87	77.0	3.03	0.33	1.79	0.99	22.5	12.9	1.75
	1.4375	85.725	3.3750	30.162	1.1875	30.162	1.1875	23.812	0.9375	0.8	0.03	3.2	0.13	135	136	20.3	**3878**	**3820**	22.9	0.90	48.0	1.89	47.0	1.85	73.0	2.87	81.0	3.19	0.40	1.49	0.82	31.5	21.7	1.46
	1.4375	88.501	3.4843	26.988	1.0625	29.083	1.1450	22.225	0.8750	2.4	0.09	1.6	0.06	123	112	17.2	**424X**	**414**	16.9	0.67	47.5	1.87	43.0	1.69	77.0	3.03	80.0	3.15	0.26	2.28	1.25	28.6	12.9	2.22

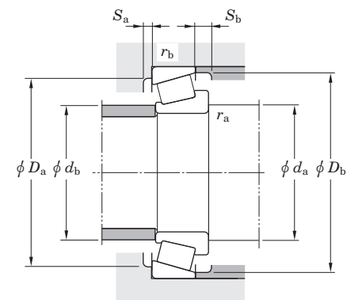
Note 1) SP indicates the specially chamfered from.

Koyo

TS type

d (36.512) ~ (38.100) mm
(1.4375) ~ (1.5000) inch





$P = XF_r + YF_a$ $P_0 = 0.5\,F_r + Y_0F_a$ or $P_0 = F_r$			
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

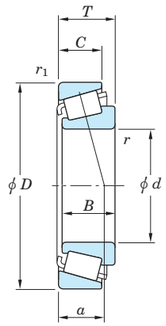
Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Con-stant	Axial load factors		Reference rating (kN) (500 rpm for 3 000 Hrs.)		Factor
d		D		T		B		C		r (min.)		r_1 (min.)		C_r	C_{0r}	C_u	Inner ring (Cone)	Outer ring (Cup)	a		d_a		d_b		D_a		D_b		e	Y_1	Y_0	Radial	Axial	K
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						
36.512	1.4375	93.662	3.6875	31.750	1.2500	31.750	1.2500	26.195	1.0313	1.6	0.06	3.2	0.13	132	134	20.2	**46143**	**46368**	24.0	0.94	49.0	1.93	47.5	1.87	79.0	3.11	87.0	3.43	0.40	1.49	0.82	30.8	21.1	1.46
	1.4375	93.662	3.6875	31.750	1.2500	31.750	1.2500	26.195	1.0313	1.6	0.06	1.2	0.05	132	134	20.2	**46143**	**46369**	24.0	0.94	49.0	1.93	47.5	1.87	79.0	3.11	87.0	3.43	0.40	1.49	0.82	30.8	21.1	1.46
38.100	1.5000	63.500	2.5000	12.700	0.5000	11.908	0.4688	9.525	0.3750	1.6	0.06	0.8	0.03	32.1	33.1	4.60	**13889**	**13830**	11.9	0.47	45.0	1.77	42.5	1.67	59.0	2.32	60.0	2.36	0.35	1.73	0.95	7.30	4.30	1.69
	1.5000	65.088	2.5625	12.700	0.5000	11.908	0.4688	9.525	0.3750	1.6	0.06	0.8	0.03	32.1	33.1	4.60	**13889**	**13836**	11.9	0.47	45.0	1.77	42.5	1.67	59.0	2.32	61.0	2.40	0.35	1.73	0.95	7.30	4.30	1.69
	1.5000	65.088	2.5625	18.034	0.7100	18.288	0.7200	13.970	0.5500	SP[1)]	SP[1)]	1.2	0.05	53.9	56.5	8.15	**LM29748**	**LM29710**	13.8	0.54	49.0	1.93	42.5	1.67	59.0	2.32	62.0	2.44	0.33	1.80	0.99	12.4	7.05	1.76
	1.5000	65.088	2.5625	19.812	0.7800	18.288	0.7200	15.748	0.6200	2.4	0.09	1.2	0.05	53.9	56.5	8.15	**LM29749**	**LM29711**	15.6	0.61	46.0	1.81	42.5	1.67	58.0	2.28	62.0	2.44	0.33	1.80	0.99	12.4	7.05	1.76
	1.5000	68.262	2.6875	19.997	0.7873	16.520	0.6504	16.030	0.6311	1.6	0.06	1.6	0.06	57.6	53.8	7.70	**19150R**	**19269**	18.6	0.73	45.0	1.77	43.0	1.69	63.0	2.48	66.0	2.60	0.44	1.35	0.74	13.2	10.0	1.32
	1.5000	68.275	2.6880	20.000	0.7874	16.520	0.6504	16.032	0.6312	1.6	0.06	1.6	0.06	57.6	53.8	7.70	**19150R**	**19268X**	18.7	0.74	45.0	1.77	43.0	1.69	61.0	2.40	65.0	2.56	0.44	1.35	0.74	13.2	10.0	1.32
	1.5000	69.012	2.7170	19.050	0.7500	19.050	0.7500	15.083	0.5938	3.6	0.14	0.8	0.03	61.7	62.0	8.95	**13685**	**13620**	16.1	0.63	49.5	1.95	43.0	1.69	62.0	2.44	65.0	2.56	0.40	1.49	0.82	14.2	9.75	1.46
	1.5000	69.012	2.7170	19.050	0.7500	19.050	0.7500	15.083	0.5938	2.0	0.08	2.4	0.09	61.7	62.0	8.95	**13687**	**13621**	16.1	0.63	46.5	1.83	43.0	1.69	61.0	2.40	65.0	2.56	0.40	1.49	0.82	14.2	9.75	1.46
	1.5000	69.012	2.7170	26.195	1.0313	26.187	1.0310	15.083	0.5938	1.6	0.06	2.4	0.09	61.7	62.0	8.95	**13686**	**13621**	16.1	0.63	46.5	1.83	43.0	1.69	61.0	2.40	65.0	2.56	0.40	1.49	0.82	14.2	9.75	1.46
	1.5000	69.012	2.7170	26.195	1.0313	26.195	1.0313	15.083	0.5938	1.6	0.06	0.8	0.03	61.7	62.0	8.95	**13686**	**13620**	16.1	0.63	46.5	1.83	43.0	1.69	62.0	2.44	65.0	2.56	0.40	1.49	0.82	14.2	9.75	1.46
	1.5000	69.969	2.7547	21.996	0.8660	19.050	0.7500	18.029	0.7098	3.6	0.14	1.6	0.06	61.7	62.0	8.95	**13685**	**13624**	16.1	0.63	49.5	1.95	43.0	1.69	61.0	2.40	65.0	2.56	0.40	1.49	0.82	14.2	9.75	1.46
	1.5000	71.438	2.8125	15.875	0.6250	16.520	0.6504	11.908	0.4688	1.6	0.06	1.0	0.04	57.6	53.8	7.70	**19150R**	**19281**	14.5	0.57	45.0	1.77	43.0	1.69	63.0	2.48	66.0	2.60	0.44	1.35	0.74	13.2	10.0	1.32
	1.5000	71.438	2.8125	17.462	0.6875	16.520	0.6504	15.875	0.6250	1.6	0.06	1.6	0.06	57.6	53.8	7.70	**19150R**	**19282**	16.1	0.63	45.0	1.77	43.0	1.69	63.0	2.48	66.0	2.60	0.44	1.35	0.74	13.2	10.0	1.32
	1.5000	71.996	2.8346	17.018	0.6700	16.520	0.6504	14.288	0.5625	1.6	0.06	1.6	0.06	57.6	53.8	7.70	**19150R**	**19283**	15.7	0.62	45.0	1.77	43.0	1.69	63.0	2.48	66.0	2.60	0.44	1.35	0.74	13.2	10.0	1.32
	1.5000	71.996	2.8346	19.000	0.7480	20.638	0.8125	14.237	0.5605	3.6	0.14	1.6	0.06	62.3	61.3	8.90	**16150**	**16282**	15.0	0.59	49.5	1.95	43.0	1.69	63.0	2.48	67.0	2.64	0.40	1.49	0.82	14.4	9.90	1.46
	1.5000	72.238	2.8440	20.638	0.8125	20.638	0.8125	15.875	0.6250	3.6	0.14	1.2	0.05	62.3	61.3	8.90	**16150**	**16284**	16.6	0.65	49.5	1.95	43.0	1.69	63.0	2.48	67.0	2.64	0.40	1.49	0.82	14.4	9.90	1.46
	1.5000	72.238	2.8440	20.638	0.8125	20.638	0.8125	15.875	0.6250	2.4	0.09	1.2	0.05	62.3	61.3	8.90	**16151**	**16284**	16.6	0.65	49.5	1.95	43.0	1.69	63.0	2.48	67.0	2.64	0.40	1.49	0.82	14.4	9.90	1.46
	1.5000	72.238	2.8440	23.812	0.9375	20.638	0.8125	19.050	0.7500	3.6	0.14	2.4	0.09	62.3	61.3	8.90	**16150**	**16283**	19.8	0.78	49.5	1.95	43.0	1.69	61.0	2.40	67.0	2.64	0.40	1.49	0.82	14.4	9.90	1.46
	1.5000	73.025	2.8750	23.812	0.9375	25.654	1.0100	19.050	0.7500	4.3	0.17	0.8	0.03	92.6	92.2	13.8	**2776R**	**2735X**	15.9	0.63	52.0	2.05	43.5	1.71	66.0	2.60	69.0	2.72	0.30	1.98	1.09	21.5	11.1	1.93
	1.5000	73.025	2.8750	23.812	0.9375	25.654	1.0100	19.050	0.7500	1.6	0.06	0.8	0.03	92.6	92.2	13.8	**2788AR**	**2735X**	15.9	0.63	46.0	1.81	43.5	1.71	66.0	2.60	69.0	2.72	0.30	1.98	1.09	21.5	11.1	1.93
	1.5000	73.025	2.8750	23.812	0.9375	25.654	1.0100	19.050	0.7500	3.6	0.14	0.8	0.03	92.6	92.2	13.8	**2788R**	**2735X**	15.9	0.63	50.0	1.97	43.5	1.71	66.0	2.60	69.0	2.72	0.30	1.98	1.09	21.5	11.1	1.93
	1.5000	76.200	3.0000	23.812	0.9375	25.654	1.0100	19.050	0.7500	3.6	0.14	0.8	0.03	92.6	92.2	13.8	**2788R**	**2729**	15.9	0.63	50.0	1.97	43.5	1.71	68.0	2.68	70.0	2.76	0.30	1.98	1.09	21.5	11.1	1.93
	1.5000	79.375	3.1250	23.812	0.9375	25.400	1.0000	19.050	0.7500	0.8	0.03	2.4	0.09	101	105	15.8	**26878R**	**26822A**	16.4	0.65	45.0	1.77	44.5	1.75	69.0	2.72	74.0	2.91	0.32	1.88	1.04	23.5	12.8	1.83
	1.5000	79.375	3.1250	29.370	1.1563	29.771	1.1721	23.812	0.9375	3.6	0.14	3.2	0.13	109	105	15.7	**3490**	**3420**	20.8	0.82	52.0	2.05	45.9	1.81	67.0	2.64	74.0	2.91	0.37	1.64	0.90	25.5	15.9	1.60
	1.5000	80.000	3.1496	21.000	0.8268	22.403	0.8820	17.826	0.7018	3.6	0.14	1.2	0.05	85.0	74.8	11.4	**347**	**332**	15.1	0.59	50.0	1.97	44.0	1.73	73.0	2.87	75.0	2.95	0.27	2.20	1.21	19.6	9.15	2.14
	1.5000	80.000	3.1496	24.176	0.9518	22.403	0.8820	21.000	0.8268	0.8	0.03	2.4	0.09	85.0	74.8	11.4	**337**	**332A**	18.3	0.72	44.5	1.75	44.0	1.73	71.0	2.80	75.0	2.95	0.27	2.20	1.21	19.6	9.15	2.14
	1.5000	80.035	3.1510	21.432	0.8438	20.940	0.8244	15.875	0.6250	1.6	0.06	1.6	0.06	71.6	65.9	9.70	**28150**	**28317**	16.9	0.67	45.5	1.79	43.5	1.71	69.0	2.72	73.0	2.87	0.40	1.49	0.82	16.5	11.3	1.46
	1.5000	80.035	3.1510	21.432	0.8438	20.940	0.8244	15.875	0.6250	3.6	0.14	1.6	0.06	71.6	65.9	9.70	**28151**	**28317**	16.9	0.67	45.5	1.79	43.5	1.71	69.0	2.72	73.0	2.87	0.40	1.49	0.82	16.5	11.3	1.46
	1.5000	80.035	3.1510	24.608	0.9688	23.698	0.9330	18.512	0.7288	0.8	0.03	1.6	0.06	91.6	91.6	13.3	**27880**	**27820**	22.2	0.87	48.0	1.89	47.0	1.85	68.0	2.68	75.0	2.95	0.56	1.07	0.59	21.2	20.3	1.04
	1.5000	80.035	3.1510	24.608	0.9688	23.698	0.9330	18.512	0.7288	3.6	0.14	1.6	0.06	91.6	91.6	13.3	**27881**	**27820**	22.2	0.87	53.0	2.09	47.0	1.85	68.0	2.68	75.0	2.95	0.56	1.07	0.59	21.2	20.3	1.04
	1.5000	80.035	3.1510	29.370	1.1563	30.391	1.1965	23.812	0.9375	0.8	0.03	1.6	0.06	114	106	16.2	**3387**	**3339**	18.7	0.74	45.0	1.77	44.5	1.75	71.0	2.80	75.0	2.95	0.27	2.20	1.21	26.6	12.4	2.14
	1.5000	80.167	3.1562	29.370	1.1563	30.391	1.1965	23.812	0.9375	3.6	0.14	0.8	0.03	114	106	16.2	**3381**	**3331**	18.7	0.74	51.0	2.01	44.5	1.75	72.0	2.83	75.0	2.95	0.27	2.20	1.21	26.6	12.4	2.14
	1.5000	82.550	3.2500	29.370	1.1563	28.575	1.1250	23.020	0.9063	0.8	0.03	3.2	0.13	109	117	16.9	**HM801346**	**HM801310**	24.4	0.96	51.0	2.01	49.0	1.93	68.0	2.68	78.0	3.07	0.55	1.10	0.60	25.5	23.8	1.07
	1.5000	82.550	3.2500	29.370	1.1563	28.575	1.1250	23.020	0.9063	2.4	0.09	3.2	0.13	109	117	16.9	**HM801346X**	**HM801310**	24.4	0.96	54.0	2.13	49.0	1.93	68.0	2.68	78.0	3.07	0.55	1.10	0.60	25.5	23.8	1.07
	1.5000	82.931	3.2650	23.812	0.9375	25.400	1.0000	19.050	0.7500	0.8	0.03	0.8	0.03	96.8	100	15.1	**25572**	**25520**	17.5	0.69	46.0	1.81	46.0	1.81	74.0	2.91	77.0	3.03	0.33	1.79	0.99	22.5	12.9	1.75
	1.5000	84.138	3.3125	30.162	1.1875	30.886	1.2160	23.812	0.9375	1.6	0.06	3.2	0.13	120	120	18.2	**3580R**	**3520**	20.5	0.81	48.0	1.89	45.5	1.79	74.0	2.91	79.5	3.13	0.31	1.96	1.08	27.9	14.6	1.91
	1.5000	85.725	3.3750	30.162	1.1875	30.162	1.1875	23.812	0.9375	0.8	0.03	1.2	0.05	135	136	20.3	**3875**	**3821**	22.9	0.90	49.5	1.95	48.5	1.91	75.0	2.95	81.0	3.19	0.40	1.49	0.82	31.5	21.7	1.46
	1.5000	85.725	3.3750	30.162	1.1875	30.162	1.1875	23.812	0.9375	3.6	0.14	1.2	0.05	135	136	20.3	**3876**	**3821**	22.9	0.90	55.0	2.17	48.5	1.91	75.0	2.95	81.0	3.19	0.40	1.49	0.82	31.5	21.7	1.46

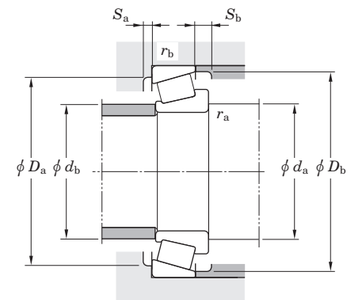
Note 1) SP indicates the specially chamfered from.

Koyo

TS type

d (38.100) ~ (40.000) mm
(1.5000) ~ (1.5748) inch





$P = XF_r + YF_a$ $P_0 = 0.5\,F_r + Y_0F_a$ or $P_0 = F_r$			
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

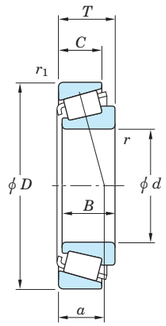
Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Constant	Axial load factors		Reference rating (kN) (500 rpm for 3 000 Hrs.)		Factor
d		D		T		B		C		r (min.)		r_1 (min.)		C_r	C_{0r}	C_u	Inner ring (Cone)	Outer ring (Cup)	a		d_a		d_b		D_a		D_b		e	Y_1	Y_0	Radial	Axial	K
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						
38.100	1.5000	87.312	3.4375	30.162	1.1875	30.886	1.2160	23.812	0.9375	3.6	0.14	0.8	0.03	120	120	18.2	**3583R**	**3526**	20.5	0.81	52.0	2.05	45.5	1.79	76.0	2.99	80.0	3.15	0.31	1.96	1.08	27.9	14.6	1.91
	1.5000	88.501	3.4843	26.988	1.0625	29.083	1.1450	22.225	0.8750	0.8	0.03	1.6	0.06	123	112	17.2	**415**	**414**	16.9	0.67	45.0	1.77	44.5	1.75	77.0	3.03	80.0	3.15	0.26	2.28	1.25	28.6	12.9	2.22
	1.5000	88.501	3.4843	26.988	1.0625	29.083	1.1450	22.225	0.8750	3.6	0.14	1.6	0.06	123	112	17.2	**418**	**414**	16.9	0.67	51.0	2.01	44.5	1.75	77.0	3.03	80.0	3.15	0.26	2.28	1.25	28.6	12.9	2.22
	1.5000	88.900	3.5000	26.988	1.0625	29.083	1.1450	22.225	0.8750	0.8	0.03	0.8	0.03	123	112	17.2	**415**	**414X**	16.9	0.67	45.0	1.77	44.5	1.75	78.0	3.07	79.0	3.11	0.26	2.28	1.25	28.6	12.9	2.22
	1.5000	90.488	3.5625	39.688	1.5625	40.386	1.5900	33.338	1.3125	1.6	0.06	3.2	0.13	166	169	25.9	**4375**	**4335**	25.6	1.01	51.0	2.01	48.5	1.91	77.0	3.03	85.0	3.35	0.28	2.11	1.16	38.8	18.9	2.06
	1.5000	93.662	3.6875	31.750	1.2500	31.750	1.2500	25.400	1.0000	3.6	0.14	3.2	0.13	131	123	18.8	**49150**	**49368**	24.0	0.94	52.0	2.05	46.0	1.81	82.0	3.23	87.0	3.43	0.36	1.67	0.92	30.6	18.8	1.62
	1.5000	93.662	3.6875	31.750	1.2500	31.750	1.2500	26.195	1.0313	0.8	0.03	3.2	0.13	132	134	20.2	**46150**	**46368**	24.0	0.94	49.0	1.93	47.5	1.87	79.0	3.11	87.0	3.43	0.40	1.49	0.82	30.8	21.1	1.46
	1.5000	93.662	3.6875	31.750	1.2500	31.750	1.2500	26.195	1.0313	3.6	0.14	3.2	0.13	132	134	20.2	**46151**	**46368**	24.0	0.94	54.0	2.13	47.5	1.87	79.0	3.11	87.0	3.43	0.40	1.49	0.82	30.8	21.1	1.46
	1.5000	95.250	3.7500	27.783	1.0938	28.575	1.1250	22.225	0.8750	3.6	0.14	0.8	0.03	135	141	21.6	**33880**	**33822**	20.4	0.80	54.0	2.13	48.0	1.89	86.0	3.39	90.0	3.54	0.33	1.82	1.00	31.4	17.7	1.77
	1.5000	95.250	3.7500	27.783	1.0938	29.901	1.1772	22.225	0.8750	0.8	0.03	0.8	0.03	129	122	18.8	**440**	**432A**	18.4	0.72	46.5	1.83	45.5	1.79	84.0	3.31	87.0	3.43	0.28	2.11	1.16	30.0	14.6	2.06
	1.5000	95.250	3.7500	27.783	1.0938	29.901	1.1772	22.225	0.8750	3.6	0.14	0.8	0.03	129	122	18.8	**444**	**432A**	18.4	0.72	52.0	2.05	45.5	1.79	84.0	3.31	87.0	3.43	0.28	2.11	1.16	30.0	14.6	2.06
	1.5000	101.600	4.0000	34.925	1.3750	36.068	1.4200	26.988	1.0625	3.6	0.14	3.2	0.13	164	159	24.8	**525**	**522**	22.2	0.87	54.0	2.13	48.0	1.89	89.0	3.50	95.0	3.74	0.29	2.10	1.16	38.4	18.7	2.05
	1.5000	101.600	4.0000	34.925	1.3750	36.068	1.4200	26.988	1.0625	0.8	0.03	3.2	0.13	164	159	24.8	**525X**	**522**	22.2	0.87	49.0	1.93	48.0	1.89	89.0	3.50	95.0	3.74	0.29	2.10	1.16	38.4	18.7	2.05
	1.5000	107.950	4.2500	36.512	1.4375	36.957	1.4550	28.575	1.1250	3.6	0.14	3.2	0.13	172	172	26.8	**542**	**532X**	23.9	0.94	55.0	2.17	49.0	1.93	94.0	3.70	100.0	3.94	0.30	2.03	1.11	40.4	20.5	1.97
38.913	1.5320	122.238	4.8125	51.595	2.0313	51.702	2.0355	36.512	1.4375	3.6	0.14	3.2	0.13	276	318	43.6	**5561R**	**5535**	39.0	1.54	57.0	2.24	52.0	2.05	106.0	4.17	116.0	4.57	0.36	1.67	0.92	64.5	39.5	1.63
39.624	1.5600	63.500	2.5000	12.700	0.5000	11.908	0.4688	9.525	0.3750	1.6	0.06	0.8	0.03	32.1	33.1	4.60	**13892**	**13830**	11.9	0.47	45.0	1.77	42.5	1.67	59.0	2.32	60.0	2.36	0.35	1.73	0.95	7.30	4.30	1.69
39.688	1.5625	73.025	2.8750	16.667	0.6562	17.462	0.6875	12.700	0.5000	0.8	0.03	1.6	0.06	57.6	55.8	8.15	**18587**	**18520**	14.5	0.57	46.0	1.81	46.0	1.81	66.0	2.60	69.0	2.72	0.35	1.71	0.94	13.2	7.90	1.67
	1.5625	73.025	2.8750	23.812	0.9375	25.654	1.0100	19.050	0.7500	3.6	0.14	0.8	0.03	92.6	92.2	13.8	**2789R**	**2735X**	15.9	0.63	52.0	2.05	45.0	1.77	66.0	2.60	69.0	2.72	0.30	1.98	1.09	21.5	11.1	1.93
	1.5625	80.000	3.1496	23.812	0.9375	25.400	1.0000	19.050	0.7500	1.6	0.06	1.2	0.05	101	105	15.8	**26880R**	**26824**	16.4	0.65	48.0	1.89	45.5	1.79	70.0	2.76	74.0	2.91	0.32	1.88	1.04	23.5	12.8	1.83
	1.5625	80.167	3.1562	25.400	1.0000	25.400	1.0000	20.638	0.8125	3.6	0.14	0.8	0.03	101	105	15.8	**26881R**	**26830**	18.0	0.71	52.0	2.05	45.5	1.79	71.0	2.80	74.0	2.91	0.32	1.88	1.04	23.5	12.8	1.83
	1.5625	80.167	3.1562	29.370	1.1563	30.391	1.1965	23.812	0.9375	0.8	0.03	3.2	0.13	114	106	16.2	**3386**	**3320**	18.7	0.74	46.5	1.83	45.5	1.79	70.0	2.76	75.0	2.95	0.27	2.20	1.21	26.6	12.4	2.14
	1.5625	81.755	3.2187	29.370	1.1563	30.391	1.1965	23.812	0.9375	3.6	0.14	3.2	0.13	114	106	16.2	**3382**	**3329**	18.7	0.74	52.0	2.05	45.5	1.79	71.0	2.80	75.0	2.95	0.27	2.20	1.21	26.6	12.4	2.14
	1.5625	84.138	3.3125	29.370	1.1563	30.391	1.1965	23.812	0.9375	3.6	0.14	3.2	0.13	114	106	16.2	**3382**	**3328**	18.7	0.74	52.0	2.05	45.5	1.79	72.0	2.83	76.0	2.99	0.27	2.20	1.21	26.6	12.4	2.14
	1.5625	88.501	3.4843	26.988	1.0625	29.083	1.1450	22.225	0.8750	3.6	0.14	1.6	0.06	123	112	17.2	**422**	**414**	16.9	0.67	52.0	2.05	46.5	1.83	77.0	3.03	80.0	3.15	0.26	2.28	1.25	28.6	12.9	2.22
	1.5625	88.501	3.4843	26.988	1.0625	29.083	1.1450	22.225	0.8750	3.6	0.14	3.2	0.13	123	112	17.2	**422**	**414A**	16.9	0.67	52.0	2.05	46.5	1.83	76.0	2.99	79.0	3.11	0.26	2.28	1.25	28.6	12.9	2.22
	1.5625	90.488	3.5625	39.688	1.5625	40.386	1.5900	33.338	1.3125	3.6	0.14	3.2	0.13	166	169	25.9	**4367**	**4335**	25.6	1.01	55.0	2.17	49.0	1.93	77.0	3.03	85.0	3.35	0.28	2.11	1.16	38.8	18.9	2.06
	1.5625	93.264	3.6718	30.162	1.1875	30.302	1.1930	23.812	0.9375	3.6	0.14	3.2	0.13	129	137	20.9	**3774**	**3720**	22.2	0.87	55.0	2.17	51.0	2.01	82.0	3.23	88.0	3.46	0.34	1.77	0.97	30.1	17.4	1.73
	1.5625	101.600	4.0000	34.925	1.3750	36.068	1.4200	26.988	1.0625	3.6	0.14	3.2	0.13	164	159	24.8	**525A**	**522**	22.2	0.87	56.0	2.20	49.0	1.93	89.0	3.50	95.0	3.74	0.29	2.10	1.16	38.4	18.7	2.05
	1.5625	120.040	4.7260	41.275	1.6250	41.275	1.6250	31.750	1.2500	0.8	0.03	3.2	0.13	218	217	34.0	**620**	**612A**	27.3	1.07	52.0	2.05	52.0	2.05	103.0	4.06	109.0	4.29	0.31	1.91	1.05	50.9	27.4	1.86
	1.5625	120.650	4.7500	41.275	1.6250	41.275	1.6250	31.750	1.2500	0.8	0.03	3.2	0.13	218	217	34.0	**620**	**612**	27.3	1.07	52.0	2.05	52.0	2.05	105.0	4.13	110.0	4.33	0.31	1.91	1.05	50.9	27.4	1.86
39.980	1.5740	76.200	3.0000	18.009	0.7090	17.384	0.6844	14.288	0.5625	1.6	0.06	1.6	0.06	64.7	63.3	9.15	**11157R**	**11300**	17.5	0.69	48.5	1.91	46.0	1.81	67.0	2.64	72.0	2.83	0.49	1.23	0.68	14.9	12.4	1.20
	1.5740	80.000	3.1496	18.009	0.7090	17.384	0.6844	14.288	0.5625	1.6	0.06	1.6	0.06	64.7	63.3	9.15	**11157R**	**11315**	17.5	0.69	48.5	1.91	46.0	1.81	67.0	2.64	72.0	2.83	0.49	1.23	0.68	14.9	12.4	1.20
	1.5740	80.035	3.1510	21.432	0.8438	20.940	0.8244	15.875	0.6250	3.6	0.14	1.6	0.06	71.6	65.9	9.70	**28159**	**28317**	16.9	0.67	52.0	2.05	45.0	1.77	69.0	2.72	73.0	2.87	0.40	1.49	0.82	16.5	11.3	1.46
40.000	1.5748	76.200	3.0000	18.009	0.7090	17.384	0.6844	14.288	0.5625	2.0	0.08	1.6	0.06	64.7	63.3	9.15	**11157XR**	**11300**	17.5	0.69	52.0	2.05	46.0	1.81	67.0	2.64	72.0	2.83	0.49	1.23	0.68	14.9	12.4	1.20
	1.5748	76.200	3.0000	20.638	0.8125	20.940	0.8244	15.507	0.6105	1.6	0.06	1.2	0.05	71.6	65.9	9.70	**28158**	**28300**	16.5	0.65	47.5	1.87	45.0	1.77	68.0	2.68	71.0	2.80	0.40	1.49	0.82	16.5	11.3	1.46
	1.5748	80.000	3.1496	21.000	0.8268	22.403	0.8820	17.826	0.7018	3.6	0.14	1.2	0.05	85.0	74.8	11.4	**344**	**332**	15.1	0.59	52.0	2.05	45.5	1.79	73.0	2.87	75.0	2.95	0.27	2.20	1.21	19.6	9.15	2.14
	1.5748	80.000	3.1496	21.000	0.8268	22.403	0.8820	17.826	0.7018	0.8	0.03	1.2	0.05	85.0	74.8	11.4	**344A**	**332**	15.1	0.59	46.0	1.81	45.5	1.79	73.0	2.87	75.0	2.95	0.27	2.20	1.21	19.6	9.15	2.14
	1.5748	85.000	3.3465	20.638	0.8125	21.692	0.8540	17.462	0.6875	0.8	0.03	1.2	0.05	89.6	81.7	12.4	**350A**	**354A**	15.5	0.61	47.5	1.87	46.5	1.83	77.0	3.03	80.0	3.15	0.31	1.96	1.08	20.7	10.8	1.91
	1.5748	85.000	3.3465	20.638	0.8125	21.692	0.8540	17.462	0.6875	2.4	0.09	1.6	0.06	89.6	81.7	12.4	**357**	**354X**	15.5	0.61	51.0	2.01	46.5	1.83	77.0	3.03	80.0	3.15	0.31	1.96	1.08	20.7	10.8	1.91

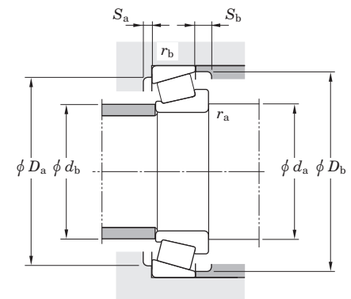
Note 1) SP indicates the specially chamfered from.

Koyo

TS type

d (40.000) ~ (41.275) mm
(1.5748) ~ (1.6250) inch





$P = XF_r + YF_a$ $P_0 = 0.5\,F_r + Y_0F_a$ or $P_0 = F_r$			
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

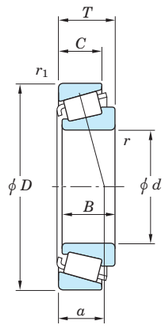
Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Constant	Axial load factors		Reference rating (kN) (500 rpm for 3 000 Hrs.)		Factor
d		D		T		B		C		r (min.)		r_1 (min.)		C_r	C_{0r}	C_u	Inner ring (Cone)	Outer ring (Cup)	a		d_a		d_b		D_a		D_b		e	Y_1	Y_0	Radial	Axial	K
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						
40.000	1.5748	85.725	3.3750	30.162	1.1875	30.162	1.1875	23.812	0.9375	0.8	0.03	1.2	0.05	135	136	20.3	**3879**	**3821**	22.9	0.90	51.0	2.01	50.0	1.97	75.0	2.95	81.0	3.19	0.40	1.49	0.82	31.5	21.7	1.46
	1.5748	87.312	3.4375	30.162	1.1875	30.886	1.2160	23.812	0.9375	3.6	0.14	3.2	0.13	120	120	18.2	**3582R**	**3525**	20.5	0.81	53.0	2.09	48.5	1.91	75.0	2.95	81.0	3.19	0.31	1.96	1.08	27.9	14.6	1.91
	1.5748	88.501	3.4843	26.988	1.0625	29.083	1.1450	22.225	0.8750	3.6	0.14	1.6	0.06	123	112	17.2	**420**	**414**	16.9	0.67	52.0	2.05	46.0	1.81	77.0	3.03	80.0	3.15	0.26	2.28	1.25	28.6	12.9	2.22
	1.5748	90.119	3.5480	23.000	0.9055	21.692	0.8540	21.808	0.8586	4.0	0.16	2.4	0.09	89.6	81.7	12.4	**350**	**352**	17.8	0.70	54.0	2.13	46.5	1.83	78.0	3.07	82.0	3.23	0.31	1.96	1.08	20.7	10.8	1.91
	1.5748	95.250	3.7500	27.783	1.0938	29.901	1.1772	22.225	0.8750	3.6	0.14	2.4	0.09	129	122	18.8	**442S**	**432**	23.6	0.93	54.0	2.13	49.0	1.93	83.0	3.27	87.0	3.43	0.28	2.11	1.16	30.0	14.6	2.06
	1.5748	107.950	4.2500	36.512	1.4375	36.957	1.4550	28.575	1.1250	3.6	0.14	3.2	0.13	172	172	26.8	**543**	**532X**	23.9	0.94	57.0	2.24	50.0	1.97	94.0	3.70	100.0	3.94	0.30	2.03	1.11	40.4	20.5	1.97
40.483	1.5938	82.550	3.2500	29.370	1.1563	28.575	1.1250	23.020	0.9063	3.6	0.14	3.2	0.13	109	117	16.9	**HM801349**	**HM801310**	24.4	0.96	58.0	2.28	49.0	1.93	68.0	2.68	78.0	3.07	0.55	1.10	0.60	25.5	23.8	1.07
41.275	1.6250	73.025	2.8750	16.667	0.6562	17.462	0.6875	12.700	0.5000	3.6	0.14	1.6	0.06	57.6	55.8	8.15	**18590**	**18520**	14.5	0.57	53.0	2.09	46.0	1.81	66.0	2.60	69.0	2.72	0.35	1.71	0.94	13.2	7.90	1.67
	1.6250	73.025	2.8750	16.667	0.6562	17.462	0.6875	12.700	0.5000	1.2	0.05	1.6	0.06	57.6	55.8	8.15	**18591**	**18520**	14.5	0.57	47.5	1.87	46.0	1.81	66.0	2.60	69.0	2.72	0.35	1.71	0.94	13.2	7.90	1.67
	1.6250	73.431	2.8910	19.558	0.7700	19.812	0.7800	14.732	0.5800	3.6	0.14	0.8	0.03	72.5	73.0	10.6	**LM501349**	**LM501310**	16.1	0.63	53.0	2.09	46.5	1.83	67.0	2.64	70.0	2.76	0.40	1.50	0.83	16.7	11.4	1.46
	1.6250	73.431	2.8910	21.430	0.8437	19.812	0.7800	16.604	0.6537	3.6	0.14	0.8	0.03	72.5	73.0	10.6	**LM501349**	**LM501314**	18.0	0.71	53.0	2.09	46.5	1.83	66.0	2.60	70.0	2.76	0.40	1.50	0.83	16.7	11.4	1.46
	1.6250	73.431	2.8910	23.012	0.9060	19.812	0.7800	18.186	0.7160	3.6	0.14	2.4	0.09	72.5	73.0	10.6	**LM501349**	**LM501311**	16.1	0.63	53.0	2.09	46.5	1.83	64.0	2.52	70.0	2.76	0.40	1.50	0.83	16.7	11.4	1.46
	1.6250	76.200	3.0000	18.009	0.7090	17.384	0.6844	14.288	0.5625	1.6	0.06	1.6	0.06	64.7	63.3	9.15	**11162R**	**11300**	17.5	0.69	49.0	1.93	46.5	1.83	67.0	2.64	72.0	2.83	0.49	1.23	0.68	14.9	12.4	1.20
	1.6250	76.200	3.0000	18.009	0.7090	17.384	0.6844	14.288	0.5625	1.6	0.06	1.6	0.06	64.7	63.3	9.15	**11162UR**	**11300**	17.5	0.69	49.0	1.93	46.0	1.81	67.0	2.64	72.0	2.83	0.49	1.23	0.68	14.9	12.4	1.20
	1.6250	76.200	3.0000	18.009	0.7090	17.384	0.6844	14.288	0.5625	0.8	0.03	1.6	0.06	64.7	63.3	9.15	**11163R**	**11300**	17.5	0.69	47.0	1.85	46.5	1.83	67.0	2.64	72.0	2.83	0.49	1.23	0.68	14.9	12.4	1.20
	1.6250	76.200	3.0000	22.225	0.8750	23.020	0.9063	17.462	0.6875	3.6	0.14	0.8	0.03	82.9	83.3	12.3	**24780R**	**24720**	17.4	0.69	54.0	2.13	47.0	1.85	68.0	2.68	72.0	2.83	0.39	1.53	0.84	19.2	12.9	1.49
	1.6250	76.200	3.0000	22.225	0.8750	23.020	0.9063	17.462	0.6875	3.6	0.14	3.2	0.13	82.9	83.3	12.3	**24780R**	**24722**	17.4	0.69	54.0	2.13	47.0	1.85	66.0	2.60	72.0	2.83	0.39	1.53	0.84	19.2	12.9	1.49
	1.6250	76.200	3.0000	22.225	0.8750	23.020	0.9063	17.462	0.6875	0.8	0.03	0.8	0.03	82.9	83.3	12.3	**24781R**	**24720**	17.4	0.69	47.0	1.85	47.0	1.85	68.0	2.68	72.0	2.83	0.39	1.53	0.84	19.2	12.9	1.49
	1.6250	76.200	3.0000	25.400	1.0000	23.020	0.9063	20.638	0.8125	3.6	0.14	2.4	0.09	82.9	83.3	12.3	**24780R**	**24721**	20.6	0.81	54.0	2.13	47.0	1.85	66.0	2.60	72.0	2.83	0.39	1.53	0.84	19.2	12.9	1.49
	1.6250	80.000	3.1496	21.000	0.8268	22.403	0.8820	17.826	0.7018	0.8	0.03	1.2	0.05	85.0	74.8	11.4	**336**	**332**	15.1	0.59	47.0	1.85	46.0	1.81	73.0	2.87	75.0	2.95	0.27	2.20	1.21	19.6	9.15	2.14
	1.6250	80.000	3.1496	21.000	0.8268	22.403	0.8820	17.826	0.7018	3.6	0.14	1.2	0.05	85.0	74.8	11.4	**342**	**332**	15.1	0.59	53.0	2.09	46.0	1.81	73.0	2.87	75.0	2.95	0.27	2.20	1.21	19.6	9.15	2.14
	1.6250	80.000	3.1496	28.575	1.1250	29.977	1.1802	17.826	0.7018	3.6	0.14	1.2	0.05	85.0	74.8	11.4	**342A**	**332**	22.7	0.89	53.0	2.09	46.0	1.81	73.0	2.87	75.0	2.95	0.27	2.20	1.21	19.6	9.15	2.14
	1.6250	80.000	3.1496	31.750	1.2500	29.977	1.1802	21.000	0.8268	3.6	0.14	2.4	0.09	85.0	74.8	11.4	**342A**	**332A**	22.7	0.89	53.0	2.09	46.0	1.81	71.0	2.80	75.0	2.95	0.27	2.20	1.21	19.6	9.15	2.14
	1.6250	80.167	3.1562	25.400	1.0000	25.400	1.0000	20.638	0.8125	0.8	0.03	3.2	0.13	101	105	15.8	**26885R**	**26820**	17.9	0.70	48.0	1.89	47.0	1.85	69.0	2.72	74.0	2.91	0.32	1.88	1.04	23.5	12.8	1.83
	1.6250	80.167	3.1562	29.370	1.1563	25.400	1.0000	24.608	0.9688	3.6	0.14	3.2	0.13	101	105	15.8	**26882R**	**26821**	17.9	0.70	54.0	2.13	47.0	1.85	68.0	2.68	74.0	2.91	0.32	1.88	1.04	23.5	12.8	1.83
	1.6250	82.550	3.2500	26.543	1.0450	25.654	1.0100	20.193	0.7950	3.6	0.14	3.2	0.13	105	105	15.4	**M802048**	**M802011**	23.3	0.92	57.0	2.24	50.6	1.99	70.0	2.76	79.0	3.11	0.55	1.10	0.60	24.2	22.6	1.07
	1.6250	84.138	3.3125	29.370	1.1563	30.391	1.1965	23.812	0.9375	3.6	0.14	3.2	0.13	114	106	16.2	**3383**	**3328**	18.7	0.74	52.0	2.05	46.0	1.81	72.0	2.83	76.0	2.99	0.27	2.20	1.21	26.6	12.4	2.14
	1.6250	84.138	3.3125	29.370	1.1563	30.391	1.1965	23.812	0.9375	0.8	0.03	3.2	0.13	114	106	16.2	**3384**	**3328**	18.7	0.74	48.0	1.89	41.5	1.63	72.0	2.83	76.0	2.99	0.27	2.20	1.21	26.6	12.4	2.14
	1.6250	84.138	3.3125	30.162	1.1875	30.886	1.2160	23.812	0.9375	3.6	0.14	3.2	0.13	120	120	18.2	**3577R**	**3520**	20.5	0.81	54.0	2.13	48.0	1.89	74.0	2.91	79.5	3.13	0.31	1.96	1.08	27.9	14.6	1.91
	1.6250	84.138	3.3125	30.162	1.1875	30.886	1.2160	23.812	0.9375	1.6	0.06	3.2	0.13	120	120	18.2	**3585R**	**3520**	20.5	0.81	50.0	1.97	48.0	1.89	74.0	2.91	79.5	3.13	0.31	1.96	1.08	27.9	14.6	1.91
	1.6250	85.725	3.3750	30.162	1.1875	30.162	1.1875	23.812	0.9375	3.6	0.14	1.2	0.05	135	136	20.3	**3877**	**3821**	22.9	0.90	57.0	2.24	50.3	1.98	75.0	2.95	81.0	3.19	0.40	1.49	0.82	31.5	21.7	1.46
	1.6250	85.725	3.3750	30.162	1.1875	30.162	1.1875	23.812	0.9375	2.4	0.09	1.2	0.05	135	136	20.3	**3877A**	**3821**	22.9	0.90	55.0	2.17	50.3	1.98	75.0	2.95	81.0	3.19	0.40	1.49	0.82	31.5	21.7	1.46
	1.6250	85.725	3.3750	30.162	1.1875	30.162	1.1875	23.812	0.9375	0.8	0.03	1.2	0.05	135	136	20.3	**3880**	**3821**	22.9	0.90	52.0	2.05	50.3	1.98	75.0	2.95	81.0	3.19	0.40	1.49	0.82	31.5	21.7	1.46
	1.6250	87.312	3.4375	30.162	1.1875	30.886	1.2160	23.812	0.9375	0.8	0.03	3.2	0.13	120	120	18.2	**3576R**	**3525**	20.5	0.81	49.0	1.93	48.0	1.89	75.0	2.95	81.0	3.19	0.31	1.96	1.08	27.9	14.6	1.91
	1.6250	88.501	3.4843	26.988	1.0625	29.083	1.1450	22.225	0.8750	3.6	0.14	1.6	0.06	123	112	17.2	**419**	**414**	16.9	0.67	54.0	2.13	47.0	1.85	77.0	3.03	80.0	3.15	0.26	2.28	1.25	28.6	12.9	2.22
	1.6250	88.501	3.4843	26.988	1.0625	29.083	1.1450	22.225	0.8750	0.8	0.03	1.6	0.06	123	112	17.2	**423X**	**414**	16.9	0.67	49.0	1.93	47.0	1.85	77.0	3.03	80.0	3.15	0.26	2.28	1.25	28.6	12.9	2.22
	1.6250	88.900	3.5000	20.638	0.8125	22.225	0.8750	16.513	0.6501	3.6	0.14	1.2	0.05	92.9	87.3	13.3	**365A**	**362A**	16.1	0.63	55.0	2.17	48.5	1.91	81.0	3.19	84.0	3.31	0.32	1.88	1.03	21.4	11.7	1.83
	1.6250	88.900	3.5000	30.162	1.1875	29.370	1.1563	23.020	0.9063	0.8	0.03	3.2	0.13	124	125	18.5	**HM803145**	**HM803110**	26.1	1.03	54.0	2.13	53.0	2.09	74.0	2.91	85.0	3.35	0.55	1.10	0.60	28.8	26.9	1.07
	1.6250	88.900	3.5000	30.162	1.1875	29.370	1.1563	23.020	0.9063	3.6	0.14	3.2	0.13	124	125	18.5	**HM803146**	**HM803110**	26.1	1.03	60.0	2.36	53.0	2.09	74.0	2.91	85.0	3.35	0.55	1.10	0.60	28.8	26.9	1.07
	1.6250	90.488	3.5625	39.688	1.5625	40.386	1.5900	33.338	1.3125	3.6	0.14	3.2	0.13	166	169	25.9	**4388**	**4335**	25.6	1.01	57.0	2.24	51.0	2.01	77.0	3.03	85.0	3.35	0.28	2.11	1.16	38.8	18.9	2.06

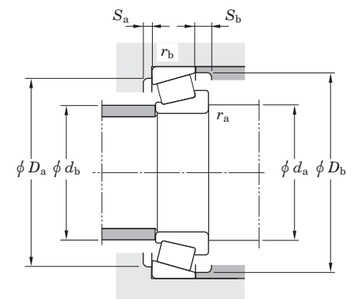
Note 1) SP indicates the specially chamfered from.

