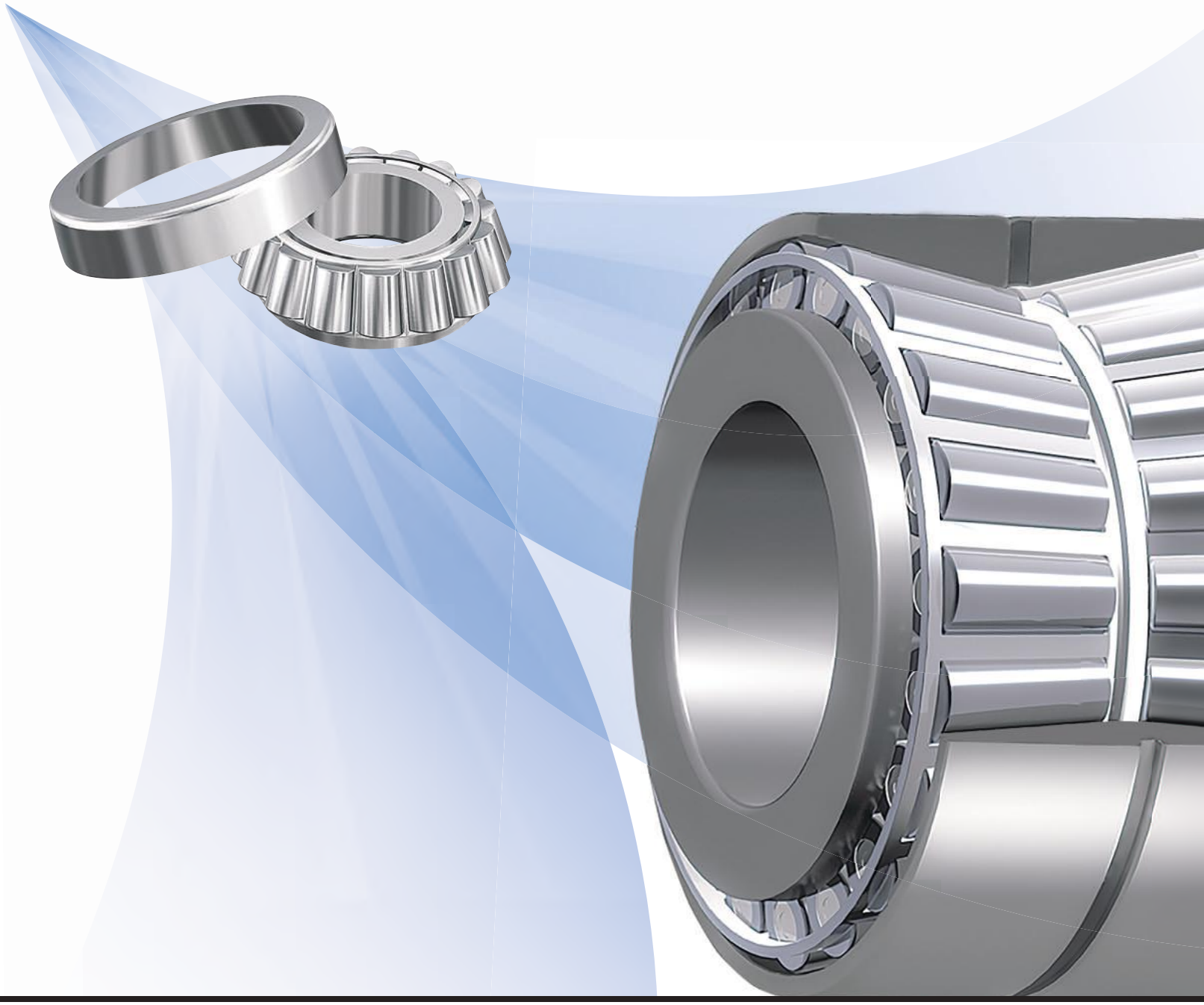
Koyo®

Inch Series
TAPERED ROLLER BEARINGS



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Koyo®

Inch Series

TAPERED ROLLER BEARINGS

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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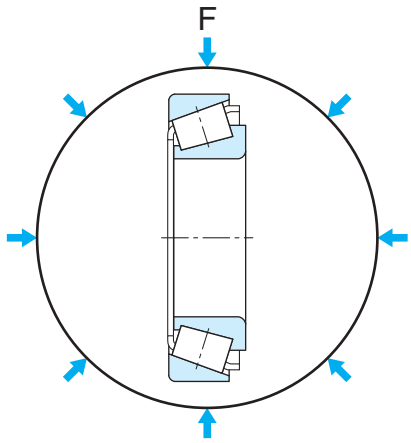
1 Outstanding features of tapered roller bearings

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 cup can be mounted separately from the cone assembly

Since the cup is separable from the cone assembly, the cone assembly can be installed on the shaft and the cup 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 cone assembly or cup.