Koyo

TS type

d (41.275) ~ (44.450) mm
(1.6250) ~ (1.7500) inch





$P = XF_r + YF_a$ $P_0 = 0.5\,F_r + Y_0F_a$ or $P_0 = F_r$			
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

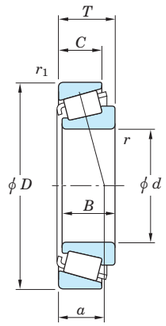
Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Constant	Axial load factors		Reference rating (kN) (500 rpm for 3 000 Hrs.)		Factor
d		D		T		B		C		r (min.)		r_1 (min.)		C_r	C_{0r}	C_u	Inner ring (Cone)	Outer ring (Cup)	a		d_a		d_b		D_a		D_b		e	Y_1	Y_0	Radial	Axial	K
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						
41.275	1.6250	93.662	3.6875	31.750	1.2500	31.750	1.2500	25.400	1.0000	3.6	0.14	3.2	0.13	131	123	18.8	**49162**	**49368**	22.9	0.90	55.0	2.17	49.0	1.93	82.0	3.23	87.0	3.43	0.36	1.67	0.92	30.6	18.8	1.62
	1.6250	93.662	3.6875	31.750	1.2500	31.750	1.2500	26.195	1.0313	0.8	0.03	3.2	0.13	132	134	20.2	**46162**	**46368**	24.0	0.94	52.0	2.05	51.0	2.01	79.0	3.11	87.0	3.43	0.40	1.49	0.82	30.8	21.1	1.46
	1.6250	95.250	3.7500	27.783	1.0938	29.901	1.1772	22.225	0.8750	1.2	0.05	2.4	0.09	129	122	18.8	**439**	**432**	18.4	0.72	51.0	2.01	48.5	1.91	83.0	3.27	87.0	3.43	0.28	2.11	1.16	30.0	14.6	2.06
	1.6250	95.250	3.7500	27.783	1.0938	29.901	1.1772	22.225	0.8750	3.6	0.14	0.8	0.03	129	122	18.8	**447**	**432A**	18.4	0.72	55.0	2.17	48.5	1.91	84.0	3.31	87.0	3.43	0.28	2.11	1.16	30.0	14.6	2.06
	1.6250	95.250	3.7500	30.162	1.1875	29.370	1.1563	23.020	0.9063	3.6	0.14	3.2	0.13	130	140	20.7	**HM804840**	**HM804810**	26.5	1.04	61.0	2.40	54.0	2.13	81.0	3.19	91.0	3.58	0.55	1.10	0.60	30.4	28.4	1.07
	1.6250	101.600	4.0000	34.925	1.3750	36.068	1.4200	26.988	1.0625	3.6	0.14	3.2	0.13	164	159	24.8	**526**	**522**	22.2	0.87	57.0	2.24	50.0	1.97	89.0	3.50	95.0	3.74	0.29	2.10	1.16	38.4	18.7	2.05
	1.6250	101.600	4.0000	34.925	1.3750	36.068	1.4200	26.988	1.0625	0.8	0.03	3.2	0.13	164	159	24.8	**526A**	**522**	22.2	0.87	52.0	2.05	50.0	1.97	89.0	3.50	95.0	3.74	0.29	2.10	1.16	38.4	18.7	2.05
	1.6250	104.775	4.1250	30.162	1.1875	29.317	1.1542	24.605	0.9687	1.6	0.06	3.2	0.13	136	144	22.2	**464A**	**453X**	23.6	0.93	54.0	2.13	52.0	2.05	92.0	3.62	98.0	3.86	0.34	1.79	0.98	31.7	18.2	1.74
	1.6250	104.775	4.1250	36.512	1.4375	36.512	1.4375	28.575	1.1250	1.6	0.06	3.2	0.13	185	187	28.6	**59162**	**59412**	26.9	1.06	55.0	2.17	54.0	2.13	92.0	3.62	99.0	3.90	0.40	1.49	0.82	43.2	29.6	1.46
	1.6250	104.775	4.1250	36.512	1.4375	36.512	1.4375	28.575	1.1250	1.6	0.06	3.2	0.13	176	195	29.3	**HM807035**	**HM807010**	29.3	1.15	60.0	2.36	57.0	2.24	89.0	3.50	100.0	3.94	0.49	1.23	0.68	41.3	34.4	1.20
	1.6250	107.950	4.2500	27.783	1.0938	29.317	1.1542	22.225	0.8750	2.4	0.09	0.8	0.03	136	144	22.2	**464**	**453A**	23.6	0.93	56.0	2.20	52.0	2.05	97.0	3.82	100.0	3.94	0.34	1.79	0.98	31.7	18.2	1.74
	1.6250	107.950	4.2500	36.512	1.4375	36.957	1.4550	28.575	1.1250	3.6	0.14	3.2	0.13	172	172	26.8	**541**	**532X**	23.9	0.94	58.0	2.28	52.0	2.05	94.0	3.70	100.0	3.94	0.30	2.03	1.11	40.4	20.5	1.97
42.000	1.6535	76.200	3.0000	18.009	0.7090	17.384	0.6844	14.288	0.5625	2.0	0.08	1.6	0.06	64.7	63.3	9.15	**11165XR**	**11300**	17.5	0.69	51.0	2.01	46.0	1.81	67.0	2.64	72.0	2.83	0.49	1.23	0.68	14.9	12.4	1.20
	1.6535	76.200	3.0000	18.009	0.7090	17.384	0.6844	14.288	0.5625	4.3	0.17	3.6	0.14	64.7	63.3	9.15	**11165XSR**	**11300**	17.5	0.69	53.0	2.09	46.0	1.81	67.0	2.64	72.0	2.83	0.49	1.23	0.68	14.9	12.4	1.20
42.070	1.6563	90.488	3.5625	39.688	1.5625	40.386	1.5900	33.338	1.3125	3.6	0.14	3.2	0.13	166	169	25.9	**4395**	**4335**	25.6	1.01	58.0	2.28	51.0	2.01	77.0	3.03	85.0	3.35	0.28	2.11	1.16	38.8	18.9	2.06
42.850	1.6870	104.775	4.1250	30.162	1.1875	29.317	1.1542	24.605	0.9687	0.8	0.03	3.2	0.13	136	144	22.2	**461**	**453X**	23.6	0.93	54.5	2.15	54.0	2.13	92.0	3.62	98.0	3.86	0.34	1.79	0.98	31.7	18.2	1.74
42.862	1.6875	76.992	3.0312	17.463	0.6875	17.145	0.6750	11.908	0.4688	1.6	0.06	1.6	0.06	56.6	62.2	8.15	**12168**	**12303**	17.5	0.69	51.0	2.01	48.5	1.91	68.0	2.68	73.0	2.87	0.51	1.19	0.65	13.0	11.3	1.16
	1.6875	82.931	3.2650	26.988	1.0625	25.400	1.0000	22.225	0.8750	2.4	0.09	2.4	0.09	96.8	100	15.1	**25578**	**25523**	20.7	0.81	53.0	2.09	49.5	1.95	72.0	2.83	77.0	3.03	0.33	1.79	0.99	22.5	12.9	1.75
	1.6875	83.058	3.2700	23.812	0.9375	25.400	1.0000	19.050	0.7500	3.6	0.14	3.2	0.13	96.8	100	15.1	**25576**	**25521**	17.5	0.69	55.0	2.17	49.0	1.93	72.0	2.83	77.0	3.03	0.33	1.79	0.99	22.5	12.9	1.75
	1.6875	84.138	3.3125	30.162	1.1875	30.886	1.2160	23.812	0.9375	3.6	0.14	3.2	0.13	120	120	18.2	**3579R**	**3520**	20.5	0.81	56.0	2.20	49.5	1.95	74.0	2.91	79.5	3.13	0.31	1.96	1.08	27.9	14.6	1.91
	1.6875	85.000	3.3464	25.400	1.0000	25.608	1.0082	20.638	0.8125	3.6	0.14	1.2	0.05	100	106	16.0	**2973**	**2924**	18.9	0.74	55.0	2.17	49.0	1.93	76.0	2.99	80.0	3.15	0.35	1.73	0.95	23.3	13.8	1.69
	1.6875	114.300	4.5000	44.450	1.7500	44.450	1.7500	34.925	1.3750	2.0	0.08	3.2	0.13	237	230	35.1	**65383**	**65320**	31.7	1.25	60.0	2.36	56.0	2.20	97.0	3.82	107.0	4.21	0.43	1.40	0.77	55.4	40.7	1.36
42.875	1.6880	76.200	3.0000	25.400	1.0000	25.400	1.0000	20.638	0.8125	1.6	0.06	1.6	0.06	101	105	15.8	**26886R**	**26823**	18.0	0.71	51.0	2.01	48.5	1.91	69.0	2.72	73.0	2.87	0.32	1.88	1.04	23.5	12.8	1.83
	1.6880	79.375	3.1250	23.812	0.9375	25.400	1.0000	19.050	0.7500	3.6	0.14	0.8	0.03	101	105	15.8	**26884R**	**26822**	16.1	0.63	55.0	2.17	48.5	1.91	71.0	2.80	74.0	2.91	0.32	1.88	1.04	23.5	12.8	1.83
	1.6880	80.000	3.1496	21.000	0.8268	22.403	0.8820	17.826	0.7018	3.6	0.14	1.2	0.05	85.0	74.8	11.4	**342S**	**332**	15.1	0.59	54.0	2.13	47.5	1.87	73.0	2.87	75.0	2.95	0.27	2.20	1.21	19.6	9.15	2.14
	1.6880	80.167	3.1562	25.400	1.0000	25.400	1.0000	20.638	0.8125	3.6	0.14	3.2	0.13	101	105	15.8	**26884R**	**26820**	18.0	0.71	55.0	2.17	48.5	1.91	69.0	2.72	74.0	2.91	0.32	1.88	1.04	23.5	12.8	1.83
	1.6880	82.931	3.2650	23.812	0.9375	25.400	1.0000	19.050	0.7500	3.6	0.14	0.8	0.03	96.8	100	15.1	**25577**	**25520**	17.5	0.69	55.0	2.17	49.0	1.93	74.0	2.91	77.0	3.03	0.33	1.79	0.99	22.5	12.9	1.75
	1.6880	83.058	3.2700	23.812	0.9375	25.400	1.0000	19.050	0.7500	3.6	0.14	3.2	0.13	96.8	100	15.1	**25577**	**25521**	17.5	0.69	55.0	2.17	49.0	1.93	72.0	2.83	77.0	3.03	0.33	1.79	0.99	22.5	12.9	1.75
44.450	1.7500	73.025	2.8750	18.258	0.7188	18.258	0.7188	15.083	0.5938	1.6	0.06	1.6	0.06	59.4	65.5	9.50	**L102849**	**L102810**	14.6	0.57	51.0	2.01	49.0	1.93	66.0	2.60	69.0	2.72	0.32	1.88	1.04	13.7	7.45	1.84
	1.7500	76.992	3.0312	17.463	0.6875	17.145	0.6750	11.908	0.4688	1.6	0.06	1.6	0.06	60.8	62.2	8.95	**12175**	**12303**	17.5	0.69	52.0	2.05	49.5	1.95	68.0	2.68	73.0	2.87	0.51	1.19	0.65	13.0	11.3	1.16
	1.7500	79.375	3.1250	17.462	0.6875	17.462	0.6875	13.495	0.5313	2.8	0.11	1.6	0.06	59.2	59.1	8.65	**18685**	**18620**	16.0	0.63	54.0	2.13	49.5	1.95	71.0	2.80	74.0	2.91	0.37	1.60	0.88	13.6	8.70	1.56
	1.7500	82.931	3.2650	23.812	0.9375	25.400	1.0000	19.050	0.7500	3.6	0.14	2.4	0.09	96.8	100	15.1	**25580**	**25524**	17.5	0.69	57.0	2.24	50.0	1.97	72.0	2.83	77.0	3.03	0.33	1.79	0.99	22.5	12.9	1.75
	1.7500	82.931	3.2650	23.812	0.9375	25.400	1.0000	19.050	0.7500	5.2	0.20	0.8	0.03	96.8	100	15.1	**25582**	**25520**	17.5	0.69	59.0	2.32	51.0	2.01	74.0	2.91	77.0	3.03	0.33	1.79	0.99	22.5	12.9	1.75
	1.7500	82.931	3.2650	36.830	1.4500	35.878	1.4125	19.050	0.7500	SP[1)]	SP[1)]	0.8	0.03	96.8	100	15.1	**25583**	**25520**	17.5	0.69	59.0	2.32	51.0	2.01	74.0	2.91	77.0	3.03	0.33	1.79	0.99	22.5	12.9	1.75
	1.7500	83.058	3.2700	23.876	0.9400	25.400	1.0000	19.114	0.7525	0.5	0.02	2.0	0.08	96.8	100	15.1	**25581**	**25522**	17.6	0.69	51.0	2.01	50.0	1.97	73.0	2.87	77.0	3.03	0.33	1.79	0.99	22.5	12.9	1.75
	1.7500	84.138	3.3125	30.162	1.1875	30.886	1.2160	23.812	0.9375	3.6	0.14	3.2	0.13	120	120	18.2	**3578R**	**3520**	20.5	0.81	57.0	2.24	51.0	2.01	74.0	2.91	79.5	3.13	0.31	1.96	1.08	27.9	14.6	1.91
	1.7500	85.000	3.3465	19.000	0.7480	21.692	0.8540	19.000	0.7480	2.4	0.09	2.0	0.08	89.6	81.7	12.4	**355**	**354**	13.7	0.54	54.0	2.13	50.0	1.97	77.0	3.03	81.0	3.19	0.31	1.96	1.08	20.7	10.8	1.91
	1.7500	85.000	3.3465	20.638	0.8125	21.692	0.8540	17.462	0.6875	2.4	0.09	1.2	0.05	89.6	81.7	12.4	**355**	**354A**	15.5	0.61	54.0	2.13	50.0	1.97	77.0	3.03	80.0	3.15	0.31	1.96	1.08	20.7	10.8	1.91

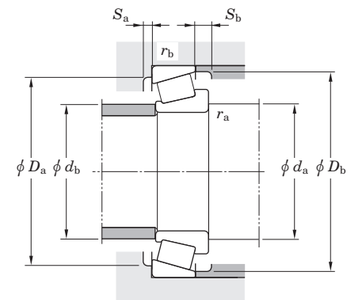
Note 1) SP indicates the specially chamfered from.

Koyo

TS type

d (44.450) mm
(1.7500) inch





$P = XF_r + YF_a$ $P_0 = 0.5\,F_r + Y_0F_a$ or $P_0 = F_r$			
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

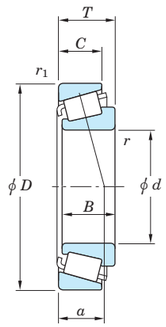
Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Con-stant	Axial load factors		Reference rating (kN) (500 rpm for 3 000 Hrs.)		Factor
d		D		T		B		C		r (min.)		r_1 (min.)		C_r	C_{0r}	C_u	Inner ring (Cone)	Outer ring (Cup)	a		d_a		d_b		D_a		D_b		e	Y_1	Y_0	Radial	Axial	K
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						
44.450	1.7500	85.000	3.3465	20.638	0.8125	21.692	0.8540	17.462	0.6875	0.8	0.03	1.2	0.05	89.6	81.7	12.4	**355A**	**354A**	15.5	0.61	51.0	2.01	50.0	1.97	77.0	3.03	80.0	3.15	0.31	1.96	1.08	20.7	10.8	1.91
	1.7500	85.000	3.3465	20.638	0.8125	21.692	0.8540	17.462	0.6875	3.6	0.14	1.2	0.05	89.6	81.7	12.4	**355X**	**354A**	15.5	0.61	56.0	2.20	50.0	1.97	77.0	3.03	80.0	3.15	0.31	1.96	1.08	20.7	10.8	1.91
	1.7500	85.000	3.3465	23.812	0.9375	25.400	1.0000	19.050	0.7500	3.6	0.14	2.4	0.09	96.8	100	15.1	**25580**	**25526**	17.5	0.69	57.0	2.24	50.0	1.97	74.0	2.91	78.0	3.07	0.33	1.79	0.99	22.5	12.9	1.75
	1.7500	85.000	3.3465	25.400	1.0000	25.608	1.0082	20.638	0.8125	3.6	0.14	1.2	0.05	100	106	16.0	**2975**	**2924**	18.9	0.74	54.0	2.13	51.0	2.01	76.0	2.99	80.0	3.15	0.35	1.73	0.95	23.3	13.8	1.69
	1.7500	87.312	3.4375	30.162	1.1875	30.886	1.2160	23.812	0.9375	5.6	0.22	3.2	0.13	120	120	18.2	**3578AR**	**3525**	20.5	0.81	57.0	2.24	51.0	2.01	75.0	2.95	81.0	3.19	0.31	1.96	1.08	27.9	14.6	1.91
	1.7500	88.900	3.5000	30.162	1.1875	29.370	1.1563	23.020	0.9063	3.6	0.14	3.2	0.13	124	125	18.5	**HM803149**	**HM803110**	26.1	1.03	62.0	2.44	53.4	2.10	74.0	2.91	85.0	3.35	0.55	1.10	0.60	28.8	26.9	1.07
	1.7500	90.000	3.5433	23.000	0.9055	21.692	0.8540	23.000	0.9055	2.4	0.09	2.0	0.08	89.6	81.7	12.4	**355**	**353**	17.8	0.70	54.0	2.13	50.0	1.97	78.0	3.07	81.0	3.19	0.31	1.96	1.08	20.7	10.8	1.91
	1.7500	90.488	3.5625	39.688	1.5625	40.386	1.5900	33.338	1.3125	3.6	0.14	3.2	0.13	166	169	25.9	**4370**	**4335**	25.6	1.01	57.0	2.24	51.0	2.01	77.0	3.03	85.0	3.35	0.28	2.11	1.16	38.8	18.9	2.06
	1.7500	93.264	3.6718	30.162	1.1875	30.302	1.1930	23.812	0.9375	3.6	0.14	0.8	0.03	129	137	20.9	**3782**	**3730**	22.2	0.87	58.0	2.28	52.0	2.05	84.0	3.31	88.0	3.46	0.34	1.77	0.97	30.1	17.4	1.73
	1.7500	93.264	3.6718	30.162	1.1875	30.302	1.1930	23.812	0.9375	6.4	0.25	3.2	0.13	129	137	20.9	**3783**	**3720**	22.2	0.87	64.0	2.52	54.0	2.13	82.0	3.23	88.0	3.46	0.34	1.77	0.97	30.1	17.4	1.73
	1.7500	93.264	3.6718	30.162	1.1875	30.302	1.1930	23.812	0.9375	6.4	0.25	0.8	0.03	129	137	20.9	**3783**	**3730**	22.2	0.87	64.0	2.52	54.0	2.13	84.0	3.31	88.0	3.46	0.34	1.77	0.97	30.1	17.4	1.73
	1.7500	93.662	3.6875	31.750	1.2500	31.750	1.2500	25.400	1.0000	3.6	0.14	3.2	0.13	131	123	18.8	**49175**	**49368**	22.9	0.90	59.0	2.32	53.0	2.09	82.0	3.23	87.0	3.43	0.36	1.67	0.92	30.6	18.8	1.62
	1.7500	93.662	3.6875	31.750	1.2500	31.750	1.2500	25.400	1.0000	0.8	0.03	3.2	0.13	131	123	18.8	**49176**	**49368**	22.9	0.90	54.0	2.13	53.0	2.09	82.0	3.23	87.0	3.43	0.36	1.67	0.92	30.6	18.8	1.62
	1.7500	93.662	3.6875	31.750	1.2500	31.750	1.2500	26.195	1.0313	0.8	0.03	3.2	0.13	132	134	20.2	**46175**	**46368**	24.0	0.94	55.0	2.17	54.0	2.13	79.0	3.11	87.0	3.43	0.40	1.49	0.82	30.8	21.1	1.46
	1.7500	93.662	3.6875	31.750	1.2500	31.750	1.2500	26.195	1.0313	3.6	0.14	3.2	0.13	132	134	20.2	**46176**	**46368**	24.0	0.94	60.0	2.36	54.0	2.13	79.0	3.11	87.0	3.43	0.40	1.49	0.82	30.8	21.1	1.46
	1.7500	93.662	3.6875	31.750	1.2500	31.750	1.2500	26.195	1.0313	3.6	0.14	1.2	0.05	132	134	20.2	**46176**	**46369**	24.0	0.94	60.0	2.36	54.0	2.13	79.0	3.11	87.0	3.43	0.40	1.49	0.82	30.8	21.1	1.46
	1.7500	95.250	3.7500	27.783	1.0938	28.575	1.1250	22.225	0.8750	0.8	0.03	2.4	0.09	135	141	21.6	**33885**	**33821**	20.4	0.80	53.0	2.09	53.0	2.09	85.0	3.35	90.0	3.54	0.33	1.82	1.00	31.4	17.7	1.77
	1.7500	95.250	3.7500	27.783	1.0938	29.901	1.1772	22.225	0.8750	0.8	0.03	2.4	0.09	129	122	18.8	**435**	**432**	18.4	0.72	52.0	2.05	51.0	2.01	83.0	3.27	87.0	3.43	0.28	2.11	1.16	30.0	14.6	2.06
	1.7500	95.250	3.7500	27.783	1.0938	29.901	1.1772	22.225	0.8750	3.6	0.14	0.8	0.03	129	122	18.8	**438**	**432A**	18.4	0.72	57.0	2.24	51.0	2.01	84.0	3.31	87.0	3.43	0.28	2.11	1.16	30.0	14.6	2.06
	1.7500	95.250	3.7500	30.162	1.1875	29.370	1.1563	23.020	0.9063	0.8	0.03	2.4	0.09	130	140	20.7	**HM804842**	**HM804810**	26.5	1.04	57.0	2.24	57.0	2.24	81.0	3.19	91.0	3.58	0.55	1.10	0.60	30.4	28.4	1.07
	1.7500	95.250	3.7500	30.162	1.1875	29.370	1.1563	23.020	0.9063	3.6	0.14	2.4	0.09	130	140	20.7	**HM804843**	**HM804810**	26.5	1.04	63.0	2.48	57.0	2.24	81.0	3.19	91.0	3.58	0.55	1.10	0.60	30.4	28.4	1.07
	1.7500	95.250	3.7500	30.162	1.1875	29.370	1.1563	23.020	0.9063	3.6	0.14	0.8	0.03	130	140	20.7	**HM804843**	**HM804811**	26.5	1.04	63.0	2.48	57.0	2.24	83.0	3.27	91.0	3.58	0.55	1.10	0.60	30.4	28.4	1.07
	1.7500	98.425	3.8750	30.162	1.1875	30.302	1.1930	23.812	0.9375	6.4	0.25	3.2	0.13	129	137	20.9	**3783**	**3732**	22.2	0.87	64.0	2.52	54.0	2.13	84.0	3.31	90.0	3.54	0.34	1.77	0.97	30.1	17.4	1.73
	1.7500	98.425	3.8750	30.162	1.1875	31.750	1.2500	25.400	1.0000	0.8	0.03	3.2	0.13	143	143	21.9	**49576**	**49520**	24.1	0.95	55.0	2.17	54.0	2.13	88.0	3.46	96.0	3.78	0.40	1.50	0.82	33.4	22.8	1.46
	1.7500	101.600	4.0000	31.750	1.2500	31.750	1.2500	25.400	1.0000	0.8	0.03	0.8	0.03	143	143	21.9	**49576**	**49522**	24.1	0.95	55.0	2.17	54.0	2.13	90.0	3.54	96.0	3.78	0.40	1.50	0.82	33.4	22.8	1.46
	1.7500	101.600	4.0000	31.750	1.2500	31.750	1.2500	25.400	1.0000	3.6	0.14	3.2	0.13	143	143	21.9	**49577**	**49520**	24.1	0.95	60.0	2.36	54.0	2.13	88.0	3.46	96.0	3.78	0.40	1.50	0.82	33.4	22.8	1.46
	1.7500	101.600	4.0000	34.925	1.3750	36.068	1.4200	26.988	1.0625	3.6	0.14	3.2	0.13	164	159	24.8	**527**	**522**	22.2	0.87	59.0	2.32	53.0	2.09	89.0	3.50	95.0	3.74	0.29	2.10	1.16	38.4	18.7	2.05
	1.7500	104.775	4.1250	30.162	1.1875	30.958	1.2188	23.812	0.9375	0.8	0.03	0.8	0.03	157	165	25.6	**45280**	**45221**	22.2	0.87	55.0	2.17	54.0	2.13	95.0	3.74	99.0	3.90	0.33	1.80	0.99	36.6	20.8	1.76
	1.7500	104.775	4.1250	36.512	1.4375	36.512	1.4375	28.575	1.1250	3.6	0.14	1.0	0.04	185	187	28.6	**59175**	**59413**	26.9	1.06	63.0	2.48	56.0	2.20	92.0	3.62	99.0	3.90	0.40	1.49	0.82	43.2	29.6	1.46
	1.7500	104.775	4.1250	36.512	1.4375	36.512	1.4375	28.575	1.1250	0.8	0.03	3.2	0.13	185	187	28.6	**59176**	**59412**	26.9	1.06	57.0	2.24	56.0	2.20	92.0	3.62	99.0	3.90	0.40	1.49	0.82	43.2	29.6	1.46
	1.7500	104.775	4.1250	36.512	1.4375	36.512	1.4375	28.575	1.1250	3.6	0.14	3.2	0.13	176	195	29.3	**HM807040**	**HM807010**	29.3	1.15	66.0	2.60	59.0	2.32	89.0	3.50	100.0	3.94	0.49	1.23	0.68	41.3	34.4	1.20
	1.7500	107.950	4.2500	27.783	1.0938	29.317	1.1542	22.225	0.8750	0.8	0.03	0.8	0.03	136	144	22.2	**458**	**453A**	23.6	0.93	55.0	2.17	54.0	2.13	97.0	3.82	100.0	3.94	0.34	1.79	0.98	31.7	18.2	1.74
	1.7500	107.950	4.2500	27.783	1.0938	29.317	1.1542	22.225	0.8750	3.6	0.14	0.8	0.03	136	144	22.2	**460**	**453A**	23.6	0.93	60.0	2.36	54.0	2.13	97.0	3.82	100.0	3.94	0.34	1.79	0.98	31.7	18.2	1.74
	1.7500	107.950	4.2500	36.512	1.4375	36.512	1.4375	28.575	1.1250	3.6	0.14	3.2	0.13	185	187	28.6	**59175**	**59425**	26.9	1.06	63.0	2.48	56.0	2.20	93.0	3.66	101.0	3.98	0.40	1.49	0.82	43.2	29.6	1.46
	1.7500	111.125	4.3750	38.100	1.5000	36.957	1.4550	30.162	1.1875	3.6	0.14	3.2	0.13	172	172	26.8	**535**	**532A**	23.9	0.94	60.0	2.36	54.0	2.13	95.0	3.74	100.0	3.94	0.30	2.03	1.11	40.4	20.5	1.97
	1.7500	111.125	4.3750	38.100	1.5000	36.957	1.4550	33.338	1.3125	3.6	0.14	3.2	0.13	172	172	26.8	**535**	**532**	23.9	0.94	60.0	2.36	54.0	2.13	95.0	3.74	100.0	3.94	0.30	2.03	1.11	40.4	20.5	1.97
	1.7500	114.300	4.5000	44.450	1.7500	44.450	1.7500	34.925	1.3750	2.0	0.08	3.2	0.13	237	230	35.1	**65384**	**65320**	31.7	1.25	62.0	2.44	56.0	2.20	97.0	3.82	107.0	4.21	0.43	1.40	0.77	55.4	40.7	1.36
	1.7500	114.300	4.5000	44.450	1.7500	44.450	1.7500	34.925	1.3750	2.0	0.08	0.8	0.03	237	230	35.1	**65384**	**65321**	31.7	1.25	62.0	2.44	56.0	2.20	98.0	3.86	107.0	4.21	0.43	1.40	0.77	55.4	40.7	1.36
	1.7500	114.300	4.5000	44.450	1.7500	44.450	1.7500	34.925	1.3750	3.6	0.14	3.2	0.13	237	230	35.1	**65385**	**65320**	31.7	1.25	65.0	2.56	56.0	2.20	97.0	3.82	107.0	4.21	0.43	1.40	0.77	55.4	40.7	1.36
	1.7500	120.040	4.7260	41.275	1.6250	41.275	1.6250	31.750	1.2500	3.6	0.14	3.2	0.13	218	217	34.0	**615**	**612A**	27.3	1.07	62.0	2.44	56.0	2.20	103.0	4.06	109.0	4.29	0.31	1.91	1.05	50.9	27.4	1.86
	1.7500	120.650	4.7500	41.275	1.6250	41.275	1.6250	31.750	1.2500	3.6	0.14	3.2	0.13	218	217	34.0	**615**	**612**	27.3	1.07	62.0	2.44	56.0	2.20	105.0	4.13	110.0	4.33	0.31	1.91	1.05	50.9	27.4	1.86

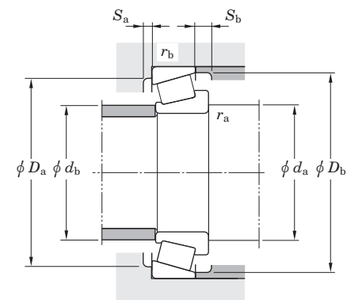
Note 1) SP indicates the specially chamfered from.

Koyo

TS type

d 44.869 ~ (47.625) mm
1.7665 ~ (1.8750) inch





$P = XF_r + YF_a$ $P_0 = 0.5\,F_r + Y_0F_a$ or $P_0 = F_r$			
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

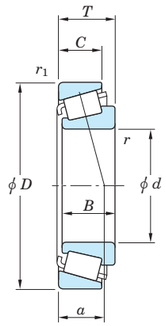
Boundary dimensions d mm	d inch	D mm	D inch	T mm	T inch	B mm	B inch	C mm	C inch	r (min.) mm	r (min.) inch	r_1 (min.) mm	r_1 (min.) inch	Basic load ratings (kN) C_r	C_{0r}	Fatigue load limit (kN) C_u	Bearing No. Inner ring (Cone)	Outer ring (Cup)	Load center a mm	a inch	Mounting dimensions d_a mm	d_a inch	d_b mm	d_b inch	D_a mm	D_a inch	D_b mm	D_b inch	Constant e	Axial load factors Y_1	Y_0	Reference rating (kN) (500 rpm for 3 000 Hrs.) Radial	Axial	Factor K
44.869	1.7665	92.075	3.6250	24.608	0.9688	25.400	1.0000	19.845	0.7813	3.6	0.14	0.8	0.03	107	119	17.9	**28576R**	**28521**	19.9	0.78	59.0	2.32	53.0	2.09	83.0	3.27	87.0	3.43	0.38	1.59	0.87	24.7	15.9	1.55
44.983	1.7710	85.000	3.3465	26.988	1.0625	25.400	1.0000	22.225	0.8750	1.6	0.06	2.4	0.09	96.8	100	15.1	**25584**	**25527**	20.7	0.81	53.0	2.09	51.0	2.01	73.0	2.87	78.0	3.07	0.33	1.79	0.99	22.5	12.9	1.75
	1.7710	93.264	3.6718	30.162	1.1875	30.302	1.1930	23.812	0.9375	3.6	0.14	3.2	0.13	129	137	20.9	**3776**	**3720**	22.2	0.87	59.0	2.32	53.0	2.09	82.0	3.23	88.0	3.46	0.34	1.77	0.97	30.1	17.4	1.73
	1.7710	101.600	4.0000	34.925	1.3750	36.068	1.4200	26.988	1.0625	4.3	0.17	3.2	0.13	164	159	24.8	**527S**	**522**	22.2	0.87	61.0	2.40	53.0	2.09	89.0	3.50	95.0	3.74	0.29	2.10	1.16	38.4	18.7	2.05
45.000	1.7717	85.000	3.3465	20.638	0.8125	21.692	0.8540	17.462	0.6875	1.6	0.06	1.2	0.05	89.6	81.7	12.4	**358**	**354A**	15.5	0.61	52.5	2.07	50.0	1.97	77.0	3.03	80.0	3.15	0.31	1.96	1.08	20.7	10.8	1.91
	1.7717	85.000	3.3465	20.638	0.8125	21.692	0.8540	17.462	0.6875	3.6	0.14	1.2	0.05	89.6	81.7	12.4	**358A**	**354A**	15.5	0.61	56.5	2.22	50.0	1.97	77.0	3.03	80.0	3.15	0.31	1.96	1.08	20.7	10.8	1.91
	1.7717	90.000	3.5433	20.000	0.7874	22.225	0.8750	15.875	0.6250	2.0	0.08	2.0	0.08	92.9	87.3	13.3	**367**	**362**	15.4	0.61	55.0	2.17	51.0	2.01	81.0	3.19	84.0	3.31	0.32	1.88	1.03	21.4	11.7	1.83
	1.7717	90.119	3.5480	23.000	0.9055	21.692	0.8540	21.808	0.8586	1.6	0.06	2.4	0.09	89.6	81.7	12.4	**358**	**352**	17.8	0.70	52.5	2.07	50.0	1.97	78.0	3.07	82.0	3.23	0.31	1.96	1.08	20.7	10.8	1.91
	1.7717	100.000	3.9370	25.000	0.9842	22.225	0.8750	21.824	0.8592	0.8	0.03	2.0	0.08	105	98.5	15.1	**376**	**372**	21.5	0.85	57.0	2.24	54.0	2.13	86.0	3.39	90.0	3.54	0.34	1.77	0.97	24.1	14.0	1.73
	1.7717	100.000	3.9370	25.000	0.9842	22.225	0.8750	21.824	0.8592	2.4	0.09	2.0	0.08	105	98.5	15.1	**376A**	**372**	21.5	0.85	57.0	2.24	54.0	2.13	86.0	3.39	90.0	3.54	0.34	1.77	0.97	24.1	14.0	1.73
	1.7717	104.775	4.1250	30.162	1.1875	29.317	1.1542	24.605	0.9687	2.4	0.09	3.2	0.13	136	144	22.2	**458S**	**453X**	23.6	0.93	59.0	2.32	55.0	2.17	92.0	3.62	98.0	3.86	0.34	1.79	0.98	31.7	18.2	1.74
	1.7717	104.775	4.1250	39.688	1.5625	40.157	1.5810	33.338	1.3125	3.6	0.14	3.2	0.13	189	211	32.3	**4559**	**4535**	27.3	1.07	62.0	2.44	59.0	2.32	90.0	3.54	99.0	3.90	0.34	1.79	0.98	44.4	25.4	1.74
45.230	1.7807	79.985	3.1490	19.842	0.7812	20.638	0.8125	15.080	0.5937	2.0	0.08	1.2	0.05	69.1	70.8	10.4	**17887**	**17831**	15.9	0.63	52.0	2.05	49.5	1.95	72.0	2.83	76.0	2.99	0.37	1.64	0.90	15.9	9.95	1.60
45.237	1.7810	84.138	3.3125	30.162	1.1875	30.886	1.2160	23.812	0.9375	3.6	0.14	3.2	0.13	120	120	18.2	**3586R**	**3520**	20.5	0.81	58.0	2.28	52.0	2.05	74.0	2.91	79.5	3.13	0.31	1.96	1.08	27.9	14.6	1.91
45.242	1.7812	73.431	2.8910	19.558	0.7700	19.812	0.7800	15.748	0.6200	3.6	0.14	0.8	0.03	70.0	78.1	11.4	**LM102949**	**LM102910**	14.7	0.58	56.0	2.20	50.0	1.97	68.0	2.68	70.0	2.76	0.31	1.97	1.08	16.1	8.40	1.92
	1.7812	77.788	3.0625	19.842	0.7812	19.842	0.7812	15.080	0.5937	3.6	0.14	0.8	0.03	71.7	73.5	10.7	**LM603049**	**LM603011**	17.5	0.69	57.0	2.24	50.0	1.97	71.0	2.80	74.0	2.91	0.43	1.41	0.77	16.5	12.1	1.37
	1.7812	77.788	3.0625	21.430	0.8437	19.842	0.7812	16.667	0.6562	3.6	0.14	0.8	0.03	71.7	73.5	10.7	**LM603049**	**LM603012**	19.1	0.75	57.0	2.24	50.0	1.97	71.0	2.80	74.0	2.91	0.43	1.41	0.77	16.5	12.1	1.37
	1.7812	79.974	3.1486	19.842	0.7812	19.842	0.7812	15.080	0.5937	3.6	0.14	0.8	0.03	71.7	73.5	10.7	**LM603049**	**LM603014**	17.5	0.69	57.0	2.24	50.0	1.97	71.0	2.80	74.0	2.91	0.43	1.41	0.77	16.5	12.1	1.37
	1.7812	79.974	3.1486	21.430	0.8437	19.842	0.7812	16.667	0.6562	3.6	0.14	0.8	0.03	71.7	73.5	10.7	**LM603049**	**LM603015**	19.1	0.75	57.0	2.24	50.0	1.97	71.0	2.80	74.0	2.91	0.43	1.41	0.77	16.5	12.1	1.37
45.618	1.7960	85.000	3.3465	23.812	0.9375	25.400	1.0000	19.050	0.7500	3.6	0.14	2.4	0.09	96.8	100	15.1	**25590**	**25526**	17.5	0.69	58.0	2.28	51.0	2.01	74.0	2.91	78.0	3.07	0.33	1.79	0.99	22.5	12.9	1.75
45.987	1.8105	74.976	2.9518	18.000	0.7087	18.000	0.7087	14.000	0.5512	2.4	0.09	1.6	0.06	66.2	74.6	10.8	**LM503349R**	**LM503310**	16.0	0.63	53.0	2.09	51.0	2.01	67.0	2.64	72.0	2.83	0.40	1.49	0.82	15.2	10.4	1.46
46.038	1.8125	79.375	3.1250	17.462	0.6875	17.462	0.6875	13.495	0.5313	2.8	0.11	1.6	0.06	59.2	59.1	8.65	**18690**	**18620**	16.0	0.63	56.0	2.20	51.0	2.01	71.0	2.80	74.0	2.91	0.37	1.60	0.88	13.6	8.70	1.56
	1.8125	85.000	3.3465	17.462	0.6875	17.462	0.6875	13.495	0.5313	2.4	0.09	1.6	0.06	62.5	65.5	9.55	**18780**	**18720**	17.4	0.69	56.0	2.20	52.0	2.05	77.0	3.03	80.0	3.15	0.41	1.48	0.81	14.4	9.95	1.44
	1.8125	85.000	3.3465	20.638	0.8125	21.692	0.8540	17.462	0.6875	3.6	0.14	1.2	0.05	89.6	81.7	12.4	**359A**	**354A**	15.5	0.61	57.0	2.24	51.0	2.01	77.0	3.03	80.0	3.15	0.31	1.96	1.08	20.7	10.8	1.91
	1.8125	85.000	3.3465	20.638	0.8125	21.692	0.8540	17.462	0.6875	2.4	0.09	1.2	0.05	89.6	81.7	12.4	**359S**	**354A**	15.5	0.61	55.0	2.17	51.0	2.01	77.0	3.03	80.0	3.15	0.31	1.96	1.08	20.7	10.8	1.91
	1.8125	85.000	3.3465	25.400	1.0000	25.608	1.0082	20.638	0.8125	3.6	0.14	1.2	0.05	100	106	16.0	**2984**	**2924**	18.9	0.74	58.0	2.28	52.0	2.05	76.0	2.99	80.0	3.15	0.35	1.73	0.95	23.3	13.8	1.69
	1.8125	87.312	3.4375	26.988	1.0625	25.608	1.0082	22.225	0.8750	3.6	0.14	2.4	0.09	100	106	16.0	**2984**	**2925**	18.6	0.73	58.0	2.28	52.0	2.05	76.0	2.99	80.0	3.15	0.35	1.73	0.95	23.3	13.8	1.69
	1.8125	95.250	3.7500	27.783	1.0938	29.901	1.1772	22.225	0.8750	3.6	0.14	0.8	0.03	129	122	18.8	**436**	**432A**	18.4	0.72	59.0	2.32	52.0	2.05	84.0	3.31	87.0	3.43	0.28	2.11	1.16	30.0	14.6	2.06
	1.8125	95.250	3.7500	30.162	1.1875	30.302	1.1930	23.812	0.9375	3.6	0.14	3.2	0.13	129	137	20.9	**3777**	**3726**	22.2	0.87	60.0	2.36	53.0	2.09	83.0	3.27	89.0	3.50	0.34	1.77	0.97	30.1	17.4	1.73
47.625	1.8750	88.900	3.5000	20.638	0.8125	22.225	0.8750	16.513	0.6501	3.6	0.14	1.2	0.05	92.9	87.3	13.3	**369A**	**362A**	16.1	0.63	60.0	2.36	53.0	2.09	81.0	3.19	84.0	3.31	0.32	1.88	1.03	21.4	11.7	1.83
	1.8750	88.900	3.5000	25.400	1.0000	25.400	1.0000	19.050	0.7500	3.6	0.14	3.2	0.13	109	112	16.6	**M804049**	**M804010**	23.6	0.93	62.0	2.44	55.0	2.17	76.0	2.99	85.0	3.35	0.55	1.10	0.60	25.3	23.6	1.07
	1.8750	90.000	3.5433	20.000	0.7874	22.225	0.8750	20.000	0.7874	2.4	0.09	0.8	0.03	92.9	87.3	13.3	**369S**	**363**	15.4	0.61	57.0	2.24	53.0	2.09	82.0	3.23	85.0	3.35	0.32	1.88	1.03	21.4	11.7	1.83
	1.8750	93.264	3.6718	30.162	1.1875	30.302	1.1930	23.812	0.9375	6.4	0.25	0.8	0.03	129	137	20.9	**3778**	**3730**	22.2	0.87	67.0	2.64	55.0	2.17	84.0	3.31	88.0	3.46	0.34	1.77	0.97	30.1	17.4	1.73
	1.8750	95.250	3.7500	30.162	1.1875	29.370	1.1563	23.020	0.9063	3.6	0.14	3.2	0.13	130	140	20.7	**HM804846**	**HM804810**	26.5	1.04	64.0	2.52	57.0	2.24	81.0	3.19	91.0	3.58	0.55	1.10	0.60	30.4	28.4	1.07
	1.8750	96.838	3.8125	21.000	0.8268	21.946	0.8640	15.875	0.6250	0.8	0.03	0.8	0.03	101	101	15.3	**386A**	**382A**	17.4	0.69	56.0	2.20	55.0	2.17	89.0	3.50	92.0	3.62	0.35	1.69	0.93	23.2	14.1	1.65
	1.8750	98.425	3.8750	30.162	1.1875	30.302	1.1930	23.812	0.9375	3.6	0.14	3.2	0.13	129	137	20.9	**3779**	**3732**	22.2	0.87	61.0	2.40	55.0	2.17	84.0	3.31	90.0	3.54	0.34	1.77	0.97	30.1	17.4	1.73

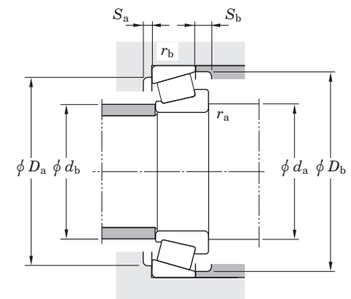
Note 1) SP indicates the specially chamfered from.

Koyo

TS type

d (47.625) ~ (50.800) mm
(1.8750) ~ (2.0000) inch





$P = XF_r + YF_a$ $P_0 = 0.5\,F_r + Y_0F_a$ or $P_0 = F_r$			
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

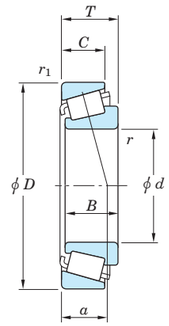
Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Constant	Axial load factors		Reference rating (kN) (500 rpm for 3 000 Hrs.)		Factor
d		D		T		B		C		r (min.)		r_1 (min.)		C_r	C_{0r}	C_u	Inner ring (Cone)	Outer ring (Cup)	a		d_a		d_b		D_a		D_b		e	Y_1	Y_0	Radial	Axial	K
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						
47.625	1.8750	101.600	4.0000	31.750	1.2500	29.370	1.1563	23.020	0.9063	3.6	0.14	3.2	0.13	143	143	21.9	**49580**	**49520**	24.1	0.95	62.0	2.44	59.0	2.32	88.0	3.46	96.0	3.78	0.40	1.50	0.82	33.4	22.8	1.46
	1.8750	101.600	4.0000	31.750	1.2500	31.750	1.2500	25.400	1.0000	6.4	0.25	3.2	0.13	143	143	21.9	**49581**	**49520**	24.1	0.95	68.0	2.68	59.0	2.32	88.0	3.46	96.0	3.78	0.40	1.50	0.82	33.4	22.8	1.46
	1.8750	101.600	4.0000	34.925	1.3750	36.068	1.4200	26.988	1.0625	3.6	0.14	3.2	0.13	164	159	24.8	**528**	**522**	22.2	0.87	62.0	2.44	55.0	2.17	89.0	3.50	95.0	3.74	0.29	2.10	1.16	38.4	18.7	2.05
	1.8750	101.600	4.0000	34.925	1.3750	36.068	1.4200	26.988	1.0625	1.6	0.06	3.2	0.13	164	159	24.8	**528A**	**522**	22.2	0.87	58.0	2.28	55.0	2.17	89.0	3.50	95.0	3.74	0.29	2.10	1.16	38.4	18.7	2.05
	1.8750	104.775	4.1250	30.162	1.1875	29.317	1.1542	24.605	0.9687	4.8	0.19	3.2	0.13	136	144	22.2	**463**	**453X**	23.6	0.93	65.0	2.56	56.0	2.20	92.0	3.62	98.0	3.86	0.34	1.79	0.98	31.7	18.2	1.74
	1.8750	104.775	4.1250	30.162	1.1875	29.317	1.1542	24.605	0.9687	0.8	0.03	3.2	0.13	136	144	22.2	**467**	**453X**	23.6	0.93	57.0	2.24	56.0	2.20	92.0	3.62	98.0	3.86	0.34	1.79	0.98	31.7	18.2	1.74
	1.8750	104.775	4.1250	30.162	1.1875	30.958	1.2188	23.812	0.9375	3.6	0.14	3.2	0.13	157	165	25.6	**45282**	**45220**	22.2	0.87	64.0	2.52	59.0	2.32	93.0	3.66	99.0	3.90	0.33	1.80	0.99	36.6	20.8	1.76
	1.8750	104.775	4.1250	36.512	1.4375	36.512	1.4375	28.575	1.1250	3.6	0.14	3.2	0.13	185	187	28.6	**59187**	**59412**	26.9	1.06	65.0	2.56	59.0	2.32	92.0	3.62	99.0	3.90	0.40	1.49	0.82	43.2	29.6	1.46
	1.8750	104.775	4.1250	36.512	1.4375	36.512	1.4375	28.575	1.1250	1.6	0.06	3.2	0.13	185	187	28.6	**59188**	**59412**	26.9	1.06	60.0	2.36	58.0	2.28	92.0	3.62	99.0	3.90	0.40	1.49	0.82	43.2	29.6	1.46
	1.8750	107.950	4.2500	27.783	1.0938	29.317	1.1542	22.225	0.8750	4.8	0.19	0.8	0.03	136	144	22.2	**463**	**453A**	23.6	0.93	65.0	2.56	56.0	2.20	97.0	3.82	100.0	3.94	0.34	1.79	0.98	31.7	18.2	1.74
	1.8750	107.950	4.2500	27.783	1.0938	29.317	1.1542	22.225	0.8750	0.8	0.03	0.8	0.03	136	144	22.2	**467**	**453A**	21.2	0.83	57.0	2.24	56.0	2.20	97.0	3.82	100.0	3.94	0.34	1.79	0.98	31.7	18.2	1.74
	1.8750	107.950	4.2500	36.512	1.4375	36.957	1.4550	28.575	1.1250	3.6	0.14	3.2	0.13	172	172	26.8	**536**	**532X**	23.9	0.94	62.0	2.44	56.0	2.20	94.0	3.70	100.0	3.94	0.30	2.03	1.11	40.4	20.5	1.97
	1.8750	117.475	4.6250	33.338	1.3125	31.750	1.2500	23.812	0.9375	3.6	0.14	0.8	0.03	162	152	23.2	**66187R**	**66461**	33.2	1.31	67.0	2.64	64.0	2.52	102.0	4.02	111.0	4.37	0.63	0.96	0.53	37.5	40.1	0.93
	1.8750	117.475	4.6250	33.338	1.3125	31.750	1.2500	23.812	0.9375	3.6	0.14	3.2	0.13	162	152	23.2	**66187R**	**66462**	33.2	1.31	67.0	2.64	64.0	2.52	100.0	3.94	111.0	4.37	0.63	0.96	0.53	37.5	40.1	0.93
	1.8750	120.040	4.7260	41.275	1.6250	41.275	1.6250	31.750	1.2500	3.6	0.14	3.2	0.13	218	217	34.0	**617**	**612A**	27.3	1.07	65.0	2.56	59.0	2.32	103.0	4.06	109.0	4.29	0.31	1.91	1.05	50.9	27.4	1.86
	1.8750	120.650	4.7500	41.275	1.6250	41.275	1.6250	31.750	1.2500	3.6	0.14	3.2	0.13	218	217	34.0	**617**	**612**	27.3	1.07	65.0	2.56	59.0	2.32	105.0	4.13	110.0	4.33	0.31	1.91	1.05	50.9	27.4	1.86
48.412	1.9060	93.264	3.6718	30.162	1.1875	30.302	1.1930	23.812	0.9375	3.6	0.14	3.2	0.13	129	137	20.9	**3781A**	**3720**	22.2	0.87	62.0	2.44	56.0	2.20	82.0	3.23	88.0	3.46	0.34	1.77	0.97	30.1	17.4	1.73
	1.9060	95.250	3.7500	30.162	1.1875	29.370	1.1563	23.020	0.9063	2.4	0.09	3.2	0.13	130	140	20.7	**HM804848**	**HM804810**	26.5	1.04	63.0	2.48	57.5	2.26	81.0	3.19	91.0	3.58	0.55	1.10	0.60	30.4	28.4	1.07
	1.9060	95.250	3.7500	30.162	1.1875	29.370	1.1563	23.020	0.9063	3.6	0.14	3.2	0.13	130	140	20.7	**HM804849**	**HM804810**	26.5	1.04	66.0	2.60	57.5	2.26	81.0	3.19	91.0	3.58	0.55	1.10	0.60	30.4	28.4	1.07
49.212	1.9375	88.900	3.5000	20.638	0.8125	22.225	0.8750	16.513	0.6501	0.8	0.03	1.2	0.05	92.9	87.3	13.3	**365S**	**362A**	16.1	0.63	55.0	2.17	54.0	2.13	81.0	3.19	84.0	3.31	0.32	1.88	1.03	21.4	11.7	1.83
	1.9375	93.264	3.6718	30.162	1.1875	30.302	1.1930	23.812	0.9375	3.6	0.14	0.8	0.03	129	137	20.9	**3781**	**3730**	22.2	0.87	62.0	2.44	56.0	2.20	84.0	3.31	88.0	3.46	0.34	1.77	0.97	30.1	17.4	1.73
	1.9375	104.775	4.1250	36.512	1.4375	36.512	1.4375	28.575	1.1250	3.6	0.14	3.2	0.13	176	195	29.3	**HM807044**	**HM807010**	29.3	1.15	69.0	2.72	63.0	2.48	89.0	3.50	100.0	3.94	0.49	1.23	0.68	41.3	34.4	1.20
	1.9375	111.125	4.3750	38.100	1.5000	36.957	1.4550	33.338	1.3125	3.6	0.14	3.2	0.13	172	172	26.8	**545**	**532**	25.5	1.00	65.0	2.56	59.0	2.32	95.0	3.74	100.0	3.94	0.30	2.03	1.11	40.4	20.5	1.97
	1.9375	114.300	4.5000	44.450	1.7500	44.450	1.7500	34.925	1.3750	3.6	0.14	3.2	0.13	237	230	35.1	**65390**	**65320**	31.7	1.25	70.0	2.76	60.0	2.36	97.0	3.82	107.0	4.21	0.43	1.40	0.77	55.4	40.7	1.36
	1.9375	114.300	4.5000	44.450	1.7500	44.450	1.7500	36.068	1.4200	3.6	0.14	3.2	0.13	265	263	35.4	**HH506348**	**HH506310**	30.6	1.20	71.0	2.80	61.0	2.40	97.0	3.82	107.0	4.21	0.40	1.49	0.82	62.0	42.6	1.46
	1.9375	122.238	4.8125	43.658	1.7188	43.764	1.7230	36.512	1.4375	1.2	0.05	3.2	0.13	276	318	43.6	**5562R**	**5535**	31.1	1.22	63.0	2.48	60.0	2.36	106.0	4.17	116.0	4.57	0.36	1.67	0.92	64.5	39.5	1.63
49.982	1.9678	107.950	4.2500	36.512	1.4375	36.957	1.4550	28.575	1.1250	3.6	0.14	3.2	0.13	172	172	26.8	**546**	**532X**	23.9	0.94	65.0	2.56	59.0	2.32	94.0	3.70	100.0	3.94	0.30	2.03	1.11	40.4	20.5	1.97
49.987	1.9680	92.075	3.6250	24.608	0.9688	25.400	1.0000	19.845	0.7813	2.4	0.09	0.8	0.03	107	119	17.9	**28579R**	**28521**	19.9	0.78	60.0	2.36	56.0	2.20	83.0	3.27	87.0	3.43	0.38	1.59	0.87	24.7	15.9	1.55
	1.9680	100.000	3.9370	25.000	0.9842	22.225	0.8750	21.824	0.8592	2.4	0.09	2.0	0.08	105	98.5	15.1	**378A**	**372**	21.5	0.85	60.0	2.36	56.0	2.20	86.0	3.39	90.0	3.54	0.34	1.77	0.97	24.1	14.0	1.73
	1.9680	114.300	4.5000	44.450	1.7500	44.450	1.7500	36.068	1.4200	3.6	0.14	0.8	0.03	265	263	35.4	**HH506349**	**HH506311**	30.6	1.20	71.0	2.80	61.0	2.40	99.0	3.90	107.0	4.21	0.40	1.49	0.82	62.0	42.6	1.46
50.000	1.9685	88.900	3.5000	20.638	0.8125	22.225	0.8750	16.513	0.6501	2.0	0.08	1.2	0.05	92.9	87.3	13.3	**365**	**362A**	16.1	0.63	58.0	2.28	55.0	2.17	81.0	3.19	84.0	3.31	0.32	1.88	1.03	21.4	11.7	1.83
	1.9685	88.900	3.5000	20.638	0.8125	22.225	0.8750	16.513	0.6501	2.4	0.09	1.2	0.05	92.9	87.3	13.3	**366**	**362A**	16.1	0.63	59.0	2.32	55.0	2.17	81.0	3.19	84.0	3.31	0.32	1.88	1.03	21.4	11.7	1.83
	1.9685	104.775	4.1250	30.162	1.1875	29.317	1.1542	24.605	0.9687	2.4	0.09	3.2	0.13	136	144	22.2	**465**	**453X**	23.6	0.93	62.0	2.44	58.0	2.28	92.0	3.62	98.0	3.86	0.34	1.79	0.98	31.7	18.2	1.74
	1.9685	104.775	4.1250	30.162	1.1875	29.317	1.1542	24.605	0.9687	3.6	0.14	3.2	0.13	136	144	22.2	**465A**	**453X**	23.6	0.93	64.5	2.54	58.0	2.28	92.0	3.62	98.0	3.86	0.34	1.79	0.98	31.7	18.2	1.74
	1.9685	110.000	4.3307	22.000	0.8661	21.996	0.8660	18.824	0.7411	0.8	0.03	1.2	0.05	109	116	17.7	**396**	**394A**	21.3	0.84	61.0	2.40	60.0	2.36	101.0	3.98	105.0	4.13	0.40	1.49	0.82	25.0	17.2	1.46
	1.9685	120.650	4.7500	41.275	1.6250	41.275	1.6250	31.750	1.2500	3.6	0.14	3.2	0.13	218	217	34.0	**618X**	**612**	27.3	1.07	67.0	2.64	61.0	2.40	105.0	4.13	110.0	4.33	0.31	1.91	1.05	50.9	27.4	1.86
50.800	2.0000	80.962	3.1875	18.258	0.7188	18.258	0.7188	14.288	0.5625	1.6	0.06	1.6	0.06	67.8	81.1	11.8	**L305649R**	**L305610**	16.0	0.63	58.0	2.28	56.0	2.20	73.0	2.87	77.0	3.03	0.35	1.69	0.93	15.5	9.45	1.65
	2.0000	82.550	3.2500	21.590	0.8500	22.225	0.8750	16.510	0.6500	3.6	0.14	1.2	0.05	77.0	84.3	12.5	**LM104949**	**LM104911**	16.4	0.65	62.0	2.44	55.0	2.17	75.0	2.95	78.0	3.07	0.31	1.97	1.08	17.8	9.25	1.92

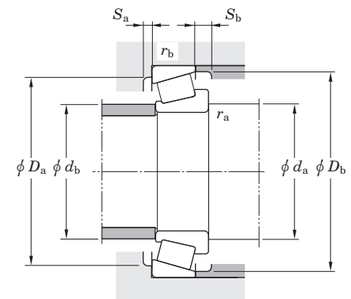
Note 1) SP indicates the specially chamfered from.