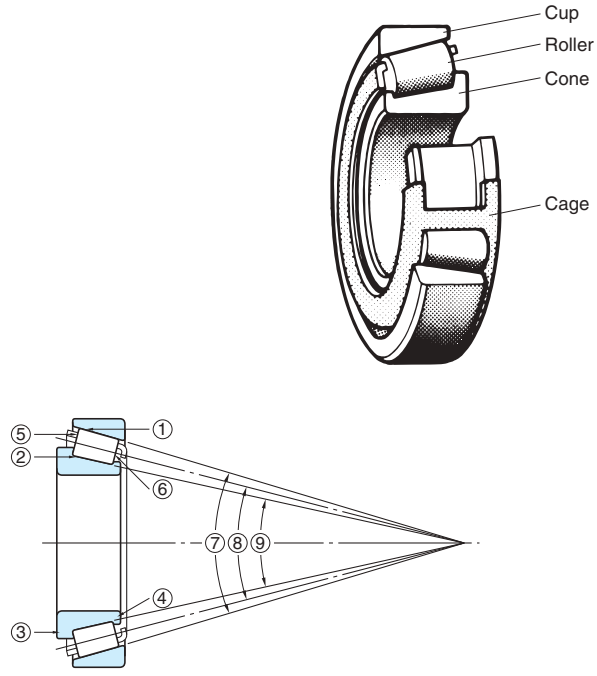
2 Structure of tapered roller bearings

2.1 Single-row

Tapered roller bearings consist of cup, cone, rollers and a cage. This bearing contains tapered rollers for its rolling element which are guided by the cone backface rib on the roller large end face.

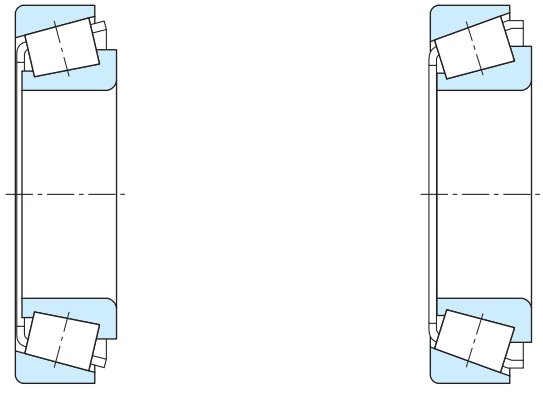
The raceway surfaces of cone and cup and the rolling contact surface of rollers are designed so that the respective apexes converge at a point on the bearing center line.

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 Cup raceway
② Cone raceway
③ Cone backface rib
④ Cone front face rib
⑤ Roller large end face
⑥ Roller small end face
⑦ Included cup angle
⑧ Included roller center angle
⑨ Included cone angle

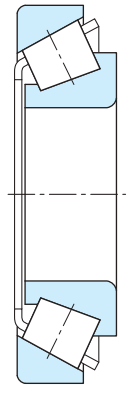
TS type (pages 38, 108)



Standard contact angle

Medium contact angle

TSS type (page 102)

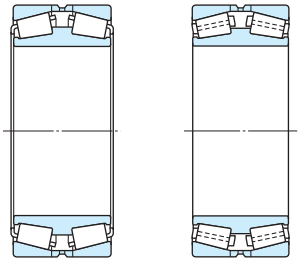


Steep contact angle

2.2 Double-row

■ Double-row (Face to face)

TDI type (page 110)



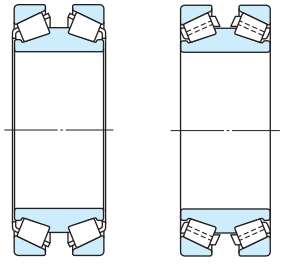
Design 1 Design 1-P

The TDI type bearing is made up of two single-row cups and one double cone, and is generally provided with a cup spacer.
The bearing with cup spacer is handy for mounting, as its end play has been pre-adjusted for each application.

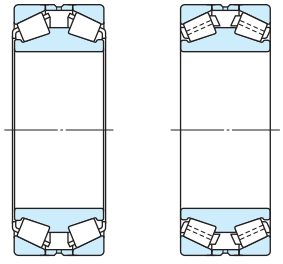
The spacer is provided with an lubrication groove and several lubrication holes.

Used for roll neck of medium-duty rolling mills, speed reducers, etc.

TDIS type ····· For axial suport (page 120)



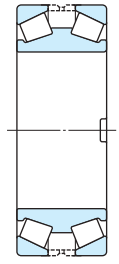
Design 1 Design 1-P



Design 2 Design 2-P

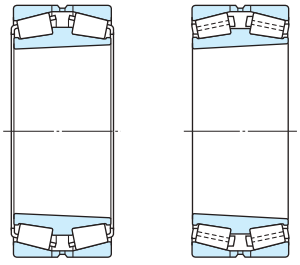
The TDIS type bearing is of the same construction as the TDI type, except that it has larger contact angle so that it can accommodate heavier axial load.