Koyo

TS type

d (50.800) mm
(2.0000) inch





$P = XF_r + YF_a$ $P_0 = 0.5\,F_r + Y_0F_a$ or $P_0 = F_r$			
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

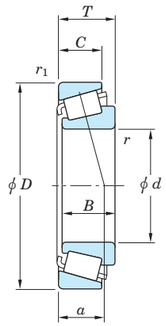
Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

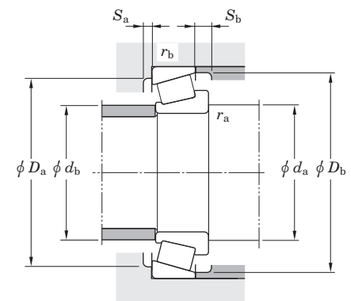
Boundary dimensions d mm	d inch	D mm	D inch	T mm	T inch	B mm	B inch	C mm	C inch	r (min.) mm	r (min.) inch	r_1 (min.) mm	r_1 (min.) inch	Basic load ratings (kN) C_r	Basic load ratings (kN) C_{0r}	Fatigue load limit (kN) C_u	Bearing No. Inner ring (Cone)	Bearing No. Outer ring (Cup)	Load center a mm	Load center a inch	Mounting dimensions d_a mm	d_a inch	d_b mm	d_b inch	D_a mm	D_a inch	D_b mm	D_b inch	Constant e	Axial load factors Y_1	Axial load factors Y_0	Reference rating (kN) (500 rpm for 3 000 Hrs.) Radial	Reference rating (kN) Axial	Factor K
50.800	2.0000	83.312	3.2800	17.462	0.6875	17.462	0.6875	13.495	0.5313	3.6	0.14	0.8	0.03	62.5	65.5	9.55	**18790**	**18721**	17.4	0.69	62.0	2.44	56.0	2.20	73.0	2.87	78.0	3.07	0.41	1.48	0.81	14.4	9.95	1.44
	2.0000	85.725	3.3750	19.050	0.7500	18.263	0.7190	12.700	0.5000	1.6	0.06	1.6	0.06	63.8	66.4	9.55	**18200**	**18337**	22.7	0.89	59.0	2.32	56.0	2.20	76.0	2.99	81.0	3.19	0.57	1.06	0.58	14.6	14.2	1.03
	2.0000	88.900	3.5000	17.462	0.6875	17.462	0.6875	13.495	0.5313	3.6	0.14	1.2	0.05	62.5	65.5	9.55	**18790**	**18724**	17.4	0.69	62.0	2.44	56.0	2.20	78.0	3.07	82.0	3.23	0.41	1.48	0.81	14.4	9.95	1.44
	2.0000	88.900	3.5000	20.638	0.8125	17.462	0.6875	16.670	0.6563	3.6	0.14	1.2	0.05	62.5	65.5	9.55	**18790**	**18723**	22.7	0.89	62.0	2.44	56.0	2.20	78.0	3.07	82.0	3.23	0.41	1.48	0.81	14.4	9.95	1.44
	2.0000	88.900	3.5000	20.638	0.8125	22.225	0.8750	16.513	0.6501	1.6	0.06	1.2	0.05	92.9	87.3	13.3	**368**	**362A**	16.1	0.63	58.0	2.28	56.0	2.20	81.0	3.19	84.0	3.31	0.32	1.88	1.03	21.4	11.7	1.83
	2.0000	88.900	3.5000	20.638	0.8125	22.225	0.8750	16.513	0.6501	3.6	0.14	1.2	0.05	92.9	87.3	13.3	**368A**	**362A**	16.1	0.63	62.0	2.44	56.0	2.20	81.0	3.19	84.0	3.31	0.32	1.88	1.03	21.4	11.7	1.83
	2.0000	88.900	3.5000	20.638	0.8125	22.225	0.8750	16.513	0.6501	5.2	0.20	1.2	0.05	92.9	87.3	13.3	**370A**	**362A**	16.1	0.63	65.0	2.56	56.0	2.20	81.0	3.19	84.0	3.31	0.32	1.88	1.03	21.4	11.7	1.83
	2.0000	89.980	3.5425	24.750	0.9744	25.400	1.0000	19.987	0.7869	3.6	0.14	2.4	0.09	107	119	17.9	**28580R**	**28520**	20.0	0.79	63.0	2.48	57.0	2.24	81.0	3.19	86.0	3.39	0.38	1.59	0.87	24.7	15.9	1.55
	2.0000	92.075	3.6250	24.608	0.9688	25.400	1.0000	19.845	0.7813	3.6	0.14	0.8	0.03	107	119	17.9	**28580R**	**28521**	19.9	0.78	63.0	2.48	57.0	2.24	83.0	3.27	87.0	3.43	0.38	1.59	0.87	24.7	15.9	1.55
	2.0000	92.075	3.6250	27.780	1.0937	25.400	1.0000	23.017	0.9062	3.6	0.14	2.4	0.09	107	119	17.9	**28580R**	**28523**	23.1	0.91	63.0	2.48	57.0	2.24	81.0	3.19	86.0	3.39	0.38	1.59	0.87	24.7	15.9	1.55
	2.0000	93.264	3.6718	20.638	0.8125	22.225	0.8750	15.083	0.5938	2.4	0.09	1.2	0.05	105	98.5	15.1	**375**	**374**	17.1	0.67	60.0	2.36	57.0	2.24	85.0	3.35	88.0	3.46	0.34	1.77	0.97	24.2	14.0	1.73
	2.0000	93.264	3.6718	30.162	1.1875	30.302	1.1930	23.812	0.9375	0.8	0.03	0.8	0.03	129	137	20.9	**3775**	**3730**	22.2	0.87	58.0	2.28	58.0	2.28	84.0	3.31	88.0	3.46	0.34	1.77	0.97	30.1	17.4	1.73
	2.0000	93.264	3.6718	30.162	1.1875	30.302	1.1930	23.812	0.9375	3.6	0.14	3.2	0.13	129	137	20.9	**3780**	**3720**	22.2	0.87	64.0	2.52	58.0	2.28	82.0	3.23	88.0	3.46	0.34	1.77	0.97	30.1	17.4	1.73
	2.0000	93.264	3.6718	30.162	1.1875	30.302	1.1930	23.812	0.9375	3.6	0.14	0.8	0.03	129	137	20.9	**3780**	**3730**	22.2	0.87	64.0	2.52	58.0	2.28	84.0	3.31	88.0	3.46	0.34	1.77	0.97	30.1	17.4	1.73
	2.0000	93.264	3.6718	30.162	1.1875	30.302	1.1930	23.812	0.9375	6.4	0.25	0.8	0.03	129	137	20.9	**3784**	**3730**	22.2	0.87	70.0	2.76	58.0	2.28	84.0	3.31	88.0	3.46	0.34	1.77	0.97	30.1	17.4	1.73
	2.0000	95.250	3.7500	27.783	1.0938	28.575	1.1250	22.225	0.8750	3.6	0.14	0.8	0.03	135	141	21.6	**33889**	**33822**	20.4	0.80	64.0	2.52	58.0	2.28	86.0	3.39	90.0	3.54	0.33	1.82	1.00	31.4	17.7	1.77
	2.0000	96.838	3.8125	21.000	0.8268	21.946	0.8640	15.875	0.6250	1.6	0.06	0.8	0.03	101	101	15.3	**385AS**	**382A**	17.4	0.69	60.0	2.36	58.0	2.28	89.0	3.50	92.0	3.62	0.35	1.69	0.93	23.2	14.1	1.65
	2.0000	96.838	3.8125	21.000	0.8268	21.946	0.8640	15.875	0.6250	0.8	0.03	0.8	0.03	101	101	15.3	**385AX**	**382A**	17.4	0.69	59.0	2.32	58.0	2.28	89.0	3.50	92.0	3.62	0.35	1.69	0.93	23.2	14.1	1.65
	2.0000	96.838	3.8125	22.225	0.8750	22.225	0.8750	19.050	0.7500	3.6	0.14	1.6	0.06	105	98.5	15.1	**375S**	**372A**	21.5	0.85	63.0	2.48	57.0	2.24	86.0	3.39	90.0	3.54	0.34	1.77	0.97	24.1	14.0	1.73
	2.0000	96.838	3.8125	25.400	1.0000	21.946	0.8640	20.274	0.7982	2.4	0.09	2.4	0.09	101	101	15.3	**385A**	**382S**	21.8	0.86	61.0	2.40	60.0	2.36	87.0	3.43	91.0	3.58	0.35	1.69	0.93	23.2	14.1	1.65
	2.0000	97.630	3.8437	24.608	0.9688	24.608	0.9688	19.446	0.7656	3.6	0.14	0.8	0.03	113	131	19.7	**28678**	**28622**	21.2	0.83	65.0	2.56	58.0	2.28	88.0	3.46	92.0	3.62	0.40	1.49	0.82	26.1	17.9	1.45
	2.0000	98.425	3.8750	30.162	1.1875	30.302	1.1930	23.812	0.9375	3.6	0.14	3.2	0.13	129	137	20.9	**3780**	**3732**	22.2	0.87	64.0	2.52	58.0	2.28	84.0	3.31	90.0	3.54	0.34	1.77	0.97	30.1	17.4	1.73
	2.0000	101.600	4.0000	31.750	1.2500	31.750	1.2500	25.400	1.0000	3.6	0.14	3.2	0.13	143	143	21.9	**49585**	**49520**	24.1	0.95	66.0	2.60	59.0	2.32	88.0	3.46	96.0	3.78	0.40	1.50	0.82	33.4	22.8	1.46
	2.0000	101.600	4.0000	34.925	1.3750	31.750	1.2500	28.575	1.1250	3.6	0.14	3.2	0.13	143	143	21.9	**49585**	**49521**	27.3	1.07	66.0	2.60	59.0	2.32	88.0	3.46	96.0	3.78	0.40	1.50	0.82	33.4	22.8	1.46
	2.0000	101.600	4.0000	34.925	1.3750	36.068	1.4200	26.988	1.0625	0.8	0.03	3.2	0.13	164	159	24.8	**529**	**522**	22.2	0.87	59.0	2.32	58.0	2.28	89.0	3.50	95.0	3.74	0.29	2.10	1.16	38.4	18.7	2.05
	2.0000	101.600	4.0000	34.925	1.3750	36.068	1.4200	26.988	1.0625	3.6	0.14	3.2	0.13	164	159	24.8	**529X**	**522**	22.2	0.87	65.0	2.56	58.0	2.28	89.0	3.50	95.0	3.74	0.29	2.10	1.16	38.4	18.7	2.05
	2.0000	104.775	4.1250	30.162	1.1875	30.958	1.2188	23.812	0.9375	6.4	0.25	3.2	0.13	157	165	25.6	**45284**	**45220**	22.2	0.87	71.0	2.80	59.0	2.32	93.0	3.66	99.0	3.90	0.33	1.80	0.99	36.6	20.8	1.76
	2.0000	104.775	4.1250	30.162	1.1875	30.958	1.2188	23.812	0.9375	6.4	0.25	0.8	0.03	157	165	25.6	**45284**	**45221**	22.2	0.87	71.0	2.80	59.0	2.32	95.0	3.74	99.0	3.90	0.33	1.80	0.99	36.6	20.8	1.76
	2.0000	104.775	4.1250	30.162	1.1875	30.958	1.2188	23.812	0.9375	2.4	0.09	0.8	0.03	157	165	25.6	**45285**	**45221**	22.2	0.87	63.0	2.48	59.0	2.32	95.0	3.74	99.0	3.90	0.33	1.80	0.99	36.6	20.8	1.76
	2.0000	104.775	4.1250	36.512	1.4375	36.512	1.4375	28.575	1.1250	3.6	0.14	3.2	0.13	185	187	28.6	**59200**	**59412**	26.9	1.06	68.0	2.68	61.0	2.40	92.0	3.62	99.0	3.90	0.40	1.49	0.82	43.2	29.6	1.46
	2.0000	104.775	4.1250	36.512	1.4375	36.512	1.4375	28.575	1.1250	3.6	0.14	3.2	0.13	176	195	29.3	**HM807046**	**HM807010**	29.3	1.15	70.0	2.76	63.0	2.48	89.0	3.50	100.0	3.94	0.49	1.23	0.68	41.3	34.4	1.20
	2.0000	104.775	4.1250	39.688	1.5625	40.157	1.5810	33.338	1.3125	3.6	0.14	3.2	0.13	189	211	32.3	**4580**	**4535**	27.3	1.07	67.0	2.64	61.0	2.40	90.0	3.54	99.0	3.90	0.34	1.79	0.98	44.4	25.4	1.74
	2.0000	107.950	4.2500	32.558	1.2818	29.317	1.1542	27.000	1.0630	0.8	0.03	0.8	0.03	136	144	22.2	**455**	**452**	28.3	1.11	60.0	2.36	59.0	2.32	99.0	3.90	100.0	3.94	0.34	1.79	0.98	31.7	18.2	1.74
	2.0000	107.950	4.2500	36.512	1.4375	36.957	1.4550	28.575	1.1250	3.6	0.14	3.2	0.13	172	172	26.8	**537**	**532X**	23.9	0.94	65.0	2.56	59.0	2.32	94.0	3.70	100.0	3.94	0.30	2.03	1.11	40.4	20.5	1.97
	2.0000	110.000	4.3307	22.000	0.8661	21.996	0.8660	18.824	0.7411	7.9	0.31	7.9	0.31	109	116	17.7	**398**	**394**	21.3	0.84	62.0	2.44	61.0	2.40	102.0	4.02	104.5	4.11	0.40	1.49	0.82	25.0	17.2	1.46
	2.0000	110.000	4.3307	22.000	0.8661	21.996	0.8660	18.824	0.7411	0.8	0.03	3.2	0.13	109	116	17.7	**398**	**394AS**	21.3	0.84	62.0	2.44	61.0	2.40	99.0	3.90	105.0	4.13	0.40	1.49	0.82	25.0	17.2	1.46
	2.0000	110.000	4.3307	27.795	1.0943	29.317	1.1542	27.000	1.0630	3.6	0.14	2.0	0.08	136	144	22.2	**455S**	**454**	21.2	0.83	65.0	2.56	59.0	2.32	96.0	3.78	100.0	3.94	0.34	1.79	0.98	31.7	18.2	1.74
	2.0000	111.125	4.3750	38.895	1.5313	40.157	1.5810	32.545	1.2813	3.6	0.14	3.2	0.13	189	211	32.3	**4580**	**4536**	26.5	1.04	67.0	2.64	61.0	2.40	96.0	3.78	102.0	4.02	0.34	1.79	0.98	44.4	25.4	1.74
	2.0000	112.712	4.4375	30.162	1.1875	30.048	1.1830	23.812	0.9375	3.6	0.14	0.8	0.03	139	164	25.1	**3975**	**3925**	25.9	1.02	68.0	2.68	61.0	2.40	101.0	3.98	106.0	4.17	0.40	1.49	0.82	32.4	22.3	1.46
	2.0000	112.712	4.4375	30.162	1.1875	30.162	1.1875	23.812	0.9375	3.6	0.14	3.2	0.13	184	207	32.1	**39575**	**39520**	23.3	0.92	68.0	2.68	61.0	2.40	101.0	3.98	107.0	4.21	0.34	1.77	0.97	42.6	24.7	1.72
	2.0000	117.475	4.6250	33.338	1.3125	31.750	1.2500	23.812	0.9375	3.6	0.14	0.8	0.03	162	152	23.2	**66200R**	**66461**	33.2	1.31	71.0	2.80	65.0	2.56	102.0	4.02	111.0	4.37	0.63	0.96	0.53	37.5	40.1	0.93

Note 1) SP indicates the specially chamfered from.

TS type

d (50.800) ~ (53.975) mm
(2.0000) ~ (2.1250) inch





$P = XF_r + YF_a$ $P_0 = 0.5\,F_r + Y_0F_a$ or $P_0 = F_r$			
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

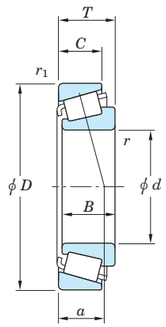
Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Constant	Axial load factors		Reference rating (kN) (500 rpm for 3 000 Hrs.)		Factor
d		D		T		B		C		r (min.)		r_1 (min.)		C_r	C_{0r}	C_u	Inner ring (Cone)	Outer ring (Cup)	a		d_a		d_b		D_a		D_b		e	Y_1	Y_0	Radial	Axial	K
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						
50.800	2.0000	120.000	4.7244	40.023	1.5757	41.275	1.6250	30.988	1.2200	3.6	0.14	3.0	0.12	218	217	34.0	**619**	**613X**	27.3	1.07	67.0	2.64	61.0	2.40	104.0	4.09	110.0	4.33	0.31	1.91	1.05	50.9	27.4	1.86
	2.0000	120.040	4.7260	41.275	1.6250	41.275	1.6250	31.750	1.2500	3.6	0.14	1.6	0.06	218	217	34.0	**619**	**612A**	27.3	1.07	67.0	2.64	61.0	2.40	103.0	4.06	109.0	4.29	0.31	1.91	1.05	50.9	27.4	1.86
	2.0000	120.251	4.7343	44.450	1.7500	43.764	1.7230	36.512	1.4375	1.2	0.05	3.2	0.13	276	318	43.6	**5565R**	**5520**	31.9	1.26	67.0	2.64	65.0	2.56	110.0	4.33	116.0	4.57	0.36	1.67	0.92	64.5	39.5	1.63
	2.0000	120.650	4.7500	41.275	1.6250	41.275	1.6250	31.750	1.2500	3.6	0.14	3.2	0.13	218	217	34.0	**619**	**612**	27.3	1.07	67.0	2.64	61.0	2.40	105.0	4.13	110.0	4.33	0.31	1.91	1.05	50.9	27.4	1.86
	2.0000	122.238	4.8125	38.100	1.5000	36.678	1.4440	30.162	1.1875	2.4	0.09	3.2	0.13	202	223	34.8	**555**	**553X**	28.7	1.13	66.0	2.60	62.0	2.44	108.0	4.25	115.0	4.53	0.35	1.73	0.95	47.1	27.9	1.69
	2.0000	122.238	4.8125	43.658	1.7188	43.764	1.7230	36.512	1.4375	1.2	0.05	3.2	0.13	276	318	43.6	**5565R**	**5535**	31.1	1.22	67.0	2.64	65.0	2.56	106.0	4.17	116.0	4.57	0.36	1.67	0.92	64.5	39.5	1.63
	2.0000	127.000	5.0000	36.512	1.4375	36.512	1.4375	26.988	1.0625	3.6	0.14	1.6	0.06	209	235	36.2	**HM813836**	**HM813811**	32.9	1.30	72.0	2.83	66.0	2.60	113.0	4.45	121.0	4.76	0.50	1.20	0.66	48.6	41.7	1.17
	2.0000	127.000	5.0000	44.450	1.7500	44.450	1.7500	34.925	1.3750	3.6	0.14	3.2	0.13	259	269	41.0	**65200**	**65500**	35.2	1.39	75.0	2.95	69.0	2.72	107.0	4.21	119.0	4.69	0.49	1.23	0.68	60.6	50.5	1.20
	2.0000	127.000	5.0000	44.450	1.7500	44.450	1.7500	34.925	1.3750	3.6	0.14	1.2	0.05	259	269	41.0	**65200**	**65501**	35.2	1.39	75.0	2.95	69.0	2.72	110.0	4.33	120.0	4.72	0.49	1.23	0.68	60.6	50.5	1.20
	2.0000	136.525	5.3750	46.038	1.8125	44.450	1.7500	36.512	1.4375	3.6	0.14	3.2	0.13	259	269	41.0	**65200**	**65537**	36.7	1.44	75.0	2.95	69.0	2.72	110.0	4.33	120.0	4.72	0.49	1.23	0.68	60.6	50.5	1.20
51.592	2.0312	88.900	3.5000	20.638	0.8125	22.225	0.8750	16.513	0.6501	2.0	0.08	1.2	0.05	92.9	87.3	13.3	**368S**	**362A**	16.1	0.63	59.0	2.32	56.0	2.20	81.0	3.19	84.0	3.31	0.32	1.88	1.03	21.4	11.7	1.83
	2.0312	100.000	3.9370	25.000	0.9842	22.225	0.8750	21.824	0.8592	1.6	0.06	2.0	0.08	105	98.5	15.1	**377S**	**372**	21.5	0.85	60.0	2.36	58.0	2.28	86.0	3.39	90.0	3.54	0.34	1.77	0.97	24.1	14.0	1.73
52.388	2.0625	92.075	3.6250	24.608	0.9688	25.400	1.0000	19.845	0.7813	3.6	0.14	0.8	0.03	107	119	17.9	**28584R**	**28521**	19.9	0.78	65.0	2.56	58.0	2.28	83.0	3.27	87.0	3.43	0.38	1.59	0.87	24.7	15.9	1.55
	2.0625	93.264	3.6718	30.162	1.1875	30.302	1.1930	23.812	0.9375	2.4	0.09	0.8	0.03	129	137	20.9	**3767**	**3730**	22.2	0.87	63.0	2.48	59.0	2.32	84.0	3.31	88.0	3.46	0.34	1.77	0.97	30.1	17.4	1.73
	2.0625	95.250	3.7500	27.783	1.0938	28.575	1.1250	22.225	0.8750	1.6	0.06	0.8	0.03	135	141	21.6	**33890**	**33822**	20.4	0.80	61.0	2.40	59.0	2.32	86.0	3.39	90.0	3.54	0.33	1.82	1.00	31.4	17.7	1.77
	2.0625	95.250	3.7500	27.783	1.0938	28.575	1.1250	22.225	0.8750	3.6	0.14	0.8	0.03	135	141	21.6	**33891**	**33822**	20.4	0.80	66.0	2.60	59.0	2.32	86.0	3.39	90.0	3.54	0.33	1.82	1.00	31.4	17.7	1.77
	2.0625	100.000	3.9370	25.000	0.9842	22.225	0.8750	21.824	0.8592	2.4	0.09	2.0	0.08	105	98.5	15.1	**377**	**372**	21.5	0.85	62.0	2.44	58.0	2.28	86.0	3.39	90.0	3.54	0.34	1.77	0.97	24.1	14.0	1.73
	2.0625	100.000	3.9370	25.000	0.9842	22.225	0.8750	21.824	0.8592	4.8	0.19	2.0	0.08	105	98.5	15.1	**377A**	**372**	21.5	0.85	67.0	2.64	58.0	2.28	86.0	3.39	90.0	3.54	0.34	1.77	0.97	24.1	14.0	1.73
	2.0625	103.188	4.0625	38.100	1.5000	36.957	1.4550	30.162	1.1875	3.6	0.14	3.2	0.13	172	172	26.8	**540**	**533A**	23.9	0.94	71.0	2.80	60.0	2.36	95.0	3.74	100.0	3.94	0.30	2.03	1.11	40.4	20.5	1.97
	2.0625	104.775	4.1250	30.162	1.1875	29.317	1.1542	24.605	0.9687	1.6	0.06	3.2	0.13	136	144	22.2	**468**	**453X**	23.6	0.93	62.0	2.44	60.0	2.36	92.0	3.62	98.0	3.86	0.34	1.79	0.98	31.7	18.2	1.74
	2.0625	107.950	4.2500	36.512	1.4375	36.957	1.4550	28.575	1.1250	3.6	0.14	1.6	0.06	172	172	26.8	**540**	**532X**	23.9	0.94	71.0	2.80	60.0	2.36	94.0	3.70	100.0	3.94	0.30	2.03	1.11	40.4	20.5	1.97
53.975	2.1250	88.900	3.5000	19.050	0.7500	19.050	0.7500	13.492	0.5312	2.4	0.09	2.0	0.08	79.1	86.8	12.6	**LM806649**	**LM806610**	21.5	0.85	63.0	2.48	60.0	2.36	80.0	3.15	85.0	3.35	0.55	1.10	0.60	18.1	16.9	1.07
	2.1250	95.250	3.7500	27.783	1.0938	28.575	1.1250	22.225	0.8750	1.6	0.06	0.8	0.03	135	141	21.6	**33895**	**33822**	20.4	0.80	63.0	2.48	60.0	2.36	86.0	3.39	90.0	3.54	0.33	1.82	1.00	31.4	17.7	1.77
	2.1250	100.000	3.9370	21.000	0.8268	21.946	0.8640	17.826	0.7018	1.6	0.06	2.0	0.08	101	101	15.3	**389AS**	**383A**	17.4	0.69	62.0	2.44	60.0	2.36	89.0	3.50	93.0	3.66	0.35	1.69	0.93	23.2	14.1	1.65
	2.1250	104.775	4.1250	30.162	1.1875	29.317	1.1542	24.605	0.9687	3.6	0.14	3.2	0.13	136	144	22.2	**456**	**453X**	23.6	0.93	68.0	2.68	61.0	2.40	92.0	3.62	98.0	3.86	0.34	1.79	0.98	31.7	18.2	1.74
	2.1250	104.775	4.1250	30.162	1.1875	30.958	1.2188	23.812	0.9375	0.8	0.03	0.8	0.03	157	165	25.6	**45287**	**45221**	22.2	0.87	62.0	2.44	62.0	2.44	95.0	3.74	99.0	3.90	0.33	1.80	0.99	36.6	20.8	1.76
	2.1250	104.775	4.1250	36.512	1.4375	36.512	1.4375	28.575	1.1250	3.6	0.14	3.2	0.13	176	195	29.3	**HM807049**	**HM807010**	29.3	1.15	73.0	2.87	63.0	2.48	89.0	3.50	100.0	3.94	0.49	1.23	0.68	41.3	34.4	1.20
	2.1250	104.775	4.1250	39.688	1.5625	40.157	1.5810	33.338	1.3125	3.6	0.14	3.2	0.13	189	211	32.3	**4595**	**4535**	27.3	1.07	70.0	2.76	63.0	2.48	90.0	3.54	99.0	3.90	0.34	1.79	0.98	44.4	25.4	1.74
	2.1250	107.950	4.2500	27.795	1.0943	29.317	1.1542	27.000	1.0630	3.6	0.14	0.8	0.03	136	144	22.2	**456**	**453**	23.6	0.93	68.0	2.68	61.0	2.40	99.0	3.90	100.0	3.94	0.34	1.79	0.98	31.7	18.2	1.74
	2.1250	107.950	4.2500	36.512	1.4375	36.957	1.4550	28.575	1.1250	3.6	0.14	3.2	0.13	172	172	26.8	**539**	**532X**	23.9	0.94	68.0	2.68	61.0	2.40	94.0	3.70	100.0	3.94	0.30	2.03	1.11	40.4	20.5	1.97
	2.1250	107.950	4.2500	36.512	1.4375	36.957	1.4550	28.575	1.1250	5.6	0.22	3.2	0.13	172	172	26.8	**539A**	**532X**	23.9	0.94	72.0	2.83	61.0	2.40	94.0	3.70	100.0	3.94	0.30	2.03	1.11	40.4	20.5	1.97
	2.1250	117.475	4.6250	33.338	1.3125	31.750	1.2500	23.812	0.9375	3.6	0.14	3.2	0.13	162	152	23.2	**66212R**	**66462**	33.2	1.31	73.0	2.87	67.0	2.64	100.0	3.94	111.0	4.37	0.63	0.96	0.53	37.5	40.1	0.93
	2.1250	119.985	4.7238	32.751	1.2894	30.162	1.1875	26.949	1.0610	3.6	0.14	0.8	0.03	184	207	32.1	**39578**	**39528**	23.3	0.92	70.0	2.76	64.0	2.52	107.0	4.21	110.0	4.33	0.34	1.77	0.97	42.6	24.7	1.72
	2.1250	120.650	4.7500	41.275	1.6250	41.275	1.6250	31.750	1.2500	3.6	0.14	3.2	0.13	218	217	34.0	**621**	**612**	27.3	1.07	70.0	2.76	63.0	2.48	105.0	4.13	110.0	4.33	0.31	1.91	1.05	50.9	27.4	1.86
	2.1250	120.650	4.7500	41.275	1.6250	41.275	1.6250	31.750	1.2500	0.8	0.03	0.8	0.03	218	217	34.0	**624**	**612S**	27.3	1.07	64.0	2.52	63.0	2.48	107.0	4.21	110.0	4.33	0.31	1.91	1.05	50.9	27.4	1.86
	2.1250	122.238	4.8125	33.338	1.3125	31.750	1.2500	23.812	0.9375	3.6	0.14	3.2	0.13	160	153	23.3	**66584**	**66520**	35.4	1.39	75.0	2.95	68.0	2.68	105.0	4.13	116.0	4.57	0.67	0.90	0.50	37.1	42.2	0.88
	2.1250	122.238	4.8125	43.658	1.7188	43.764	1.7230	36.512	1.4375	1.2	0.05	3.2	0.13	276	318	43.6	**5577R**	**5535**	31.1	1.22	67.0	2.64	65.0	2.56	106.0	4.17	116.0	4.57	0.36	1.67	0.92	64.5	39.5	1.63
	2.1250	122.238	4.8125	43.658	1.7188	43.764	1.7230	36.512	1.4375	3.6	0.14	3.2	0.13	276	318	43.6	**5578R**	**5535**	31.1	1.22	73.0	2.87	67.0	2.64	106.0	4.17	116.0	4.57	0.36	1.67	0.92	64.5	39.5	1.63
	2.1250	123.825	4.8750	38.100	1.5000	36.678	1.4440	30.162	1.1875	3.6	0.14	3.2	0.13	202	223	34.8	**557S**	**552A**	28.7	1.13	71.0	2.80	65.0	2.56	109.0	4.29	116.0	4.57	0.35	1.73	0.95	47.1	27.9	1.69

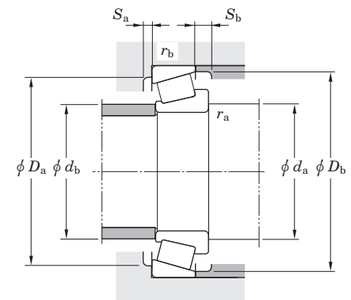
Note 1) SP indicates the specially chamfered from.

Koyo

TS type

d (53.975) ~ (57.150) mm
(2.1250) ~ (2.2500) inch





$P = XF_r + YF_a$ $P_0 = 0.5\,F_r + Y_0F_a$ or $P_0 = F_r$			
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Con-stant	Axial load factors		Reference rating (kN) (500 rpm for 3 000 Hrs.)		Factor
d		D		T		B		C		r (min.)		r_1 (min.)		C_r	C_{0r}	C_u	Inner ring (Cone)	Outer ring (Cup)	a		d_a		d_b		D_a		D_b		e	Y_1	Y_0	Radial	Axial	K
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						
53.975	2.1250	127.000	5.0000	44.450	1.7500	44.450	1.7500	34.925	1.3750	3.6	0.14	3.2	0.13	259	269	41.0	**65212**	**65500**	35.2	1.39	77.0	3.03	71.0	2.80	107.0	4.21	119.0	4.69	0.49	1.23	0.68	60.6	50.5	1.20
	2.1250	130.175	5.1250	41.275	1.6250	41.275	1.6250	31.750	1.2500	3.6	0.14	3.2	0.13	246	267	41.8	**636**	**633**	30.3	1.19	73.0	2.87	67.0	2.64	116.0	4.57	124.0	4.88	0.36	1.66	0.91	57.4	35.5	1.62
54.813	2.1580	135.755	5.3447	53.975	2.1250	56.007	2.2050	44.450	1.7500	0.8	0.03	3.2	0.13	333	357	49.3	**6380**	**6320**	34.8	1.37	70.0	2.76	68.0	2.68	117.0	4.61	126.0	4.96	0.32	1.85	1.02	78.4	43.5	1.80
54.986	2.1648	97.630	3.8437	24.608	0.9688	24.608	0.9688	19.446	0.7656	2.4	0.09	0.8	0.03	113	131	19.7	**28680X**	**28622**	21.2	0.83	65.0	2.56	58.0	2.28	88.0	3.46	92.0	3.62	0.40	1.49	0.82	26.1	17.9	1.45
54.988	2.1649	104.775	4.1250	30.162	1.1875	29.317	1.1542	24.605	0.9687	2.4	0.09	3.2	0.13	136	144	22.2	**466**	**453X**	23.6	0.93	67.0	2.64	61.0	2.40	92.0	3.62	98.0	3.86	0.34	1.79	0.98	31.7	18.2	1.74
	2.1649	107.950	4.2500	27.783	1.0938	29.317	1.1542	22.225	0.8750	2.4	0.09	0.8	0.03	136	144	22.2	**466**	**453A**	23.6	0.93	67.0	2.64	61.0	2.40	97.0	3.82	100.0	3.94	0.34	1.79	0.98	31.7	18.2	1.74
	2.1649	110.000	4.3307	27.795	1.0943	29.317	1.1542	27.000	1.0630	2.4	0.09	2.0	0.08	136	144	22.2	**466**	**454**	25.7	1.01	67.0	2.64	61.0	2.40	96.0	3.78	100.0	3.94	0.34	1.79	0.98	31.7	18.2	1.74
54.991	2.1650	135.755	5.3447	53.975	2.1250	56.007	2.2050	44.450	1.7500	3.6	0.14	3.2	0.13	333	357	49.3	**6381**	**6320**	34.8	1.37	76.0	2.99	70.0	2.76	117.0	4.61	126.0	4.96	0.32	1.85	1.02	78.4	43.5	1.80
55.000	2.1654	96.838	3.8125	21.000	0.8268	21.946	0.8640	15.875	0.6250	2.4	0.09	0.8	0.03	101	101	15.3	**385**	**382A**	17.4	0.69	65.0	2.56	61.0	2.40	89.0	3.50	92.0	3.62	0.35	1.69	0.93	23.2	14.1	1.65
	2.1654	96.838	3.8125	21.000	0.8268	21.946	0.8640	15.875	0.6250	3.6	0.14	0.8	0.03	101	101	15.3	**385X**	**382A**	17.4	0.69	67.0	2.64	61.0	2.40	89.0	3.50	92.0	3.62	0.35	1.69	0.93	23.2	14.1	1.65
	2.1654	98.425	3.8750	21.000	0.8268	21.946	0.8640	17.826	0.7018	2.4	0.09	0.8	0.03	101	101	15.3	**385**	**382**	17.4	0.69	65.0	2.56	61.0	2.40	89.0	3.50	92.0	3.62	0.35	1.69	0.93	23.2	14.1	1.65
	2.1654	100.000	3.9370	25.400	1.0000	21.946	0.8640	22.225	0.8750	2.4	0.09	1.2	0.05	101	101	15.3	**385**	**383X**	21.8	0.86	65.0	2.56	61.0	2.40	87.0	3.43	93.0	3.66	0.35	1.69	0.93	23.2	14.1	1.65
	2.1654	120.000	4.7244	29.002	1.1418	29.007	1.1420	23.444	0.9230	0.8	0.03	3.2	0.13	148	161	25.0	**475**	**472A**	24.9	0.98	67.0	2.64	66.0	2.60	106.0	4.17	114.0	4.49	0.38	1.56	0.86	34.5	22.7	1.52
	2.1654	120.000	4.7244	29.002	1.1418	29.007	1.1420	23.444	0.9230	2.0	0.08	3.2	0.13	148	161	25.0	**475X**	**472A**	24.9	0.98	69.0	2.72	66.0	2.60	106.0	4.17	114.0	4.49	0.38	1.56	0.86	34.5	22.7	1.52
	2.1654	120.650	4.7500	41.275	1.6250	41.275	1.6250	31.750	1.2500	0.8	0.03	3.2	0.13	218	217	34.0	**622X**	**612**	27.3	1.07	66.0	2.60	64.0	2.52	105.0	4.13	110.0	4.33	0.31	1.91	1.05	50.9	27.4	1.86
55.006	2.1656	120.650	4.7500	41.275	1.6250	41.275	1.6250	31.750	1.2500	0.8	0.03	3.2	0.13	218	217	34.0	**622A**	**612**	27.3	1.07	66.0	2.60	64.0	2.52	105.0	4.13	110.0	4.33	0.31	1.91	1.05	50.9	27.4	1.86
55.474	2.1840	96.838	3.8125	21.000	0.8268	21.946	0.8640	15.875	0.6250	2.4	0.09	0.8	0.03	101	101	15.3	**386**	**382A**	17.4	0.69	65.0	2.56	61.0	2.40	89.0	3.50	92.0	3.62	0.35	1.69	0.93	23.2	14.1	1.65
55.562	2.1875	97.630	3.8437	24.608	0.9688	24.608	0.9688	19.446	0.7656	3.6	0.14	0.8	0.03	113	131	19.7	**28680**	**28622**	21.2	0.83	68.0	2.68	62.0	2.44	88.0	3.46	92.0	3.62	0.40	1.49	0.82	26.1	17.9	1.45
	2.1875	104.775	4.1250	30.162	1.1875	29.317	1.1542	24.605	0.9687	2.4	0.09	3.2	0.13	136	144	22.2	**466S**	**453X**	23.6	0.93	67.0	2.64	61.0	2.40	92.0	3.62	98.0	3.86	0.34	1.79	0.98	31.7	18.2	1.74
	2.1875	122.238	4.8125	43.658	1.7188	43.764	1.7230	36.512	1.4375	1.2	0.05	3.2	0.13	276	318	43.6	**5566R**	**5535**	31.1	1.22	70.0	2.76	68.0	2.68	106.0	4.17	116.0	4.57	0.36	1.67	0.92	64.5	39.5	1.63
	2.1875	127.000	5.0000	36.512	1.4375	36.512	1.4375	26.988	1.0625	3.6	0.14	3.2	0.13	209	235	36.2	**HM813840**	**HM813810**	32.9	1.30	76.0	2.99	70.0	2.76	111.0	4.37	121.0	4.76	0.50	1.20	0.66	48.6	41.7	1.17
55.575	2.1880	96.838	3.8125	21.000	0.8268	21.946	0.8640	15.875	0.6250	2.4	0.09	0.8	0.03	101	101	15.3	**389**	**382A**	17.4	0.69	65.0	2.56	61.0	2.40	89.0	3.50	92.0	3.62	0.35	1.69	0.93	23.2	14.1	1.65
	2.1880	96.838	3.8125	21.000	0.8268	26.256	1.0337	15.875	0.6250	2.4	0.09	0.8	0.03	101	101	15.3	**389S**	**382A**	17.4	0.69	65.0	2.56	61.0	2.40	89.0	3.50	92.0	3.62	0.35	1.69	0.93	23.2	14.1	1.65
55.753	2.1950	122.238	4.8125	33.338	1.3125	31.750	1.2500	23.812	0.9375	SP[1)]	SP[1)]	3.2	0.13	160	153	23.3	**66583**	**66520**	35.4	1.39	70.0	2.76	63.0	2.48	105.0	4.13	116.0	4.57	0.67	0.90	0.50	37.1	42.2	0.88
57.150	2.2500	96.838	3.8125	21.000	0.8268	21.946	0.8640	15.875	0.6250	2.4	0.09	0.8	0.03	101	101	15.3	**387**	**382A**	17.4	0.69	66.0	2.60	62.0	2.44	89.0	3.50	92.0	3.62	0.35	1.69	0.93	23.2	14.1	1.65
	2.2500	96.838	3.8125	21.000	0.8268	21.946	0.8640	15.875	0.6250	3.6	0.14	0.8	0.03	101	101	15.3	**387A**	**382A**	17.4	0.69	69.0	2.72	62.0	2.44	89.0	3.50	92.0	3.62	0.35	1.69	0.93	23.2	14.1	1.65
	2.2500	96.838	3.8125	21.000	0.8268	21.946	0.8640	15.875	0.6250	5.2	0.20	0.8	0.03	101	101	15.3	**387AS**	**382A**	17.4	0.69	72.0	2.83	62.0	2.44	89.0	3.50	92.0	3.62	0.35	1.69	0.93	23.2	14.1	1.65
	2.2500	96.838	3.8125	21.000	0.8268	21.946	0.8640	15.875	0.6250	0.8	0.03	0.8	0.03	101	101	15.3	**387S**	**382A**	17.4	0.69	63.0	2.48	62.0	2.44	89.0	3.50	92.0	3.62	0.35	1.69	0.93	23.2	14.1	1.65
	2.2500	98.425	3.8750	21.000	0.8268	21.946	0.8640	17.826	0.7018	2.4	0.09	0.8	0.03	101	101	15.3	**387**	**382**	17.4	0.69	66.0	2.60	62.0	2.44	89.0	3.50	92.0	3.62	0.35	1.69	0.93	23.2	14.1	1.65
	2.2500	98.425	3.8750	24.608	0.9688	24.608	0.9688	19.446	0.7656	3.6	0.14	0.8	0.03	113	131	19.7	**28682**	**28623**	21.2	0.83	70.0	2.76	63.0	2.48	88.0	3.46	93.0	3.66	0.40	1.49	0.82	26.1	17.9	1.45
	2.2500	104.775	4.1250	30.162	1.1875	29.317	1.1542	24.605	0.9687	2.4	0.09	3.2	0.13	136	144	22.2	**462**	**453X**	23.6	0.93	67.0	2.64	63.0	2.48	92.0	3.62	98.0	3.86	0.34	1.79	0.98	31.7	18.2	1.74
	2.2500	104.775	4.1250	30.162	1.1875	29.317	1.1542	24.605	0.9687	3.6	0.14	3.2	0.13	136	144	22.2	**469**	**453X**	23.6	0.93	70.0	2.76	63.0	2.48	92.0	3.62	98.0	3.86	0.34	1.79	0.98	31.7	18.2	1.74
	2.2500	104.775	4.1250	30.162	1.1875	30.958	1.2188	23.812	0.9375	0.8	0.03	0.8	0.03	157	165	25.6	**45289**	**45221**	22.2	0.87	65.0	2.56	65.0	2.56	95.0	3.74	99.0	3.90	0.33	1.80	0.99	36.6	20.8	1.76
	2.2500	104.775	4.1250	30.162	1.1875	30.958	1.2188	23.812	0.9375	2.4	0.09	0.8	0.03	157	165	25.6	**45290**	**45221**	22.2	0.87	68.0	2.68	65.0	2.56	95.0	3.74	99.0	3.90	0.33	1.80	0.99	36.6	20.8	1.76
	2.2500	104.775	4.1250	30.162	1.1875	30.958	1.2188	23.812	0.9375	6.4	0.25	0.8	0.03	157	165	25.6	**45291**	**45221**	22.2	0.87	76.0	2.99	65.0	2.56	95.0	3.74	99.0	3.90	0.33	1.80	0.99	36.6	20.8	1.76

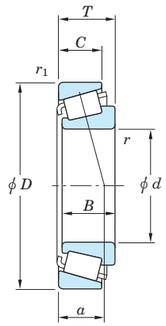
Note 1) SP indicates the specially chamfered from.

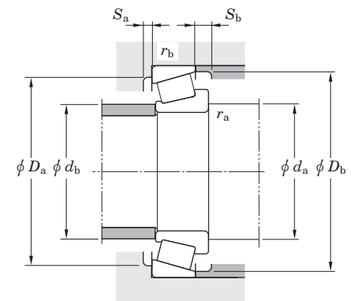
Koyo

TS type

d (57.150) ~ (60.000) mm

(2.2500) ~ (2.3622) inch





$P = XF_r + YF_a$ $P_0 = 0.5\,F_r + Y_0F_a$ or $P_0 = F_r$			
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Constant	Axial load factors		Reference rating (kN) (500 rpm for 3 000 Hrs.)		Factor
d		D		T		B		C		r (min.)		r_1 (min.)		C_r	C_{0r}	C_u	Inner ring (Cone)	Outer ring (Cup)	a		d_a		d_b		D_a		D_b		e	Y_1	Y_0	Radial	Axial	K
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						
57.150	2.2500	110.000	4.3307	22.000	0.8661	21.996	0.8660	22.000	0.8661	2.4	0.09	0.8	0.03	109	116	17.7	**390**	**394**	21.3	0.84	70.0	2.76	66.0	2.60	102.0	4.02	104.5	4.11	0.40	1.49	0.82	25.0	17.2	1.46
	2.2500	111.125	4.3750	22.000	0.8661	21.996	0.8660	18.824	0.7411	2.4	0.09	1.2	0.05	109	116	17.7	**390**	**393AS**	21.3	0.84	70.0	2.76	66.0	2.60	101.0	3.98	105.0	4.13	0.40	1.49	0.82	25.0	17.2	1.46
	2.2500	112.712	4.4375	22.225	0.8750	21.996	0.8660	15.875	0.6250	2.4	0.09	3.2	0.13	109	116	17.7	**390**	**393A**	21.5	0.85	70.0	2.76	66.0	2.60	100.0	3.94	105.0	4.13	0.40	1.49	0.82	25.0	17.2	1.46
	2.2500	112.712	4.4375	30.162	1.1875	30.048	1.1830	23.812	0.9375	3.6	0.14	3.2	0.13	139	164	25.1	**3979**	**3920**	25.9	1.02	72.0	2.83	66.0	2.60	99.0	3.90	106.0	4.17	0.40	1.49	0.82	32.4	22.3	1.46
	2.2500	112.712	4.4375	30.162	1.1875	30.162	1.1875	23.812	0.9375	3.6	0.14	3.2	0.13	184	207	32.1	**39580**	**39520**	23.3	0.92	72.0	2.83	66.0	2.60	101.0	3.98	107.0	4.21	0.34	1.77	0.97	42.6	24.7	1.72
	2.2500	112.712	4.4375	30.162	1.1875	30.162	1.1875	23.812	0.9375	7.9	0.31	3.2	0.13	184	207	32.1	**39581**	**39520**	23.3	0.92	81.0	3.19	66.0	2.60	101.0	3.98	107.0	4.21	0.34	1.77	0.97	42.6	24.7	1.72
	2.2500	112.712	4.4375	36.512	1.4375	30.162	1.1875	30.162	1.1875	3.6	0.14	3.2	0.13	184	207	32.1	**39580**	**39522**	29.7	1.17	72.0	2.83	66.0	2.60	101.0	3.98	107.0	4.21	0.34	1.77	0.97	42.6	24.7	1.72
	2.2500	117.475	4.6250	30.162	1.1875	30.162	1.1875	23.812	0.9375	3.6	0.14	0.8	0.03	148	179	27.4	**33225**	**33461**	27.8	1.09	74.0	2.91	68.0	2.68	106.0	4.17	112.0	4.41	0.44	1.38	0.76	34.4	25.6	1.34
	2.2500	117.475	4.6250	30.162	1.1875	30.162	1.1875	23.812	0.9375	3.6	0.14	3.2	0.13	148	179	27.4	**33225**	**33462**	27.8	1.09	74.0	2.91	68.0	2.68	104.0	4.09	112.0	4.41	0.44	1.38	0.76	34.4	25.6	1.34
	2.2500	117.475	4.6250	33.338	1.3125	31.750	1.2500	23.812	0.9375	3.6	0.14	0.8	0.03	162	152	23.2	**66225R**	**66461**	33.2	1.31	76.0	2.99	69.0	2.72	102.0	4.02	111.0	4.37	0.63	0.96	0.53	37.5	40.1	0.93
	2.2500	120.040	4.7260	41.275	1.6250	41.275	1.6250	31.750	1.2500	3.6	0.14	3.2	0.13	218	217	34.0	**623**	**612A**	27.3	1.07	72.0	2.83	66.0	2.60	103.0	4.06	109.0	4.29	0.31	1.91	1.05	50.9	27.4	1.86
	2.2500	120.650	4.7500	41.275	1.6250	41.275	1.6250	31.750	1.2500	3.6	0.14	3.2	0.13	218	217	34.0	**623**	**612**	27.3	1.07	72.0	2.83	66.0	2.60	105.0	4.13	110.0	4.33	0.31	1.91	1.05	50.9	27.4	1.86
	2.2500	120.650	4.7500	41.275	1.6250	41.275	1.6250	31.750	1.2500	3.6	0.14	3.2	0.13	218	217	34.0	**623A**	**612**	27.3	1.07	78.0	3.07	66.0	2.60	105.0	4.13	110.0	4.33	0.31	1.91	1.05	50.9	27.4	1.86
	2.2500	122.238	4.8125	33.338	1.3125	31.750	1.2500	23.812	0.9375	3.6	0.14	3.2	0.13	160	153	23.3	**66587**	**66520**	35.4	1.39	77.0	3.03	71.0	2.80	105.0	4.13	116.0	4.57	0.67	0.90	0.50	37.1	42.2	0.88
	2.2500	122.238	4.8125	38.100	1.5000	36.678	1.4440	30.162	1.1875	3.6	0.14	3.2	0.13	202	223	34.8	**555S**	**553X**	28.7	1.13	73.0	2.87	67.0	2.64	108.0	4.25	115.0	4.53	0.35	1.73	0.95	47.1	27.9	1.69
	2.2500	123.825	4.8750	38.100	1.5000	36.678	1.4440	30.162	1.1875	7.9	0.31	3.2	0.13	202	223	34.8	**555SA**	**552A**	28.7	1.13	82.0	3.23	67.0	2.64	109.0	4.29	116.0	4.57	0.35	1.73	0.95	47.1	27.9	1.69
	2.2500	127.000	5.0000	44.450	1.7500	44.450	1.7500	34.925	1.3750	3.6	0.14	3.2	0.13	259	269	41.0	**65225**	**65500**	35.2	1.39	80.0	3.15	71.0	2.80	107.0	4.21	119.0	4.69	0.49	1.23	0.68	60.6	50.5	1.20
	2.2500	135.755	5.3447	53.975	2.1250	56.007	2.2050	44.450	1.7500	4.3	0.17	3.2	0.13	333	357	49.3	**6375**	**6320**	34.8	1.37	78.0	3.07	70.0	2.76	117.0	4.61	126.0	4.96	0.32	1.85	1.02	78.4	43.5	1.80
	2.2500	135.755	5.3447	53.975	2.1250	56.007	2.2050	44.450	1.7500	0.8	0.03	3.2	0.13	333	357	49.3	**6387**	**6320**	34.8	1.37	71.0	2.80	70.0	2.76	117.0	4.61	126.0	4.96	0.32	1.85	1.02	78.4	43.5	1.80
	2.2500	136.525	5.3750	41.275	1.6250	41.275	1.6250	31.750	1.2500	3.6	0.14	3.2	0.13	246	267	41.8	**635**	**632**	30.3	1.19	75.0	2.95	69.0	2.72	118.0	4.65	125.0	4.92	0.36	1.66	0.91	57.4	35.5	1.62
	2.2500	149.225	5.8750	53.975	2.1250	41.275	1.6250	31.750	1.2500	6.4	0.25	3.2	0.13	357	404	54.4	**6465**	**6420**	39.3	1.55	86.0	3.39	81.0	3.19	129.0	5.08	141.0	5.55	0.36	1.66	0.91	83.9	51.9	1.62
	2.2500	149.225	5.8750	53.975	2.1250	54.229	2.1350	44.450	1.7500	3.6	0.14	3.2	0.13	357	404	54.4	**6455**	**6420**	39.3	1.55	81.0	3.19	75.0	2.95	129.0	5.08	141.0	5.55	0.36	1.66	0.91	83.9	51.9	1.62
57.531	2.2650	96.838	3.8125	21.000	0.8268	21.946	0.8640	15.875	0.6250	3.6	0.14	0.8	0.03	101	101	15.3	**388A**	**382A**	17.4	0.69	69.0	2.72	63.0	2.48	89.0	3.50	92.0	3.62	0.35	1.69	0.93	23.2	14.1	1.65
58.738	2.3125	112.712	4.4375	33.338	1.3125	30.048	1.1830	26.988	1.0625	3.6	0.14	3.2	0.13	139	164	25.1	**3981**	**3926**	29.1	1.15	73.0	2.87	67.0	2.64	98.0	3.86	106.0	4.17	0.40	1.49	0.82	32.4	22.3	1.46
	2.3125	122.238	4.8125	51.595	2.0313	51.702	2.0355	36.512	1.4375	3.6	0.14	3.2	0.13	276	318	43.6	**5558R**	**5535**	39.0	1.54	77.0	3.03	72.0	2.83	106.0	4.17	116.0	4.57	0.36	1.67	0.92	64.5	39.5	1.63
	2.3125	127.000	5.0000	44.450	1.7500	44.450	1.7500	34.925	1.3750	3.6	0.14	3.2	0.13	259	269	41.0	**65231**	**65500**	35.2	1.39	81.0	3.19	71.0	2.80	107.0	4.21	119.0	4.69	0.49	1.23	0.68	60.6	50.5	1.20
59.530	2.3437	112.712	4.4375	30.162	1.1875	30.048	1.1830	23.812	0.9375	1.6	0.06	3.2	0.13	139	164	25.1	**3978**	**3920**	25.9	1.02	70.0	2.76	68.0	2.68	99.0	3.90	106.0	4.17	0.40	1.49	0.82	32.4	22.3	1.46
59.880	2.3575	127.000	5.0000	44.450	1.7500	44.450	1.7500	34.925	1.3750	3.6	0.14	3.2	0.13	259	269	41.0	**65235**	**65500**	35.2	1.39	82.0	3.23	71.0	2.80	107.0	4.21	119.0	4.69	0.49	1.23	0.68	60.6	50.5	1.20
59.972	2.3611	122.238	4.8125	33.338	1.3125	31.750	1.2500	23.812	0.9375	0.8	0.03	3.2	0.13	160	153	23.3	**66589**	**66520**	35.4	1.39	74.0	2.91	73.0	2.87	105.0	4.13	116.0	4.57	0.67	0.90	0.50	37.1	42.2	0.88
59.977	2.3613	101.600	4.0000	25.400	1.0000	25.400	1.0000	19.845	0.7813	3.6	0.14	3.2	0.13	115	137	20.6	**28980**	**28920**	22.8	0.90	73.0	2.87	67.0	2.64	89.0	3.50	96.0	3.78	0.43	1.41	0.78	26.6	19.3	1.38
	2.3613	122.238	4.8125	33.338	1.3125	31.750	1.2500	23.812	0.9375	1.6	0.06	3.2	0.13	160	153	23.3	**66586**	**66520**	35.4	1.39	75.0	2.95	68.0	2.68	105.0	4.13	116.0	4.57	0.67	0.90	0.50	37.1	42.2	0.88
59.985	2.3616	135.755	5.3447	53.975	2.1250	56.007	2.2050	44.450	1.7500	3.6	0.14	3.2	0.13	333	357	49.3	**6391**	**6320**	34.8	1.37	79.0	3.11	70.0	2.76	117.0	4.61	126.0	4.96	0.32	1.85	1.02	78.4	43.5	1.80
59.987	2.3617	104.775	4.1250	21.432	0.8438	22.000	0.8661	15.875	0.6250	2.4	0.09	2.0	0.08	115	118	18.0	**39236**	**39412**	19.5	0.77	71.0	2.80	67.0	2.64	96.0	3.78	100.0	3.94	0.39	1.55	0.85	26.4	17.5	1.51
60.000	2.3622	107.950	4.2500	25.400	1.0000	25.400	1.0000	19.050	0.7500	3.6	0.14	3.2	0.13	116	143	21.6	**29580**	**29520**	24.7	0.97	74.0	2.91	68.0	2.68	96.0	3.78	103.0	4.06	0.46	1.31	0.72	26.9	21.1	1.28
	2.3622	107.950	4.2500	25.400	1.0000	25.400	1.0000	19.050	0.7500	0.8	0.03	0.8	0.03	116	143	21.6	**29582**	**29522**	24.7	0.97	69.0	2.72	68.0	2.68	98.0	3.86	103.0	4.06	0.46	1.31	0.72	26.9	21.1	1.26
	2.3622	110.000	4.3307	22.000	0.8661	21.996	0.8660	18.824	0.7411	0.8	0.03	1.2	0.05	109	116	17.7	**397**	**394A**	21.3	0.84	69.0	2.72	68.0	2.68	101.0	3.98	104.5	4.11	0.40	1.49	0.82	25.0	17.2	1.46

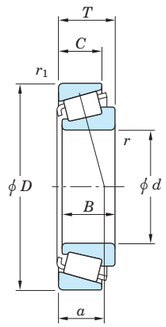
Note 1) SP indicates the specially chamfered from.

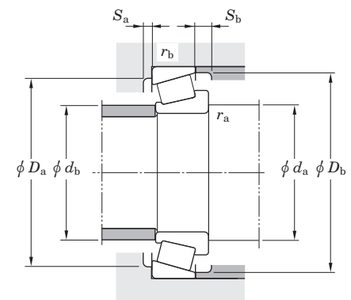
Koyo

TS type

d (60.000) ~ (63.500) mm

(2.3622) ~ (2.5000) inch





$P = XF_r + YF_a$ $P_0 = 0.5\,F_r + Y_0F_a$ or $P_0 = F_r$			
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Constant	Axial load factors		Reference rating (kN) (500 rpm for 3 000 Hrs.)		Factor
d		D		T		B		C		r (min.)		r_1 (min.)		C_r	C_{0r}	C_u	Inner ring (Cone)	Outer ring (Cup)	a		d_a		d_b		D_a		D_b		e	Y_1	Y_0	Radial	Axial	K
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						
60.000	2.3622	112.712	4.4375	30.162	1.1875	30.048	1.1830	23.812	0.9375	3.6	0.14	0.8	0.03	139	164	25.1	**3977**	**3925**	25.9	1.02	74.0	2.91	68.0	2.68	101.0	3.98	106.0	4.17	0.40	1.49	0.82	32.4	22.3	1.46
	2.3622	120.000	4.7244	29.002	1.1418	29.007	1.1420	23.444	0.9230	2.0	0.08	3.2	0.13	148	161	25.0	**476**	**472A**	24.9	0.98	73.0	2.87	69.0	2.72	106.0	4.17	114.0	4.49	0.38	1.56	0.86	34.5	22.7	1.52
	2.3622	120.000	4.7244	29.794	1.1730	29.007	1.1420	24.237	0.9542	1.6	0.06	2.0	0.08	148	161	25.0	**476A**	**472**	25.7	1.01	72.0	2.83	69.0	2.72	107.0	4.21	114.0	4.49	0.38	1.56	0.86	34.5	22.7	1.52
	2.3622	122.238	4.8125	33.338	1.3125	31.750	1.2500	23.812	0.9375	3.6	0.14	3.2	0.13	160	153	23.3	**66585**	**66520**	35.4	1.39	79.0	3.11	73.0	2.87	105.0	4.13	116.0	4.57	0.67	0.90	0.50	37.1	42.2	0.88
	2.3622	122.238	4.8125	33.338	1.3125	31.750	1.2500	23.812	0.9375	0.8	0.03	3.2	0.13	160	153	23.3	**66588**	**66520**	35.4	1.39	72.0	2.83	65.0	2.56	105.0	4.13	116.0	4.57	0.67	0.90	0.50	37.1	42.2	0.88
60.325	2.3750	100.000	3.9370	25.400	1.0000	25.400	1.0000	19.845	0.7813	3.6	0.14	3.2	0.13	115	137	20.6	**28985**	**28921**	22.8	0.90	73.0	2.87	67.0	2.64	89.0	3.50	96.0	3.78	0.43	1.41	0.78	26.6	19.3	1.38
	2.3750	100.000	3.9370	25.400	1.0000	25.400	1.0000	19.845	0.7813	3.6	0.14	0.8	0.03	115	137	20.6	**28985**	**28921A**	22.8	0.90	73.0	2.87	67.0	2.64	92.0	3.62	96.0	3.78	0.43	1.41	0.78	26.6	19.3	1.38
	2.3750	101.600	4.0000	25.400	1.0000	25.400	1.0000	19.845	0.7813	3.6	0.14	3.2	0.13	115	137	20.6	**28985**	**28920**	22.8	0.90	73.0	2.87	67.0	2.64	89.0	3.50	96.0	3.78	0.43	1.41	0.78	26.6	19.3	1.38
	2.3750	112.712	4.4375	30.162	1.1875	30.048	1.1830	23.812	0.9375	3.6	0.14	0.8	0.03	139	164	25.1	**3980**	**3925**	25.9	1.02	75.0	2.95	68.0	2.68	101.0	3.98	106.0	4.17	0.40	1.49	0.82	32.4	22.3	1.46
	2.3750	122.238	4.8125	38.100	1.5000	36.678	1.4440	30.162	1.1875	7.9	0.31	3.2	0.13	202	223	34.8	**557A**	**553X**	28.7	1.13	84.0	3.31	69.0	2.72	108.0	4.25	115.0	4.53	0.35	1.73	0.95	47.1	27.9	1.69
	2.3750	122.238	4.8125	38.100	1.5000	36.678	1.4440	30.162	1.1875	2.4	0.09	3.2	0.13	202	223	34.8	**558**	**553X**	28.7	1.13	73.0	2.87	69.0	2.72	108.0	4.25	115.0	4.53	0.35	1.73	0.95	47.1	27.9	1.69
	2.3750	122.238	4.8125	38.100	1.5000	36.678	1.4440	30.162	1.1875	3.6	0.14	3.2	0.13	202	223	34.8	**558A**	**553X**	28.7	1.13	76.0	2.99	69.0	2.72	108.0	4.25	115.0	4.53	0.35	1.73	0.95	47.1	27.9	1.69
	2.3750	122.238	4.8125	38.100	1.5000	38.354	1.5100	29.718	1.1700	7.9	0.31	1.6	0.06	238	249	39.1	**HM212044**	**HM212010**	27.3	1.07	85.0	3.35	70.0	2.76	110.0	4.33	116.0	4.57	0.34	1.78	0.98	55.5	32.0	1.73
	2.3750	122.238	4.8125	43.658	1.7188	43.764	1.7230	36.512	1.4375	0.8	0.03	3.2	0.13	276	318	43.6	**5582R**	**5535**	31.1	1.22	73.0	2.87	72.0	2.83	106.0	4.17	116.0	4.57	0.36	1.67	0.92	64.5	39.5	1.63
	2.3750	122.238	4.8125	43.658	1.7188	43.764	1.7230	36.512	1.4375	3.6	0.14	3.2	0.13	276	318	43.6	**5583R**	**5535**	31.1	1.22	78.0	3.07	72.0	2.83	106.0	4.17	116.0	4.57	0.36	1.67	0.92	64.5	39.5	1.63
	2.3750	127.000	5.0000	36.512	1.4375	36.512	1.4375	26.988	1.0625	3.6	0.14	1.6	0.06	209	235	36.2	**HM813841**	**HM813811**	32.9	1.30	80.0	3.15	73.0	2.87	113.0	4.45	121.0	4.76	0.50	1.20	0.66	48.6	41.7	1.17
	2.3750	127.000	5.0000	36.512	1.4375	36.512	1.4375	26.988	1.0625	1.6	0.06	3.2	0.13	209	235	36.2	**HM813841A**	**HM813810**	32.9	1.30	74.0	2.91	71.0	2.80	110.0	4.33	121.0	4.76	0.50	1.20	0.66	48.6	41.7	1.17
	2.3750	127.000	5.0000	44.450	1.7500	44.450	1.7500	34.925	1.3750	3.6	0.14	3.2	0.13	259	269	41.0	**65237**	**65500**	35.2	1.39	82.0	3.23	71.0	2.80	107.0	4.21	119.0	4.69	0.49	1.23	0.68	60.6	50.5	1.20
	2.3750	127.000	5.0000	44.450	1.7500	44.450	1.7500	34.925	1.3750	1.6	0.06	3.2	0.13	259	269	41.0	**65237A**	**65500**	35.2	1.39	78.0	3.07	71.0	2.80	107.0	4.21	119.0	4.69	0.49	1.23	0.68	60.6	50.5	1.20
	2.3750	130.175	5.1250	41.275	1.6250	41.275	1.6250	31.750	1.2500	3.6	0.14	3.2	0.13	246	267	41.8	**637**	**633**	30.3	1.19	78.0	3.07	72.0	2.83	116.0	4.57	124.0	4.88	0.36	1.66	0.91	57.4	35.5	1.62
	2.3750	135.755	5.3447	53.975	2.1250	56.007	2.2050	44.450	1.7500	3.6	0.14	3.2	0.13	333	357	49.3	**6376**	**6320**	34.8	1.37	81.0	3.19	74.0	2.91	117.0	4.61	126.0	4.96	0.32	1.85	1.02	78.4	43.5	1.80
	2.3750	136.525	5.3750	46.038	1.8125	46.038	1.8125	36.512	1.4375	3.6	0.14	3.2	0.13	290	369	49.6	**H715332**	**H715311**	37.0	1.46	84.0	3.31	78.0	3.07	118.0	4.65	132.0	5.20	0.47	1.27	0.70	67.8	54.8	1.24
61.912	2.4375	110.000	4.3307	22.000	0.8661	21.996	0.8660	18.824	0.7411	0.8	0.03	1.2	0.05	109	116	17.7	**392**	**394A**	21.3	0.84	70.0	2.76	69.0	2.72	101.0	3.98	104.5	4.11	0.40	1.49	0.82	25.0	17.2	1.46
	2.4375	122.238	4.8125	38.100	1.5000	36.678	1.4440	30.162	1.1875	3.6	0.14	3.2	0.13	202	223	34.8	**554**	**553X**	28.7	1.13	77.0	3.03	71.0	2.80	108.0	4.25	115.0	4.53	0.35	1.73	0.95	47.1	27.9	1.69
	2.4375	123.825	4.8750	38.100	1.5000	36.678	1.4440	33.338	1.3125	3.6	0.14	3.2	0.13	202	223	34.8	**554**	**552**	28.7	1.13	77.0	3.03	71.0	2.80	109.0	4.29	116.0	4.57	0.35	1.73	0.95	47.1	27.9	1.69
	2.4375	125.000	4.9213	38.100	1.5000	36.678	1.4440	30.162	1.1875	3.6	0.14	3.2	0.13	202	223	34.8	**554**	**553**	28.7	1.13	77.0	3.03	71.0	2.80	109.0	4.29	116.0	4.57	0.35	1.73	0.95	47.1	27.9	1.69
	2.4375	127.000	5.0000	36.512	1.4375	36.512	1.4375	26.988	1.0625	3.6	0.14	1.6	0.06	209	235	36.2	**HM813843**	**HM813811**	32.9	1.30	81.0	3.19	75.0	2.95	113.0	4.45	121.0	4.76	0.50	1.20	0.66	48.6	41.7	1.17
	2.4375	139.700	5.5000	46.038	1.8125	46.038	1.8125	36.512	1.4375	3.6	0.14	3.2	0.13	290	369	49.6	**H715334**	**H715310**	37.0	1.46	86.0	3.39	79.0	3.11	120.0	4.72	133.0	5.24	0.47	1.27	0.70	67.8	54.8	1.24
	2.4375	152.400	6.0000	47.625	1.8750	46.038	1.8125	31.750	1.2500	3.6	0.14	3.2	0.13	306	278	38.3	**9180**	**9121**	44.5	1.75	90.0	3.54	81.0	3.19	130.0	5.12	145.0	5.71	0.66	0.91	0.50	71.3	79.9	0.89
	2.4375	158.750	6.2500	50.800	2.0000	46.038	1.8125	34.925	1.3750	3.6	0.14	3.2	0.13	306	278	38.3	**9180**	**9120**	47.6	1.87	90.0	3.54	81.0	3.19	134.0	5.28	145.0	5.71	0.66	0.91	0.50	71.3	79.9	0.89
	2.4375	158.750	6.2500	50.800	2.0000	46.038	1.8125	34.925	1.3750	0.8	0.03	3.2	0.13	306	278	38.3	**9181**	**9120**	47.6	1.87	85.0	3.35	78.0	3.07	134.0	5.28	145.0	5.71	0.66	0.91	0.50	71.3	79.9	0.89
62.738	2.4700	100.000	3.9370	25.400	1.0000	25.400	1.0000	19.845	0.7813	3.6	0.14	3.2	0.13	115	137	20.6	**28995**	**28921**	22.8	0.90	75.0	2.95	69.0	2.72	89.0	3.50	96.0	3.78	0.43	1.41	0.78	26.6	19.3	1.38
63.500	2.5000	107.158	4.2188	22.000	0.8661	22.000	0.8661	21.204	0.8348	2.0	0.08	2.4	0.09	115	118	18.0	**39250**	**39422**	20.8	0.82	73.0	2.87	69.0	2.72	97.0	3.82	102.0	4.02	0.39	1.55	0.85	26.4	17.5	1.51
	2.5000	107.950	4.2500	25.400	1.0000	25.400	1.0000	19.050	0.7500	1.6	0.06	3.2	0.13	116	143	21.6	**29586**	**29520**	24.7	0.97	73.0	2.87	71.0	2.80	96.0	3.78	103.0	4.06	0.46	1.31	0.72	26.9	21.1	1.28
	2.5000	110.000	4.3307	22.000	0.8661	21.996	0.8660	18.824	0.7411	1.6	0.06	1.2	0.05	109	116	17.7	**390A**	**394A**	21.3	0.84	73.0	2.87	70.0	2.76	101.0	3.98	104.5	4.11	0.40	1.49	0.82	25.0	17.2	1.46
	2.5000	110.000	4.3307	22.000	0.8661	21.996	0.8660	18.824	0.7411	3.6	0.14	1.2	0.05	109	116	17.7	**395**	**394A**	21.3	0.84	77.0	3.03	70.0	2.76	101.0	3.98	104.5	4.11	0.40	1.49	0.82	25.0	17.2	1.46
	2.5000	110.000	4.3307	22.000	0.8661	21.996	0.8660	22.000	0.8661	3.6	0.14	0.8	0.03	109	116	17.7	**395**	**394**	21.3	0.84	77.0	3.03	70.0	2.76	102.0	4.02	104.5	4.11	0.40	1.49	0.82	25.0	17.2	1.46
	2.5000	110.000	4.3307	25.400	1.0000	25.400	1.0000	19.050	0.7500	3.6	0.14	1.2	0.05	116	143	21.6	**29585**	**29521**	24.7	0.97	77.0	3.03	71.0	2.80	99.0	3.90	104.0	4.09	0.46	1.31	0.72	26.9	21.1	1.28
	2.5000	110.058	4.3330	22.000	0.8661	22.000	0.8661	17.236	0.6786	2.0	0.08	2.4	0.09	115	118	18.0	**39250**	**39433**	20.8	0.82	73.0	2.87	69.0	2.72	98.0	3.86	103.0	4.06	0.39	1.55	0.85	26.4	17.5	1.51

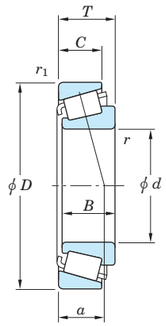
Note 1) SP indicates the specially chamfered from.

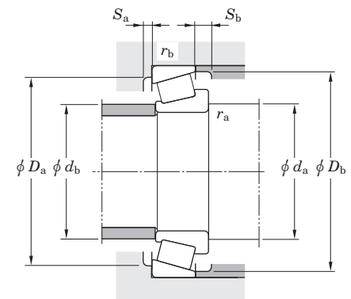
Koyo

TS type

d (63.500) ~ (66.675) mm

(2.5000) ~ (2.6250) inch





$P = XF_r + YF_a$ $P_0 = 0.5\,F_r + Y_0F_a$ or $P_0 = F_r$			
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Constant	Axial load factors		Reference rating (kN) (500 rpm for 3 000 Hrs.)		Factor
d		D		T		B		C		r (min.)		r_1 (min.)		C_r	C_{0r}	C_u	Inner ring (Cone)	Outer ring (Cup)	a		d_a		d_b		D_a		D_b		e	Y_1	Y_0	Radial	Axial	K
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						
63.500	2.5000	112.712	4.4375	30.162	1.1875	30.048	1.1830	23.812	0.9375	3.6	0.14	0.8	0.03	139	164	25.1	**3982**	**3925**	25.9	1.02	77.0	3.03	71.0	2.80	101.0	3.98	106.0	4.17	0.40	1.49	0.82	32.4	22.3	1.46
	2.5000	112.712	4.4375	30.162	1.1875	30.162	1.1875	23.812	0.9375	3.6	0.14	3.2	0.13	184	207	32.1	**39585**	**39520**	23.3	0.92	77.0	3.03	71.0	2.80	101.0	3.98	107.0	4.21	0.34	1.77	0.97	42.6	24.7	1.72
	2.5000	120.000	4.7244	29.002	1.1418	29.007	1.1420	23.444	0.9230	0.8	0.03	3.2	0.13	148	161	25.0	**477**	**472A**	24.9	0.98	73.0	2.87	72.0	2.83	106.0	4.17	114.0	4.49	0.38	1.56	0.86	34.5	22.7	1.52
	2.5000	120.000	4.7244	29.002	1.1418	29.007	1.1420	23.444	0.9230	3.6	0.14	3.2	0.13	148	161	25.0	**483**	**472A**	24.9	0.98	78.0	3.07	72.0	2.83	106.0	4.17	114.0	4.49	0.38	1.56	0.86	34.5	22.7	1.52
	2.5000	120.000	4.7244	29.794	1.1730	29.007	1.1420	24.237	0.9542	0.8	0.03	2.0	0.08	129	161	18.8	**477**	**472**	25.7	1.01	73.0	2.87	72.0	2.83	108.0	4.25	113.0	4.45	0.38	1.56	0.86	34.5	22.7	1.52
	2.5000	120.000	4.7244	29.794	1.1730	30.162	1.1875	23.444	0.9230	0.8	0.03	0.8	0.03	148	179	27.4	**33251**	**33472**	27.4	1.08	73.0	2.87	72.0	2.83	107.0	4.21	113.0	4.45	0.44	1.38	0.76	34.4	25.6	1.34
	2.5000	122.238	4.8125	38.100	1.5000	36.678	1.4440	30.162	1.1875	3.6	0.14	3.2	0.13	202	223	34.8	**559**	**553X**	28.7	1.13	78.0	3.07	72.0	2.83	108.0	4.25	115.0	4.53	0.35	1.73	0.95	47.1	27.9	1.69
	2.5000	122.238	4.8125	38.354	1.5100	38.100	1.5000	29.718	1.1700	3.6	0.14	3.2	0.13	238	249	39.1	**HM212046**	**HM212011**	27.6	1.09	80.0	3.15	73.0	2.87	108.0	4.25	116.0	4.57	0.34	1.78	0.98	55.5	32.0	1.73
	2.5000	122.238	4.8125	38.354	1.5100	38.100	1.5000	29.718	1.1700	7.1	0.28	1.6	0.06	238	249	39.1	**HM212047**	**HM212010**	27.6	1.09	87.0	3.43	73.0	2.87	110.0	4.33	116.0	4.57	0.34	1.78	0.98	55.5	32.0	1.73
	2.5000	122.238	4.8125	43.658	1.7188	43.764	1.7230	36.512	1.4375	5.2	0.20	3.2	0.13	276	318	43.6	**5564R**	**5535**	31.1	1.22	79.0	3.11	72.0	2.83	106.0	4.17	116.0	4.57	0.36	1.67	0.92	64.5	39.5	1.63
	2.5000	122.238	4.8125	43.658	1.7188	43.764	1.7230	36.512	1.4375	3.6	0.14	3.2	0.13	276	318	43.6	**5584R**	**5535**	31.1	1.22	81.0	3.19	75.0	2.95	106.0	4.17	116.0	4.57	0.36	1.67	0.92	64.5	39.5	1.63
	2.5000	122.238	4.8125	51.595	2.0313	51.702	2.0355	36.512	1.4375	3.6	0.14	3.2	0.13	276	318	43.6	**5552R**	**5535**	39.0	1.54	81.0	3.19	72.0	2.83	106.0	4.17	116.0	4.57	0.36	1.67	0.92	64.5	39.5	1.63
	2.5000	123.825	4.8750	30.162	1.1875	29.007	1.1420	24.605	0.9687	0.8	0.03	3.2	0.13	148	161	25.0	**477**	**472X**	26.0	1.02	73.0	2.87	72.0	2.83	109.0	4.29	114.0	4.49	0.38	1.56	0.86	34.5	22.7	1.52
	2.5000	127.000	5.0000	36.512	1.4375	36.170	1.4240	28.575	1.1250	3.6	0.14	3.2	0.13	196	226	35.3	**565**	**563**	28.6	1.13	80.0	3.15	73.0	2.87	112.0	4.41	120.0	4.72	0.36	1.65	0.91	45.8	28.5	1.61
	2.5000	127.000	5.0000	36.512	1.4375	36.170	1.4240	28.575	1.1250	6.4	0.25	3.2	0.13	196	226	35.3	**565S**	**563**	28.6	1.13	86.0	3.39	73.0	2.87	112.0	4.41	120.0	4.72	0.36	1.65	0.91	45.8	28.5	1.61
	2.5000	127.000	5.0000	36.512	1.4375	36.512	1.4375	26.988	1.0625	3.6	0.14	1.6	0.06	209	235	36.2	**HM813842**	**HM813811**	32.9	1.30	82.0	3.23	76.0	2.99	113.0	4.45	121.0	4.76	0.50	1.20	0.66	48.6	41.7	1.17
	2.5000	130.175	5.1250	41.275	1.6250	41.275	1.6250	31.750	1.2500	3.6	0.14	3.2	0.13	246	267	41.8	**639**	**633**	30.3	1.19	81.0	3.19	74.0	2.91	116.0	4.57	124.0	4.88	0.36	1.66	0.91	57.4	35.5	1.62
	2.5000	135.755	5.3447	53.975	2.1250	56.007	2.2050	44.450	1.7500	4.3	0.17	3.2	0.13	333	357	49.3	**6382**	**6320**	34.8	1.37	84.0	3.31	77.0	3.03	117.0	4.61	126.0	4.96	0.32	1.85	1.02	78.4	43.5	1.80
	2.5000	136.525	5.3750	41.275	1.6250	41.275	1.6250	31.750	1.2500	3.6	0.14	3.2	0.13	302	308	48.1	**H414235**	**H414210**	30.3	1.19	82.0	3.23	78.0	3.07	121.0	4.76	129.0	5.08	0.36	1.67	0.92	70.0	43.1	1.62
	2.5000	136.525	5.3750	46.038	1.8125	46.038	1.8125	36.512	1.4375	3.6	0.14	3.2	0.13	290	369	49.6	**H715336**	**H715311**	37.0	1.46	87.0	3.43	80.0	3.15	118.0	4.65	132.0	5.20	0.47	1.27	0.70	67.8	54.8	1.24
	2.5000	149.225	5.8750	53.975	2.1250	54.229	2.1350	44.450	1.7500	3.6	0.14	3.2	0.13	357	404	54.4	**6475**	**6420**	39.3	1.55	86.0	3.39	81.0	3.19	129.0	5.08	141.0	5.55	0.36	1.66	0.91	83.9	51.9	1.62
	2.5000	150.089	5.9090	44.450	1.7500	46.672	1.8375	36.512	1.4375	3.6	0.14	3.2	0.13	330	368	50.1	**745SR**	**742**	32.4	1.28	84.0	3.31	77.0	3.03	134.0	5.28	142.0	5.59	0.33	1.84	1.01	77.3	43.0	1.80
64.960	2.5575	146.050	5.7500	41.275	1.6250	41.275	1.6250	31.750	1.2500	3.6	0.14	3.2	0.13	261	301	45.3	**656**	**653**	33.4	1.31	86.0	3.39	79.0	3.11	131.0	5.16	139.0	5.47	0.41	1.47	0.81	60.9	42.6	1.43
	2.5575	149.225	5.8750	53.975	2.1250	54.229	2.1350	44.450	1.7500	3.6	0.14	3.2	0.13	357	404	54.4	**6464**	**6420**	39.3	1.55	87.0	3.43	81.0	3.19	129.0	5.08	141.0	5.55	0.36	1.66	0.91	83.9	51.9	1.62
	2.5575	150.089	5.9090	44.450	1.7500	46.672	1.8375	36.512	1.4375	3.6	0.14	3.2	0.13	330	368	50.1	**747SR**	**742**	32.4	1.28	86.0	3.39	81.0	3.19	134.0	5.28	142.0	5.59	0.33	1.84	1.01	77.3	43.0	1.80
64.963	2.5576	127.000	5.0000	36.512	1.4375	36.170	1.4240	28.575	1.1250	3.6	0.14	3.2	0.13	196	226	35.3	**569**	**563**	28.6	1.13	81.0	3.19	74.0	2.91	112.0	4.41	120.0	4.72	0.36	1.65	0.91	45.8	28.5	1.61
64.986	2.5585	112.712	4.4375	30.162	1.1875	30.924	1.2175	23.812	0.9375	2.4	0.09	3.2	0.13	184	207	32.1	**39586**	**39520**	23.3	0.92	76.0	2.99	72.0	2.83	101.0	3.98	107.0	4.21	0.34	1.77	0.97	42.6	24.7	1.72
64.988	2.5586	107.950	4.2500	25.400	1.0000	25.400	1.0000	19.050	0.7500	3.6	0.14	0.8	0.03	116	143	21.6	**29588**	**29522**	24.7	0.97	78.0	3.07	72.0	2.83	98.0	3.86	103.0	4.06	0.46	1.31	0.72	26.9	21.1	1.28
65.000	2.5591	110.000	4.3307	22.000	0.8661	21.996	0.8660	18.824	0.7411	2.0	0.08	1.2	0.05	109	116	17.7	**399**	**394A**	21.3	0.84	76.0	2.99	73.0	2.87	101.0	3.98	104.5	4.11	0.40	1.49	0.82	25.0	17.2	1.46
	2.5591	120.000	4.7244	29.002	1.1418	29.007	1.1420	23.444	0.9230	2.4	0.09	3.2	0.13	148	161	25.0	**478**	**472A**	24.9	0.98	77.0	3.03	73.0	2.87	106.0	4.17	114.0	4.49	0.38	1.56	0.86	34.5	22.7	1.52
65.088	2.5625	122.238	4.8125	51.595	2.0313	51.702	2.0355	36.512	1.4375	3.6	0.14	3.2	0.13	276	318	43.6	**5554R**	**5535**	39.0	1.54	83.0	3.27	72.0	2.83	106.0	4.17	116.0	4.57	0.36	1.67	0.92	64.5	39.5	1.63
	2.5625	135.755	5.3447	53.975	2.1250	56.007	2.2050	44.450	1.7500	3.6	0.14	3.2	0.13	333	357	49.3	**6379**	**6320**	34.8	1.37	84.0	3.31	77.5	3.05	117.0	4.61	126.0	4.96	0.32	1.85	1.02	78.4	43.5	1.80
	2.5625	136.525	5.3750	46.038	1.8125	46.038	1.8125	36.512	1.4375	3.6	0.14	3.2	0.13	290	369	49.6	**H715340**	**H715311**	37.0	1.46	88.0	3.46	82.0	3.23	118.0	4.65	132.0	5.20	0.47	1.27	0.70	67.8	54.8	1.24
65.883	2.5938	122.238	4.8125	43.658	1.7188	43.764	1.7230	36.512	1.4375	3.6	0.14	3.2	0.13	276	318	43.6	**5595R**	**5535**	31.1	1.22	83.0	3.27	77.0	3.03	106.0	4.17	116.0	4.57	0.36	1.67	0.92	64.5	39.5	1.63
66.675	2.6250	107.950	4.2500	25.400	1.0000	25.400	1.0000	19.050	0.7500	3.6	0.14	0.8	0.03	116	143	21.6	**29590**	**29522**	24.7	0.97	80.0	3.15	73.0	2.87	98.0	3.86	103.0	4.06	0.46	1.31	0.72	26.9	21.1	1.28
	2.6250	110.000	4.3307	22.000	0.8661	21.996	0.8660	18.824	0.7411	0.8	0.03	1.2	0.05	109	116	17.7	**395A**	**394A**	21.3	0.84	73.0	2.87	73.0	2.87	101.0	3.98	104.5	4.11	0.40	1.49	0.82	25.0	17.2	1.46
	2.6250	110.000	4.3307	22.000	0.8661	21.996	0.8660	18.824	0.7411	3.6	0.14	1.2	0.05	109	116	17.7	**395S**	**394A**	21.3	0.84	79.0	3.11	73.0	2.87	101.0	3.98	104.5	4.11	0.40	1.49	0.82	25.0	17.2	1.46

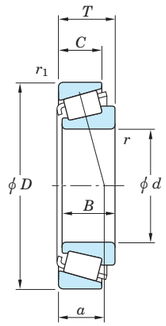
Note 1) SP indicates the specially chamfered from.

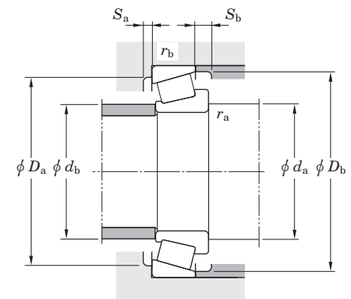
Koyo

TS type

d (66.675) ~ (69.850) mm

(2.6250) ~ (2.7500) inch





$P = XF_r + YF_a$ $P_0 = 0.5\,F_r + Y_0F_a$ or $P_0 = F_r$			
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Con-stant	Axial load factors		Reference rating (kN) (500 rpm for 3 000 Hrs.)		Factor
d		D		T		B		C		r (min.)		r_1 (min.)		C_r	C_{0r}	C_u	Inner ring (Cone)	Outer ring (Cup)	a		d_a		d_b		D_a		D_b		e	Y_1	Y_0	Radial	Axial	K
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						
66.675	2.6250	112.712	4.4375	30.162	1.1875	30.048	1.1830	23.812	0.9375	3.6	0.14	0.8	0.03	139	164	25.1	**3984**	**3925**	25.9	1.02	80.0	3.15	74.0	2.91	101.0	3.98	106.0	4.17	0.40	1.49	0.82	32.4	22.3	1.46
	2.6250	112.712	4.4375	30.162	1.1875	30.048	1.1830	23.812	0.9375	5.6	0.22	0.8	0.03	139	164	25.1	**3994**	**3925**	25.9	1.02	84.0	3.31	74.0	2.91	101.0	3.98	106.0	4.17	0.40	1.49	0.82	32.4	22.3	1.46
	2.6250	112.712	4.4375	30.162	1.1875	30.162	1.1875	23.812	0.9375	3.6	0.14	3.2	0.13	184	207	32.1	**39590**	**39520**	23.3	0.92	80.0	3.15	74.0	2.91	101.0	3.98	107.0	4.21	0.34	1.77	0.97	42.6	24.7	1.72
	2.6250	112.712	4.4375	30.162	1.1875	30.162	1.1875	23.812	0.9375	3.6	0.14	0.8	0.03	184	207	32.1	**39590**	**39521**	23.3	0.92	80.0	3.15	74.0	2.91	103.0	4.06	107.0	4.21	0.34	1.77	0.97	42.6	24.7	1.72
	2.6250	117.475	4.6250	30.162	1.1875	30.162	1.1875	23.812	0.9375	5.6	0.22	3.2	0.13	148	179	27.4	**33261**	**33462**	27.8	1.09	86.0	3.39	76.0	2.99	104.0	4.09	112.0	4.41	0.44	1.38	0.76	34.4	25.6	1.34
	2.6250	117.475	4.6250	30.162	1.1875	30.162	1.1875	23.812	0.9375	3.6	0.14	3.2	0.13	148	179	27.4	**33262**	**33462**	27.8	1.09	81.0	3.19	75.0	2.95	104.0	4.09	112.0	4.41	0.44	1.38	0.76	34.4	25.6	1.34
	2.6250	120.000	4.7244	29.002	1.1418	29.007	1.1420	23.444	0.9230	2.0	0.08	3.2	0.13	148	161	25.0	**478S**	**472A**	24.9	0.98	78.0	3.07	74.0	2.91	106.0	4.17	114.0	4.49	0.38	1.56	0.86	34.5	22.7	1.52
	2.6250	120.000	4.7244	29.002	1.1418	29.007	1.1420	23.444	0.9230	2.4	0.09	3.2	0.13	148	161	25.0	**479**	**472A**	24.9	0.98	78.0	3.07	74.0	2.91	106.0	4.17	114.0	4.49	0.38	1.56	0.86	34.5	22.7	1.52
	2.6250	122.238	4.8125	38.100	1.5000	36.678	1.4440	30.162	1.1875	3.6	0.14	3.2	0.13	202	223	34.8	**560**	**553X**	28.7	1.13	81.0	3.19	75.0	2.95	108.0	4.25	115.0	4.53	0.35	1.73	0.95	47.1	27.9	1.69
	2.6250	122.238	4.8125	38.100	1.5000	38.354	1.5100	29.718	1.1700	3.6	0.14	1.6	0.06	238	249	39.1	**HM212049**	**HM212010**	27.3	1.07	82.0	3.23	75.5	2.97	110.0	4.33	116.0	4.57	0.34	1.78	0.98	55.5	32.0	1.73
	2.6250	127.000	5.0000	36.512	1.4375	36.512	1.4375	26.988	1.0625	3.6	0.14	1.6	0.06	209	235	36.2	**HM813844**	**HM813811**	32.9	1.30	85.0	3.35	78.0	3.07	113.0	4.45	121.0	4.76	0.50	1.20	0.66	48.6	41.7	1.17
	2.6250	130.175	5.1250	41.275	1.6250	41.275	1.6250	31.750	1.2500	3.6	0.14	3.2	0.13	246	267	41.8	**641**	**633**	30.3	1.19	83.0	3.27	77.0	3.03	116.0	4.57	124.0	4.88	0.36	1.66	0.91	57.4	35.5	1.62
	2.6250	135.755	5.3447	53.975	2.1250	56.007	2.2050	44.450	1.7500	4.3	0.17	3.2	0.13	333	357	49.3	**6386**	**6320**	34.8	1.37	87.0	3.43	77.5	3.05	117.0	4.61	126.0	4.96	0.32	1.85	1.02	78.4	43.5	1.80
	2.6250	135.755	5.3447	53.975	2.1250	56.007	2.2050	44.450	1.7500	8.6	0.34	3.2	0.13	333	357	49.3	**6386A**	**6320**	34.8	1.37	92.0	3.62	77.0	3.03	117.0	4.61	126.0	4.96	0.32	1.85	1.02	78.4	43.5	1.80
	2.6250	135.755	5.3447	53.975	2.1250	56.007	2.2050	44.450	1.7500	6.4	0.25	3.2	0.13	333	357	49.3	**6389**	**6320**	34.8	1.37	91.0	3.58	77.5	3.05	117.0	4.61	126.0	4.96	0.32	1.85	1.02	78.4	43.5	1.80
	2.6250	136.525	5.3750	41.275	1.6250	41.275	1.6250	31.750	1.2500	3.6	0.14	3.2	0.13	302	308	48.1	**H414242**	**H414210**	30.3	1.19	85.0	3.35	81.0	3.19	121.0	4.76	129.0	5.08	0.36	1.67	0.92	70.0	43.1	1.62
	2.6250	136.525	5.3750	46.038	1.8125	46.038	1.8125	36.512	1.4375	3.6	0.14	3.2	0.13	290	369	49.6	**H715341**	**H715311**	37.0	1.46	89.0	3.50	83.0	3.27	118.0	4.65	132.0	5.20	0.47	1.27	0.70	67.8	54.8	1.24
68.262	2.6875	103.188	4.0625	43.658	1.7188	51.702	2.0355	36.512	1.4375	3.6	0.14	3.2	0.13	276	318	43.6	**5557R**	**5535**	31.1	1.22	86.0	3.39	72.0	2.83	106.0	4.17	116.0	4.57	0.36	1.67	0.92	64.5	39.5	1.63
	2.6875	110.000	4.3307	22.000	0.8661	21.996	0.8660	18.824	0.7411	2.4	0.09	1.2	0.05	109	116	17.7	**399A**	**394A**	21.3	0.84	78.0	3.07	74.0	2.91	101.0	3.98	104.5	4.11	0.40	1.49	0.82	25.0	17.2	1.46
	2.6875	110.000	4.3307	22.000	0.8661	21.996	0.8660	18.824	0.7411	5.2	0.20	1.2	0.05	109	116	17.7	**399AS**	**394A**	21.3	0.84	83.0	3.27	74.0	2.91	101.0	3.98	104.5	4.11	0.40	1.49	0.82	25.0	17.2	1.46
	2.6875	117.475	4.6250	30.162	1.1875	30.162	1.1875	23.812	0.9375	3.6	0.14	3.2	0.13	148	179	27.4	**33269**	**33462**	27.8	1.09	82.0	3.23	76.0	2.99	104.0	4.09	112.0	4.41	0.44	1.38	0.76	34.4	25.6	1.34
	2.6875	120.000	4.7244	29.002	1.1418	29.007	1.1420	23.444	0.9230	3.6	0.14	3.2	0.13	148	161	25.0	**480**	**472A**	24.9	0.98	82.0	3.23	75.0	2.95	106.0	4.17	114.0	4.49	0.38	1.56	0.86	34.5	22.7	1.52
	2.6875	122.238	4.8125	38.100	1.5000	36.678	1.4440	30.162	1.1875	3.6	0.14	3.2	0.13	202	223	34.8	**560S**	**553X**	28.7	1.13	83.0	3.27	76.0	2.99	108.0	4.25	115.0	4.53	0.35	1.73	0.95	47.1	27.9	1.69
	2.6875	127.000	5.0000	36.512	1.4375	36.170	1.4240	28.575	1.1250	3.6	0.14	3.2	0.13	196	226	35.3	**570**	**563**	28.6	1.13	83.0	3.27	77.0	3.03	112.0	4.41	120.0	4.72	0.36	1.65	0.91	45.8	28.5	1.61
	2.6875	130.175	5.1250	41.275	1.6250	41.275	1.6250	31.750	1.2500	3.6	0.14	3.2	0.13	246	267	41.8	**642**	**633**	30.3	1.19	84.0	3.31	79.0	3.11	116.0	4.57	124.0	4.88	0.36	1.66	0.91	57.4	35.5	1.62
	2.6875	136.525	5.3750	41.275	1.6250	41.275	1.6250	31.750	1.2500	3.6	0.14	3.2	0.13	246	267	41.8	**642**	**632**	30.3	1.19	84.0	3.31	79.0	3.11	118.0	4.65	125.0	4.92	0.36	1.66	0.91	57.4	35.5	1.62
	2.6875	136.525	5.3750	41.275	1.6250	41.275	1.6250	31.750	1.2500	3.6	0.14	3.2	0.13	284	308	46.1	**H414245**	**H414210**	30.3	1.19	86.0	3.39	82.0	3.23	121.0	4.76	129.0	5.08	0.36	1.67	0.92	70.0	43.1	1.62
	2.6875	136.525	5.3750	41.275	1.6250	41.275	1.6250	31.750	1.2500	7.1	0.28	3.2	0.13	302	308	48.1	**H414245A**	**H414210**	30.3	1.19	89.0	3.50	83.0	3.27	121.0	4.76	129.0	5.08	0.36	1.67	0.92	70.0	43.1	1.62
	2.6875	136.525	5.3750	46.038	1.8125	46.038	1.8125	36.512	1.4375	3.6	0.14	3.2	0.13	290	369	49.6	**H715343**	**H715311**	37.0	1.46	90.0	3.54	84.0	3.31	118.0	4.65	132.0	5.20	0.47	1.27	0.70	67.8	54.8	1.24
	2.6875	152.400	6.0000	47.625	1.8750	46.038	1.8125	31.750	1.2500	3.6	0.14	3.2	0.13	306	278	38.3	**9185**	**9121**	44.5	1.75	94.0	3.70	81.5	3.21	130.0	5.12	145.0	5.71	0.66	0.91	0.50	71.3	79.9	0.89
69.850	2.7500	98.425	3.8750	13.495	0.5313	13.495	0.5313	9.525	0.3750	1.6	0.06	1.6	0.06	49.1	59.8	8.45	**LL713049**	**LL713010**	18.4	0.72	77.0	3.03	74.0	2.91	92.0	3.62	94.5	3.72	0.44	1.37	0.75	11.1	8.35	1.33
	2.7500	112.712	4.4375	22.225	0.8750	21.996	0.8660	15.875	0.6250	1.6	0.06	0.8	0.03	115	127	19.4	**LM613449**	**LM613410**	21.9	0.86	78.0	3.07	76.0	2.99	104.0	4.09	107.0	4.21	0.42	1.44	0.79	26.4	18.8	1.41
	2.7500	112.712	4.4375	25.400	1.0000	25.400	1.0000	19.050	0.7500	1.6	0.06	3.2	0.13	122	155	23.3	**29675**	**29620**	26.2	1.03	80.0	3.15	77.0	3.03	101.0	3.98	109.0	4.29	0.49	1.23	0.68	28.1	23.4	1.20
	2.7500	112.712	4.4375	25.400	1.0000	25.400	1.0000	19.050	0.7500	1.6	0.06	3.2	0.13	122	155	23.3	**29676**	**29620**	26.2	1.03	80.0	3.15	77.0	3.03	101.0	3.98	109.0	4.29	0.49	1.23	0.68	28.1	23.4	1.20
	2.7500	117.475	4.6250	30.162	1.1875	30.162	1.1875	23.812	0.9375	3.6	0.14	3.2	0.13	148	179	27.4	**33275**	**33462**	27.8	1.09	84.0	3.31	77.0	3.03	104.0	4.09	112.0	4.41	0.44	1.38	0.76	34.4	25.6	1.34
	2.7500	120.000	4.7244	29.002	1.1418	29.007	1.1420	23.444	0.9230	3.6	0.14	3.2	0.13	148	161	25.0	**482**	**472A**	24.9	0.98	83.0	3.27	77.0	3.03	106.0	4.17	114.0	4.49	0.38	1.56	0.86	34.5	22.7	1.52
	2.7500	120.000	4.7244	29.002	1.1418	29.007	1.1420	23.444	0.9230	4.8	0.19	3.2	0.13	148	161	25.0	**482A**	**472A**	24.9	0.98	86.0	3.39	77.0	3.03	106.0	4.17	114.0	4.49	0.38	1.56	0.86	34.5	22.7	1.52
	2.7500	120.000	4.7244	29.794	1.1730	29.007	1.1420	24.237	0.9542	3.6	0.14	2.0	0.08	148	161	25.0	**482**	**472**	25.7	1.01	83.0	3.27	77.0	3.03	108.0	4.25	113.0	4.45	0.38	1.56	0.86	34.5	22.7	1.52
	2.7500	120.000	4.7244	32.545	1.2813	32.545	1.2813	26.195	1.0313	3.6	0.14	3.2	0.13	189	218	33.9	**47487R**	**47420**	26.6	1.05	84.0	3.31	78.0	3.07	107.0	4.21	114.0	4.49	0.36	1.67	0.92	43.7	26.9	1.62
	2.7500	120.650	4.7500	32.545	1.2813	32.545	1.2813	26.195	1.0313	3.6	0.14	0.8	0.03	189	218	33.9	**47487R**	**47423**	26.6	1.05	84.0	3.31	78.0	3.07	109.0	4.29	114.0	4.49	0.36	1.67	0.92	43.7	26.9	1.62

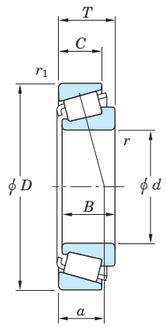
Note 1) SP indicates the specially chamfered from.

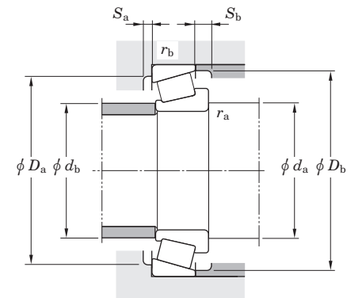
Koyo

TS type

d (69.850) ~ (73.025) mm

(2.7500) ~ (2.8750) inch





$P = XF_r + YF_a$ $P_0 = 0.5\,F_r + Y_0F_a$ or $P_0 = F_r$			
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

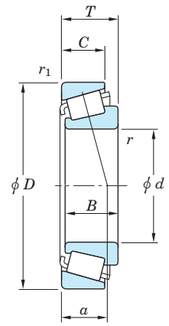
Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Con-stant	Axial load factors		Reference rating (kN) (500 rpm for 3 000 Hrs.)		Factor
d		D		T		B		C		r (min.)		r_1 (min.)		C_r	C_{0r}	C_u	Inner ring (Cone)	Outer ring (Cup)	a		d_a		d_b		D_a		D_b		e	Y_1	Y_0	Radial	Axial	K
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						
69.850	2.7500	123.825	4.8750	30.162	1.1875	29.007	1.1420	24.605	0.9687	3.6	0.14	3.2	0.13	148	161	25.0	**482**	**472X**	26.0	1.02	83.0	3.27	77.0	3.03	109.0	4.29	114.0	4.49	0.38	1.56	0.86	34.5	22.7	1.52
	2.7500	127.000	5.0000	36.512	1.4375	36.170	1.4240	28.575	1.1250	3.6	0.14	3.2	0.13	196	226	35.3	**566**	**563**	28.6	1.13	85.0	3.35	78.0	3.07	112.0	4.41	120.0	4.72	0.36	1.65	0.91	45.8	28.5	1.61
	2.7500	127.000	5.0000	36.512	1.4375	36.170	1.4240	28.575	1.1250	0.8	0.03	3.2	0.13	196	226	35.3	**566S**	**563**	28.6	1.13	79.0	3.11	78.0	3.07	112.0	4.41	120.0	4.72	0.36	1.65	0.91	45.8	28.5	1.61
	2.7500	127.000	5.0000	36.512	1.4375	36.512	1.4375	26.988	1.0625	3.6	0.14	1.6	0.06	209	235	36.2	**HM813846**	**HM813811**	32.9	1.30	88.0	3.46	81.0	3.19	113.0	4.45	121.0	4.76	0.50	1.20	0.66	48.6	41.7	1.17
	2.7500	130.175	5.1250	41.275	1.6250	41.275	1.6250	31.750	1.2500	3.6	0.14	3.2	0.13	246	267	41.8	**643**	**633**	30.3	1.19	86.0	3.39	80.0	3.15	116.0	4.57	124.0	4.88	0.36	1.66	0.91	57.4	35.5	1.62
	2.7500	136.525	5.3750	46.038	1.8125	46.038	1.8125	36.512	1.4375	3.6	0.14	3.2	0.13	290	369	49.6	**H715344**	**H715311**	37.0	1.46	92.0	3.62	85.0	3.35	118.0	4.65	132.0	5.20	0.47	1.27	0.70	67.8	54.8	1.24
	2.7500	146.050	5.7500	41.275	1.6250	41.275	1.6250	31.750	1.2500	3.6	0.14	3.2	0.13	261	301	45.3	**655**	**653**	33.4	1.31	88.0	3.46	82.0	3.23	131.0	5.16	139.0	5.47	0.41	1.47	0.81	60.9	42.6	1.43
	2.7500	149.225	5.8750	53.975	2.1250	54.229	2.1350	44.450	1.7500	5.2	0.20	3.2	0.13	357	404	54.4	**6454**	**6420**	39.3	1.55	94.0	3.70	85.0	3.35	129.0	5.08	141.0	5.55	0.36	1.66	0.91	83.9	51.9	1.62
	2.7500	149.225	5.8750	53.975	2.1250	54.229	2.1350	44.450	1.7500	6.4	0.25	3.2	0.13	357	404	54.4	**6484**	**6420**	39.3	1.55	95.0	3.74	85.0	3.35	129.0	5.08	141.0	5.55	0.36	1.66	0.91	83.9	51.9	1.62
	2.7500	150.089	5.9090	44.450	1.7500	46.672	1.8375	36.512	1.4375	5.2	0.20	3.2	0.13	330	368	50.1	**744AR**	**742**	32.4	1.28	92.0	3.62	82.0	3.23	134.0	5.28	142.0	5.59	0.33	1.84	1.01	77.3	43.0	1.80
	2.7500	150.089	5.9090	44.450	1.7500	46.672	1.8375	36.512	1.4375	3.6	0.14	3.2	0.13	330	368	50.1	**745AR**	**742**	32.4	1.28	88.0	3.46	82.0	3.23	134.0	5.28	142.0	5.59	0.33	1.84	1.01	77.3	43.0	1.80
	2.7500	168.275	6.6250	53.975	2.1250	56.363	2.2190	41.275	1.6250	3.6	0.14	3.2	0.13	429	467	62.1	**835R**	**832**	35.0	1.38	91.0	3.58	84.0	3.31	149.0	5.87	155.0	6.10	0.30	2.00	1.10	101	51.6	1.95
69.952	2.7540	121.442	4.7812	24.608	0.9688	23.012	0.9060	17.462	0.6875	2.0	0.08	2.0	0.08	113	127	19.4	**34274**	**34478**	26.8	1.06	81.0	3.19	78.0	3.07	110.0	4.33	116.0	4.57	0.45	1.33	0.73	26.0	20.0	1.30
70.000	2.7559	120.000	4.7244	29.002	1.1418	29.007	1.1420	23.444	0.9230	2.0	0.08	3.2	0.13	148	161	25.0	**484**	**472A**	24.9	0.98	80.0	3.15	77.0	3.03	106.0	4.17	114.0	4.49	0.38	1.56	0.86	34.5	22.7	1.52
	2.7559	125.052	4.9233	23.731	0.9343	23.012	0.9060	16.401	0.6457	2.0	0.08	2.0	0.08	113	127	19.4	**34275**	**34492A**	25.9	1.02	82.0	3.23	78.0	3.07	112.0	4.41	118.0	4.65	0.45	1.33	0.73	26.0	20.0	1.30
70.637	2.7810	112.712	4.4375	25.400	1.0000	25.400	1.0000	19.050	0.7500	3.6	0.14	3.2	0.13	122	155	23.3	**29681**	**29620**	26.2	1.03	84.0	3.31	79.0	3.11	101.0	3.98	109.0	4.29	0.49	1.23	0.68	28.1	23.4	1.20
	2.7810	120.650	4.7500	25.400	1.0000	25.400	1.0000	19.050	0.7500	1.2	0.05	3.2	0.13	122	155	23.3	**29680**	**29630**	26.2	1.03	80.0	3.15	78.0	3.07	104.0	4.09	113.0	4.45	0.49	1.23	0.68	28.1	23.4	1.20
71.438	2.8125	117.475	4.6250	30.162	1.1875	30.162	1.1875	23.812	0.9375	3.6	0.14	3.2	0.13	148	179	27.4	**33281**	**33462**	27.8	1.09	85.0	3.35	79.0	3.11	104.0	4.09	112.0	4.41	0.44	1.38	0.76	34.4	25.6	1.34
	2.8125	120.000	4.7244	32.545	1.2813	32.545	1.2813	26.195	1.0313	3.6	0.14	3.2	0.13	189	218	33.9	**47490R**	**47420**	26.6	1.05	86.0	3.39	79.0	3.11	107.0	4.21	114.0	4.49	0.36	1.67	0.92	43.7	26.9	1.62
	2.8125	127.000	5.0000	36.512	1.4375	36.170	1.4240	28.575	1.1250	3.6	0.14	3.2	0.13	196	226	35.3	**567A**	**563**	28.6	1.13	86.0	3.39	80.0	3.15	112.0	4.41	120.0	4.72	0.36	1.65	0.91	45.8	28.5	1.61
	2.8125	127.000	5.0000	36.512	1.4375	36.170	1.4240	28.575	1.1250	6.4	0.25	3.2	0.13	196	226	35.3	**567S**	**563**	28.6	1.13	92.0	3.62	80.0	3.15	112.0	4.41	120.0	4.72	0.36	1.65	0.91	45.8	28.5	1.61
	2.8125	127.000	5.0000	36.512	1.4375	36.512	1.4375	26.988	1.0625	3.6	0.14	1.6	0.06	209	235	36.2	**HM813849**	**HM813811**	32.9	1.30	89.0	3.50	81.9	3.22	113.0	4.45	121.0	4.76	0.50	1.20	0.66	48.6	41.7	1.17
	2.8125	130.175	5.1250	41.275	1.6250	41.275	1.6250	31.750	1.2500	3.6	0.14	3.2	0.13	246	267	41.8	**644**	**633**	30.3	1.19	87.0	3.43	81.0	3.19	116.0	4.57	124.0	4.88	0.36	1.66	0.91	57.4	35.5	1.62
	2.8125	130.175	5.1250	41.275	1.6250	41.275	1.6250	31.750	1.2500	6.4	0.25	3.2	0.13	246	267	41.8	**645**	**633**	30.3	1.19	93.0	3.66	81.0	3.19	116.0	4.57	124.0	4.88	0.36	1.66	0.91	57.4	35.5	1.62
	2.8125	133.350	5.2500	30.162	1.1875	29.769	1.1720	22.225	0.8750	3.6	0.14	3.2	0.13	167	198	30.0	**495S**	**492A**	29.8	1.17	88.0	3.46	82.0	3.23	120.0	4.72	128.0	5.04	0.44	1.35	0.74	38.8	29.4	1.32
	2.8125	133.350	5.2500	33.338	1.3125	33.338	1.3125	26.195	1.0313	3.6	0.14	0.8	0.03	193	245	37.2	**47675R**	**47620A**	29.2	1.15	88.0	3.46	82.0	3.23	121.0	4.76	128.0	5.04	0.40	1.48	0.82	44.7	30.9	1.45
	2.8125	136.525	5.3750	41.275	1.6250	41.275	1.6250	31.750	1.2500	3.6	0.14	3.2	0.13	284	308	46.1	**H414249**	**H414210**	30.3	1.19	89.0	3.50	83.3	3.28	121.0	4.76	129.0	5.08	0.36	1.67	0.92	70.0	43.1	1.62
	2.8125	136.525	5.3750	46.038	1.8125	46.038	1.8125	36.512	1.4375	3.6	0.14	3.2	0.13	290	369	49.6	**H715345**	**H715311**	37.0	1.46	93.0	3.66	87.0	3.43	118.0	4.65	132.0	5.20	0.47	1.27	0.70	67.8	54.8	1.24
73.000	2.8740	120.000	4.7244	29.002	1.1418	29.007	1.1420	23.444	0.9230	2.0	0.08	3.2	0.13	148	161	25.0	**486X**	**472A**	24.9	0.98	83.0	3.27	78.0	3.07	106.0	4.17	114.0	4.49	0.38	1.56	0.86	34.5	22.7	1.52
73.025	2.8750	112.712	4.4375	25.400	1.0000	25.400	1.0000	19.050	0.7500	3.6	0.14	3.2	0.13	122	155	23.3	**29685**	**29620**	26.2	1.03	86.0	3.39	80.0	3.15	101.0	3.98	109.0	4.29	0.49	1.23	0.68	28.1	23.4	1.20
	2.8750	117.475	4.6250	25.400	1.0000	25.400	1.0000	19.050	0.7500	3.6	0.14	3.2	0.13	127	166	25.1	**LM814845**	**LM814810**	27.6	1.09	87.0	3.43	81.0	3.19	105.0	4.13	113.0	4.45	0.51	1.18	0.65	29.2	25.4	1.15
	2.8750	117.475	4.6250	30.162	1.1875	30.162	1.1875	23.812	0.9375	3.6	0.14	3.2	0.13	148	179	27.4	**33287**	**33462**	27.8	1.09	87.0	3.43	80.0	3.15	104.0	4.09	112.0	4.41	0.44	1.38	0.76	34.4	25.6	1.34
	2.8750	125.412	4.9375	25.400	1.0000	25.400	1.0000	19.845	0.7813	3.6	0.14	1.6	0.06	126	162	24.4	**27680**	**27620**	24.7	0.97	88.0	3.46	82.0	3.23	115.0	4.53	120.0	4.72	0.42	1.44	0.79	29.2	20.8	1.41
	2.8750	127.000	5.0000	30.162	1.1875	31.000	1.2205	22.225	0.8750	3.6	0.14	3.2	0.13	179	225	32.3	**42683**	**42620**	27.1	1.07	88.0	3.46	81.0	3.19	114.0	4.49	121.0	4.76	0.42	1.43	0.79	41.4	29.6	1.40
	2.8750	127.000	5.0000	36.512	1.4375	36.170	1.4240	28.575	1.1250	3.6	0.14	3.2	0.13	196	226	35.3	**567**	**563**	28.6	1.13	88.0	3.46	81.0	3.19	112.0	4.41	120.0	4.72	0.36	1.65	0.91	45.8	28.5	1.61
	2.8750	139.992	5.5115	36.512	1.4375	36.098	1.4212	28.575	1.1250	3.6	0.14	3.2	0.13	220	262	39.8	**576R**	**572**	31.0	1.22	90.0	3.54	83.0	3.27	125.0	4.92	133.0	5.24	0.40	1.49	0.82	51.2	35.3	1.45
	2.8750	146.050	5.7500	41.275	1.6250	41.275	1.6250	31.750	1.2500	3.6	0.14	3.2	0.13	261	301	45.3	**657**	**653**	33.4	1.31	90.0	3.54	85.0	3.35	131.0	5.16	139.0	5.47	0.41	1.47	0.81	60.9	42.6	1.43
	2.8750	149.225	5.8750	41.275	1.6250	41.275	1.6250	31.750	1.2500	3.6	0.14	3.2	0.13	261	301	45.3	**657**	**652A**	33.4	1.31	90.0	3.54	85.0	3.35	132.0	5.20	141.0	5.55	0.41	1.47	0.81	60.9	42.6	1.43

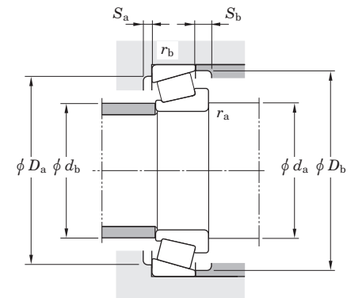
Note 1) SP indicates the specially chamfered from.

Koyo

TS type

d (73.025) ~ (76.200) mm
(2.8750) ~ (3.0000) inch





$P = XF_r + YF_a$ $P_0 = 0.5\,F_r + Y_0F_a$ or $P_0 = F_r$			
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

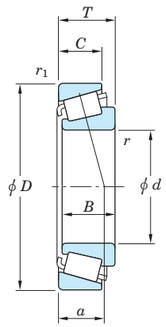
Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Constant	Axial load factors		Reference rating (kN) (500 rpm for 3 000 Hrs.)		Factor
d		D		T		B		C		r (min.)		r_1 (min.)		C_r	C_{0r}	C_u	Inner ring (Cone)	Outer ring (Cup)	a		d_a		d_b		D_a		D_b		e	Y_1	Y_0	Radial	Axial	K
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						
73.025	2.8750	149.225	5.8750	53.975	2.1250	54.229	2.1350	44.450	1.7500	3.6	0.14	3.2	0.13	357	404	54.4	**6460**	**6420**	39.3	1.55	93.0	3.66	87.0	3.43	129.0	5.08	141.0	5.55	0.36	1.66	0.91	83.9	51.9	1.62
	2.8750	150.089	5.9090	44.450	1.7500	46.672	1.8375	36.512	1.4375	3.6	0.14	3.2	0.13	330	368	50.1	**744R**	**742**	32.4	1.28	91.0	3.58	85.0	3.35	134.0	5.28	142.0	5.59	0.33	1.84	1.01	77.3	43.0	1.80
	2.8750	152.400	6.0000	41.275	1.6250	41.275	1.6250	31.750	1.2500	3.6	0.14	3.2	0.13	261	301	45.3	**657**	**652**	33.4	1.31	90.0	3.54	85.0	3.35	134.0	5.28	141.0	5.55	0.41	1.47	0.81	60.9	42.6	1.43
	2.8750	159.995	6.2990	47.625	1.8750	48.260	1.9000	38.100	1.5000	3.6	0.14	0.8	0.03	342	391	52.4	**762**	**752A**	35.5	1.40	92.0	3.62	97.0	3.82	146.0	5.75	149.0	5.87	0.34	1.76	0.97	80.0	46.6	1.72
	2.8750	161.925	6.3750	47.625	1.8750	48.260	1.9000	38.100	1.5000	3.6	0.14	3.2	0.13	342	391	52.4	**762**	**752**	35.5	1.40	92.0	3.62	97.0	3.82	144.0	5.67	150.0	5.91	0.34	1.76	0.97	80.0	46.6	1.72
73.817	2.9062	112.712	4.4375	25.400	1.0000	25.400	1.0000	19.050	0.7500	1.6	0.06	3.2	0.13	122	155	23.3	**29688**	**29620**	26.2	1.03	83.0	3.27	81.0	3.19	101.0	3.98	109.0	4.29	0.49	1.23	0.68	28.1	23.4	1.20
	2.9062	127.000	5.0000	36.512	1.4375	36.170	1.4240	28.575	1.1250	0.8	0.03	3.2	0.13	196	226	35.3	**568**	**563**	28.6	1.13	83.0	3.27	82.0	3.23	112.0	4.41	120.0	4.72	0.36	1.65	0.91	45.8	28.5	1.61
74.612	2.9375	139.992	5.5115	36.512	1.4375	36.098	1.4212	28.575	1.1250	3.6	0.14	3.2	0.13	220	262	39.8	**577R**	**572**	31.0	1.22	91.0	3.58	85.0	3.35	125.0	4.92	133.0	5.24	0.40	1.49	0.82	51.2	35.3	1.45
	2.9375	146.050	5.7500	41.275	1.6250	41.275	1.6250	31.750	1.2500	3.6	0.14	3.2	0.13	261	301	45.3	**658**	**653**	33.4	1.31	92.0	3.62	86.0	3.39	131.0	5.16	139.0	5.47	0.41	1.47	0.81	60.9	42.6	1.43
	2.9375	150.000	5.9055	41.275	1.6250	41.275	1.6250	31.750	1.2500	3.6	0.14	3.0	0.12	261	301	45.3	**658**	**653X**	33.4	1.31	92.0	3.62	86.0	3.39	133.0	5.24	141.0	5.55	0.41	1.47	0.81	60.9	42.6	1.43
74.976	2.9518	121.442	4.7812	24.608	0.9688	23.012	0.9060	17.462	0.6875	2.0	0.08	2.0	0.08	113	127	19.4	**34294**	**34478**	26.8	1.06	85.0	3.35	83.0	3.27	110.0	4.33	116.0	4.57	0.45	1.33	0.73	26.0	20.0	1.30
74.986	2.9522	127.000	5.0000	30.162	1.1875	31.000	1.2205	22.225	0.8750	2.4	0.09	3.2	0.13	179	225	32.3	**42686X**	**42620**	27.1	1.07	85.0	3.35	81.0	3.19	114.0	4.49	121.0	4.76	0.42	1.43	0.79	41.4	29.6	1.40
74.988	2.9523	127.000	5.0000	30.162	1.1875	31.000	1.2205	22.225	0.8750	6.4	0.25	3.2	0.13	179	225	32.3	**42686**	**42620**	27.1	1.07	95.0	3.74	84.0	3.31	114.0	4.49	121.0	4.76	0.42	1.43	0.79	41.4	29.6	1.40
75.000	2.9528	121.442	4.7812	24.608	0.9688	23.012	0.9060	17.462	0.6875	2.4	0.09	2.0	0.08	113	127	19.4	**34295**	**34478**	26.8	1.06	86.0	3.39	83.0	3.27	110.0	4.33	116.0	4.57	0.45	1.33	0.73	26.0	20.0	1.30
	2.9528	161.925	6.3750	53.975	2.1250	55.100	2.1693	42.862	1.6875	3.0	0.12	3.2	0.13	395	471	61.4	**6555R**	**6535**	41.0	1.61	95.0	3.74	85.0	3.35	141.0	5.55	154.0	6.06	0.40	1.50	0.82	92.9	63.5	1.46
76.200	3.0000	121.442	4.7812	24.608	0.9688	23.012	0.9060	17.462	0.6875	3.6	0.14	2.0	0.08	113	127	19.4	**34301**	**34478**	26.8	1.06	89.0	3.50	83.0	3.27	110.0	4.33	116.0	4.57	0.45	1.33	0.73	26.0	20.0	1.30
	3.0000	125.412	4.9375	25.400	1.0000	25.400	1.0000	19.845	0.7813	3.6	0.14	1.6	0.06	126	162	24.4	**27684**	**27620**	24.7	0.97	91.0	3.58	84.0	3.31	115.0	4.53	120.0	4.72	0.42	1.44	0.79	29.2	20.8	1.41
	3.0000	127.000	5.0000	26.988	1.0625	23.012	0.9060	19.842	0.7812	2.0	0.08	3.2	0.13	113	127	19.4	**34300**	**34500**	29.2	1.15	86.0	3.39	83.0	3.27	112.0	4.41	118.0	4.65	0.45	1.33	0.73	26.0	20.0	1.30
	3.0000	127.000	5.0000	30.162	1.1875	31.000	1.2205	22.225	0.8750	3.6	0.14	3.2	0.13	179	225	32.3	**42687**	**42620**	27.1	1.07	90.0	3.54	84.0	3.31	114.0	4.49	121.0	4.76	0.42	1.43	0.79	41.4	29.6	1.40
	3.0000	127.000	5.0000	30.162	1.1875	31.000	1.2205	22.225	0.8750	6.4	0.25	3.2	0.13	179	225	32.3	**42688**	**42620**	27.1	1.07	96.0	3.78	84.0	3.31	114.0	4.49	121.0	4.76	0.42	1.43	0.79	41.4	29.6	1.40
	3.0000	129.975	5.1171	33.249	1.3090	31.000	1.2205	27.000	1.0630	3.6	0.14	2.4	0.09	179	225	32.3	**42687**	**42624**	30.1	1.19	90.0	3.54	84.0	3.31	114.0	4.49	121.0	4.76	0.42	1.43	0.79	41.4	29.6	1.40
	3.0000	133.350	5.2500	30.162	1.1875	29.769	1.1720	22.225	0.8750	6.4	0.25	3.2	0.13	167	198	30.0	**495AX**	**492A**	29.8	1.17	98.0	3.86	86.0	3.39	120.0	4.72	128.0	5.04	0.44	1.35	0.74	38.8	29.4	1.32
	3.0000	133.350	5.2500	33.338	1.3125	33.338	1.3125	26.195	1.0313	6.4	0.25	3.2	0.13	193	245	37.2	**47678R**	**47620**	29.2	1.15	97.0	3.82	90.0	3.54	119.0	4.69	128.0	5.04	0.40	1.48	0.82	44.7	30.9	1.45
	3.0000	133.350	5.2500	33.338	1.3125	33.338	1.3125	26.195	1.0313	3.6	0.14	0.8	0.03	193	245	37.2	**47679R**	**47620A**	29.2	1.15	91.0	3.58	85.0	3.35	121.0	4.76	128.0	5.04	0.40	1.48	0.82	44.7	30.9	1.45
	3.0000	133.350	5.2500	33.338	1.3125	33.338	1.3125	26.195	1.0313	0.8	0.03	3.2	0.13	193	245	37.2	**47680R**	**47620**	29.2	1.15	86.0	3.39	85.0	3.35	119.0	4.69	128.0	5.04	0.40	1.48	0.82	44.7	30.9	1.45
	3.0000	135.733	5.3438	44.450	1.7500	46.101	1.8150	34.925	1.3750	3.6	0.14	3.2	0.13	267	337	51.0	**5760**	**5735**	33.0	1.30	94.0	3.70	88.0	3.46	119.0	4.69	130.0	5.12	0.41	1.48	0.81	62.5	43.4	1.44
	3.0000	136.525	5.3750	30.162	1.1875	29.769	1.1720	22.225	0.8750	3.6	0.14	3.2	0.13	167	198	30.0	**495A**	**493**	29.8	1.17	92.0	3.62	86.0	3.39	122.0	4.80	130.0	5.12	0.44	1.35	0.74	38.8	29.4	1.32
	3.0000	139.992	5.5115	36.512	1.4375	36.098	1.4212	28.575	1.1250	3.6	0.14	3.2	0.13	220	262	39.8	**575R**	**572**	31.0	1.22	92.0	3.62	86.0	3.39	125.0	4.92	133.0	5.24	0.40	1.49	0.82	51.2	35.3	1.45
	3.0000	139.992	5.5115	36.512	1.4375	36.098	1.4212	28.575	1.1250	6.7	0.26	3.2	0.13	220	262	39.8	**575SR**	**572**	31.0	1.22	99.0	3.90	86.0	3.39	125.0	4.92	133.0	5.24	0.40	1.49	0.82	51.2	35.3	1.45
	3.0000	147.638	5.8125	35.717	1.4062	36.322	1.4300	26.192	1.0312	3.6	0.14	0.8	0.03	230	287	42.5	**590A**	**592XE**	33.4	1.31	95.0	3.74	89.0	3.50	135.0	5.31	142.0	5.59	0.44	1.36	0.75	53.5	40.4	1.32
	3.0000	149.225	5.8750	53.975	2.1250	54.229	2.1350	44.450	1.7500	3.6	0.14	3.2	0.13	357	404	54.4	**6461**	**6420**	39.3	1.55	96.0	3.78	89.5	3.52	129.0	5.08	141.0	5.55	0.36	1.66	0.91	83.9	51.9	1.62
	3.0000	149.225	5.8750	53.975	2.1250	54.229	2.1350	44.450	1.7500	9.5	0.37	3.2	0.13	357	404	54.4	**6461A**	**6420**	39.3	1.55	105.0	4.13	90.0	3.54	129.0	5.08	141.0	5.55	0.36	1.66	0.91	83.9	51.9	1.62
	3.0000	149.225	5.8750	53.975	2.1250	54.229	2.1350	44.450	1.7500	6.4	0.25	3.2	0.13	357	404	54.4	**6466**	**6420**	39.3	1.55	100.0	3.94	90.0	3.54	129.0	5.08	141.0	5.55	0.36	1.66	0.91	83.9	51.9	1.62
	3.0000	150.089	5.9090	44.450	1.7500	46.672	1.8375	36.512	1.4375	3.6	0.14	3.2	0.13	330	368	50.1	**748SR**	**742**	32.4	1.28	93.0	3.66	87.0	3.43	134.0	5.28	142.0	5.59	0.33	1.84	1.01	77.3	43.0	1.80
	3.0000	152.400	6.0000	41.275	1.6250	41.275	1.6250	31.750	1.2500	3.6	0.14	3.2	0.13	261	301	45.3	**659**	**652**	33.4	1.31	93.0	3.66	87.0	3.43	134.0	5.28	141.0	5.55	0.41	1.47	0.81	60.9	42.6	1.43
	3.0000	159.995	6.2990	47.625	1.8750	48.260	1.9000	38.100	1.5000	3.6	0.14	0.8	0.03	342	391	52.4	**755**	**752A**	35.5	1.40	95.0	3.74	88.0	3.46	146.0	5.75	149.0	5.87	0.34	1.76	0.97	80.0	46.6	1.72
	3.0000	160.338	6.3125	53.975	2.1250	55.100	2.1693	44.450	1.7500	6.4	0.25	3.2	0.13	395	471	61.4	**6575R**	**6521**	41.0	1.61	104.0	4.09	94.0	3.70	141.0	5.55	154.0	6.06	0.40	1.50	0.82	92.9	63.5	1.46
	3.0000	161.925	6.3750	53.975	2.1250	55.100	2.1693	42.862	1.6875	6.4	0.25	0.8	0.03	395	471	61.4	**6575R**	**6536**	41.0	1.61	104.0	4.09	92.0	3.62	144.0	5.67	154.0	6.06	0.40	1.50	0.82	92.9	63.5	1.46

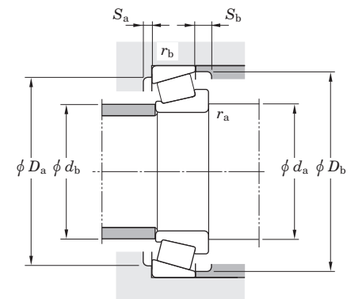
Note 1) SP indicates the specially chamfered from.

Koyo

TS type

d (76.200) ~ (82.550) mm
(3.0000) ~ (3.2500) inch





$P = XF_r + YF_a$ $P_0 = 0.5\,F_r + Y_0F_a$ or $P_0 = F_r$			
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

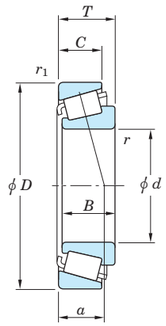
Boundary dimensions d mm	d inch	D mm	D inch	T mm	T inch	B mm	B inch	C mm	C inch	r (min.) mm	r (min.) inch	r_1 (min.) mm	r_1 (min.) inch	Basic load ratings (kN) C_r	Basic load ratings (kN) C_{0r}	Fatigue load limit (kN) C_u	Bearing No. Inner ring (Cone)	Bearing No. Outer ring (Cup)	Load center a mm	Load center a inch	Mounting dimensions d_a mm	d_a inch	d_b mm	d_b inch	D_a mm	D_a inch	D_b mm	D_b inch	Constant e	Axial load factors Y_1	Axial load factors Y_0	Reference rating (kN) (500 rpm for 3 000 Hrs.) Radial	Reference rating (kN) Axial	Factor K
76.200	3.0000	161.925	6.3750	53.975	2.1250	55.100	2.1693	42.862	1.6875	3.6	0.14	3.2	0.13	395	471	61.4	**6576R**	**6535**	41.0	1.61	99.0	3.90	89.0	3.50	141.0	5.55	154.0	6.06	0.40	1.50	0.82	92.9	63.5	1.46
	3.0000	168.275	6.6250	47.625	1.8750	48.260	1.9000	38.100	1.5000	3.6	0.14	3.2	0.13	342	391	52.4	**755**	**753**	35.5	1.40	95.0	3.74	88.0	3.46	147.0	5.79	150.0	5.91	0.34	1.76	0.97	80.0	46.6	1.72
	3.0000	169.850	6.6870	62.705	2.4687	63.830	2.5130	44.450	1.7500	3.6	0.14	3.2	0.13	395	471	61.4	**6554R**	**6520**	41.0	1.61	99.0	3.90	89.0	3.50	147.0	5.79	162.0	6.38	0.40	1.50	0.82	92.9	63.5	1.46
	3.0000	190.500	7.5000	57.150	2.2500	57.531	2.2650	46.038	1.8125	3.6	0.14	3.2	0.13	549	602	76.9	**HH221430**	**HH221410**	42.5	1.67	101.0	3.98	95.0	3.74	171.0	6.73	179.0	7.05	0.33	1.79	0.99	129	73.6	1.75
77.356	3.0455	121.442	4.7812	24.608	0.9688	23.012	0.9060	17.462	0.6875	3.6	0.14	2.0	0.08	113	127	19.4	**34304**	**34478**	26.8	1.06	90.0	3.54	85.0	3.35	110.0	4.33	116.0	4.57	0.45	1.33	0.73	26.0	20.0	1.30
77.788	3.0625	117.475	4.6250	25.400	1.0000	25.400	1.0000	19.050	0.7500	3.6	0.14	3.2	0.13	127	166	25.1	**LM814849**	**LM814810**	27.6	1.09	91.0	3.58	85.0	3.35	105.0	4.13	113.0	4.45	0.51	1.18	0.65	29.2	25.4	1.15
	3.0625	121.442	4.7812	24.608	0.9688	23.012	0.9060	17.462	0.6875	3.6	0.14	2.0	0.08	113	127	19.4	**34306**	**34478**	26.8	1.06	90.0	3.54	84.0	3.31	110.0	4.33	116.0	4.57	0.45	1.33	0.73	26.0	20.0	1.30
	3.0625	121.442	4.7812	24.608	0.9688	23.012	0.9060	17.462	0.6875	6.4	0.25	2.0	0.08	113	127	19.4	**34307**	**34478**	26.8	1.06	96.0	3.78	84.0	3.31	110.0	4.33	116.0	4.57	0.45	1.33	0.73	26.0	20.0	1.30
	3.0625	127.000	5.0000	30.162	1.1875	31.000	1.2205	22.225	0.8750	3.6	0.14	3.2	0.13	179	225	32.3	**42690**	**42620**	27.1	1.07	91.0	3.58	85.0	3.35	114.0	4.49	121.0	4.76	0.42	1.43	0.79	41.4	29.6	1.40
	3.0625	133.350	5.2500	30.162	1.1875	29.769	1.1720	22.225	0.8750	3.6	0.14	3.2	0.13	167	198	30.0	**495AS**	**492A**	29.8	1.17	93.0	3.66	87.0	3.43	120.0	4.72	128.0	5.04	0.44	1.35	0.74	38.8	29.4	1.32
	3.0625	135.733	5.3438	44.450	1.7500	46.101	1.8150	34.925	1.3750	3.6	0.14	3.2	0.13	267	337	51.0	**5795**	**5735**	33.0	1.30	96.0	3.78	89.0	3.50	119.0	4.69	130.0	5.12	0.41	1.48	0.81	62.5	43.4	1.44
	3.0625	146.050	5.7500	33.338	1.3125	34.925	1.3750	26.195	1.0313	3.6	0.14	3.2	0.13	223	293	43.2	**47880R**	**47820**	32.6	1.28	93.0	3.66	87.0	3.43	131.0	5.16	140.0	5.51	0.45	1.34	0.74	51.6	39.5	1.31
79.375	3.1250	146.050	5.7500	41.275	1.6250	41.275	1.6250	31.750	1.2500	3.6	0.14	3.2	0.13	261	301	45.3	**661**	**653**	33.4	1.31	96.0	3.78	90.0	3.54	131.0	5.16	139.0	5.47	0.41	1.47	0.81	60.9	42.6	1.43
	3.1250	147.638	5.8125	35.717	1.4062	36.322	1.4300	26.192	1.0312	3.6	0.14	3.2	0.13	230	287	42.5	**595A**	**592XS**	33.4	1.31	98.0	3.86	91.0	3.58	133.0	5.24	142.0	5.59	0.44	1.36	0.75	53.5	40.4	1.32
	3.1250	150.089	5.9090	44.450	1.7500	46.672	1.8375	36.512	1.4375	3.6	0.14	3.2	0.13	330	368	50.1	**750R**	**742**	32.4	1.28	96.0	3.78	90.0	3.54	134.0	5.28	142.0	5.59	0.33	1.84	1.01	77.3	43.0	1.80
	3.1250	161.925	6.3750	47.625	1.8750	48.260	1.9000	38.100	1.5000	7.9	0.31	3.2	0.13	342	391	52.4	**756A**	**752**	35.5	1.40	106.0	4.17	91.0	3.58	144.0	5.67	150.0	5.91	0.34	1.76	0.97	80.0	46.6	1.72
	3.1250	190.500	7.5000	57.150	2.2500	57.531	2.2650	46.038	1.8125	3.6	0.14	3.2	0.13	549	602	76.9	**HH221431**	**HH221410**	42.5	1.67	103.0	4.06	97.0	3.82	171.0	6.73	179.0	7.05	0.33	1.79	0.99	129	73.6	1.75
79.985	3.1490	136.525	5.3750	30.162	1.1875	29.769	1.1720	22.225	0.8750	3.6	0.14	3.2	0.13	167	198	30.0	**496X**	**493**	29.8	1.17	94.0	3.70	88.0	3.46	122.0	4.80	130.0	5.12	0.44	1.35	0.74	38.8	29.4	1.32
	3.1490	139.992	5.5115	36.512	1.4375	36.098	1.4212	28.575	1.1250	3.6	0.14	3.2	0.13	220	262	39.8	**578R**	**572**	31.0	1.22	95.0	3.74	89.0	3.50	125.0	4.92	133.0	5.24	0.40	1.49	0.82	51.2	35.3	1.45
	3.1490	152.400	6.0000	39.688	1.5625	36.322	1.4300	30.162	1.1875	3.6	0.14	3.2	0.13	230	287	42.5	**590**	**592A**	37.1	1.46	98.0	3.86	92.0	3.62	135.0	5.31	144.0	5.67	0.44	1.36	0.75	53.5	40.4	1.32
80.000	3.1496	150.089	5.9090	44.450	1.7500	46.672	1.8375	36.512	1.4375	3.0	0.12	3.2	0.13	330	368	50.1	**748R**	**742**	32.4	1.28	95.0	3.74	91.0	3.58	134.0	5.28	142.0	5.59	0.33	1.84	1.01	77.3	43.0	1.80
	3.1496	161.925	6.3750	53.975	2.1250	55.100	2.1693	42.862	1.6875	3.0	0.12	3.2	0.13	395	471	61.4	**6556R**	**6535**	41.0	1.61	99.0	3.90	89.0	3.50	141.0	5.55	154.0	6.06	0.40	1.50	0.82	92.9	63.5	1.46
	3.1496	168.275	6.6250	53.975	2.1250	56.363	2.2190	41.275	1.6250	3.0	0.12	3.2	0.13	429	467	62.1	**838XR**	**832**	35.0	1.38	93.0	3.66	92.0	3.62	149.0	5.87	155.0	6.10	0.30	2.00	1.10	101	51.6	1.95
	3.1496	190.500	7.5000	57.150	2.2500	57.531	2.2650	44.450	1.7500	3.0	0.12	3.2	0.13	482	565	72.4	**864XR**	**854**	39.9	1.57	100.0	3.94	95.0	3.74	170.0	6.69	174.0	6.85	0.33	1.79	0.99	113	64.6	1.75
	3.1496	200.000	7.8740	52.761	2.0772	49.212	1.9375	34.925	1.3750	3.6	0.14	3.2	0.13	433	471	58.8	**98316**	**98788**	54.5	2.15	111.0	4.37	105.0	4.13	174.0	6.85	188.0	7.40	0.63	0.95	0.52	101	109	0.93
80.962	3.1875	133.350	5.2500	30.162	1.1875	29.769	1.1720	22.225	0.8750	3.6	0.14	3.2	0.13	167	198	30.0	**496**	**492A**	29.8	1.17	95.0	3.74	89.0	3.50	120.0	4.72	128.0	5.04	0.44	1.35	0.74	38.8	29.4	1.32
	3.1875	133.350	5.2500	33.338	1.3125	33.338	1.3125	26.195	1.0313	3.6	0.14	3.2	0.13	193	245	37.2	**47681R**	**47620**	29.2	1.15	95.0	3.74	89.0	3.50	119.0	4.69	128.0	5.04	0.40	1.48	0.82	44.7	30.9	1.45
	3.1875	133.350	5.2500	33.338	1.3125	33.338	1.3125	26.195	1.0313	3.6	0.14	0.8	0.03	193	245	37.2	**47681R**	**47620A**	29.2	1.15	95.0	3.74	89.0	3.50	121.0	4.76	128.0	5.04	0.40	1.48	0.82	44.7	30.9	1.45
	3.1875	133.350	5.2500	39.688	1.5625	39.688	1.5625	32.545	1.2813	3.6	0.14	3.2	0.13	222	306	45.9	**HM516447**	**HM516410**	32.2	1.27	97.0	3.82	91.0	3.58	118.0	4.65	128.0	5.04	0.40	1.49	0.82	51.8	35.6	1.46
	3.1875	139.992	5.5115	36.512	1.4375	36.098	1.4212	28.575	1.1250	3.6	0.14	3.2	0.13	220	262	39.8	**581R**	**572**	31.0	1.22	96.0	3.78	90.0	3.54	125.0	4.92	133.0	5.24	0.40	1.49	0.82	51.2	35.3	1.45
	3.1875	146.050	5.7500	38.100	1.5000	38.100	1.5000	31.750	1.2500	3.6	0.14	3.2	0.13	261	301	45.3	**662**	**653**	30.2	1.19	97.0	3.82	90.0	3.54	131.0	5.16	139.0	5.47	0.41	1.47	0.81	60.9	42.6	1.43
	3.1875	150.089	5.9090	44.450	1.7500	46.672	1.8375	36.512	1.4375	5.2	0.20	3.2	0.13	330	368	50.1	**740R**	**742**	32.4	1.28	101.0	3.98	91.0	3.58	134.0	5.28	142.0	5.59	0.33	1.84	1.01	77.3	43.0	1.80
81.699	3.2165	136.525	5.3750	30.162	1.1875	29.769	1.1720	22.225	0.8750	3.6	0.14	3.2	0.13	167	198	30.0	**496AS**	**493**	29.8	1.17	96.0	3.78	90.0	3.54	122.0	4.80	130.0	5.12	0.44	1.35	0.74	38.8	29.4	1.32
82.550	3.2500	125.412	4.9375	25.400	1.0000	25.400	1.0000	19.845	0.7813	3.6	0.14	1.6	0.06	126	162	24.4	**27687**	**27620**	24.7	0.97	96.0	3.78	89.0	3.50	115.0	4.53	120.0	4.72	0.42	1.44	0.79	29.2	20.8	1.41
	3.2500	133.350	5.2500	30.162	1.1875	29.769	1.1720	22.225	0.8750	3.6	0.14	3.2	0.13	167	198	30.0	**495**	**492A**	29.8	1.17	97.0	3.82	90.0	3.54	120.0	4.72	128.0	5.04	0.44	1.35	0.74	38.8	29.4	1.32
	3.2500	133.350	5.2500	33.338	1.3125	29.769	1.1720	25.400	1.0000	3.6	0.14	3.2	0.13	167	198	30.0	**495**	**492**	33.0	1.30	97.0	3.82	90.0	3.54	120.0	4.72	128.0	5.04	0.44	1.35	0.74	38.8	29.4	1.32
	3.2500	133.350	5.2500	33.338	1.3125	33.338	1.3125	26.195	1.0313	0.8	0.03	0.8	0.03	193	245	37.2	**47685R**	**47620A**	29.2	1.15	91.0	3.58	90.0	3.54	121.0	4.76	128.0	5.04	0.40	1.48	0.82	44.7	30.9	1.45

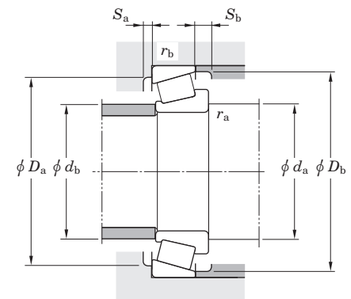
Note 1) SP indicates the specially chamfered from.

Koyo

TS type

d (82.550) ~ (85.725) mm
(3.2500) ~ (3.3750) inch





$P = XF_r + YF_a$ $P_0 = 0.5\,F_r + Y_0F_a$ or $P_0 = F_r$			
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Con-stant	Axial load factors		Reference rating (kN) (500 rpm for 3 000 Hrs.)		Factor
d		D		T		B		C		r (min.)		r_1 (min.)		C_r	C_{0r}	C_u	Inner ring (Cone)	Outer ring (Cup)	a		d_a		d_b		D_a		D_b		e	Y_1	Y_0	Radial	Axial	K
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						
82.550	3.2500	133.350	5.2500	33.338	1.3125	33.338	1.3125	26.195	1.0313	3.6	0.14	0.8	0.03	193	245	37.2	**47686R**	**47620A**	29.2	1.15	97.0	3.82	90.0	3.54	121.0	4.76	128.0	5.04	0.40	1.48	0.82	44.7	30.9	1.45
	3.2500	133.350	5.2500	33.338	1.3125	33.338	1.3125	26.195	1.0313	6.7	0.26	0.8	0.03	193	245	37.2	**47687R**	**47620A**	29.2	1.15	103.0	4.06	90.0	3.54	121.0	4.76	128.0	5.04	0.40	1.48	0.82	44.7	30.9	1.45
	3.2500	133.350	5.2500	39.688	1.5625	39.688	1.5625	32.545	1.2813	6.7	0.26	3.2	0.13	222	306	45.9	**HM516448**	**HM516410**	32.2	1.27	105.0	4.13	92.0	3.62	118.0	4.65	128.0	5.04	0.40	1.49	0.82	51.8	35.6	1.46
	3.2500	133.350	5.2500	39.688	1.5625	39.688	1.5625	32.545	1.2813	3.6	0.14	3.2	0.13	222	306	45.9	**HM516449**	**HM516410**	32.2	1.27	99.0	3.90	92.0	3.62	118.0	4.65	128.0	5.04	0.40	1.49	0.82	51.8	35.6	1.46
	3.2500	139.700	5.5000	36.512	1.4375	36.098	1.4212	28.575	1.1250	3.6	0.14	3.2	0.13	220	262	39.8	**580R**	**572X**	31.0	1.22	98.0	3.86	91.0	3.58	125.0	4.92	133.0	5.24	0.40	1.49	0.82	51.2	35.3	1.45
	3.2500	139.700	5.5000	36.512	1.4375	36.098	1.4212	28.575	1.1250	6.7	0.26	3.2	0.13	220	262	39.8	**582R**	**572X**	31.0	1.22	104.0	4.09	91.0	3.58	125.0	4.92	133.0	5.24	0.40	1.49	0.82	51.2	35.3	1.45
	3.2500	139.992	5.5115	36.512	1.4375	36.098	1.4212	28.575	1.1250	3.6	0.14	3.2	0.13	220	262	39.8	**580R**	**572**	31.0	1.22	98.0	3.86	91.0	3.58	125.0	4.92	133.0	5.24	0.40	1.49	0.82	51.2	35.3	1.45
	3.2500	139.992	5.5115	36.512	1.4375	36.098	1.4212	28.575	1.1250	6.7	0.26	3.2	0.13	220	262	39.8	**582R**	**572**	31.0	1.22	104.0	4.09	91.0	3.58	125.0	4.92	133.0	5.24	0.40	1.49	0.82	51.2	35.3	1.45
	3.2500	142.138	5.5960	42.862	1.6875	42.862	1.6875	34.133	1.3438	3.6	0.14	3.2	0.13	276	351	52.4	**HM617045**	**HM617010**	35.2	1.39	100.0	3.94	93.0	3.66	125.0	4.92	137.0	5.39	0.43	1.39	0.76	64.4	47.5	1.35
	3.2500	146.050	5.7500	41.275	1.6250	41.275	1.6250	31.750	1.2500	3.6	0.14	3.2	0.13	261	301	45.3	**663**	**653**	33.4	1.31	99.0	3.90	92.0	3.62	131.0	5.16	139.0	5.47	0.41	1.47	0.81	60.9	42.6	1.43
	3.2500	146.050	5.7500	41.275	1.6250	41.275	1.6250	31.750	1.2500	6.7	0.26	3.2	0.13	261	301	45.3	**663A**	**653**	33.4	1.31	105.0	4.13	92.0	3.62	131.0	5.16	139.0	5.47	0.41	1.47	0.81	60.9	42.6	1.43
	3.2500	150.000	5.9055	35.992	1.4170	36.322	1.4300	27.000	1.0630	3.6	0.14	3.0	0.12	230	287	42.5	**595**	**593X**	33.4	1.31	100.0	3.94	93.0	3.66	134.0	5.28	142.0	5.59	0.44	1.36	0.75	53.5	40.4	1.32
	3.2500	150.089	5.9090	44.450	1.7500	46.672	1.8375	36.512	1.4375	3.6	0.14	3.2	0.13	330	368	50.1	**749AR**	**742**	32.4	1.28	99.0	3.90	93.0	3.66	134.0	5.28	142.0	5.59	0.33	1.84	1.01	77.3	43.0	1.80
	3.2500	150.089	5.9090	44.450	1.7500	46.672	1.8375	36.512	1.4375	6.7	0.26	3.2	0.13	330	368	50.1	**750AR**	**742**	32.4	1.28	106.0	4.17	93.0	3.66	134.0	5.28	142.0	5.59	0.33	1.84	1.01	77.3	43.0	1.80
	3.2500	161.925	6.3750	47.625	1.8750	48.260	1.9000	38.100	1.5000	3.6	0.14	3.2	0.13	342	391	52.4	**757**	**752**	35.5	1.40	100.0	3.94	94.0	3.70	144.0	5.67	150.0	5.91	0.34	1.76	0.97	80.0	46.6	1.72
	3.2500	161.925	6.3750	53.975	2.1250	55.100	2.1693	42.862	1.6875	3.6	0.14	3.2	0.13	395	471	61.4	**6559R**	**6535**	41.0	1.61	104.0	4.09	98.0	3.86	141.0	5.55	154.0	6.06	0.40	1.50	0.82	92.9	63.5	1.46
	3.2500	168.275	6.6250	53.975	2.1250	56.363	2.2190	41.275	1.6250	0.8	0.03	3.2	0.13	429	467	62.1	**839R**	**832**	35.0	1.38	95.0	3.74	94.0	3.70	149.0	5.87	155.0	6.10	0.30	2.00	1.10	101	51.6	1.95
	3.2500	190.500	7.5000	57.150	2.2500	57.531	2.2650	44.450	1.7500	3.2	0.13	3.2	0.13	482	565	72.4	**867XR**	**854**	39.9	1.57	103.0	4.06	98.0	3.86	170.0	6.69	174.0	6.85	0.33	1.79	0.99	113	64.6	1.75
83.345	3.2813	125.412	4.9375	25.400	1.0000	25.400	1.0000	19.845	0.7813	0.8	0.03	1.6	0.06	126	162	24.4	**27689**	**27620**	24.7	0.97	90.0	3.54	90.0	3.54	115.0	4.53	120.0	4.72	0.42	1.44	0.79	29.2	20.8	1.41
	3.2813	125.412	4.9375	25.400	1.0000	25.400	1.0000	19.845	0.7813	3.6	0.14	1.6	0.06	126	162	24.4	**27690**	**27620**	24.7	0.97	96.0	3.78	90.0	3.54	115.0	4.53	120.0	4.72	0.42	1.44	0.79	29.2	20.8	1.41
	3.2813	125.412	4.9375	25.400	1.0000	25.400	1.0000	19.845	0.7813	6.4	0.25	1.6	0.06	126	162	24.4	**27691**	**27620**	24.7	0.97	102.0	4.02	90.0	3.54	115.0	4.53	120.0	4.72	0.42	1.44	0.79	29.2	20.8	1.41
	3.2813	133.350	5.2500	33.338	1.3125	33.338	1.3125	26.195	1.0313	3.6	0.14	3.2	0.13	193	245	37.2	**47688R**	**47620**	29.2	1.15	97.0	3.82	90.0	3.54	119.0	4.69	128.0	5.04	0.40	1.48	0.82	44.7	30.9	1.45
84.138	3.3125	133.350	5.2500	30.162	1.1875	29.769	1.1720	22.225	0.8750	3.6	0.14	3.2	0.13	167	198	30.0	**498**	**492A**	29.8	1.17	98.0	3.86	91.0	3.58	120.0	4.72	128.0	5.04	0.44	1.35	0.74	38.8	29.4	1.32
	3.3125	149.225	5.8750	41.275	1.6250	41.275	1.6250	31.750	1.2500	3.6	0.14	3.2	0.13	261	301	45.3	**664**	**652A**	33.4	1.31	100.0	3.94	95.0	3.74	132.0	5.20	141.0	5.55	0.41	1.47	0.81	60.9	42.6	1.43
	3.3125	152.400	6.0000	41.275	1.6250	41.275	1.6250	31.750	1.2500	3.6	0.14	3.2	0.13	261	301	45.3	**664**	**652**	33.4	1.31	100.0	3.94	95.0	3.74	134.0	5.28	141.0	5.55	0.41	1.47	0.81	60.9	42.6	1.43
84.963	3.3450	161.925	6.3750	53.975	2.1250	55.100	2.1693	42.862	1.6875	3.6	0.14	3.2	0.13	395	471	61.4	**6578R**	**6535**	41.0	1.61	109.0	4.29	98.0	3.86	141.0	5.55	154.0	6.06	0.40	1.50	0.82	92.9	63.5	1.46
84.976	3.3455	136.525	5.3750	30.162	1.1875	29.769	1.1720	22.225	0.8750	3.6	0.14	3.2	0.13	167	198	30.0	**499A**	**493**	29.8	1.17	98.0	3.86	92.0	3.62	122.0	4.80	130.0	5.12	0.44	1.35	0.74	38.8	29.4	1.32
85.000	3.3465	152.400	6.0000	39.688	1.5625	36.322	1.4300	30.162	1.1875	3.2	0.13	3.2	0.13	230	287	42.5	**596X**	**592A**	37.1	1.46	101.0	3.98	96.0	3.78	135.0	5.31	144.0	5.67	0.44	1.36	0.75	53.5	40.4	1.32
	3.3465	152.400	6.0000	39.688	1.5625	36.322	1.4300	30.162	1.1875	3.0	0.12	3.2	0.13	230	287	42.5	**599X**	**592A**	37.1	1.46	100.0	3.94	96.0	3.78	135.0	5.31	144.0	5.67	0.44	1.36	0.75	53.5	40.4	1.32
	3.3465	161.925	6.3750	53.975	2.1250	55.100	2.1693	42.862	1.6875	3.0	0.12	3.2	0.13	395	471	61.4	**6557R**	**6535**	41.0	1.61	95.0	3.74	85.0	3.35	141.0	5.55	154.0	6.06	0.40	1.50	0.82	92.9	63.5	1.46
	3.3465	190.500	7.5000	57.150	2.2500	57.531	2.2650	44.450	1.7500	3.0	0.12	3.2	0.13	482	565	72.4	**865XR**	**854**	39.9	1.57	105.0	4.13	100.0	3.94	170.0	6.69	174.0	6.85	0.33	1.79	0.99	113	64.6	1.75
	3.3465	200.000	7.8740	52.761	2.0772	49.212	1.9375	34.925	1.3750	3.6	0.14	3.2	0.13	433	471	58.8	**98335**	**98788**	54.5	2.15	115.0	4.53	109.0	4.29	174.0	6.85	188.0	7.40	0.63	0.95	0.52	101	109	0.93
85.026	3.3475	150.089	5.9090	44.450	1.7500	46.672	1.8375	36.512	1.4375	3.6	0.14	3.2	0.13	330	368	50.1	**749R**	**742**	32.4	1.28	101.0	3.98	95.0	3.74	134.0	5.28	142.0	5.59	0.33	1.84	1.01	77.3	43.0	1.80
	3.3475	150.089	5.9090	44.450	1.7500	46.672	1.8375	36.512	1.4375	5.2	0.20	3.2	0.13	330	368	50.1	**749SR**	**742**	32.4	1.28	104.0	4.09	95.0	3.74	134.0	5.28	142.0	5.59	0.33	1.84	1.01	77.3	43.0	1.80
85.725	3.3750	133.350	5.2500	30.162	1.1875	29.769	1.1720	22.225	0.8750	3.6	0.14	3.2	0.13	167	198	30.0	**497**	**492A**	29.8	1.17	99.0	3.90	93.0	3.66	120.0	4.72	128.0	5.04	0.44	1.35	0.74	38.8	29.4	1.32
	3.3750	136.525	5.3750	30.162	1.1875	29.769	1.1720	22.225	0.8750	6.4	0.25	3.2	0.13	167	198	30.0	**497A**	**493**	29.8	1.17	105.0	4.13	93.0	3.66	122.0	4.80	130.0	5.12	0.44	1.35	0.74	38.8	29.4	1.32
	3.3750	142.138	5.5960	42.862	1.6875	42.862	1.6875	34.133	1.3438	1.6	0.06	3.2	0.13	276	351	52.4	**HM617048**	**HM617010**	35.2	1.39	98.0	3.86	92.0	3.62	125.0	4.92	137.0	5.39	0.43	1.39	0.76	64.4	47.5	1.35
	3.3750	142.138	5.5960	42.862	1.6875	42.862	1.6875	34.133	1.3438	4.8	0.19	3.2	0.13	276	351	52.4	**HM617049**	**HM617010**	35.2	1.39	106.0	4.17	95.7	3.77	125.0	4.92	137.0	5.39	0.43	1.39	0.76	64.4	47.5	1.35

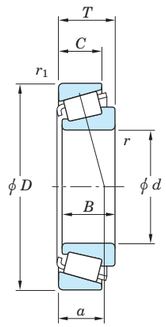
Note 1) SP indicates the specially chamfered from.

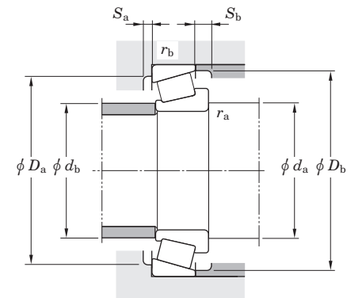
Koyo

TS type

d (85.725) ~ 89.992 mm

(3.3750) ~ 3.5430 inch





$P = XF_r + YF_a$ $P_0 = 0.5\,F_r + Y_0F_a$ or $P_0 = F_r$			
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

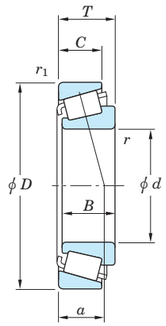
Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Con-stant	Axial load factors		Reference rating (kN) (500 rpm for 3 000 Hrs.)		Factor
d		D		T		B		C		r (min.)		r_1 (min.)		C_r	C_{0r}	C_u	Inner ring (Cone)	Outer ring (Cup)	a		d_a		d_b		D_a		D_b		e	Y_1	Y_0	Radial	Axial	K
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						
85.725	3.3750	146.050	5.7500	41.275	1.6250	41.275	1.6250	31.750	1.2500	3.6	0.14	3.2	0.13	261	301	45.3	**665**	**653**	33.4	1.31	102.0	4.02	95.0	3.74	131.0	5.16	139.0	5.47	0.41	1.47	0.81	60.9	42.6	1.43
	3.3750	146.050	5.7500	41.275	1.6250	41.275	1.6250	31.750	1.2500	6.4	0.25	3.2	0.13	261	301	45.3	**665A**	**653**	33.4	1.31	107.0	4.21	95.0	3.74	131.0	5.16	139.0	5.47	0.41	1.47	0.81	60.9	42.6	1.43
	3.3750	152.400	6.0000	39.688	1.5625	36.322	1.4300	30.162	1.1875	3.6	0.14	3.2	0.13	230	287	42.5	**596**	**592A**	37.1	1.46	102.0	4.02	96.0	3.78	135.0	5.31	144.0	5.67	0.44	1.36	0.75	53.5	40.4	1.32
	3.3750	161.925	6.3750	47.625	1.8750	48.260	1.9000	38.100	1.5000	3.6	0.14	3.2	0.13	342	391	52.4	**758**	**752**	35.5	1.40	103.0	4.06	97.0	3.82	144.0	5.67	150.0	5.91	0.34	1.76	0.97	80.0	46.6	1.72
	3.3750	161.925	6.3750	62.705	2.4687	63.830	2.5130	42.862	1.6875	6.7	0.26	3.2	0.13	395	471	61.4	**6553R**	**6535**	49.8	1.96	113.0	4.45	98.0	3.86	141.0	5.55	154.0	6.06	0.40	1.50	0.82	92.9	63.5	1.46
	3.3750	168.275	6.6250	41.275	1.6250	41.275	1.6250	30.162	1.1875	3.6	0.14	3.2	0.13	282	349	50.4	**677**	**672**	38.6	1.52	105.0	4.13	99.0	3.90	149.0	5.87	160.0	6.30	0.47	1.28	0.70	65.8	52.9	1.24
	3.3750	168.275	6.6250	53.975	2.1250	56.363	2.2190	41.275	1.6250	3.6	0.14	3.2	0.13	429	467	62.1	**841R**	**832**	35.0	1.38	104.0	4.09	97.0	3.82	149.0	5.87	155.0	6.10	0.30	2.00	1.10	101	51.6	1.95
	3.3750	170.045	6.6947	41.275	1.6250	41.275	1.6250	30.162	1.1875	3.6	0.14	2.4	0.09	282	349	50.4	**677**	**673SA**	38.6	1.52	105.0	4.13	99.0	3.90	151.0	5.94	160.0	6.30	0.47	1.28	0.70	65.8	52.9	1.24
87.312	3.4375	123.825	4.8750	20.638	0.8125	20.638	0.8125	16.670	0.6563	1.6	0.06	1.6	0.06	102	145	21.5	**L217847**	**L217810**	20.7	0.81	96.0	3.78	93.0	3.66	116.0	4.57	119.0	4.69	0.33	1.82	1.00	23.5	13.2	1.77
	3.4375	136.525	5.3750	30.162	1.1875	29.769	1.1720	22.225	0.8750	3.6	0.14	3.2	0.13	167	198	30.0	**495X**	**493**	29.8	1.17	100.0	3.94	94.0	3.70	122.0	4.80	130.0	5.12	0.44	1.35	0.74	38.8	29.4	1.32
	3.4375	152.400	6.0000	39.688	1.5625	36.322	1.4300	30.162	1.1875	3.6	0.14	3.2	0.13	230	287	42.5	**596S**	**592A**	37.1	1.46	103.0	4.06	97.0	3.82	135.0	5.31	144.0	5.67	0.44	1.36	0.75	53.5	40.4	1.32
	3.4375	190.500	7.5000	57.150	2.2500	57.531	2.2650	44.450	1.7500	7.9	0.31	3.2	0.13	482	565	72.4	**869R**	**854**	39.9	1.57	117.0	4.61	102.0	4.02	170.0	6.69	174.0	6.85	0.33	1.79	0.99	113	64.6	1.75
	3.4375	190.500	7.5000	57.150	2.2500	57.531	2.2650	46.038	1.8125	7.9	0.31	3.2	0.13	549	602	76.9	**HH221432**	**HH221410**	42.5	1.67	118.0	4.65	103.0	4.06	171.0	6.73	179.0	7.05	0.33	1.79	0.99	129	73.6	1.75
88.824	3.4970	161.925	6.3750	62.705	2.4687	63.830	2.5130	42.862	1.6875	3.6	0.14	3.2	0.13	395	471	61.4	**6552XR**	**6535**	49.8	1.96	109.0	4.29	98.0	3.86	141.0	5.55	154.0	6.06	0.40	1.50	0.82	92.9	63.5	1.46
88.900	3.5000	123.825	4.8750	20.638	0.8125	20.638	0.8125	16.670	0.6563	1.6	0.06	1.6	0.06	102	145	21.5	**L217849**	**L217810**	20.7	0.81	97.0	3.82	94.0	3.70	116.0	4.57	119.0	4.69	0.33	1.82	1.00	23.5	13.2	1.77
	3.5000	146.050	5.7500	33.338	1.3125	34.925	1.3750	26.195	1.0313	3.6	0.14	3.2	0.13	223	293	43.2	**47885R**	**47820**	32.6	1.28	104.0	4.09	98.0	3.86	131.0	5.16	140.0	5.51	0.45	1.34	0.74	51.6	39.5	1.31
	3.5000	147.638	5.8125	35.717	1.4062	36.322	1.4300	26.192	1.0312	3.6	0.14	0.8	0.03	230	287	42.5	**593**	**592XE**	33.4	1.31	104.0	4.09	98.0	3.86	135.0	5.31	142.0	5.59	0.44	1.36	0.75	53.5	40.4	1.32
	3.5000	147.638	5.8125	35.717	1.4062	36.322	1.4300	26.192	1.0312	6.4	0.25	0.8	0.03	230	287	42.5	**593A**	**592XE**	33.4	1.31	110.0	4.33	98.0	3.86	135.0	5.31	142.0	5.59	0.44	1.36	0.75	53.5	40.4	1.32
	3.5000	152.400	6.0000	39.688	1.5625	36.322	1.4300	33.338	1.3125	3.6	0.14	3.2	0.13	230	287	42.5	**593**	**592**	37.1	1.46	104.0	4.09	98.0	3.86	135.0	5.31	144.0	5.67	0.44	1.36	0.75	53.5	40.4	1.32
	3.5000	152.400	6.0000	39.688	1.5625	39.688	1.5625	30.162	1.1875	6.4	0.25	3.2	0.13	311	359	53.5	**HM518445**	**HM518410**	33.1	1.30	110.0	4.33	98.0	3.86	135.0	5.31	146.0	5.75	0.40	1.49	0.82	72.3	49.6	1.46
	3.5000	159.995	6.2990	47.625	1.8750	48.260	1.9000	38.100	1.5000	7.1	0.28	0.8	0.03	342	391	52.4	**766**	**752A**	35.5	1.40	113.0	4.45	99.0	3.90	146.0	5.75	149.0	5.87	0.34	1.76	0.97	80.0	46.6	1.72
	3.5000	160.096	6.3030	30.124	1.1860	30.162	1.1875	22.301	0.8780	2.4	0.09	3.2	0.13	207	221	32.8	**69350X**	**69630**	30.6	1.20	103.0	4.06	97.0	3.82	143.0	5.63	149.0	5.87	0.42	1.42	0.78	47.7	34.5	1.38
	3.5000	161.925	6.3750	47.625	1.8750	48.260	1.9000	38.100	1.5000	3.6	0.14	3.2	0.13	342	391	52.4	**759**	**752**	35.5	1.40	106.0	4.17	99.0	3.90	144.0	5.67	150.0	5.91	0.34	1.76	0.97	80.0	46.6	1.72
	3.5000	161.925	6.3750	47.625	1.8750	48.260	1.9000	38.100	1.5000	7.1	0.28	3.2	0.13	342	391	52.4	**766**	**752**	35.5	1.40	113.0	4.45	99.0	3.90	144.0	5.67	150.0	5.91	0.34	1.76	0.97	80.0	46.6	1.72
	3.5000	161.925	6.3750	53.975	2.4687	55.100	2.1693	42.862	1.6875	3.6	0.14	3.2	0.13	395	471	61.4	**6580R**	**6535**	49.8	1.96	109.0	4.29	98.0	3.86	141.0	5.55	154.0	6.06	0.40	1.50	0.82	92.9	63.5	1.46
	3.5000	161.925	6.3750	62.705	2.4687	63.830	2.5130	42.862	1.6875	3.6	0.14	3.2	0.13	395	471	61.4	**6552R**	**6535**	49.8	1.96	109.0	4.29	98.0	3.86	141.0	5.55	154.0	6.06	0.40	1.50	0.82	92.9	63.5	1.46
	3.5000	168.275	6.6250	41.275	1.6250	41.275	1.6250	30.162	1.1875	3.6	0.14	3.2	0.13	282	349	50.4	**679**	**672**	38.6	1.52	107.0	4.21	101.0	3.98	149.0	5.87	160.0	6.30	0.47	1.28	0.70	65.8	52.9	1.24
	3.5000	180.975	7.1250	47.625	1.8750	48.006	1.8900	38.100	1.5000	4.8	0.19	3.2	0.13	362	438	56.6	**775**	**772**	39.5	1.56	111.0	4.37	103.0	4.06	161.0	6.34	168.0	6.61	0.39	1.56	0.86	84.5	55.7	1.52
	3.5000	190.500	7.5000	57.150	2.2500	57.531	2.2650	44.450	1.7500	7.9	0.31	3.2	0.13	482	565	72.4	**855R**	**854**	40.0	1.57	118.0	4.65	103.0	4.06	170.0	6.69	174.0	6.85	0.33	1.79	0.99	113	64.6	1.75
	3.5000	190.500	7.5000	57.150	2.2500	57.531	2.2650	46.038	1.8125	7.9	0.31	3.2	0.13	549	602	76.9	**HH221434**	**HH221410**	42.5	1.67	120.0	4.72	105.0	4.13	171.0	6.73	179.0	7.05	0.33	1.79	0.99	129	73.6	1.75
	3.5000	200.000	7.8740	52.761	2.0772	49.212	1.9375	34.925	1.3750	3.6	0.14	3.2	0.13	433	471	58.8	**98350**	**98788**	54.5	2.15	118.0	4.65	112.0	4.41	174.0	6.85	188.0	7.40	0.63	0.95	0.52	101	109	0.93
	3.5000	200.025	7.8750	61.912	2.4375	57.531	2.2650	49.212	1.9375	7.9	0.31	3.2	0.13	482	565	72.4	**855R**	**854X**	44.7	1.76	118.0	4.65	103.0	4.06	173.0	6.81	173.0	6.81	0.33	1.79	0.99	113	64.6	1.75
89.090	3.5075	152.400	6.0000	39.688	1.5625	36.322	1.4300	30.162	1.1875	3.6	0.14	3.2	0.13	230	287	42.5	**593S**	**592A**	37.1	1.46	104.0	4.09	98.0	3.86	135.0	5.31	144.0	5.67	0.44	1.36	0.75	53.5	40.4	1.32
89.814	3.5360	190.500	7.5000	57.150	2.2500	57.531	2.2650	44.450	1.7500	7.9	0.31	3.2	0.13	482	565	72.4	**857XR**	**854**	39.9	1.57	119.0	4.69	104.0	4.09	170.0	6.69	174.0	6.85	0.33	1.79	0.99	113	64.6	1.75
89.891	3.5390	168.275	6.6250	53.975	2.1250	56.363	2.2190	41.275	1.6250	3.6	0.14	3.2	0.13	429	467	62.1	**850AR**	**832**	35.0	1.38	107.0	4.21	101.0	3.98	149.0	5.87	155.0	6.10	0.30	2.00	1.10	101	51.6	1.95
89.974	3.5423	146.975	5.7864	40.000	1.5748	40.000	1.5748	32.500	1.2795	7.1	0.28	3.6	0.14	259	310	46.6	**HM218248**	**HM218210**	30.8	1.21	112.0	4.41	99.0	3.90	133.0	5.24	141.0	5.55	0.33	1.80	0.99	60.4	34.4	1.76
89.992	3.5430	160.096	6.3030	30.124	1.1860	30.162	1.1875	22.301	0.8780	2.4	0.09	3.2	0.13	207	221	32.8	**69354**	**69630**	30.6	1.20	103.0	4.06	97.0	3.82	143.0	5.63	149.0	5.87	0.42	1.42	0.78	47.7	34.5	1.38

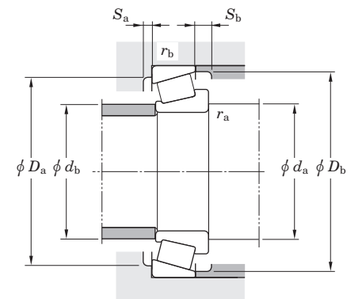
Note 1) SP indicates the specially chamfered from.

Koyo

TS type

d 90.000 ~ 98.425 mm
3.5433 ~ 3.8750 inch





$P = XF_r + YF_a$ $P_0 = 0.5\,F_r + Y_0F_a$ or $P_0 = F_r$			
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

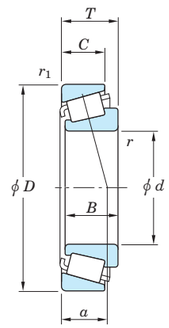
Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Constant	Axial load factors		Reference rating (kN) (500 rpm for 3 000 Hrs.)		Factor
d		D		T		B		C		r (min.)		r_1 (min.)		C_r	C_{0r}	C_u	Inner ring (Cone)	Outer ring (Cup)	a		d_a		d_b		D_a		D_b		e	Y_1	Y_0	Radial	Axial	K
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						
90.000	3.5433	147.638	5.8125	35.717	1.4062	36.322	1.4300	26.192	1.0312	3.0	0.12	0.8	0.03	230	287	42.5	**597X**	**592XE**	33.4	1.31	104.0	4.09	99.0	3.90	135.0	5.31	142.0	5.59	0.44	1.36	0.75	53.5	40.4	1.32
	3.5433	160.000	6.2992	53.975	2.1250	55.100	2.1693	44.450	1.7500	3.0	0.12	3.0	0.12	395	471	61.4	**6581XR**	**6525X**	41.0	1.61	102.0	4.02	98.0	3.86	141.0	5.55	153.5	6.04	0.40	1.50	0.82	92.9	63.5	1.46
	3.5433	161.925	6.3750	53.975	2.1250	55.100	2.1693	42.862	1.6875	3.0	0.12	3.2	0.13	395	471	61.4	**6581XR**	**6535**	41.0	1.61	102.0	4.02	98.0	3.86	141.0	5.55	154.0	6.06	0.40	1.50	0.82	92.9	63.5	1.46
90.488	3.5625	161.925	6.3750	47.625	1.8750	48.260	1.9000	38.100	1.5000	3.6	0.14	3.2	0.13	342	391	52.4	**760**	**752**	35.5	1.40	107.0	4.21	101.0	3.98	144.0	5.67	150.0	5.91	0.34	1.76	0.97	80.0	46.6	1.72
92.075	3.6250	130.175	5.1250	20.638	0.8125	21.432	0.8438	16.670	0.6563	3.6	0.14	1.6	0.06	121	167	24.7	**L319245**	**L319210**	22.2	0.87	107.0	4.21	101.0	3.98	122.0	4.80	125.0	4.92	0.35	1.72	0.95	27.7	16.5	1.68
	3.6250	146.050	5.7500	33.338	1.3125	34.925	1.3750	26.195	1.0313	3.6	0.14	3.2	0.13	223	293	43.2	**47890R**	**47820**	32.6	1.28	107.0	4.21	101.0	3.98	131.0	5.16	140.0	5.51	0.45	1.34	0.74	51.6	39.5	1.31
	3.6250	147.638	5.8125	35.717	1.4062	36.322	1.4300	26.192	1.0312	3.6	0.14	0.8	0.03	230	287	42.5	**598**	**592XE**	33.4	1.31	107.0	4.21	101.0	3.98	135.0	5.31	142.0	5.59	0.44	1.36	0.75	53.5	40.4	1.32
	3.6250	147.638	5.8125	35.717	1.4062	36.322	1.4300	26.192	1.0312	6.4	0.25	0.8	0.03	230	287	42.5	**598A**	**592XE**	33.4	1.31	113.0	4.45	101.0	3.98	135.0	5.31	142.0	5.59	0.44	1.36	0.75	53.5	40.4	1.32
	3.6250	168.275	6.6250	41.275	1.6250	41.275	1.6250	30.162	1.1875	3.6	0.14	3.2	0.13	282	349	50.4	**681**	**672**	38.6	1.52	110.0	4.33	104.0	4.09	149.0	5.87	160.0	6.30	0.47	1.28	0.70	65.8	52.9	1.24
	3.6250	168.275	6.6250	41.275	1.6250	41.275	1.6250	30.162	1.1875	6.4	0.25	3.2	0.13	282	349	50.4	**681A**	**672**	38.6	1.52	116.0	4.57	104.0	4.09	149.0	5.87	160.0	6.30	0.47	1.28	0.70	65.8	52.9	1.24
	3.6250	180.975	7.1250	47.625	1.8750	48.006	1.8900	38.100	1.5000	3.6	0.14	3.2	0.13	362	438	56.6	**778**	**772**	39.5	1.56	111.0	4.37	105.0	4.13	161.0	6.34	168.0	6.61	0.39	1.56	0.86	84.5	55.7	1.52
	3.6250	190.500	7.5000	57.150	2.2500	57.531	2.2650	44.450	1.7500	7.9	0.31	3.2	0.13	482	565	72.4	**857R**	**854**	39.9	1.57	121.0	4.76	106.0	4.17	170.0	6.69	174.0	6.85	0.33	1.79	0.99	113	64.6	1.75
	3.6250	190.500	7.5000	57.150	2.2500	57.531	2.2650	46.038	1.8125	7.9	0.31	3.2	0.13	549	602	76.9	**HH221438**	**HH221410**	42.5	1.67	121.0	4.76	106.0	4.17	171.0	6.73	179.0	7.05	0.33	1.79	0.99	129	73.6	1.75
93.662	3.6875	147.638	5.8125	35.717	1.4062	36.322	1.4300	26.192	1.0312	3.6	0.14	0.8	0.03	230	287	42.5	**597**	**592XE**	33.4	1.31	109.0	4.29	102.0	4.02	135.0	5.31	142.0	5.59	0.44	1.36	0.75	53.5	40.4	1.32
94.976	3.7392	190.500	7.5000	57.150	2.2500	57.531	2.2650	44.450	1.7500	3.6	0.14	3.2	0.13	482	565	72.4	**867AR**	**854**	39.9	1.57	114.0	4.49	108.0	4.25	170.0	6.69	174.0	6.85	0.33	1.79	0.99	113	64.6	1.75
95.000	3.7402	190.500	7.5000	57.150	2.2500	57.531	2.2650	44.450	1.7500	6.4	0.25	3.2	0.13	482	565	72.4	**862R**	**854**	39.9	1.57	120.0	4.72	108.0	4.25	170.0	6.69	174.0	6.85	0.33	1.79	0.99	113	64.6	1.75
95.250	3.7500	128.588	5.0625	15.875	0.6250	15.083	0.5938	11.908	0.4688	1.6	0.06	1.6	0.06	72.6	93.0	13.1	**LL319349**	**LL319310**	20.3	0.80	103.0	4.06	100.0	3.94	122.0	4.80	125.0	4.92	0.35	1.71	0.94	16.4	9.85	1.67
	3.7500	130.175	5.1250	20.638	0.8125	21.432	0.8438	16.670	0.6563	1.6	0.06	1.6	0.06	121	167	24.7	**L319249**	**L319210**	22.2	0.87	107.0	4.21	101.0	3.98	122.0	4.80	125.0	4.92	0.35	1.72	0.95	27.7	16.5	1.68
	3.7500	146.050	5.7500	33.338	1.3125	34.925	1.3750	26.195	1.0313	3.6	0.14	3.2	0.13	223	293	43.2	**47896R**	**47820**	32.6	1.28	110.0	4.33	103.0	4.06	131.0	5.16	140.0	5.51	0.45	1.34	0.74	51.6	39.5	1.31
	3.7500	147.638	5.8125	35.717	1.4062	36.322	1.4300	26.192	1.0312	3.6	0.14	0.8	0.03	230	287	42.5	**594**	**592XE**	33.4	1.31	110.0	4.33	104.0	4.09	135.0	5.31	142.0	5.59	0.44	1.36	0.75	53.5	40.4	1.32
	3.7500	147.638	5.8125	35.717	1.4062	36.322	1.4300	26.192	1.0312	5.2	0.20	0.8	0.03	230	287	42.5	**594A**	**592XE**	33.4	1.31	113.0	4.45	104.0	4.09	135.0	5.31	142.0	5.59	0.44	1.36	0.75	53.5	40.4	1.32
	3.7500	157.162	6.1875	36.512	1.4375	36.116	1.4219	26.195	1.0313	3.6	0.14	3.2	0.13	227	288	41.7	**52375**	**52618**	36.0	1.42	112.0	4.41	105.0	4.13	142.0	5.59	153.0	6.02	0.47	1.26	0.69	52.7	42.8	1.23
	3.7500	168.275	6.6250	41.275	1.6250	41.275	1.6250	30.162	1.1875	3.6	0.14	3.2	0.13	282	349	50.4	**683**	**672**	38.6	1.52	113.0	4.45	106.0	4.17	149.0	5.87	160.0	6.30	0.47	1.28	0.70	65.8	52.9	1.24
	3.7500	180.975	7.1250	47.625	1.8750	48.006	1.8900	38.100	1.5000	3.6	0.14	3.2	0.13	362	438	56.6	**776**	**772**	39.5	1.56	114.0	4.49	107.0	4.21	161.0	6.34	168.0	6.61	0.39	1.56	0.86	84.5	55.7	1.52
	3.7500	190.500	7.5000	57.150	2.2500	57.531	2.2650	44.450	1.7500	7.9	0.31	3.2	0.13	482	565	72.4	**864R**	**854**	39.9	1.57	123.0	4.84	108.0	4.25	170.0	6.69	174.0	6.85	0.33	1.79	0.99	113	64.6	1.75
	3.7500	190.500	7.5000	57.150	2.2500	57.531	2.2650	46.038	1.8125	7.9	0.31	3.2	0.13	549	602	76.9	**HH221440**	**HH221410**	42.5	1.67	125.0	4.92	110.0	4.33	171.0	6.73	179.0	7.05	0.33	1.79	0.99	129	73.6	1.75
96.838	3.8125	148.430	5.8437	28.575	1.1250	28.971	1.1406	21.433	0.8438	3.6	0.14	3.0	0.12	179	225	33.0	**42381**	**42584**	31.9	1.26	110.0	4.33	104.0	4.09	134.0	5.28	142.0	5.59	0.49	1.22	0.67	41.4	34.8	1.19
98.425	3.8750	160.000	6.2992	36.512	1.4375	36.116	1.4219	26.195	1.0313	3.6	0.14	3.0	0.12	227	288	41.7	**52387**	**52630X**	36.0	1.42	114.0	4.49	108.0	4.25	144.0	5.67	154.0	6.06	0.47	1.26	0.69	52.7	42.8	1.23
	3.8750	161.925	6.3750	36.512	1.4375	36.116	1.4219	26.195	1.0313	3.6	0.14	3.2	0.13	227	288	41.7	**52387**	**52637**	36.0	1.42	114.0	4.49	108.0	4.25	144.0	5.67	154.0	6.06	0.47	1.26	0.69	52.7	42.8	1.23
	3.8750	161.925	6.3750	39.688	1.5625	36.116	1.4219	29.370	1.1563	3.6	0.14	3.2	0.13	227	288	41.7	**52387**	**52638**	39.2	1.54	114.0	4.49	108.0	4.25	144.0	5.67	154.0	6.06	0.47	1.26	0.69	52.7	42.8	1.23
	3.8750	168.275	6.6250	41.275	1.6250	41.275	1.6250	30.162	1.1875	3.6	0.14	3.2	0.13	282	349	50.4	**685**	**672**	38.6	1.52	116.0	4.57	109.0	4.29	149.0	5.87	160.0	6.30	0.47	1.28	0.70	65.8	52.9	1.24
	3.8750	180.975	7.1250	47.625	1.8750	48.006	1.8900	38.100	1.5000	3.6	0.14	3.2	0.13	362	438	56.6	**779**	**772**	39.5	1.56	116.0	4.57	110.0	4.33	161.0	6.34	168.0	6.61	0.39	1.56	0.86	84.5	55.7	1.52
	3.8750	184.150	7.2500	63.500	2.5000	63.500	2.5000	52.388	2.0625	6.4	0.25	3.2	0.13	557	687	86.9	**HH421246**	**HH421210**	46.2	1.82	127.0	5.00	115.0	4.53	163.0	6.42	176.0	6.93	0.37	1.60	0.88	131	83.5	1.56
	3.8750	190.500	7.5000	57.150	2.2500	57.531	2.2650	44.450	1.7500	3.6	0.14	3.2	0.13	482	565	72.4	**866R**	**854**	39.9	1.57	118.0	4.65	111.0	4.37	170.0	6.69	174.0	6.85	0.33	1.79	0.99	113	64.6	1.75
	3.8750	190.500	7.5000	57.150	2.2500	57.531	2.2650	46.038	1.8125	3.6	0.14	3.2	0.13	549	602	76.9	**HH221442**	**HH221410**	42.5	1.67	119.0	4.69	113.0	4.45	171.0	6.73	179.0	7.05	0.33	1.79	0.99	129	73.6	1.75
	3.8750	212.725	8.3750	66.675	2.6250	66.675	2.6250	53.975	2.1250	3.6	0.14	3.2	0.13	641	699	87.1	**HH224332**	**HH224310**	47.6	1.87	122.0	4.80	117.0	4.61	192.0	7.56	202.0	7.95	0.33	1.84	1.01	151	84.2	1.80

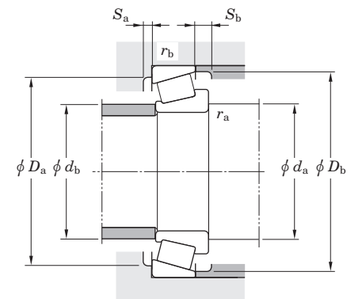
Note 1) SP indicates the specially chamfered from.

Koyo

TS type

d 99.975 ~ 107.950 mm
3.9360 ~ 4.2500 inch





$P = XF_r + YF_a$ $P_0 = 0.5\,F_r + Y_0F_a$ or $P_0 = F_r$			
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Con-stant	Axial load factors		Reference rating (kN) (500 rpm for 3 000 Hrs.)		Factor
d		D		T		B		C		r (min.)		r_1 (min.)		C_r	C_{0r}	C_u	Inner ring (Cone)	Outer ring (Cup)	a		d_a		d_b		D_a		D_b		e	Y_1	Y_0	Radial	Axial	K
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						
99.975	3.9360	156.975	6.1801	42.000	1.6535	42.000	1.6535	34.000	1.3386	7.9	0.31	3.6	0.14	308	396	58.3	**HM220149**	**HM220110**	32.4	1.28	123.0	4.84	108.0	4.25	142.0	5.59	151.0	5.94	0.33	1.80	0.99	71.8	40.8	1.76
	3.9360	212.725	8.3750	66.675	2.6250	66.675	2.6250	53.975	2.1250	3.6	0.14	3.2	0.13	641	699	87.1	**HH224334**	**HH224310**	47.6	1.87	122.0	4.80	117.0	4.61	192.0	7.56	202.0	7.95	0.33	1.84	1.01	151	84.2	1.80
99.982	3.9363	190.500	7.5000	57.150	2.2500	57.531	2.2650	44.450	1.7500	6.4	0.25	3.2	0.13	482	565	72.4	**863R**	**854**	39.9	1.57	125.0	4.92	103.0	4.06	170.0	6.69	174.0	6.85	0.33	1.79	0.99	113	64.6	1.75
	3.9363	190.500	7.5000	57.150	2.2500	57.531	2.2650	46.038	1.8125	6.4	0.25	3.2	0.13	549	602	76.9	**HH221447**	**HH221410**	42.5	1.67	126.0	4.96	114.0	4.49	171.0	6.73	179.0	7.05	0.33	1.79	0.99	129	73.6	1.75
100.000	3.9370	180.975	7.1250	47.625	1.8750	48.006	1.8900	38.100	1.5000	3.6	0.14	3.2	0.13	362	438	56.6	**783**	**772**	39.5	1.56	118.0	4.65	111.0	4.37	161.0	6.34	168.0	6.61	0.39	1.56	0.86	84.5	55.7	1.52
	3.9370	190.500	7.5000	57.150	2.2500	57.531	2.2650	44.450	1.7500	6.0	0.24	3.2	0.13	482	565	72.4	**863XR**	**854**	39.9	1.57	122.0	4.80	117.0	4.61	170.0	6.69	174.0	6.85	0.33	1.79	0.99	113	64.6	1.75
	3.9370	200.000	7.8740	52.761	2.0772	49.213	1.9375	34.925	1.3750	3.6	0.14	3.2	0.13	433	471	58.8	**98394X**	**98788**	54.7	2.15	126.0	4.96	120.5	4.75	174.0	6.85	188.0	7.40	0.63	0.95	0.52	101	109	0.93
100.012	3.9375	157.162	6.1875	36.512	1.4375	36.116	1.4219	26.195	1.0313	3.6	0.14	3.2	0.13	227	288	41.7	**52393**	**52618**	36.0	1.42	113.0	4.45	115.0	4.53	142.0	5.59	153.0	6.02	0.47	1.26	0.69	52.7	42.8	1.23
101.600	4.0000	157.162	6.1875	36.512	1.4375	36.116	1.4219	26.195	1.0313	3.6	0.14	3.2	0.13	227	288	41.7	**52400**	**52618**	36.0	1.42	114.0	4.49	115.0	4.53	142.0	5.59	153.0	6.02	0.47	1.26	0.69	52.7	42.8	1.23
	4.0000	157.162	6.1875	36.512	1.4375	36.116	1.4219	26.195	1.0313	7.9	0.31	3.2	0.13	227	288	41.7	**52401**	**52618**	36.0	1.42	126.0	4.96	111.0	4.37	142.0	5.59	153.0	6.02	0.47	1.26	0.69	52.7	42.8	1.23
	4.0000	161.925	6.3750	36.513	1.4375	36.116	1.4219	26.195	1.0313	3.6	0.14	3.2	0.13	227	288	41.7	**52400**	**52637**	36.0	1.42	117.0	4.61	111.0	4.37	144.0	5.67	154.0	6.06	0.47	1.26	0.69	52.7	42.8	1.23
	4.0000	168.275	6.6250	41.275	1.6250	41.275	1.6250	30.162	1.1875	3.6	0.14	3.2	0.13	282	349	50.4	**687**	**672**	38.6	1.52	114.0	4.49	115.0	4.53	146.0	5.75	157.0	6.18	0.47	1.28	0.70	65.8	52.9	1.24
	4.0000	180.975	7.1250	47.625	1.8750	48.006	1.8900	38.100	1.5000	3.6	0.14	3.2	0.13	362	438	56.6	**780**	**772**	39.5	1.56	114.0	4.49	120.0	4.72	156.0	6.14	165.0	6.50	0.39	1.56	0.86	84.5	55.7	1.52
	4.0000	190.500	7.5000	57.150	2.2500	57.531	2.2650	44.450	1.7500	9.5	0.37	3.2	0.13	482	565	72.4	**860R**	**854**	39.9	1.57	126.0	4.96	114.0	4.49	170.0	6.69	174.0	6.85	0.33	1.79	0.99	113	64.6	1.75
	4.0000	190.500	7.5000	57.150	2.2500	57.531	2.2650	44.450	1.7500	7.9	0.31	3.2	0.13	482	565	72.4	**861R**	**854**	39.9	1.57	129.0	5.08	114.0	4.49	170.0	6.69	174.0	6.85	0.33	1.79	0.99	113	64.6	1.75
	4.0000	190.500	7.5000	57.150	2.2500	57.531	2.2650	46.038	1.8125	7.9	0.31	3.2	0.13	549	602	76.9	**HH221449**	**HH221410**	42.5	1.67	123.0	4.84	119.0	4.69	168.0	6.61	178.0	7.01	0.33	1.79	0.99	129	73.6	1.75
	4.0000	200.000	7.8740	52.761	2.0772	49.212	1.9375	34.925	1.3750	3.6	0.14	3.2	0.13	433	471	58.8	**98400**	**98788**	54.5	2.15	114.0	4.49	123.0	4.84	170.0	6.69	185.0	7.28	0.63	0.95	0.52	101	109	0.93
	4.0000	212.725	8.3750	66.675	2.6250	66.675	2.6250	53.975	2.1250	7.1	0.28	3.2	0.13	563	674	84.1	**941**	**932**	47.6	1.87	121.0	4.76	135.0	5.31	181.0	7.13	192.0	7.56	0.33	1.84	1.01	133	73.9	1.80
	4.0000	212.725	8.3750	66.675	2.6250	66.675	2.6250	53.975	2.1250	7.1	0.28	3.2	0.13	641	699	87.1	**HH224335**	**HH224310**	47.6	1.87	121.0	4.76	134.0	5.28	189.0	7.44	201.0	7.91	0.33	1.84	1.01	151	84.2	1.80
104.775	4.1250	180.975	7.1250	47.625	1.8750	48.006	1.8900	38.100	1.5000	3.6	0.14	3.2	0.13	362	438	56.6	**782**	**772**	39.5	1.56	117.0	4.61	120.0	4.72	156.0	6.14	165.0	6.50	0.39	1.56	0.86	84.5	55.7	1.52
	4.1250	180.975	7.1250	47.625	1.8750	48.006	1.8900	38.100	1.5000	6.4	0.25	3.2	0.13	362	438	56.6	**786**	**772**	39.5	1.56	123.0	4.84	120.0	4.72	156.0	6.14	165.0	6.50	0.39	1.56	0.86	84.5	55.7	1.52
	4.1250	180.975	7.1250	47.625	1.8750	48.006	1.8900	38.100	1.5000	7.1	0.28	3.2	0.13	362	438	56.6	**787**	**772**	39.5	1.56	129.0	5.08	116.0	4.57	161.0	6.34	168.0	6.61	0.39	1.56	0.86	84.5	55.7	1.52
	4.1250	190.500	7.5000	47.625	1.8750	49.212	1.9375	34.925	1.3750	3.6	0.14	3.2	0.13	381	483	60.9	**71412**	**71750**	40.9	1.61	117.0	4.61	131.0	5.16	167.0	6.57	177.0	6.97	0.42	1.44	0.79	89.0	63.3	1.41
106.362	4.1875	165.100	6.5000	36.512	1.4375	36.512	1.4375	26.988	1.0625	3.6	0.14	3.2	0.13	245	325	46.3	**56418R**	**56650**	38.6	1.52	122.0	4.80	116.0	4.57	149.0	5.87	159.0	6.26	0.50	1.21	0.66	56.7	48.2	1.18
	4.1875	165.100	6.5000	36.513	1.4375	36.513	1.4375	26.988	1.0625	3.6	0.14	3.2	0.13	231	300	42.9	**56418**	**56650**	38.5	1.52	122.0	4.80	116.0	4.57	149.0	5.87	159.0	6.26	0.50	1.21	0.66	53.7	45.7	1.18
107.950	4.2500	146.050	5.7500	21.432	0.8438	21.432	0.8438	16.670	0.6563	1.6	0.06	1.6	0.06	108	167	23.5	**L521949R**	**L521910**	26.2	1.03	116.0	4.57	114.0	4.49	136.0	5.35	141.0	5.55	0.39	1.53	0.84	24.8	16.7	1.49
	4.2500	158.750	6.2500	23.020	0.9063	21.438	0.8440	15.875	0.6250	3.6	0.14	3.2	0.13	130	169	23.9	**37425**	**37625**	36.5	1.44	121.0	4.76	121.0	4.76	141.0	5.55	148.0	5.83	0.61	0.99	0.54	29.7	30.8	1.97
	4.2500	159.987	6.2987	34.925	1.3750	34.925	1.3750	26.988	1.0625	3.6	0.14	3.2	0.13	231	319	45.8	**LM522546**	**LM522510**	32.9	1.30	122.0	4.80	116.0	4.57	146.0	5.75	154.0	6.06	0.40	1.50	0.82	53.4	36.5	1.46
	4.2500	161.925	6.3750	23.020	0.9063	21.438	0.8440	15.875	0.6250	3.6	0.14	3.2	0.13	130	169	23.9	**37425**	**37637**	36.5	1.44	122.0	4.80	115.0	4.53	145.0	5.71	152.0	5.98	0.61	0.99	0.54	29.7	30.8	0.97
	4.2500	161.925	6.3750	34.925	1.3750	34.925	1.3750	26.988	1.0625	3.6	0.14	3.2	0.13	216	293	41.8	**48190**	**48120**	39.1	1.54	121.0	4.76	120.0	4.72	145.0	5.71	154.0	6.06	0.51	1.19	0.65	50.3	43.4	1.16
	4.2500	165.100	6.5000	36.512	1.4375	36.512	1.4375	26.988	1.0625	3.6	0.14	3.2	0.13	245	325	46.3	**56425R**	**56650**	38.6	1.52	123.0	4.84	117.0	4.61	149.0	5.87	159.0	6.26	0.50	1.21	0.66	56.7	48.2	1.18
	4.2500	165.100	6.5000	36.513	1.4375	36.513	1.4375	26.988	1.0625	3.6	0.14	3.2	0.13	231	300	42.9	**56425**	**56650**	38.5	1.52	123.0	4.84	117.0	4.61	149.0	5.87	159.0	6.26	0.50	1.21	0.66	53.7	45.7	1.18
	4.2500	168.275	6.6250	36.512	1.4375	36.512	1.4375	26.988	1.0625	3.6	0.14	3.2	0.13	245	325	46.3	**56425R**	**56662**	38.6	1.52	123.0	4.84	117.0	4.61	150.0	5.91	160.0	6.30	0.50	1.21	0.66	56.7	48.2	1.18
	4.2500	190.500	7.5000	47.625	1.8750	49.212	1.9375	34.925	1.3750	3.6	0.14	3.2	0.13	381	483	60.9	**71425**	**71750**	40.9	1.61	121.0	4.76	131.0	5.16	167.0	6.57	177.0	6.97	0.42	1.44	0.79	89.0	63.3	1.41
	4.2500	212.725	8.3750	66.675	2.6250	66.675	2.6250	53.975	2.1250	13.5	0.53	3.2	0.13	563	674	84.1	**935**	**932**	47.6	1.87	148.0	5.83	122.0	4.80	187.0	7.36	193.0	7.60	0.33	1.84	1.01	133	73.9	1.80
	4.2500	212.725	8.3750	66.675	2.6250	66.675	2.6250	53.975	2.1250	7.9	0.31	3.2	0.13	563	674	84.1	**936**	**932**	47.6	1.87	137.0	5.39	122.0	4.80	187.0	7.36	193.0	7.60	0.33	1.84	1.01	133	73.9	1.80
	4.2500	212.725	8.3750	66.675	2.6250	66.675	2.6250	53.975	2.1250	7.9	0.31	3.2	0.13	641	699	87.1	**HH224340**	**HH224310**	47.6	1.87	129.0	5.08	134.0	5.28	189.0	7.44	201.0	7.91	0.33	1.84	1.01	151	84.2	1.80

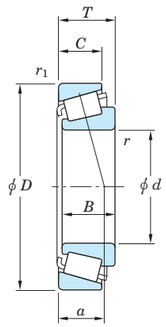
Note 1) SP indicates the specially chamfered from.

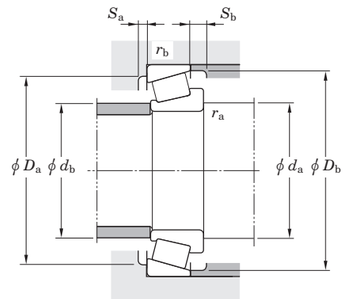
Koyo

TS type

d 109.538 ~ 123.825 mm

4.3125 ~ 4.8750 inch





$P = XF_r + YF_a$ $P_0 = 0.5\,F_r + Y_0F_a$ or $P_0 = F_r$			
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

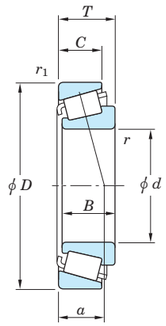
Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Constant	Axial load factors		Reference rating (kN) (500 rpm for 3 000 Hrs.)		Factor
d		D		T		B		C		r (min.)		r_1 (min.)		C_r	C_{0r}	C_u	Inner ring (Cone)	Outer ring (Cup)	a		d_a		d_b		D_a		D_b		e	Y_1	Y_0	Radial	Axial	K
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						
109.538	4.3125	158.750	6.2500	23.020	0.9063	21.438	0.8440	15.875	0.6250	3.6	0.14	3.2	0.13	130	169	23.9	**37431**	**37625**	36.5	1.44	123.0	4.84	116.0	4.57	143.0	5.63	152.0	5.98	0.61	0.99	0.54	29.7	30.8	0.97
109.952	4.3288	190.500	7.5000	47.625	1.8750	49.212	1.9375	34.925	1.3750	3.6	0.14	3.2	0.13	381	483	60.9	**71432**	**71750**	40.9	1.61	129.0	5.08	123.0	4.84	171.0	6.73	181.0	7.13	0.42	1.44	0.79	89.0	63.3	1.41
109.987	4.3302	159.987	6.2987	34.925	1.3750	34.925	1.3750	26.988	1.0625	7.9	0.31	3.2	0.13	231	319	45.8	**LM522548**	**LM522510**	32.9	1.30	131.0	5.16	121.0	4.76	146.0	5.75	154.0	6.06	0.40	1.50	0.82	53.4	36.5	1.46
	4.3302	159.987	6.2987	34.925	1.3750	34.925	1.3750	26.988	1.0625	3.6	0.14	3.2	0.13	231	319	45.8	**LM522549**	**LM522510**	32.9	1.30	123.0	4.84	121.0	4.76	146.0	5.75	154.0	6.06	0.40	1.50	0.82	53.4	36.5	1.46
109.992	4.3304	177.800	7.0000	41.275	1.6250	41.275	1.6250	30.162	1.1875	3.6	0.14	3.2	0.13	294	380	53.4	**64433R**	**64700**	42.8	1.69	128.0	5.04	121.0	4.76	160.0	6.30	172.6	6.80	0.52	1.16	0.64	68.4	60.3	1.13
110.000	4.3307	212.725	8.3750	66.675	2.6250	66.675	2.6250	53.975	2.1250	6.4	0.25	3.2	0.13	563	674	84.1	**942**	**932**	47.6	1.87	136.0	5.35	124.0	4.88	187.0	7.36	193.0	7.60	0.33	1.84	1.01	133	73.9	1.80
111.125	4.3750	190.500	7.5000	47.625	1.8750	49.212	1.9375	34.925	1.3750	3.6	0.14	3.2	0.13	381	483	60.9	**71437**	**71750**	40.9	1.61	129.0	5.08	123.0	4.84	171.0	6.73	181.0	7.13	0.42	1.44	0.79	89.0	63.3	1.41
111.917	4.4062	212.725	8.3750	66.675	2.6250	66.675	2.6250	53.975	2.1250	13.5	0.53	3.2	0.13	563	674	84.1	**947**	**932**	47.6	1.87	151.0	5.94	125.0	4.92	187.0	7.36	193.0	7.60	0.33	1.84	1.01	133	73.9	1.80
114.046	4.4900	212.725	8.3750	66.675	2.6250	66.675	2.6250	53.975	2.1250	7.1	0.28	3.2	0.13	563	674	84.1	**938S**	**932**	47.6	1.87	141.0	5.55	128.0	5.04	187.0	7.36	193.0	7.60	0.33	1.84	1.01	133	73.9	1.80
114.300	4.5000	152.400	6.0000	21.433	0.8438	21.433	0.8438	16.670	0.6563	1.6	0.06	1.6	0.06	121	197	27.3	**L623149**	**L623110**	27.7	1.09	130.0	5.12	120.0	4.72	143.0	5.63	148.0	5.83	0.41	1.45	0.80	27.5	19.4	1.42
	4.5000	155.575	6.1250	21.433	0.8438	21.433	0.8438	21.433	0.8438	1.6	0.06	1.6	0.06	121	197	27.3	**L623149**	**L623114**	27.7	1.09	130.0	5.12	120.0	4.72	143.0	5.63	149.0	5.87	0.41	1.45	0.80	27.5	19.4	1.42
	4.5000	177.800	7.0000	41.275	1.6250	41.275	1.6250	30.162	1.1875	3.6	0.14	3.2	0.13	294	380	53.4	**64450R**	**64700**	42.8	1.69	131.0	5.16	125.0	4.92	160.0	6.30	172.0	6.77	0.52	1.16	0.64	68.4	60.3	1.13
	4.5000	180.975	7.1250	34.925	1.3750	31.750	1.2500	25.400	1.0000	3.6	0.14	3.2	0.13	216	247	35.1	**68450**	**68712**	40.6	1.60	127.0	5.00	131.0	5.16	161.0	6.34	170.0	6.69	0.50	1.21	0.66	49.7	42.2	1.18
	4.5000	190.500	7.5000	47.625	1.8750	49.212	1.9375	34.925	1.3750	3.6	0.14	3.2	0.13	381	483	60.9	**71450**	**71750**	40.9	1.61	127.0	5.00	131.0	5.16	167.0	6.57	177.0	6.97	0.42	1.44	0.79	89.0	63.3	1.41
	4.5000	206.375	8.1250	66.675	2.6250	66.675	2.6250	53.975	2.1250	7.1	0.28	3.2	0.13	563	674	84.1	**938**	**930**	47.6	1.87	141.0	5.55	128.0	5.04	184.0	7.24	193.0	7.60	0.33	1.84	1.01	133	73.9	1.79
	4.5000	212.725	8.3750	66.675	2.6250	66.675	2.6250	53.975	2.1250	7.1	0.28	3.2	0.13	563	674	84.1	**938**	**932**	47.6	1.87	141.0	5.55	128.0	5.04	187.0	7.36	193.0	7.60	0.33	1.84	1.01	133	73.9	1.80
	4.5000	212.725	8.3750	66.675	2.6250	66.675	2.6250	53.975	2.1250	13.5	0.53	3.2	0.13	563	674	84.1	**939**	**932**	47.6	1.87	153.0	6.02	127.0	5.00	187.0	7.36	193.0	7.60	0.33	1.84	1.01	133	73.9	1.80
	4.5000	212.725	8.3750	66.675	2.6250	66.675	2.6250	53.975	2.1250	7.1	0.28	3.2	0.13	641	699	87.1	**HH224346**	**HH224310**	47.6	1.87	134.0	5.28	134.0	5.28	189.0	7.44	201.0	7.91	0.33	1.84	1.01	151	84.2	1.80
	4.5000	273.050	10.7500	82.550	3.2500	82.550	3.2500	53.975	2.1250	6.4	0.25	6.4	0.25	885	898	104	**HH926744**	**HH926710**	76.1	3.00	133.0	5.24	151.0	5.94	230.0	9.06	252.0	9.92	0.63	0.95	0.52	208	225	0.93
114.976	4.5266	212.725	8.3750	66.675	2.6250	66.675	2.6250	53.975	2.1250	7.1	0.28	3.2	0.13	641	699	87.1	**HH224349**	**HH224310**	47.6	1.87	135.0	5.31	134.0	5.28	189.0	7.44	201.0	7.91	0.33	1.84	1.01	151	84.2	1.80
115.087	4.5310	190.500	7.5000	47.625	1.8750	49.212	1.9375	34.925	1.3750	3.6	0.14	3.2	0.13	381	483	60.9	**71453**	**71750**	40.9	1.61	133.0	5.24	126.0	4.96	171.0	6.73	181.0	7.13	0.42	1.44	0.79	89.0	63.3	1.41
	4.5310	190.500	7.5000	47.625	1.8750	49.212	1.9375	34.925	1.3750	7.9	0.31	3.2	0.13	381	483	60.9	**71455**	**71750**	40.9	1.61	136.0	5.35	131.0	5.16	167.0	6.57	177.0	6.97	0.42	1.44	0.79	89.0	63.3	1.41
117.475	4.6250	179.975	7.0856	34.925	1.3750	31.750	1.2500	25.400	1.0000	3.6	0.14	0.8	0.03	216	247	35.1	**68462**	**68709**	40.7	1.60	132.0	5.20	125.0	4.90	165.0	6.50	172.0	6.77	0.50	1.21	0.66	49.7	42.2	1.18
	4.6250	180.975	7.1250	34.925	1.3750	31.750	1.2500	25.400	1.0000	3.6	0.14	3.2	0.13	216	247	35.1	**68462**	**68712**	40.6	1.60	130.0	5.12	131.0	5.16	161.0	6.34	170.0	6.69	0.50	1.21	0.66	49.7	42.2	1.18
	4.6250	180.975	7.1250	34.925	1.3750	31.750	1.2500	25.400	1.0000	7.9	0.31	3.2	0.13	216	247	35.1	**68463**	**68712**	40.6	1.60	141.0	5.55	125.0	4.92	163.0	6.42	172.0	6.77	0.50	1.21	0.66	49.7	42.2	1.18
120.650	4.7500	174.625	6.8750	35.720	1.4063	36.513	1.4375	27.783	1.0938	3.6	0.14	1.6	0.06	260	362	51.2	**M224749**	**M224710**	32.1	1.26	135.0	5.31	129.0	5.08	162.0	6.38	168.0	6.61	0.33	1.80	0.99	60.1	34.2	1.76
	4.7500	190.500	7.5000	46.038	1.8125	46.038	1.8125	34.925	1.3750	3.6	0.14	1.6	0.06	393	512	63.9	**HM624749**	**HM624710**	41.6	1.64	146.0	5.75	132.0	5.20	174.0	6.85	184.0	7.24	0.43	1.41	0.77	91.4	66.7	1.37
	4.7500	199.974	7.8730	46.038	1.8125	46.038	1.8125	34.925	1.3750	3.6	0.14	1.6	0.06	393	512	63.9	**HM624749**	**HM624716**	41.6	1.64	146.0	5.75	132.0	5.20	174.0	6.85	184.0	7.24	0.43	1.41	0.77	91.4	66.7	1.37
	4.7500	206.375	8.1250	47.625	1.8750	47.625	1.8750	34.925	1.3750	3.2	0.13	3.2	0.13	409	548	67.2	**795**	**792**	45.7	1.80	139.0	5.47	134.0	5.28	186.0	7.32	198.0	7.80	0.46	1.31	0.72	95.2	74.6	1.27
	4.7500	234.950	9.2500	63.500	2.5000	63.500	2.5000	49.213	1.9375	6.4	0.25	3.2	0.13	656	826	100	**95475**	**95925**	49.9	1.96	149.0	5.87	137.0	5.39	209.0	8.23	217.0	8.54	0.37	1.62	0.89	154	97.1	1.58
	4.7500	254.000	10.0000	77.788	3.0625	82.550	3.2500	61.912	2.4375	9.5	0.37	6.4	0.25	895	1 050	125	**HH228340**	**HH228310**	54.3	2.14	158.0	6.22	142.0	5.59	223.0	8.78	234.0	9.21	0.32	1.87	1.03	211	116	1.82
	4.7500	273.050	10.7500	82.550	3.2500	82.550	3.2500	53.975	2.1250	6.4	0.25	6.4	0.25	885	898	104	**HH926749**	**HH926710**	76.2	3.00	168.0	6.61	147.5	5.80	230.0	9.06	253.0	9.97	0.63	0.95	0.52	208	225	0.92
	4.7500	279.400	11.0000	82.550	3.2500	82.550	3.2500	53.975	2.1250	6.4	0.25	6.4	0.25	885	898	104	**HH926749**	**HH926716**	76.1	3.00	168.0	6.61	147.0	5.79	233.0	9.17	253.0	9.96	0.63	0.95	0.52	208	225	0.93
123.825	4.8750	182.563	7.1875	39.688	1.5625	38.100	1.5000	33.338	1.3125	3.6	0.14	3.2	0.13	284	429	59.8	**48286**	**48220**	34.1	1.34	139.0	5.47	133.0	5.24	168.0	6.61	176.0	6.93	0.31	1.97	1.08	65.8	34.3	1.92

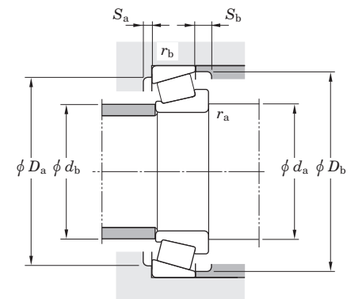
Note 1) SP indicates the specially chamfered from.

Koyo

TS type

d 127.000 ~ 255.600 mm
5.0000 ~ 10.0630 inch





$P = XF_r + YF_a$ $P_0 = 0.5\,F_r + Y_0F_a$ or $P_0 = F_r$			
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Constant	Axial load factors		Reference rating (kN) (500 rpm for 3 000 Hrs.)		Factor
d		D		T		B		C		r (min.)		r_1 (min.)		C_r	C_{0r}	C_u	Inner ring (Cone)	Outer ring (Cup)	a		d_a		d_b		D_a		D_b		e	Y_1	Y_0	Radial	Axial	K
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						
127.000	5.0000	165.895	6.5313	18.258	0.7188	17.463	0.6875	13.495	0.5313	1.6	0.06	1.6	0.06	114	166	22.5	**LL225749**	**LL225710**	24.3	0.96	135.0	5.31	133.0	5.24	156.0	6.14	160.0	6.30	0.33	1.80	0.99	25.9	14.7	1.76
	5.0000	169.863	6.6875	25.400	1.0000	26.195	1.0313	20.638	0.8125	1.6	0.06	1.6	0.06	165	250	34.8	**L225849**	**L225810**	27.6	1.09	136.0	5.35	134.0	5.28	160.0	6.30	164.0	6.46	0.33	1.80	0.99	37.9	21.6	1.76
	5.0000	180.975	7.1250	25.400	1.0000	26.195	1.0313	20.638	0.8125	1.6	0.06	1.6	0.06	165	250	34.8	**L225849**	**L225818**	27.6	1.09	136.0	5.35	134.0	5.28	164.0	6.46	166.0	6.54	0.33	1.80	0.99	37.9	21.6	1.76
	5.0000	182.563	7.1875	39.688	1.5625	38.100	1.5000	33.338	1.3125	3.6	0.14	3.2	0.13	284	429	59.8	**48290**	**48220**	34.1	1.34	141.0	5.55	135.0	5.31	168.0	6.61	176.0	6.93	0.31	1.97	1.08	65.8	34.3	1.92
	5.0000	196.850	7.7500	46.038	1.8125	46.038	1.8125	38.100	1.5000	3.6	0.14	3.2	0.13	390	561	68.7	**67388**	**67322**	39.7	1.56	144.0	5.67	138.0	5.43	180.0	7.09	189.0	7.44	0.34	1.74	0.96	90.6	53.3	1.70
	5.0000	203.200	8.0000	46.038	1.8125	46.038	1.8125	38.100	1.5000	3.6	0.14	3.2	0.13	390	561	68.7	**67388**	**67320**	39.7	1.56	144.0	5.67	138.0	5.43	183.0	7.20	191.0	7.52	0.34	1.74	0.96	90.6	53.3	1.70
	5.0000	215.900	8.5000	47.625	1.8750	47.625	1.8750	34.925	1.3750	3.6	0.14	3.2	0.13	403	549	66.1	**74500**	**74850**	49.7	1.96	148.0	5.83	141.0	5.55	196.0	7.72	208.0	8.19	0.49	1.23	0.68	94.0	78.3	1.20
	5.0000	234.950	9.2500	63.500	2.5000	63.500	2.5000	49.213	1.9375	6.4	0.25	3.2	0.13	656	826	100	**95500**	**95925**	49.9	1.96	154.0	6.06	142.0	5.59	209.0	8.23	217.0	8.54	0.37	1.62	0.89	154	97.1	1.58
	5.0000	254.000	10.0000	77.788	3.0625	82.550	3.2500	61.912	2.4375	9.5	0.37	6.4	0.25	895	1 050	125	**HH228349**	**HH228310**	54.3	2.14	164.0	6.46	148.0	5.83	223.0	8.78	234.0	9.21	0.32	1.87	1.03	211	116	1.82
128.588	5.0625	206.375	8.1250	47.625	1.8750	47.625	1.8750	34.925	1.3750	3.2	0.13	3.2	0.13	409	548	67.2	**799**	**792**	45.7	1.80	146.0	5.75	140.0	5.51	186.0	7.32	198.0	7.80	0.46	1.31	0.72	95.2	74.6	1.27
130.000	5.1181	206.375	8.1250	47.625	1.8750	47.625	1.8750	34.925	1.3750	3.6	0.14	3.2	0.13	409	548	67.2	**797**	**792**	45.7	1.80	148.0	5.83	141.0	5.55	186.0	7.32	198.0	7.80	0.46	1.31	0.72	95.2	74.6	1.27
133.350	5.2500	177.008	6.9688	25.400	1.0000	26.195	1.0313	20.638	0.8125	1.6	0.06	1.6	0.06	176	278	38.2	**L327249**	**L327210**	29.1	1.15	142.0	5.59	145.0	5.71	164.0	6.46	171.0	6.73	0.35	1.72	0.95	40.4	24.1	1.68
142.875	5.6250	200.025	7.8750	41.275	1.6250	39.688	1.5625	34.130	1.3437	7.9	0.31	3.3	0.13	307	491	66.5	**48684**	**48620**	38.4	1.51	166.0	6.54	151.0	5.94	185.0	7.28	193.0	7.60	0.34	1.78	0.98	71.3	41.0	1.74
	5.6250	200.025	7.8750	41.275	1.6250	39.688	1.5625	34.130	1.3437	3.6	0.14	3.3	0.13	307	491	66.5	**48685**	**48620**	38.4	1.51	156.0	6.14	157.0	6.18	182.0	7.17	192.0	7.56	0.34	1.78	0.98	71.3	41.0	1.74
158.750	6.4800	225.425	8.8750	41.275	1.6250	39.688	1.5625	33.338	1.3125	3.6	0.14	3.2	0.13	323	568	73.8	**46780R**	**46720**	44.0	1.73	176.0	6.93	169.0	6.65	209.0	8.23	218.0	8.58	0.38	1.57	0.86	74.6	48.9	1.53
165.100	6.5000	225.425	8.8750	41.275	1.6250	39.688	1.5625	33.338	1.3125	7.9	0.31	3.2	0.13	323	568	73.8	**46790AR**	**46720**	44.0	1.73	181.0	7.13	174.0	6.85	209.0	8.23	218.0	8.58	0.38	1.57	0.86	74.6	48.9	1.53
	6.5000	225.425	8.8750	41.275	1.6250	39.688	1.5625	33.338	1.3125	3.6	0.14	3.2	0.13	323	568	73.8	**46790R**	**46720**	44.0	1.73	181.0	7.13	174.0	6.85	209.0	8.23	218.0	8.58	0.38	1.57	0.86	74.6	48.9	1.53
166.688	6.5625	225.425	8.8750	41.275	1.6250	39.688	1.5625	33.338	1.3125	3.6	0.14	3.2	0.13	323	568	73.8	**46792R**	**46720**	44.0	1.73	182.0	7.17	175.0	6.89	209.0	8.23	218.0	8.58	0.38	1.57	0.86	74.6	48.9	1.53
171.450	6.7500	222.250	8.7500	25.400	1.0000	24.608	0.9688	19.050	0.7500	1.6	0.06	1.6	0.06	197	299	38.7	**L435049**	**L435010**	36.0	1.42	181.0	7.13	179.0	7.05	211.0	8.31	215.0	8.46	0.38	1.60	0.88	44.9	28.8	1.56
196.850	7.7500	254.000	10.0000	28.575	1.1250	27.783	1.0938	21.433	0.8438	1.6	0.06	1.6	0.06	236	387	48.2	**L540049**	**L540010**	43.1	1.70	206.0	8.11	214.0	8.43	238.0	9.37	245.0	9.65	0.40	1.51	0.83	53.5	36.3	1.47
212.725	8.3750	336.550	13.2500	65.088	2.5625	65.088	2.5625	50.800	2.0000	6.4	0.25	3.2	0.13	887	1 380	150	**M246932**	**M246910**	59.9	2.36	238.0	9.37	229.0	9.02	313.0	12.32	322.0	12.68	0.33	1.80	0.99	206	117	1.76
220.878	8.6960	317.500	12.5000	47.625	1.8750	52.388	2.0625	36.513	1.4375	3.2	0.13	3.2	0.13	611	928	103	**LM245833**	**LM245810**	50.5	1.99	234.0	9.21	253.0	9.96	296.0	11.65	304.0	11.97	0.33	1.80	0.99	141	80.0	1.76
228.600	9.0000	358.775	14.1250	71.438	2.8125	71.438	2.8125	53.975	2.1250	3.6	0.14	3.2	0.13	968	1 590	166	**M249732**	**M249710**	64.4	2.54	242.0	9.53	279.0	10.98	330.0	12.99	343.0	13.50	0.33	1.80	0.99	225	128	1.76
230.188	9.0625	317.500	12.5000	47.625	1.8750	52.388	2.0625	36.513	1.4375	3.2	0.13	3.2	0.13	611	928	103	**LM245846**	**LM245810**	50.5	1.99	242.0	9.53	238.0	9.37	309.0	12.17	312.0	12.28	0.33	1.80	0.99	141	80.0	1.76
231.775	9.1250	317.500	12.5000	47.625	1.8750	52.388	2.0625	36.513	1.4375	3.2	0.13	3.2	0.13	611	928	103	**LM245848**	**LM245810**	50.5	1.99	244.0	9.61	240.0	9.45	309.0	12.17	312.0	12.28	0.33	1.80	0.99	141	80.0	1.76
	9.1250	336.550	13.2500	65.088	2.5625	65.088	2.5625	50.800	2.0000	6.4	0.25	3.2	0.13	887	1 380	150	**M246942**	**M246910**	59.9	2.36	258.0	10.16	249.0	9.80	313.0	12.32	322.0	12.68	0.33	1.80	0.99	206	117	1.76
	9.1250	336.550	13.2500	65.088	2.5625	69.850	2.7500	50.800	2.0000	6.4	0.25	3.2	0.13	887	1 380	150	**M246943**	**M246910**	59.9	2.36	258.0	10.16	249.0	9.80	313.0	12.32	322.0	12.68	0.33	1.80	0.99	206	117	1.76
	9.1250	358.775	14.1250	71.438	2.8125	71.438	2.8125	53.975	2.1250	6.4	0.25	3.2	0.13	968	1 590	166	**M249734**	**M249710**	64.4	2.54	258.0	10.16	253.0	9.96	335.0	13.19	343.0	13.50	0.33	1.80	0.99	225	128	1.76
237.330	9.3437	336.550	13.2500	65.088	2.5625	65.088	2.5625	50.800	2.0000	6.4	0.25	3.2	0.13	887	1 380	150	**M246949**	**M246910**	59.9	2.36	262.0	10.31	253.0	9.96	313.0	12.32	322.0	12.68	0.33	1.80	0.99	206	117	1.76
	9.3437	358.775	14.1250	71.438	2.8125	71.438	2.8125	53.975	2.1250	6.4	0.25	3.2	0.13	968	1 590	166	**M249736**	**M249710**	64.4	2.54	262.0	10.31	258.0	10.16	335.0	13.19	343.0	13.50	0.33	1.80	0.99	225	128	1.76
254.000	10.0000	358.775	14.1250	71.438	2.8125	71.438	2.8125	53.975	2.1250	3.6	0.14	3.2	0.13	968	1 590	166	**M249749**	**M249710**	64.4	2.54	268.0	10.55	279.0	10.98	330.0	12.99	343.0	13.50	0.33	1.80	0.99	225	128	1.76
255.600	10.0630	342.900	13.5000	57.150	2.2500	63.500	2.5000	44.450	1.7500	1.6	0.06	3.2	0.13	764	1 280	135	**M349547**	**M349510**	60.1	2.37	279.0	10.98	267.0	10.51	322.0	12.68	333.0	13.11	0.35	1.73	0.95	177	105	1.68

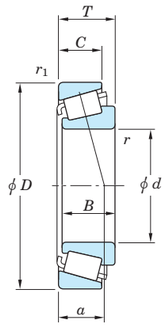
Note 1) SP indicates the specially chamfered from.

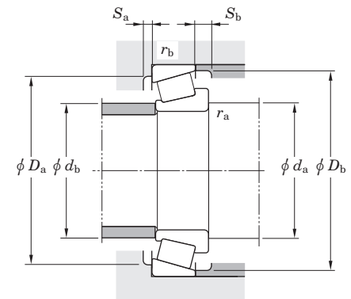
Koyo

TS type

d 257.175~ 1 092.200 mm

10.1250 ~ 43.0000 inch





$P = XF_r + YF_a$ $P_0 = 0.5\,F_r + Y_0F_a$ or $P_0 = F_r$			
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

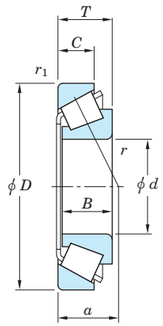
Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Constant	Axial load factors		Reference rating (kN) (500 rpm for 3 000 Hrs.)		Factor
d		D		T		B		C		r (min.)		r_1 (min.)		C_r	C_{0r}	C_u	Inner ring (Cone)	Outer ring (Cup)	a		d_a		d_b		D_a		D_b		e	Y_1	Y_0	Radial	Axial	K
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						
257.175	10.1250	342.900	13.5000	57.150	2.2500	57.150	2.2500	44.450	1.7500	6.4	0.25	3.2	0.13	764	1 280	135	**M349549**	**M349510**	60.1	2.37	276.0	10.87	276.0	10.87	320.0	12.60	330.0	12.99	0.35	1.73	0.95	177	105	1.68
	10.1250	358.775	14.1250	71.438	2.8125	76.200	3.0000	53.975	2.1250	1.6	0.06	3.2	0.13	968	1 590	166	**M249747**	**M249710**	64.4	2.54	276.0	10.87	272.0	10.71	335.0	13.19	343.0	13.50	0.33	1.80	0.99	225	128	1.76
292.100	11.5000	374.650	14.7500	47.625	1.8750	47.625	1.8750	34.925	1.3750	3.6	0.14	3.2	0.13	587	971	111	**L555249**	**L555210**	64.7	2.55	306.0	12.05	309.0	12.17	351.0	13.82	360.0	14.17	0.40	1.49	0.82	136	93.2	1.46
431.800	17.0000	533.400	21.0000	46.038	1.8125	46.038	1.8125	34.925	1.3750	3.2	0.13	3.2	0.13	698	1 380	143	**80385**	**80325**	69.1	2.72	450.0	17.72	446.0	17.56	510.0	20.08	510.0	20.08	0.31	1.96	1.08	160	83.3	1.91
450.850	17.7500	603.250	23.7500	85.725	3.3750	84.138	3.3125	60.325	2.3750	6.4	0.25	3.2	0.13	1 730	3 170	290	**LM770945**	**LM770910**	116.0	4.57	484.0	19.06	474.0	18.66	570.0	22.44	584.0	22.99	0.45	1.32	0.73	401	311	1.29
457.200	18.0000	573.088	22.5625	74.613	2.9375	74.613	2.9375	57.150	2.2500	6.4	0.25	6.4	0.25	1 380	2 930	263	**L570649**	**L570610**	100.4	3.95	485.0	19.09	475.0	18.70	543.0	21.38	558.0	21.97	0.40	1.49	0.82	319	219	1.45
	18.0000	596.900	23.5000	76.200	3.0000	73.025	2.8750	53.975	2.1250	9.5	0.37	3.2	0.13	1 410	2 620	243	**EE244180**	**244235**	103.1	4.06	494.0	19.45	478.0	18.82	567.0	22.32	570.5	22.47	0.40	1.48	0.82	325	225	1.44
479.425	18.8750	679.450	26.7500	128.588	5.0625	128.588	5.0625	101.600	4.0000	6.4	0.25	6.4	0.25	3 100	5 550	476	**M272749**	**M272710**	122.2	4.81	516.0	20.31	507.0	19.96	633.0	24.92	649.5	25.57	0.33	1.80	0.99	726	413	1.76
482.600	19.0000	634.873	24.9950	80.963	3.1875	80.963	3.1875	63.500	2.5000	6.4	0.25	3.2	0.13	1 660	3 290	292	**EE243190**	**243250**	100.0	3.94	516.0	20.31	510.0	20.08	603.0	23.74	609.5	24.00	0.34	1.75	0.96	382	224	1.70
488.950	19.2500	634.873	24.9950	84.138	3.3125	84.138	3.3125	61.913	2.4375	6.4	0.25	3.2	0.13	1 800	3 420	307	**LM772748**	**LM772710**	124.5	4.90	522.0	20.55	510.0	20.08	600.0	23.62	613.5	24.15	0.47	1.27	0.70	418	338	1.24
	19.2500	660.400	26.0000	93.663	3.6875	94.458	3.7188	69.850	2.7500	6.4	0.25	6.4	0.25	2 260	3 960	357	**EE640192**	**640260**	98.4	3.87	522.0	20.55	513.0	20.20	624.0	24.57	630.5	24.82	0.31	1.95	1.07	524	275	1.91
498.475	19.6250	634.873	24.9950	80.963	3.1875	80.963	3.1875	63.500	2.5000	6.4	0.25	3.2	0.13	1 660	3 290	292	**EE243196**	**243250**	100.0	3.94	528.0	20.79	522.0	20.55	603.0	23.74	609.5	24.00	0.34	1.75	0.96	382	224	1.70
536.575	21.1250	761.873	29.9950	146.050	5.7500	146.050	5.7500	114.300	4.5000	6.4	0.25	6.4	0.25	4 120	7 190	595	**M276449**	**M276410**	135.7	5.34	576.0	22.68	570.0	22.44	711.0	27.99	725.5	28.57	0.33	1.80	0.99	966	549	1.76
539.750	21.2500	635.000	25.0000	50.800	2.0000	50.800	2.0000	38.100	1.5000	6.4	0.25	6.4	0.25	943	1 970	175	**LL575349**	**LL575310**	101.4	3.99	564.0	22.20	555.0	21.85	612.0	24.09	621.0	24.45	0.41	1.48	0.81	215	149	1.44
549.097	21.6180	692.150	27.2500	80.963	3.1875	80.962	3.1875	61.913	2.4375	6.4	0.25	6.4	0.25	1 760	3 700	325	**L476548**	**L476510**	113.6	4.47	579.0	22.80	570.0	22.44	657.0	25.87	666.0	26.22	0.38	1.59	0.88	407	262	1.55
549.275	21.6250	692.150	27.2500	80.963	3.1875	80.963	3.1875	61.913	2.4375	6.4	0.25	6.4	0.25	1 760	3 700	325	**L476549**	**L476510**	113.6	4.47	579.0	22.80	570.0	22.44	657.0	25.87	666.0	26.22	0.38	1.59	0.88	407	262	1.55
584.200	23.0000	685.800	27.0000	49.213	1.9375	49.213	1.9375	34.925	1.3750	3.6	0.14	3.2	0.13	908	1 930	172	**LL778149**	**LL778110**	113.8	4.48	603.0	23.74	600.0	23.62	663.0	26.10	669.0	26.34	0.44	1.36	0.75	206	155	1.33
609.600	24.0000	762.000	30.0000	95.250	3.7500	92.075	3.6250	71.438	2.8125	6.4	0.25	6.4	0.25	2 140	4 510	379	**L879947**	**L879910**	153.0	6.02	642.0	25.28	633.0	24.92	720.0	28.35	743.0	29.25	0.49	1.23	0.67	496	416	1.19
	24.0000	787.400	31.0000	93.663	3.6875	93.663	3.6875	69.850	2.7500	6.4	0.25	6.4	0.25	2 480	4 970	420	**EE649240**	**649310**	126.9	5.00	642.0	25.28	633.0	24.92	747.0	29.41	756.0	29.76	0.37	1.61	0.89	574	365	1.57
759.924	29.9183	889.000	35.0000	88.900	3.5000	88.900	3.5000	71.999	2.8346	3.2	0.13	3.2	0.13	2 330	5 630	451	**L183448**	**L183410**	123.1	4.85	783.0	30.83	780.0	30.71	864.0	34.02	872.0	34.33	0.31	1.97	1.08	537	280	1.91
1092.200	43.0000	1320.800	52.0000	95.250	3.7500	88.900	3.5000	69.850	2.7500	6.4	0.25	6.4	0.25	3 330	7 140	540	**EE776430**	**776520**	170.5	6.71	1 135.0	44.69	1 130.0	44.49	1 260.0	49.61	1 280.5	50.41	0.57	1.05	0.58	761	746	1.02

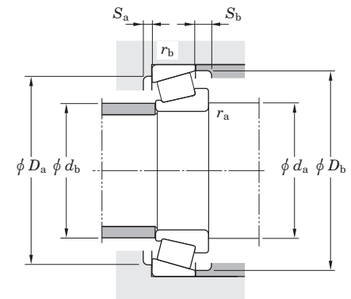
Note 1) SP indicates the specially chamfered from.

Koyo

TSS type

d 15.875 ~ (44.450) mm
0.6250 ~ (1.7500) inch





$P = XF_r + YF_a$ $P_0 = 0.5\,F_r + Y_0F_a$ or $P_0 = F_r$			
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

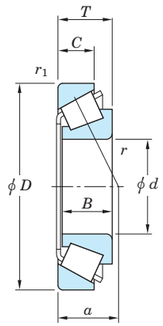
Boundary dimensions d mm	d inch	D mm	D inch	T mm	T inch	B mm	B inch	C mm	C inch	r (min.) mm	r (min.) inch	r_1 (min.) mm	r_1 (min.) inch	Basic load ratings (kN) C_r	C_{0r}	Fatigue load limit (kN) C_u	Bearing No. Inner ring (Cone)	Outer ring (Cup)	Load center a mm	a inch	Mounting dimensions d_a mm	d_a inch	d_b mm	d_b inch	D_a mm	D_a inch	D_b mm	D_b inch	Con-stant e	Axial load factors Y_1	Y_0	Reference rating (kN) (500 rpm for 3 000 Hrs.) Radial	Axial	Factor K
15.875	0.6250	42.862	1.6875	14.288	0.5625	14.288	0.5625	9.525	0.3750	1.6	0.06	1.6	0.06	22.2	17.7	2.30	**11590**	**11520**	13.1	0.52	24.5	0.96	22.5	0.89	34.5	1.36	39.5	1.56	0.70	0.85	0.47	5.15	6.15	0.83
23.812	0.9375	65.088	2.5625	22.225	0.8750	21.463	0.8450	15.875	0.6250	1.6	0.06	1.6	0.06	59.7	51.7	7.10	**23092**	**23256**	20.1	0.79	38.5	1.52	34.5	1.36	53.0	2.09	61.0	2.40	0.73	0.82	0.45	13.8	17.3	0.80
24.384	0.9600	79.375	3.1250	25.400	1.0000	24.074	0.9478	17.462	0.6875	0.8	0.03	1.6	0.06	86.9	72.5	10.5	**43096**	**43312**	23.7	0.93	40.5	1.59	39.5	1.56	62.0	2.44	68.0	2.68	0.67	0.90	0.49	20.1	23.0	0.88
25.000	0.9842	65.088	2.5625	22.225	0.8750	21.463	0.8450	15.875	0.6250	1.6	0.06	1.6	0.06	59.7	51.7	7.10	**23098**	**23256**	20.1	0.79	39.0	1.54	34.5	1.36	53.0	2.09	61.0	2.40	0.73	0.82	0.45	13.8	17.3	0.80
25.400	1.0000	65.088	2.5625	22.225	0.8750	21.463	0.8450	15.875	0.6250	1.6	0.06	1.6	0.06	59.7	51.7	7.10	**23100**	**23256**	20.1	0.79	39.0	1.54	34.5	1.36	53.0	2.09	61.0	2.40	0.73	0.82	0.45	13.8	17.3	0.80
28.575	1.1250	79.375	3.1250	25.400	1.0000	24.074	0.9478	17.462	0.6875	0.8	0.03	1.6	0.06	86.9	72.5	10.5	**43112**	**43312**	23.7	0.93	42.5	1.67	41.5	1.63	67.0	2.64	74.0	2.91	0.67	0.90	0.49	20.1	23.0	0.88
29.987	1.1806	79.375	3.1250	25.400	1.0000	24.074	0.9478	17.462	0.6875	1.6	0.06	1.6	0.06	86.9	72.5	10.5	**43117**	**43312**	23.7	0.93	45.0	1.77	42.0	1.65	62.0	2.44	68.0	2.68	0.67	0.90	0.49	20.1	23.0	0.88
30.162	1.1875	79.375	3.1250	25.400	1.0000	24.074	0.9478	17.462	0.6875	1.6	0.06	1.6	0.06	86.9	72.5	10.5	**43118**	**43312**	23.7	0.93	45.0	1.77	42.0	1.65	62.0	2.44	68.0	2.68	0.67	0.90	0.49	20.1	23.0	0.88
31.750	1.2500	79.375	3.1250	25.400	1.0000	24.074	0.9478	17.462	0.6875	1.6	0.06	1.6	0.06	86.9	72.5	10.5	**43125**	**43312**	23.7	0.93	44.0	1.73	41.5	1.63	62.0	2.44	68.0	2.68	0.67	0.90	0.49	20.1	23.0	0.88
	1.2500	88.501	3.4843	25.400	1.0000	23.698	0.9330	17.462	0.6875	1.6	0.06	1.6	0.06	94.0	84.4	12.3	**44126**	**44348**	28.0	1.10	49.0	1.93	46.0	1.81	75.0	2.95	84.0	3.31	0.78	0.77	0.42	21.8	29.1	0.75
33.338	1.3125	79.375	3.1250	25.400	1.0000	24.074	0.9478	17.462	0.6875	3.6	0.14	1.6	0.06	86.9	72.5	10.5	**43131**	**43312**	23.7	0.93	51.0	2.01	48.0	1.89	62.0	2.44	68.0	2.68	0.67	0.90	0.49	20.1	23.0	0.88
	1.3125	79.375	3.1250	25.400	1.0000	24.074	0.9478	17.462	0.6875	2.0	0.08	1.6	0.06	86.9	72.5	10.5	**43132**	**43312**	23.7	0.93	48.0	1.89	42.0	1.65	62.0	2.44	73.0	2.87	0.67	0.90	0.49	20.1	23.0	0.88
	1.3125	88.501	3.4843	25.400	1.0000	23.698	0.9330	17.462	0.6875	2.0	0.08	1.6	0.06	94.0	84.4	12.3	**44131**	**44348**	28.0	1.10	51.0	2.01	48.0	1.89	75.0	2.95	84.0	3.31	0.78	0.77	0.42	21.8	29.1	0.75
36.512	1.4375	88.501	3.4843	25.400	1.0000	23.698	0.9330	17.462	0.6875	2.4	0.09	1.6	0.06	94.0	84.4	12.3	**44143**	**44348**	30.0	1.18	54.0	2.13	50.0	1.97	75.0	2.95	84.0	3.31	0.78	0.77	0.42	21.8	29.1	0.75
38.100	1.5000	88.501	3.4843	25.400	1.0000	23.698	0.9330	17.462	0.6875	2.4	0.09	1.6	0.06	94.0	84.4	12.3	**44150**	**44348**	28.0	1.10	55.0	2.17	51.0	2.01	75.0	2.95	84.0	3.31	0.78	0.77	0.42	21.8	29.1	0.75
	1.5000	95.250	3.7500	30.958	1.2188	28.301	1.1142	20.638	0.8125	1.6	0.06	0.8	0.03	111	98.4	14.4	**53150**	**53375**	30.0	1.18	55.0	2.17	52.5	2.07	81.0	3.19	89.0	3.50	0.74	0.81	0.45	25.7	32.6	0.79
	1.5000	95.250	3.7500	30.958	1.2188	28.575	1.1250	22.225	0.8750	3.6	0.14	0.8	0.03	124	120	17.4	**HM903241**	**HM903210**	30.8	1.21	61.0	2.40	54.0	2.13	81.0	3.19	91.0	3.58	0.74	0.81	0.45	29.0	36.6	0.79
	1.5000	98.425	3.8750	30.958	1.2188	28.301	1.1142	20.638	0.8125	1.6	0.06	0.8	0.03	111	98.4	14.4	**53150**	**53387**	30.0	1.18	55.0	2.17	53.0	2.09	82.0	3.23	91.0	3.58	0.74	0.81	0.45	25.7	32.6	0.79
39.688	1.5625	88.501	3.4843	25.400	1.0000	23.698	0.9330	17.462	0.6875	2.4	0.09	1.6	0.06	94.0	84.4	12.3	**44156**	**44348**	28.0	1.10	56.0	2.20	51.0	2.01	75.0	2.95	84.0	3.31	0.78	0.77	0.42	21.8	29.1	0.75
	1.5625	88.501	3.4843	25.400	1.0000	23.698	0.9330	17.462	0.6875	3.6	0.14	1.6	0.06	94.0	84.4	12.3	**44158**	**44348**	28.0	1.10	58.0	2.28	51.0	2.01	75.0	2.95	84.0	3.31	0.78	0.77	0.42	21.8	29.1	0.75
40.000	1.5748	88.501	3.4843	25.400	1.0000	23.698	0.9330	17.462	0.6875	2.4	0.09	1.6	0.06	94.0	84.4	12.3	**44157**	**44348**	28.0	1.10	56.0	2.20	51.0	2.01	75.0	2.95	84.0	3.31	0.78	0.77	0.42	21.8	29.1	0.75
41.275	1.6250	88.501	3.4843	25.400	1.0000	23.698	0.9330	17.462	0.6875	2.4	0.09	1.6	0.06	94.0	84.4	12.3	**44162**	**44348**	28.0	1.10	57.0	2.24	51.0	2.01	75.0	2.95	84.0	3.31	0.78	0.77	0.42	21.8	29.1	0.75
	1.6250	92.075	3.6250	26.195	1.0313	23.812	0.9375	16.670	0.6563	3.6	0.14	1.6	0.06	97.1	89.9	13.1	**M903345**	**M903310**	30.1	1.19	60.0	2.36	54.0	2.13	78.0	3.07	88.0	3.46	0.83	0.72	0.40	22.5	32.0	0.70
	1.6250	95.250	3.7500	30.958	1.2188	28.575	1.1250	22.225	0.8750	3.6	0.14	0.8	0.03	124	120	17.4	**HM903245**	**HM903210**	30.8	1.21	63.0	2.48	54.0	2.13	81.0	3.19	91.0	3.58	0.74	0.81	0.45	29.0	36.6	0.79
	1.6250	98.425	3.8750	30.958	1.2188	28.301	1.1142	20.638	0.8125	1.6	0.06	0.8	0.03	111	98.4	14.4	**53162**	**53387**	30.0	1.18	57.0	2.24	52.5	2.07	82.0	3.23	91.0	3.58	0.74	0.81	0.45	25.7	32.6	0.79
44.450	1.7500	95.250	3.7500	30.958	1.2188	28.301	1.1142	20.638	0.8125	3.6	0.14	0.8	0.03	111	98.4	14.4	**53177**	**53375**	30.0	1.18	63.0	2.48	52.5	2.07	81.0	3.19	89.0	3.50	0.74	0.81	0.45	25.7	32.6	0.79
	1.7500	95.250	3.7500	30.958	1.2188	28.301	1.1142	20.638	0.8125	2.0	0.08	0.8	0.03	111	98.4	14.4	**53178**	**53375**	30.0	1.18	60.0	2.36	52.5	2.07	81.0	3.19	89.0	3.50	0.74	0.81	0.45	25.7	32.6	0.79
	1.7500	95.250	3.7500	30.958	1.2188	28.575	1.1250	22.225	0.8750	3.6	0.14	0.8	0.03	124	120	17.4	**HM903249**	**HM903210**	30.8	1.21	65.0	2.56	54.0	2.13	81.0	3.19	91.0	3.58	0.74	0.81	0.45	29.0	36.6	0.79
	1.7500	98.425	3.8750	30.958	1.2188	28.301	1.1142	20.638	0.8125	1.2	0.05	1.6	0.06	111	98.4	14.4	**53176**	**53387X**	30.0	1.18	59.0	2.32	52.5	2.07	82.0	3.23	91.0	3.58	0.74	0.81	0.45	25.7	32.6	0.79
	1.7500	101.600	4.0000	30.958	1.2188	28.301	1.1142	20.638	0.8125	2.0	0.08	0.8	0.03	111	98.4	14.4	**53178**	**53398**	30.0	1.18	60.0	2.36	52.5	2.07	82.0	3.23	91.0	3.58	0.74	0.81	0.45	25.7	32.6	0.79
	1.7500	111.125	4.3750	30.162	1.1875	26.909	1.0594	20.638	0.8125	3.6	0.14	3.2	0.13	139	150	21.8	**55175CR**	**55437**	36.6	1.44	67.0	2.64	60.0	2.36	92.0	3.62	105.0	4.13	0.88	0.68	0.37	32.3	48.8	0.66
	1.7500	111.125	4.3750	30.162	1.1875	26.909	1.0594	20.638	0.8125	0.8	0.03	3.2	0.13	139	150	21.8	**55176CR**	**55437**	36.6	1.44	54.0	2.13	52.0	2.05	92.0	3.62	105.0	4.13	0.88	0.68	0.37	32.3	48.8	0.66
	1.7500	111.125	4.3750	30.162	1.1875	28.575	1.1250	20.638	0.8125	0.8	0.03	3.2	0.13	134	142	20.7	**HM907635**	**HM907614**	37.2	1.46	64.0	2.52	65.5	2.58	91.0	3.58	105.0	4.13	0.88	0.68	0.37	31.2	47.1	0.66

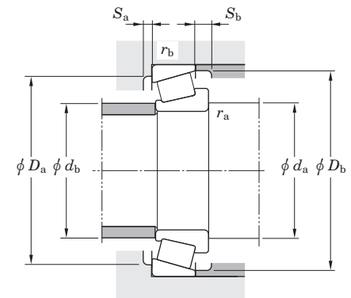
Koyo

TSS type

d (44.450) ~ 68.262 mm

(1.7500) ~ 2.6875 inch





$P = XF_r + YF_a$ $P_0 = 0.5\,F_r + Y_0F_a$ or $P_0 = F_r$			
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

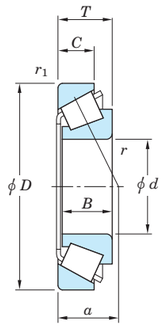
Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

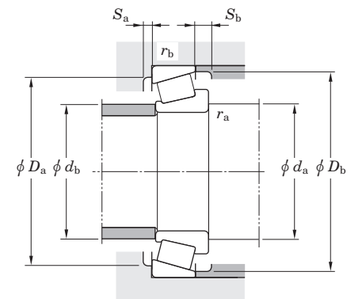
Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Con-stant	Axial load factors		Reference rating (kN) (500 rpm for 3 000 Hrs.)		Factor
d		D		T		B		C		r (min.)		r_1 (min.)		C_r	C_{0r}	C_u	Inner ring (Cone)	Outer ring (Cup)	a		d_a		d_b		D_a		D_b		e	Y_1	Y_0	Radial	Axial	K
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						
44.450	1.7500	112.712	4.4375	30.162	1.1875	26.909	1.0594	20.638	0.8125	3.6	0.14	3.2	0.13	122	119	17.5	**55175**	**55443**	36.6	1.44	67.0	2.64	60.0	2.36	92.0	3.62	106.0	4.17	0.88	0.68	0.37	28.5	43.0	0.66
44.988	1.7712	95.250	3.7500	30.958	1.2188	28.575	1.1250	22.225	0.8750	3.6	0.14	0.8	0.03	124	120	17.4	**HM903248**	**HM903210**	30.8	1.21	65.0	2.56	54.0	2.13	81.0	3.19	91.0	3.58	0.74	0.81	0.45	29.0	36.6	0.79
47.625	1.8750	111.125	4.3750	30.162	1.1875	26.909	1.0594	20.638	0.8125	3.6	0.14	3.2	0.13	122	119	17.5	**55187**	**55437**	36.6	1.44	69.0	2.72	62.0	2.44	92.0	3.62	105.0	4.13	0.88	0.68	0.37	28.5	43.0	0.66
	1.8750	111.125	4.3750	30.162	1.1875	26.909	1.0594	20.638	0.8125	3.6	0.14	3.2	0.13	139	150	21.8	**55187CR**	**55437**	36.6	1.44	69.0	2.72	62.0	2.44	92.0	3.62	105.0	4.13	0.88	0.68	0.37	32.3	48.8	0.66
	1.8750	111.125	4.3750	30.162	1.1875	28.575	1.1250	20.638	0.8125	3.6	0.14	3.2	0.13	134	142	20.7	**HM907639**	**HM907614**	37.2	1.46	72.0	2.83	65.0	2.56	91.0	3.58	105.0	4.13	0.88	0.68	0.37	31.2	47.1	0.66
	1.8750	123.825	4.8750	36.512	1.4375	32.791	1.2910	25.400	1.0000	3.6	0.14	3.2	0.13	176	166	24.8	**72187**	**72487**	38.0	1.50	72.0	2.83	66.0	2.60	102.0	4.02	116.0	4.57	0.74	0.81	0.45	41.2	51.9	0.79
49.974	1.9675	111.125	4.3750	30.162	1.1875	26.909	1.0594	20.638	0.8125	3.6	0.14	3.2	0.13	122	119	17.5	**55196**	**55437**	36.6	1.44	71.0	2.80	64.0	2.52	92.0	3.62	105.0	4.13	0.88	0.68	0.37	28.5	43.0	0.66
	1.9675	111.125	4.3750	30.162	1.1875	26.909	1.0594	20.638	0.8125	2.0	0.08	3.2	0.13	122	119	17.5	**55197**	**55437**	36.6	1.44	68.0	2.68	64.0	2.52	92.0	3.62	105.0	4.13	0.88	0.68	0.37	28.5	43.0	0.66
50.800	2.0000	111.125	4.3750	30.162	1.1875	26.909	1.0594	20.638	0.8125	3.6	0.14	3.2	0.13	122	119	17.5	**55200**	**55437**	36.6	1.44	71.0	2.80	64.0	2.52	92.0	3.62	105.0	4.13	0.88	0.68	0.37	28.5	43.0	0.66
	2.0000	111.125	4.3750	30.162	1.1875	26.909	1.0594	20.638	0.8125	3.6	0.14	3.2	0.13	139	150	21.8	**55200CR**	**55437**	36.6	1.44	71.0	2.80	64.0	2.52	92.0	3.62	105.0	4.13	0.88	0.68	0.37	32.3	48.8	0.66
	2.0000	111.125	4.3750	30.162	1.1875	28.575	1.1250	20.638	0.8125	3.6	0.14	3.2	0.13	134	142	20.7	**HM907643**	**HM907614**	37.2	1.46	74.0	2.91	65.5	2.58	91.0	3.58	105.0	4.13	0.88	0.68	0.37	31.2	47.1	0.66
	2.0000	123.825	4.8750	36.512	1.4375	32.791	1.2910	25.400	1.0000	3.6	0.14	3.2	0.13	176	166	24.8	**72200**	**72487**	38.0	1.50	74.0	2.91	66.0	2.60	102.0	4.02	116.0	4.57	0.74	0.81	0.45	41.2	51.9	0.79
	2.0000	123.825	4.8750	36.512	1.4375	32.791	1.2910	25.400	1.0000	3.6	0.14	3.2	0.13	194	190	28.4	**72200C**	**72487**	38.0	1.50	74.0	2.91	66.0	2.60	102.0	4.02	116.0	4.57	0.74	0.81	0.45	45.2	57.0	0.79
52.388	2.0625	111.125	4.3750	30.162	1.1875	26.909	1.0594	20.638	0.8125	3.6	0.14	3.2	0.13	122	119	17.5	**55206**	**55437**	36.6	1.44	72.0	2.83	64.0	2.52	92.0	3.62	105.0	4.13	0.88	0.68	0.37	28.5	43.0	0.66
53.975	2.1250	123.825	4.8750	36.512	1.4375	32.791	1.2910	25.400	1.0000	3.6	0.14	3.2	0.13	176	166	24.8	**72212**	**72487**	38.0	1.50	77.0	3.03	66.0	2.60	102.0	4.02	116.0	4.57	0.74	0.81	0.45	41.2	51.9	0.79
	2.1250	123.825	4.8750	36.512	1.4375	32.791	1.2910	25.400	1.0000	3.6	0.14	3.2	0.13	194	190	28.4	**72212C**	**72487**	38.0	1.50	77.0	3.03	66.0	2.60	102.0	4.02	116.0	4.57	0.74	0.81	0.45	45.2	57.0	0.79
	2.1250	127.000	5.0000	36.512	1.4375	32.791	1.2910	25.400	1.0000	3.6	0.14	3.2	0.13	176	166	24.8	**72212**	**72500**	38.0	1.50	77.0	3.03	66.0	2.60	102.0	4.02	116.0	4.57	0.74	0.81	0.45	41.2	51.9	0.79
	2.1250	130.175	5.1250	36.512	1.4375	33.338	1.3125	23.812	0.9375	3.6	0.14	3.2	0.13	191	181	27.3	**HM911242R**	**HM911210**	41.8	1.65	79.0	3.11	74.0	2.91	109.0	4.29	124.0	4.88	0.82	0.73	0.40	44.3	62.1	0.71
	2.1250	136.525	5.3750	36.512	1.4375	33.236	1.3085	23.520	0.9260	0.8	0.03	3.2	0.13	188	177	26.8	**78214**	**78537**	46.2	1.82	75.0	2.95	77.0	3.03	115.0	4.53	130.0	5.12	0.87	0.69	0.38	43.6	64.6	0.68
	2.1250	140.030	5.5130	36.512	1.4375	33.236	1.3085	23.520	0.9260	3.6	0.14	2.4	0.09	188	177	26.8	**78215**	**78551**	46.2	1.82	81.0	3.19	75.0	2.95	117.0	4.61	132.0	5.20	0.87	0.69	0.38	43.6	64.6	0.68
55.562	2.1875	123.825	4.8750	36.512	1.4375	32.791	1.2910	25.400	1.0000	3.6	0.14	3.2	0.13	176	166	24.8	**72218**	**72487**	38.0	1.50	78.0	3.07	66.0	2.60	102.0	4.02	116.0	4.57	0.74	0.81	0.45	41.2	51.9	0.79
57.150	2.2500	123.825	4.8750	36.512	1.4375	32.791	1.2910	25.400	1.0000	3.6	0.14	3.2	0.13	176	166	24.8	**72225**	**72487**	38.0	1.50	80.0	3.15	66.0	2.60	102.0	4.02	116.0	4.57	0.74	0.81	0.45	41.2	51.9	0.79
	2.2500	123.825	4.8750	36.512	1.4375	32.791	1.2910	25.400	1.0000	3.6	0.14	3.2	0.13	194	190	28.4	**72225C**	**72487**	38.0	1.50	80.0	3.15	66.0	2.60	102.0	4.02	116.0	4.57	0.74	0.81	0.45	45.2	57.0	0.79
	2.2500	136.525	5.3750	36.512	1.4375	33.236	1.3085	23.520	0.9260	3.6	0.14	3.2	0.13	188	177	26.8	**78225**	**78537**	46.2	1.82	83.0	3.27	77.0	3.03	115.0	4.53	130.0	5.12	0.87	0.69	0.38	43.6	64.6	0.68
	2.2500	140.030	5.5130	36.512	1.4375	33.236	1.3085	23.520	0.9260	3.6	0.14	2.4	0.09	188	177	26.8	**78225**	**78551**	46.2	1.82	83.0	3.27	77.0	3.03	117.0	4.61	132.0	5.20	0.87	0.69	0.38	43.6	64.6	0.68
60.325	2.3750	130.175	5.1250	36.512	1.4375	33.338	1.3125	23.812	0.9375	5.2	0.20	3.2	0.13	191	181	27.3	**HM911245R**	**HM911210**	41.8	1.65	87.0	3.43	74.5	2.93	109.0	4.29	124.0	4.88	0.82	0.73	0.40	44.3	62.1	0.71
	2.3750	136.525	5.3750	36.512	1.4375	33.236	1.3085	23.520	0.9260	5.2	0.20	3.2	0.13	188	177	26.8	**78238**	**78537**	46.2	1.82	83.0	3.27	75.0	2.95	115.0	4.53	130.0	5.12	0.87	0.69	0.38	43.6	64.6	0.68
	2.3750	140.030	5.5130	36.512	1.4375	33.236	1.3085	23.520	0.9260	5.2	0.20	2.4	0.09	188	177	26.8	**78238**	**78551**	46.2	1.82	83.0	3.27	75.0	2.95	117.0	4.61	132.0	5.20	0.87	0.69	0.38	43.6	64.6	0.68
61.912	2.4375	130.175	5.1250	36.512	1.4375	33.338	1.3125	23.812	0.9375	3.6	0.14	3.2	0.13	191	181	27.3	**HM911249R**	**HM911210**	41.8	1.65	88.0	3.46	75.0	2.95	109.0	4.29	123.5	4.86	0.82	0.73	0.40	44.3	62.1	0.71
	2.4375	146.050	5.7500	41.275	1.6250	39.688	1.5625	25.400	1.0000	3.6	0.14	3.2	0.13	252	237	35.4	**H913842R**	**H913810**	45.6	1.80	90.0	3.54	82.5	3.25	124.0	4.88	138.0	5.43	0.78	0.77	0.42	58.7	78.5	0.75
63.500	2.5000	136.525	5.3750	36.512	1.4375	33.236	1.3085	23.520	0.9260	2.4	0.09	3.2	0.13	188	177	26.8	**78250**	**78537**	46.2	1.82	85.0	3.35	79.0	3.11	115.0	4.53	130.0	5.12	0.87	0.69	0.38	43.6	64.6	0.68
64.988	2.5586	136.525	5.3750	36.512	1.4375	32.923	1.2962	23.520	0.9260	3.6	0.14	3.2	0.13	188	177	26.8	**78255X**	**78537**	46.2	1.82	89.0	3.50	79.0	3.11	115.0	4.53	130.0	5.12	0.87	0.69	0.38	43.6	64.6	0.68
66.675	2.6250	177.800	7.0000	57.150	2.2500	53.975	2.1250	37.308	1.4688	3.6	0.14	3.2	0.13	418	372	48.4	**HH914449**	**HH914412**	57.9	2.28	106.0	4.17	85.5	3.37	146.0	5.75	165.0	6.50	0.80	0.75	0.41	97.3	133	0.73
68.262	2.6875	161.925	6.3750	49.212	1.9375	46.038	1.8125	31.750	1.2500	3.6	0.14	3.2	0.13	307	286	39.1	**9278R**	**9220**	50.2	1.98	95.0	3.74	85.0	3.35	138.0	5.43	153.0	6.02	0.71	0.85	0.47	71.6	86.8	0.83

Koyo

TSS type

d 69.850 ~ 342.900 mm
2.7500 ~ 13.5000 inch





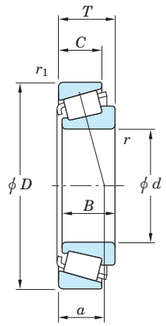
$P = XF_r + YF_a$ $P_0 = 0.5\,F_r + Y_0F_a$ or $P_0 = F_r$			
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

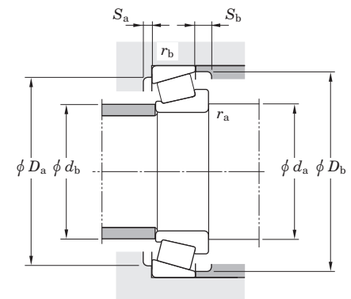
Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Con-stant	Axial load factors		Reference rating (kN) (500 rpm for 3 000 Hrs.)		Factor
d		D		T		B		C		r (min.)		r_1 (min.)		C_r	C_{0r}	C_u	Inner ring (Cone)	Outer ring (Cup)	a		d_a		d_b		D_a		D_b		e	Y_1	Y_0	Radial	Axial	K
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						
69.850	2.7500	146.050	5.7500	41.275	1.6250	39.688	1.5625	25.400	1.0000	3.6	0.14	3.2	0.13	252	237	35.4	**H913849R**	**H913810**	45.6	1.80	95.0	3.74	82.5	3.25	124.0	4.88	138.0	5.43	0.78	0.77	0.42	58.7	78.5	0.75
69.914	2.7525	171.450	6.7500	49.212	1.9375	46.038	1.8125	31.750	1.2500	3.6	0.14	3.2	0.13	329	320	42.4	**9382R**	**9321**	55.1	2.17	105.0	4.13	98.0	3.86	147.0	5.79	164.0	6.46	0.76	0.79	0.43	76.9	100	0.77
76.200	3.0000	161.925	6.3750	49.212	1.9375	46.038	1.8125	31.750	1.2500	3.6	0.14	3.2	0.13	307	286	39.1	**9285R**	**9220**	50.2	1.98	103.0	4.06	90.5	3.56	138.0	5.43	153.0	6.02	0.71	0.85	0.47	71.6	86.8	0.83
	3.0000	177.800	7.0000	52.388	2.0625	46.038	1.8125	34.925	1.3750	3.6	0.14	3.2	0.13	329	320	42.4	**9380R**	**9320**	55.1	2.17	117.0	4.61	98.2	3.87	148.0	5.83	164.0	6.46	0.76	0.79	0.43	76.9	100	0.77
	3.0000	177.800	7.0000	52.388	2.0625	50.800	2.0000	34.925	1.3750	3.6	0.14	3.2	0.13	329	320	42.4	**9378R**	**9320**	55.1	2.17	117.0	4.61	98.2	3.87	148.0	5.83	164.0	6.46	0.76	0.79	0.43	76.9	100	0.77
84.138	3.3125	171.450	6.7500	49.212	1.9375	46.038	1.8125	31.750	1.2500	3.6	0.14	3.2	0.13	329	320	42.4	**9385R**	**9321**	55.1	2.17	111.0	4.37	98.0	3.86	147.0	5.79	164.0	6.46	0.76	0.79	0.43	76.9	100	0.77
96.838	3.8125	188.913	7.4375	50.800	2.0000	46.038	1.8125	31.750	1.2500	3.6	0.14	3.2	0.13	330	357	43.2	**90381**	**90744**	63.0	2.48	125.0	4.92	113.0	4.44	161.0	6.34	179.5	7.06	0.87	0.69	0.38	77	115	0.67
101.600	4.0000	250.825	9.8750	76.200	3.0000	73.025	2.8750	50.800	2.0000	6.4	0.25	6.4	0.25	685	691	81.3	**HH923649**	**HH923610**	74.0	2.91	149.0	5.87	131.0	5.16	207.0	8.15	229.0	9.02	0.71	0.85	0.47	162	196	0.83
	4.0000	250.825	9.8750	76.200	3.0000	73.025	2.8750	50.800	2.0000	6.4	0.25	3.2	0.13	685	691	81.3	**HH923649**	**HH923611**	74.0	2.91	149.0	5.87	131.0	5.16	210.0	8.27	229.0	9.02	0.71	0.85	0.47	162	196	0.83
111.125	4.3750	214.313	8.4375	55.563	2.1875	52.388	2.0625	39.688	1.5625	3.6	0.14	3.2	0.13	506	578	70.6	**H924045**	**H924010**	62.3	2.45	139.0	5.47	131.0	5.16	186.0	7.32	205.0	8.07	0.67	0.89	0.49	118	137	0.87
114.300	4.5000	228.600	9.0000	53.975	2.1250	49.428	1.9460	38.100	1.5000	3.6	0.14	3.2	0.13	540	651	77.1	**HM926740**	**HM926710**	67.9	2.67	146.0	5.75	142.0	5.59	200.0	7.87	219.0	8.62	0.74	0.81	0.45	126	159	0.79
127.000	5.0000	228.600	9.0000	53.975	2.1250	49.428	1.9460	38.100	1.5000	3.6	0.14	3.2	0.13	540	651	77.1	**HM926747**	**HM926710**	68.1	2.68	156.0	6.14	143.0	5.63	200.0	7.87	219.0	8.63	0.74	0.81	0.45	126	159	0.79
	5.0000	304.800	12.0000	88.900	3.5000	82.550	3.2500	57.150	2.2500	6.4	0.25	6.4	0.25	987	1 060	119	**HH932132**	**HH932110**	92.1	3.63	182.0	7.17	172.0	6.77	260.0	10.24	288.0	11.34	0.73	0.82	0.45	233	290	0.80
127.792	5.0312	228.600	9.0000	53.975	2.1250	49.428	1.9460	38.100	1.5000	3.6	0.14	3.2	0.13	540	651	77.1	**HM926749**	**HM926710**	68.1	2.68	156.0	6.14	143.0	5.63	200.0	7.87	219.0	8.63	0.74	0.81	0.45	126	159	0.79
146.050	5.7500	304.800	12.0000	88.900	3.5000	82.550	3.2500	57.150	2.2500	6.4	0.25	6.4	0.25	987	1 060	119	**HH932145**	**HH932110**	92.1	3.63	195.0	7.68	174.5	6.87	260.0	10.24	288.0	11.34	0.73	0.82	0.45	233	290	0.80
155.575	6.1250	330.200	13.0000	85.725	3.3750	79.375	3.1250	53.975	2.1250	6.4	0.25	6.4	0.25	1 080	1 210	131	**H936340**	**H936310**	103.8	4.09	209.0	8.23	192.5	7.58	282.0	11.10	311.5	12.26	0.81	0.74	0.41	255	352	0.72
168.275	6.6250	330.200	13.0000	85.725	3.3750	79.375	3.1250	53.975	2.1250	6.4	0.25	6.4	0.25	1 080	1 210	131	**H936349**	**H936310**	103.8	4.09	218.0	8.58	192.5	7.58	282.0	11.10	311.5	12.26	0.81	0.74	0.41	255	352	0.72
	6.6250	342.900	13.5000	85.725	3.3750	79.375	3.1250	53.975	2.1250	6.4	0.25	6.4	0.25	1 080	1 210	131	**H936349**	**H936316**	103.8	4.09	218.0	8.58	192.5	7.58	287.0	11.30	311.5	12.26	0.81	0.74	0.41	255	352	0.72
177.800	7.0000	428.625	16.8750	106.362	4.1875	95.250	3.7500	61.912	2.4375	6.4	0.25	6.4	0.25	1 340	1 390	145	**EE350701**	**351687**	118.7	4.67	230.0	9.06	221.0	8.70	365.0	14.37	383.0	15.08	0.76	0.79	0.44	318	411	0.77
190.500	7.5000	428.625	16.8750	106.363	4.1875	95.250	3.7500	61.913	2.4375	6.4	0.25	6.4	0.25	1 340	1 390	145	**EE350750**	**351687**	118.7	4.67	240.0	9.45	237.0	9.33	365.0	14.37	383.0	15.08	0.76	0.79	0.44	318	411	0.77
203.200	8.0000	482.600	19.0000	117.475	4.6250	95.250	3.7500	73.025	2.8750	6.4	0.25	6.4	0.25	1 810	2 060	209	**EE380080**	**380190**	152.8	6.02	280.0	11.02	260.0	10.24	402.0	15.83	428.5	16.87	0.87	0.69	0.38	426	631	0.67
241.300	9.5000	508.000	20.0000	117.475	4.6250	95.250	3.7500	73.025	2.8750	6.4	0.25	6.4	0.25	1 550	1 800	178	**EE390095**	**390200**	168.1	6.62	297.0	11.69	288.0	11.34	423.0	16.65	456.0	17.96	0.94	0.64	0.35	366	587	0.62
254.000	10.0000	533.400	21.0000	133.350	5.2500	120.650	4.7500	77.788	3.0625	6.4	0.25	6.4	0.25	2 230	2 800	262	**HH953749**	**HH953710**	180.8	7.12	328.0	12.91	306.5	12.06	455.0	17.91	495.5	19.51	0.94	0.64	0.35	528	846	0.62
317.500	12.5000	622.300	24.5000	147.638	5.8125	131.763	5.1875	82.550	3.2500	14.3	0.56	12.7	0.50	2 790	3 490	316	**H961649**	**H961610**	210.5	8.29	410.0	16.14	373.0	14.69	531.0	20.91	581.5	22.90	0.94	0.64	0.35	659	1 060	0.62
342.900	13.5000	457.098	17.9960	66.675	2.6250	63.500	2.5000	46.038	1.8125	3.2	0.13	3.2	0.13	914	1 670	159	**LM961548**	**LM961510**	122.3	4.81	367.0	14.45	363.0	14.29	423.0	16.65	443.0	17.44	0.71	0.84	0.46	212	258	0.82

Koyo

TS type
Metric "J" series
d 38.000 ~ 200.000 mm
1.4961 ~ 7.8740 inch





$P = XF_r + YF_a$ $P_0 = 0.5\,F_r + Y_0F_a$ or $P_0 = F_r$			
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Con-stant	Axial load factors		Reference rating (kN) (500 rpm for 3 000 Hrs.)		Factor
d		D		T		B		C		r (min.)		r_1 (min.)		C_r	C_{0r}	C_u	Inner ring (Cone)	Outer ring (Cup)	a		d_a		d_b		D_a		D_b		e	Y_1	Y_0	Radial	Axial	K
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						
38.000	1.4961	63.000	2.4803	17.000	0.6693	17.000	0.6693	13.500	0.5315	SP[1]	SP[1]	SP[1]	SP[1]	54.7	58.2	8.25	**JL69349**	**JL69310**	14.6	0.57	49.0	1.93	41.0	1.61	60.0	2.36	59.5	2.34	0.42	1.44	0.79	12.6	8.95	1.41
50.000	1.9685	82.000	3.2283	21.501	0.8465	21.501	0.8465	17.000	0.6693	3.0	0.12	0.5	0.02	90.0	97.9	14.7	**JLM104948**	**JLM104910**	16.2	0.64	60.0	2.36	55.0	2.17	76.0	2.99	78.0	3.07	0.31	1.97	1.08	20.8	10.8	1.92
	1.9685	90.000	3.5433	28.000	1.1024	28.000	1.1024	23.000	0.9055	3.0	0.12	2.5	0.10	132	138	21.1	**JM205149**	**JM205110**	20.2	0.80	62.0	2.44	57.0	2.24	80.0	3.15	85.0	3.35	0.33	1.82	1.00	30.6	17.2	1.78
	1.9685	105.000	4.1339	37.000	1.4567	36.000	1.4173	29.000	1.1417	3.0	0.12	2.8	0.11	186	205	30.6	**JHM807045**	**JHM807012**	29.4	1.16	69.0	2.72	63.0	2.48	90.0	3.54	100.0	3.94	0.49	1.23	0.68	43.5	36.3	1.20
55.000	2.1654	90.000	3.5433	23.000	0.9055	23.000	0.9055	18.500	0.7283	1.6	0.06	0.5	0.02	102	115	17.2	**JLM506849**	**JLM506810**	20.1	0.79	63.0	2.48	61.0	2.40	82.0	3.23	86.0	3.39	0.40	1.49	0.82	23.6	16.2	1.46
	2.1654	95.000	3.7402	29.000	1.1417	29.000	1.1417	23.500	0.9252	1.6	0.06	2.8	0.11	138	150	23.0	**JM207049**	**JM207010**	21.3	0.84	64.0	2.52	62.0	2.44	85.0	3.35	91.0	3.58	0.33	1.79	0.99	32.0	18.3	1.75
	2.1654	110.000	4.3307	39.000	1.5354	39.000	1.5354	32.000	1.2598	3.0	0.12	2.5	0.10	220	224	34.7	**JH307749**	**JH307710**	26.8	1.06	71.0	2.80	64.0	2.52	97.0	3.82	104.0	4.09	0.35	1.73	0.95	51.5	30.5	1.69
60.000	2.3622	95.000	3.7402	24.000	0.9449	24.000	0.9449	19.000	0.7480	5.0	0.20	2.5	0.10	108	125	18.9	**JLM508748**	**JLM508710**	21.2	0.83	75.0	2.95	66.0	2.60	85.0	3.35	91.0	3.58	0.40	1.49	0.82	25.0	17.2	1.46
65.000	2.5591	105.000	4.1339	24.000	0.9449	23.000	0.9055	18.500	0.7283	3.0	0.12	1.0	0.04	120	129	19.6	**JLM710949**	**JLM710910**	23.8	0.94	77.0	3.03	71.0	2.80	96.0	3.78	101.0	3.98	0.45	1.32	0.73	27.7	21.4	1.29
	2.5591	110.000	4.3307	28.000	1.1024	28.000	1.1024	22.500	0.8858	3.0	0.12	2.8	0.11	170	191	29.4	**JM511946**	**JM511910**	24.5	0.96	78.0	3.07	72.0	2.83	99.0	3.90	105.0	4.13	0.40	1.49	0.82	39.3	27.0	1.46
	2.5591	120.000	4.7244	39.000	1.5354	38.500	1.5157	32.000	1.2598	3.0	0.12	2.8	0.11	236	255	39.7	**JH211749**	**JH211710**	27.9	1.10	80.0	3.15	74.0	2.91	107.0	4.21	114.0	4.49	0.34	1.78	0.98	55.2	31.8	1.74
	2.5591	120.000	4.7244	39.000	1.5354	38.500	1.5157	32.000	1.2598	7.1	0.28	2.8	0.11	236	255	39.7	**JH211749A**	**JH211710**	27.9	1.10	88.0	3.46	74.0	2.91	107.0	4.21	114.0	4.49	0.34	1.78	0.98	55.2	31.8	1.74
70.000	2.7559	110.000	4.3307	26.000	1.0236	25.000	0.9843	20.500	0.8071	1.0	0.04	2.5	0.10	129	158	23.9	**JLM813049**	**JLM813010**	26.1	1.03	78.0	3.07	77.0	3.03	98.0	3.86	106.0	4.17	0.49	1.23	0.68	29.8	24.8	1.20
	2.7559	115.000	4.5276	29.000	1.1417	29.000	1.1417	23.000	0.9055	3.0	0.12	2.5	0.10	155	173	26.6	**JM612949**	**JM612910**	26.2	1.03	83.0	3.27	77.0	3.03	103.0	4.06	111.0	4.37	0.43	1.39	0.77	36.0	26.5	1.36
75.000	2.9528	115.000	4.5276	25.000	0.9843	25.000	0.9843	19.000	0.7480	3.0	0.12	2.8	0.11	127	151	23.0	**JLM714149**	**JLM714110**	25.5	1.00	87.0	3.43	81.0	3.19	104.0	4.09	111.0	4.37	0.46	1.31	0.72	29.4	23.0	1.28
	2.9528	120.000	4.7244	31.000	1.2205	29.500	1.1614	25.000	0.9843	3.0	0.12	2.8	0.11	182	216	33.2	**JM714249**	**JM714210**	30.0	1.18	88.0	3.46	82.9	3.26	108.0	4.25	115.0	4.53	0.44	1.35	0.74	42.2	32.1	1.32
	2.9528	145.000	5.7087	51.000	2.0079	51.000	2.0079	42.000	1.6535	3.0	0.12	2.5	0.10	362	412	55.2	**JH415647**	**JH415610**	36.6	1.44	94.0	3.70	89.0	3.50	129.0	5.08	139.0	5.47	0.36	1.66	0.91	85.1	52.7	1.62
80.000	3.1496	130.000	5.1181	35.000	1.3780	34.000	1.3386	28.500	1.1220	3.2	0.13	2.5	0.10	211	256	39.3	**JM515649**	**JM515610**	29.6	1.17	94.0	3.70	88.0	3.46	117.0	4.61	125.0	4.92	0.39	1.54	0.85	49.2	32.6	1.51
85.000	3.3465	130.000	5.1181	30.000	1.1811	29.000	1.1417	24.000	0.9449	3.0	0.12	2.5	0.10	179	228	34.5	**JM716649**	**JM716610**	29.1	1.15	98.0	3.86	92.0	3.62	117.0	4.61	125.0	4.92	0.44	1.35	0.74	41.3	31.4	1.32
	3.3465	140.000	5.5118	39.000	1.5354	38.000	1.4961	31.500	1.2402	3.0	0.12	2.5	0.10	254	308	46.4	**JHM516849**	**JHM516810**	32.8	1.29	100.0	3.94	93.9	3.70	125.0	4.92	134.0	5.28	0.41	1.47	0.81	59.5	41.4	1.44
	3.3465	150.000	5.9055	46.000	1.8110	46.000	1.8110	38.000	1.4961	3.0	0.12	2.5	0.10	342	390	53.1	**JH217249**	**JH217210**	33.6	1.32	101.0	3.98	95.2	3.75	134.0	5.28	142.0	5.59	0.33	1.80	0.99	80.3	45.6	1.76
90.000	3.5433	145.000	5.7087	35.000	1.3780	34.000	1.3386	27.000	1.0630	3.0	0.12	2.5	0.10	244	291	43.5	**JM718149**	**JM718110**	32.7	1.29	105.0	4.13	99.0	3.90	131.0	5.16	139.0	5.47	0.44	1.35	0.74	56.8	43.1	1.32
	3.5433	155.000	6.1024	44.000	1.7323	44.000	1.7323	35.500	1.3976	3.0	0.12	2.5	0.10	363	407	54.8	**JHM318448**	**JHM318410**	34.5	1.36	106.0	4.17	100.0	3.94	140.0	5.51	148.0	5.83	0.34	1.76	0.97	84.5	49.3	1.72
95.000	3.7402	150.000	5.9055	35.000	1.3780	34.000	1.3386	27.000	1.0630	3.0	0.12	2.5	0.10	235	294	43.4	**JM719149**	**JM719113**	33.5	1.32	109.0	4.29	104.0	4.09	135.0	5.31	143.0	5.63	0.44	1.36	0.75	54.5	41.2	1.32
100.000	3.9370	155.000	6.1024	36.000	1.4173	35.000	1.3780	28.000	1.1024	3.0	0.12	2.5	0.10	256	328	47.7	**JM720249**	**JM720210**	35.6	1.40	110.0	4.33	110.0	4.33	139.0	5.47	150.0	5.91	0.47	1.27	0.70	59.5	48.1	1.24
	3.9370	160.000	6.2992	41.000	1.6142	40.000	1.5748	32.000	1.2598	3.0	0.12	2.5	0.10	298	378	54.6	**JHM720249**	**JHM720210**	38.3	1.51	110.0	4.33	111.0	4.37	143.0	5.63	153.0	6.02	0.47	1.28	0.70	69.6	56.0	1.24
110.000	4.3307	165.000	6.4961	35.000	1.3780	35.000	1.3780	26.500	1.0433	3.0	0.12	2.5	0.10	245	325	46.3	**JM822049**	**JM822010**	38.1	1.50	121.0	4.76	121.0	4.76	148.0	5.83	157.0	6.18	0.50	1.21	0.66	56.7	48.2	1.18
	4.3307	180.000	7.0866	47.000	1.8504	46.000	1.8110	38.000	1.4961	3.0	0.12	2.5	0.10	385	487	62.3	**JHM522649**	**JHM522610**	40.6	1.60	121.0	4.76	125.0	4.92	160.0	6.30	171.0	6.73	0.41	1.48	0.81	90.1	62.5	1.44
170.000	6.6929	230.000	9.0551	39.000	1.5354	38.000	1.4961	31.000	1.2205	3.0	0.12	2.5	0.10	363	558	72.8	**JHM534149**	**JHM534110**	43.6	1.72	181.0	7.13	184.0	7.24	214.0	8.43	226.0	8.90	0.38	1.57	0.86	83.9	55.0	1.53
	6.6929	240.000	9.4488	46.000	1.8110	44.500	1.7520	37.000	1.4567	3.0	0.12	2.5	0.10	443	666	77.1	**JM734449**	**JM734410**	50.6	1.99	181.0	7.13	184.0	7.24	220.0	8.66	235.0	9.25	0.44	1.37	0.75	103	76.9	1.34
180.000	7.0866	250.000	9.8425	47.000	1.8504	45.000	1.7717	37.000	1.4567	3.0	0.12	2.5	0.10	456	705	81.7	**JM736149**	**JM736110**	55.2	2.17	191.0	7.52	193.0	7.60	230.0	9.06	242.0	9.53	0.48	1.25	0.69	106	87.1	1.22
190.000	7.4803	260.000	10.2362	46.000	1.8110	44.000	1.7323	36.500	1.4370	3.0	0.12	2.5	0.10	461	723	81.4	**JM738249**	**JM738210**	56.0	2.20	201.0	7.91	203.0	7.99	240.0	9.45	253.0	9.96	0.48	1.26	0.69	107	87.2	1.23
200.000	7.8740	300.000	11.8110	65.000	2.5591	62.000	2.4409	51.000	2.0079	3.6	0.14	2.5	0.10	773	1 140	124	**JHM840449**	**JHM840410**	72.1	2.84	213.0	8.39	218.0	8.58	270.0	10.63	289.0	11.38	0.52	1.15	0.63	181	161	1.12

Note 1) SP indicates the specially chamfered from.

Supplementary tables

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Supplementary table 1 Shaft tolerances (deviation from nominal dimensions)

Unit : μm

Nominal shaft dia. (mm) over	up to	d 6	e 6	f 6	g 5	g 6	h 5	h 6	h 7	h 8	h 9	h 10	js 5	js 6	js 7	j 5	j 6	k 5	k 6	k 7	m 5	m 6	m 7	n 5	n 6	p 6	r 6	r 7	Nominal shaft dia. (mm) over	up to	(Refer.) Δ_{dmp}[1] of bearing (class 0)
		Deviation classes of shaft dia.																													
3	6	−30 −38	−20 −28	−10 −18	−4 −9	−4 −12	−0 −5	−0 −8	0 −12	0 −18	0 −30	0 −48	±2.5	±4	±6	+3 −2	+6 −2	+6 +1	+9 +1	+13 +1	+9 +4	+12 +4	+16 +4	+13 +8	+16 +8	+20 +12	+23 +15	+27 +15	3	6	0 −8
6	10	−40 −49	−25 −34	−13 −22	−5 −11	−5 −14	−0 −6	−0 −9	0 −15	0 −22	0 −36	0 −58	±3	±4.5	±7.5	+4 −2	+7 −2	+7 +1	+10 +1	+16 +1	+12 +6	+15 +6	+21 +6	+16 +10	+19 +10	+24 +15	+28 +19	+34 +19	6	10	0 −8
10	18	−50 −61	−32 −43	−16 −27	−6 −14	−6 −17	−0 −8	0 −11	0 −18	0 −27	0 −43	0 −70	±4	±5.5	±9	+5 −3	+8 −3	+9 +1	+12 +1	+19 +1	+15 +7	+18 +7	+25 +7	+20 +12	+23 +12	+29 +18	+34 +23	+41 +23	10	18	0 −8
18	30	−65 −78	−40 −53	−20 −33	−7 −16	−7 −20	−0 −9	0 −13	0 −21	0 −33	0 −52	0 −84	±4.5	±6.5	±10.5	+5 −4	+9 −4	+11 +2	+15 +2	+23 +2	+17 +8	+21 +8	+29 +8	+24 +15	+28 +15	+35 +22	+41 +28	+49 +28	18	30	0 −10
30	50	−80 −96	−50 −66	−25 −41	−9 −20	−9 −25	0 −11	0 −16	0 −25	0 −39	0 −62	0 −100	±5.5	±8	±12.5	+6 −5	+11 −5	+13 +2	+18 +2	+27 +2	+20 +9	+25 +9	+34 +9	+28 +17	+33 +17	+42 +26	+50 +34	+59 +34	30	50	0 −12
50	80	−100 −119	−60 −79	−30 −49	−10 −23	−10 −29	0 −13	0 −19	0 −30	0 −46	0 −74	0 −120	±6.5	±9.5	±15	+6 −7	+12 −7	+15 +2	+21 +2	+32 +2	+24 +11	+30 +11	+41 +11	+33 +20	+39 +20	+51 +32	+60 +41	+71 +41	50	65	0 −15
																											+62 +43	+73 +43	65	80	
80	120	−120 −142	−72 −94	−36 −58	−12 −27	−12 −34	0 −15	0 −22	0 −35	0 −54	0 −87	0 −140	±7.5	±11	±17.5	+6 −9	+13 −9	+18 +3	+25 +3	+38 +3	+28 +13	+35 +13	+48 +13	+38 +23	+45 +23	+59 +37	+73 +51	+86 +51	80	100	0 −20
																											+76 +54	+89 +54	100	120	
120	180	−145 −170	−85 −110	−43 −68	−14 −32	−14 −39	0 −18	0 −25	0 −40	0 −63	0 −100	0 −160	±9	±12.5	±20	+7 −11	+14 −11	+21 +3	+28 +3	+43 +3	+33 +15	+40 +15	+55 +15	+45 +27	+52 +27	+68 +43	+88 +63	+103 +63	120	140	0 −25
																											+90 +65	+105 +65	140	160	
																											+93 +68	+108 +68	160	180	
180	250	−170 −199	−100 −129	−50 −79	−15 −35	−15 −44	0 −20	0 −29	0 −46	0 −72	0 −115	0 −185	±10	±14.5	±23	+7 −13	+16 −13	+24 +4	+33 +4	+50 +4	+37 +17	+46 +17	+63 +17	+51 +31	+60 +31	+79 +50	+106 +77	+123 +77	180	200	0 −30
																											+109 +80	+126 +80	200	225	
																											+113 +84	+130 +84	225	250	
250	315	−190 −222	−110 −142	−56 −88	−17 −40	−17 −49	0 −23	0 −32	0 −52	0 −81	0 −130	0 −210	±11.5	±16	±26	+7 −16	±16	+27 +4	+36 +4	+56 +4	+43 +20	+52 +20	+72 +20	+57 +34	+66 +34	+88 +56	+126 +94	+146 +94	250	280	0 −35
																											+130 +98	+150 +98	280	315	
315	400	−210 −246	−125 −161	−62 −98	−18 −43	−18 −54	0 −25	0 −36	0 −57	0 −89	0 −140	0 −230	±12.5	±18	±28.5	+7 −18	±18	+29 +4	+40 +4	+61 +4	+46 +21	+57 +21	+78 +21	+62 +37	+73 +37	+98 +62	+144 +108	+165 +108	315	355	0 −40
																											+150 +114	+171 +114	355	400	
400	500	−230 −270	−135 −175	−68 −108	−20 −47	−20 −60	0 −27	0 −40	0 −63	0 −97	0 −155	0 −250	±13.5	±20	±31.5	+7 −20	±20	+32 +5	+45 +5	+68 +5	+50 +23	+63 +23	+86 +23	+67 +40	+80 +40	+108 +68	+166 +126	+189 +126	400	450	0 −45
																											+172 +132	+195 +132	450	500	
500	630	−260 −304	−145 −189	−76 −120	−22 −54	−22 −66	0 −32	0 −44	0 −70	0 −110	0 −175	0 −280	±16	±22	±35	–	–	+32 0	+44 0	+70 0	+58 +26	+70 +26	+96 +26	+76 +44	+88 +44	+122 +78	+194 +150	+220 +150	500	560	0 −50
																											+199 +155	+225 +155	560	630	
630	800	−290 −340	−160 −210	−80 −130	−24 −60	−24 −74	0 −36	0 −50	0 −80	0 −125	0 −200	0 −320	±18	±25	±40	–	–	+36 0	+50 0	+80 0	+66 +30	+80 +30	+110 +30	+86 +50	+100 +50	+138 +88	+225 +175	+255 +175	630	710	0 −75
																											+235 +185	+265 +185	710	800	
800	1 000	−320 −376	−170 −226	−86 −142	−26 −66	−26 −82	0 −40	0 −56	0 −90	0 −140	0 −230	0 −360	±20	±28	±45	–	–	+40 0	+56 0	+90 0	+74 +34	+90 +34	+124 +34	+96 +56	+112 +56	+156 +100	+266 +210	+300 +210	800	900	0 −100
																											+276 +220	+310 +220	900	1 000	

[Note] 1) Δ_{dmp} : single plane mean bore diameter deviation

Supplementary table 2 Housing bore tolerances (deviation from nominal dimensions)

Unit : μm

Nominal bore dia. (mm) over	up to	E 6	F 6	F 7	G 6	G 7	H 6	H 7	H 8	H 9	H 10	JS 5	JS 6	JS 7	J 6	J 7	K 5	K 6	K 7	M 5	M 6	M 7	N 5	N 6	N 7	P 6	P 7	R 7	Nominal bore dia. (mm) over	up to	(Refer.) Δ_{Dmp}[1] of bearing (class 0)
		Deviation classes of housing bore																													
10	18	+43 +32	+27 +16	+34 +16	+17 +6	+24 +6	+11 0	+18 0	+27 0	±43 0	±70 0	±4	±5.5	±9	+6 −5	+10 −8	+2 −6	+2 −9	+6 −12	−4 −12	−4 −15	0 −18	−9 −17	−9 −20	−5 −23	−15 −26	−11 −29	−16 −34	10	18	0 −8
18	30	+53 +40	+33 +20	+41 +20	+20 +7	+28 +7	+13 0	+21 0	+33 0	±52 0	±84 0	±4.5	±6.5	±10.5	+8 −5	+12 −9	+1 −8	+2 −11	+6 −15	−5 −14	−4 −17	0 −21	−12 −21	−11 −24	−7 −28	−18 −31	−14 −35	−20 −41	18	30	0 −9
30	50	+66 +50	+41 +25	+50 +25	+25 +9	+34 +9	+16 0	+25 0	+39 0	±62 0	+100 0	±5.5	±8	±12.5	+10 −6	+14 −11	+2 −9	+3 −13	+7 −18	−5 −16	−4 −20	0 −25	−13 −24	−12 −28	−8 −33	−21 −37	−17 −42	−25 −50	30	50	0 −11
50	80	+79 +60	+49 +30	+60 +30	+29 +10	+40 +10	+19 0	+30 0	+46 0	±74 0	+120 0	±6.5	±9.5	±15	+13 −6	+18 −12	+3 −10	+4 −15	+9 −21	−6 −19	−5 −24	0 −30	−15 −28	−14 −33	−9 −39	−26 −45	−21 −51	−30 −60	50	65	0 −13
																												−32 −62	65	80	
80	120	+94 +72	+58 +36	+71 +36	+34 +12	+47 +12	+22 0	+35 0	+54 0	±87 0	+140 0	±7.5	±11	±17.5	+16 −6	+22 −13	+2 −13	+4 −18	+10 −25	−8 −23	−6 −28	0 −35	−18 −33	−16 −38	−10 −45	−30 −52	−24 −59	−38 −73	80	100	0 −15
																												−41 −76	100	120	
120	180	+110 +85	+68 +43	+83 +43	+39 +14	+54 +14	+25 0	+40 0	+63 0	+100 0	+160 0	±9	±12.5	±20	+18 −7	+26 −14	+3 −15	+4 −21	+12 −28	−9 −27	−8 −33	0 −40	−21 −39	−20 −45	−12 −52	−36 −61	−28 −68	−48 −88	120	140	(up to 150) 0 −18 (over to 150) 0 −25
																												−50 −90	140	160	
																												−53 −93	160	180	
180	250	+129 +100	+79 +50	+96 +50	+44 +15	+61 +15	+29 0	+46 0	+72 0	+115 0	+185 0	±10	±14.5	±23	+22 −7	+30 −16	+2 −18	+5 −24	+13 −33	−11 −31	−8 −37	0 −46	−25 −45	−22 −51	−14 −60	−41 −70	−33 −79	−60 −106	180	200	0 −30
																												−63 −109	200	225	
																												−67 −113	225	250	
250	315	+142 +110	+88 +56	+108 +56	+49 +17	+69 +17	+32 0	+52 0	+81 0	+130 0	+210 0	±11.5	±16	±26	+25 −7	+36 −16	+3 −20	+5 −27	+16 −36	−13 −36	−9 −41	0 −52	−27 −50	−25 −57	−14 −66	−47 −79	−36 −88	−74 −126	250	280	0 −35
																												−78 −130	280	315	
315	400	+161 +125	+98 +62	+119 +62	+54 +18	+75 +18	+36 0	+57 0	+89 0	+140 0	+230 0	±12.5	±18	±28.5	+29 −7	+39 −18	+3 −22	+7 −29	+17 −40	−14 −39	−10 −46	0 −57	−30 −55	−26 −62	−16 −73	−51 −87	−41 −98	−87 −144	315	355	0 −40
																												−93 −150	355	400	
400	500	+175 +135	+108 +68	+131 +68	+60 +20	+83 +20	+40 0	+63 0	+97 0	+155 0	+250 0	±13.5	±20	±31.5	+33 −7	+43 −20	+2 −25	+8 −32	+18 −45	−16 −43	−10 −50	0 −63	−33 −60	−27 −67	−17 −80	−55 −95	−45 −108	−103 −166	400	450	0 −45
																												−109 −172	450	500	
500	630	+189 +145	+120 +76	+146 +76	+66 +22	+92 +22	+44 0	+70 0	+110 0	+175 0	+280 0	±16	±22	±35	–	–	0 −32	0 −44	0 −70	−26 −58	−26 −70	−26 −96	−44 −76	−44 −88	−44 −114	−78 −122	−78 −148	−150 −220	500	560	0 −50
																												−155 −225	560	630	
630	800	+210 +160	+130 +80	+160 +80	+74 +24	+104 +24	+50 0	+80 0	+125 0	+200 0	+320 0	±18	±25	±40	–	–	0 −36	0 −50	0 −80	−30 −66	−30 −80	−30 −110	−50 −86	−50 −100	−50 −130	−88 −138	−88 −168	−175 −255	630	710	0 −75
																												−185 −265	710	800	
800	1 000	+226 +170	+142 +86	+176 +86	+82 +26	+116 +26	+56 0	+90 0	+140 0	+230 0	+360 0	±20	±28	±45	–	–	0 −40	0 −56	0 −90	−34 −74	−34 −90	−34 −124	−56 −96	−56 −112	−56 −146	−100 −156	−100 −190	−210 −300	800	900	0 −100
																												−220 −310	900	1 000	
1 000	1 250	+261 +195	+164 +98	+203 +98	+94 +28	+133 +28	+66 0	+105 0	+165 0	+260 0	+420 0	±23.5	±33	±52.5	–	–	0 −47	0 −66	0 −105	−40 −87	−40 −106	−40 −145	−66 −113	−66 −132	−66 −171	−120 −186	−120 −225	−250 −355	1 000	1 120	0 −125
																												−260 −365	1 120	1 250	

[Note] 1) Δ_{Dmp} : single plane mean outside diameter deviation

Supplementary table 3 (1) SI units and conversion factors

Mass	SI units	Other units[1)]	Conversion into SI units	Conversion from SI units
Angle	rad [radian(s)]	° [degree(s)] ∗ ' [minute(s)] ∗ " [second(s)] ∗	1° = π / 180 rad 1' = π / 10 800 rad 1" = π / 648 000 rad	1 rad = 57.295 78°
Length	m [meter(s)]	Å [Angstrom unit] μ [micron(s)] in [inch(es)] ft [foot (feet)] yd [yard(s)] mile [mile(s)]	1 Å = 10^{-10} m = 0.1 nm = 100 pm 1 μ = 1 μm 1 in = 25.4 mm 1 ft = 12 in = 0.304 8 m 1 yd = 3 ft = 0.914 4 m 1 mile = 5 280 ft = 1 609.344 m	1 m = 10^{10} Å 1 m = 39.37 in 1 m = 3.280 8 ft 1 m = 1.093 6 yd 1 km = 0.621 4 mile
Area	m^2	a [are(s)] ha [hectare(s)] acre [acre(s)]	1 a = 100 m^2 1 ha = 10^4 m^2 1 acre = 4 840 yd^2 = 4 046.86 m^2	 1 km^2 = 247.1 acre
Volume	m^3	ℓ, L [liter(s)] ∗ cc [cubic centimeters] gal (US) [gallon(s)] floz (US) [fluid ounce(s)] barrel (US) [barrels (US)]	1 ℓ = 1 dm^3 = 10^{-3} m^3 1 cc = 1 cm^3 = 10^{-6} m^3 1 gal (US) = 231 in^3 = 3.785 41 dm^3 1 floz (US) = 29.573 5 cm^3 1 barrel (US) = 158.987 dm^3	1 m^3 = 10^3ℓ 1 m^3 = 10^6 cc 1 m^3 = 264.17 gal 1 m^3 = 33 814 floz 1 m^3 = 6.289 8 barrel
Time	s [second(s)]	min [minute(s)] ∗ h [hour(s)] ∗ d [day(s)] ∗		
Angular velocity	rad / s			
Velocity	m / s	kn [knot(s)] m / h ∗	1 kn = 1 852 m / h	1 km / h = 0.539 96 kn
Acceleration	m / s^2	G	1 G = 9.806 65 m / s^2	1 m / s^2 = 0.101 97 G
Frequency	Hz [hertz]	c / s [cycle(s) / second]	1 c / s = 1 s^{-1} = 1 Hz	
Rotational frequency	s^{-1}	rpm [revolutions per minute] min^{-1} ∗ r / min	1 rpm = 1 / 60 s^{-1}	1 s^{-1} = 60 rpm
Mass	kg [kilogram(s)]	t [ton(s)] ∗ lb [pound(s)] gr [grain(s)] oz [ounce(s)] ton (UK) [ton(s) (UK)] ton (US) [ton(s) (US)] car [carat(s)]	1 t = 10^3 kg 1 lb = 0.453 592 37 kg 1 gr = 64.798 91 mg 1 oz = 1 / 16 lb = 28.349 5 g 1 ton (UK) = 1 016.05 kg 1 ton (US) = 907.185 kg 1 car = 200 mg	 1 kg = 2.204 6 lb 1 g = 15.432 4 gr 1 kg = 35.274 0 oz 1 t = 0.984 2 ton (UK) 1 t = 1.102 3 ton (US) 1 g = 5 car

[Note] 1) ∗ : Unit can be used as an SI unit.
No asterisk : Unit cannot be used.

Supplementary table 3 (2) SI units and conversion factors

Mass	SI units	Other units[1)]	Conversion into SI units	Conversion from SI units
Density	kg/m^3			
Linear density	kg/m			
Momentum	$kg{\cdot}m/s$			
Moment of momentum, Angular momentum	$kg{\cdot}m^2/s$			
Moment of inertia	$kg{\cdot}m^2$			
Force	N [newton(s)]	dyn [dyne(s)] kgf [kilogram-force] gf [gram-force] tf [ton-force] lbf [pound-force]	1 dyn = 10^{-5} N 1 kgf = 9.806 65 N 1 gf = 9.806 65 × 10^{-3} N 1 tf = 9.806 65 × 10^3 N 1 lbf = 4.448 22 N	1 N = 10^5 dyn 1 N = 0.101 97 kgf 1 N = 0.224 809 lbf
Moment of force	N·m [newton meter(s)]	gf·cm kgf·cm kgf·m tf·m lbf·ft	1 gf·cm = 9.806 65 × 10^{-5} N·m 1 kgf·cm = 9.806 65 × 10^{-2} N·m 1 kgf·m = 9.806 65 N·m 1 tf·m = 9.806 65 × 10^3 N·m 1 lbf·ft = 1.355 82 N·m	 1 N·m = 0.101 97 kgf·m 1 N·m = 0.737 56 lbf·ft
Pressure, **Normal stress**	Pa [pascal(s)] or N/m^2 {1 Pa = 1 N/m^2}	gf/cm^2 kgf/mm^2 kgf/m^2 lbf/in^2 bar [bar(s)] at [engineering air pressure] mH_2O, mAq [meter water column] atm [atmosphere] mHg [meter mercury column] Torr [torr]	1 gf/cm^2 = 9.806 65 × 10 Pa 1 kgf/mm^2 = 9.806 65 × 10^6 Pa 1 kgf/m^2 = 9.806 65 Pa 1 lbf/in^2 = 6 894.76 Pa 1 bar = 10^5 Pa 1 at = 1 kgf/cm^2 = 9.806 65 × 10^4 Pa 1 mH_2O = 9.806 65 × 10^3 Pa 1 atm = 101 325 Pa 1 mHg = $\frac{101\,325}{0.76}$ Pa 1 Torr = 1 mmHg = 133.322 Pa	 1 MPa = 0.101 97 kgf/mm^2 1 Pa = 0.101 97 kgf/m^2 1 Pa = 0.145 × 10^{-3} lbf/in^2 1 Pa = 10^{-2} mbar 1 Pa = 7.500 6 × 10^{-3} Torr
Viscosity	Pa·s [pascal second]	P [poise] $kgf{\cdot}s/m^2$	10^{-2} P = 1 cP = 1 mPa·s 1 $kgf{\cdot}s/m^2$ = 9.806 65 Pa·s	 1 Pa·s = 0.101 97 $kgf{\cdot}s/m^2$
Kinematic viscosity	m^2/s	St [stokes]	10^{-2} St = 1 cSt = 1 mm^2/s	
Surface tension	N/m			

Supplementary table 3 (3) SI units and conversion factors

Mass	SI units	Other units[1)]	Conversion into SI units	Conversion from SI units
Work, energy	J [joule(s)] {1 J = 1 N·m}	eV [electron volt(s)] *	1 eV = (1.602 189 2 ± 0.000 004 6) × 10^{-19} J	
		erg [erg(s)]	1 erg = 10^{-7} J	1 J = 10^{7} erg
		kgf·m	1 kgf·m = 9.806 65 J	1 J = 0.101 97 kgf·m
		lbf·ft	1 lbf·ft = 1.355 82 J	1 J = 0.737 56 lbf·ft
Power	W [watt(s)]	erg / s [ergs per second]	1 erg / s = 10^{-7} W	
		kgf·m / s	1 kgf·m / s = 9.806 65 W	1 W = 0.101 97 kgf·m / s
		PS [French horse-power]	1 PS = 75 kgf·m / s = 735.5 W	1 W = 0.001 36 PS
		HP [horse-power (British)]	1 HP = 550 lbf·ft / s = 745.7 W	1 W = 0.001 34 HP
		lbf·ft / s	1 lbf·ft / s = 1.355 82 W	
Thermo-dynamic temperature	K [kelvin(s)]			
Celsius temperature	°C [celsius(s)] {t °C = (t + 273.15) K}	°F [degree(s) Fahrenheit]	t °F = $\frac{5}{9}$ (t − 32) °C	t °C = ($\frac{9}{5}$ t + 32) °F
Linear expansion coefficient	K^{-1}	$°C^{-1}$ [per degree]		
Heat	J [joule(s)] {1 J = 1 N·m}	erg [erg(s)]	1 erg = 10^{-7} J	1 J = 10^{7} erg
		kgf·m		
		cal_{IT} [I. T. calories]	1 cal_{IT} = 4.186 8 J	1 J = 0.238 85 cal_{IT}
			1 $Mcal_{IT}$ = 1.163 kW·h	1 kW·h = 0.86 × 10^{6} cal_{IT}
Thermal conductivity	W / (m·K)	W / (m·°C)	1 W / (m·°C) = 1 W / (m·K)	
		cal / (s·m·°C)	1 cal / (s·m·°C) = 4.186 05 W / (m·K)	
Coefficient of heat transfer	W / (m^2·K)	W / (m^2·°C)	1 W / (m^2·°C) = 1 W/ (m^2·K)	
		cal / (s·m^2·°C)	1 cal / (s·m^2·°C) = 4.186 05 W / (m^2·K)	
Heat capacity	J / K	J / °C	1 J / °C = 1 J / K	
Massic heat capacity	J / (kg·K)	J / (kg·°C)		

[Note] 1) * : Unit can be used as an SI unit.
No asterisk : Unit cannot be used.

Supplementary table 3 (4) SI units and conversion factors

Mass	SI units	Other units[1)]	Conversion into SI units	Conversion from SI units
Electric current	A [ampere(s)]			
Electric charge, quantity of electricity	C [coulomb(s)] {1 C = 1 A·s}	A·h *	1 A·h = 3.6 kC	
Tension, electric potential	V [volt(s)] {1 V = 1 W/A}			
Capacitance	F [farad(s)] {1 F = 1 C/V}			
Magnetic field strength	A/m	Oe [oersted(s)]	$1\ \mathrm{Oe} = \frac{10^3}{4\pi}\ \mathrm{A/m}$	$1\ \mathrm{A/m} = 4\pi \times 10^{-3}\ \mathrm{Oe}$
Magnetic flux density	T [tesla(s)] {1 T = 1 N/(A·m) = 1 Wb/m² = 1 V·s/m²}	Gs [gauss(es)] γ [gamma(s)]	$1\ \mathrm{Gs} = 10^{-4}\ \mathrm{T}$ $1\ \gamma = 10^{-9}\ \mathrm{T}$	$1\ \mathrm{T} = 10^{4}\ \mathrm{Gs}$ $1\ \mathrm{T} = 10^{9}\ \gamma$
Magnetic flux	Wb [weber(s)] {1 Wb = 1 V·s}	Mx [maxwell(s)]	$1\ \mathrm{Mx} = 10^{-8}\ \mathrm{Wb}$	$1\ \mathrm{Wb} = 10^{8}\ \mathrm{Mx}$
Self inductance	H [henry (-ries)] {1 H = 1 Wb/A}			
Resistance (to direct current)	Ω [ohm(s)] {1 Ω = 1 V/A}			
Conductance (to direct current)	S [siemens] {1 S = 1 A/V}			
Active power	W {1 W = 1 J/s = 1 A·V}			

Supplementary table 4 Greek alphabet list

Name	Roman type	Italic type		Name	Roman type	Italic type	
	Capital	Capital	Lowercase		Capital	Capital	Lowercase
alpha	Α	A	α	nu	Ν	N	ν
beta	Β	B	β	xi	Ξ	Ξ	ξ
gamma	Γ	Γ	γ	omicron	Ο	O	o
delta	Δ	Δ	δ	pi	Π	Π	π
epsilon	Ε	E	ε	rho	Ρ	P	ρ
zeta	Ζ	Z	ζ	sigma	Σ	Σ	σ
eta	Η	H	η	tau	Τ	T	τ
theta	Θ	Θ	θ	upsilon	Υ	Y	υ
iota	Ι	I	ι	phi	Φ	Φ	ϕ
kappa	Κ	K	κ	chi	Χ	X	χ
lambda	Λ	Λ	λ	psi	Ψ	Ψ	ψ
mu	Μ	M	μ	omega	Ω	Ω	ω

Supplementary table 5 Prefixes used with SI units

Factor	Prefix		Factor	Prefix	
	Name	Symbol		Name	Symbol
10^{18}	exa	E	10^{-1}	deci	d
10^{15}	peta	P	10^{-2}	centi	c
10^{12}	tera	T	10^{-3}	milli	m
10^{9}	giga	G	10^{-6}	micro	μ
10^{6}	mega	M	10^{-9}	nano	n
10^{3}	kilo	k	10^{-12}	pico	p
10^{2}	hecto	h	10^{-15}	femto	f
10	deka	da	10^{-18}	atto	a

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