Used for applications where the axial load is greater than the radial load or where only the axial load is applied.
The bearing with the key way on the cone is mainly used for rollling mill roll necks. The bearing may be also used with pre-load without using the cup spacer.



Example of key way

TDIT type ····· Tapered bore (page 122)



Design 1 Design 1-P

Where the interference fit is necessary, and needs to be removed frequently, the use of TDIT type is convenient.
It is also possible to mount the bearing on the shaft by using an adaptor sleeve.

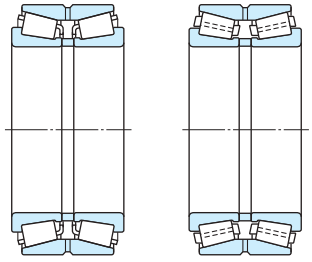
Used for roll neck of light or medium-duty rolling mills and roll neck of calendar mills.

The use of a hydraulic unit will facilitate bearing mounting/dismounting.

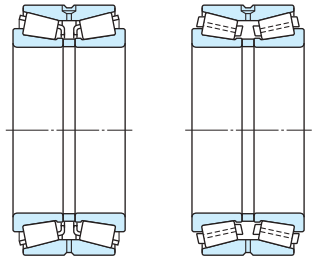
The roll neck taper needs to be matched to the bore diameter of bearing by using taper gauge, sign bar gauge, etc.

■ Double-row (Back to back)

TDO, TDOS type (page 126)



Design 1　　Design 1-P



Design 2　　Design 2-P

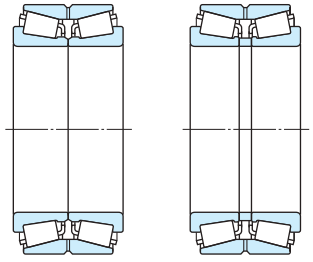
The TDO type bearing is made up of one double cup, two single-row cones and one cone spacer. The cup is provided with several lubrication holes.

The cone spacer has been adjusted to provide an end play suitable to each application.
It is also possible to freely adjust the end play for use by removing the cone spacer, however, it requires time and labor.

Suitable to case where moment may act.
Used for speed reducer, winding machine, etc.

The steep angle type (TDOS type) having large contact angle has increased axial load capacity, and is widely used for worm shaft of medium, heavy duty applications, thrust bearing of reducers etc.

TNA type (page 146)



Design 1　　Design 2
(with cone spacer)

The TNA type bearing has different assembled width tolerance from the TDO type, specially selected for the TNA type.

[Reference]　Features of bearing with pin type cage

(1) Load rating can be increased.
The pin type cage accommodates a larger number of rollers, thus making it possible to increase the load rating of bearing.

(2) Reduced friction resistance
Friction coefficient of pin type cage is reduced, as contact area of roller and cage is limited.

(3) Easy mounting/dismounting
The pin type cage is provided with a tap hole for lifting. The use of tap hole will facilitate the work.
Use ISO metric thread for lifting tap screw.

3 Bearing service life

3.1 Bearing service life

When bearings rotate under load, material flakes from the surfaces of cone and cup 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 cone rotates while the cup 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 :

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

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 :

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

where :

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

$$\left\{ \begin{array}{l} L_{10h} = L_{10} \times \dfrac{10^6}{60n} \\ \quad = \left(\dfrac{C}{P}\right)^{10/3} \dfrac{10^6}{60n} \\ \quad = \left(\dfrac{C}{P}\right)^{10/3} \dfrac{16\,667}{n} \end{array} \right\}$$

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**.

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

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

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

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_{nm}

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. 10) 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_{nm} and is calculated with the following **Equation (3.6)**.

$$L_{nm} = a_1 a_{ISO} L_{10} \quad \cdots\cdots (3.6)$$

In this equation,

L_{nm} : 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_{nm} 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 $a_{\mathrm{ISO}} \leqq 50$.

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

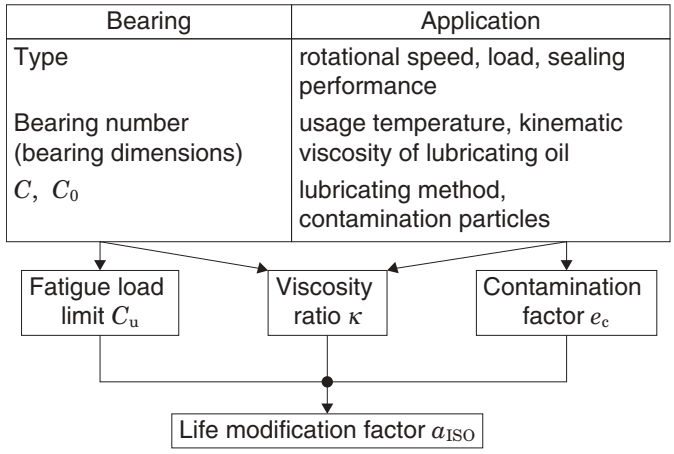


Fig. 3.1 System approach

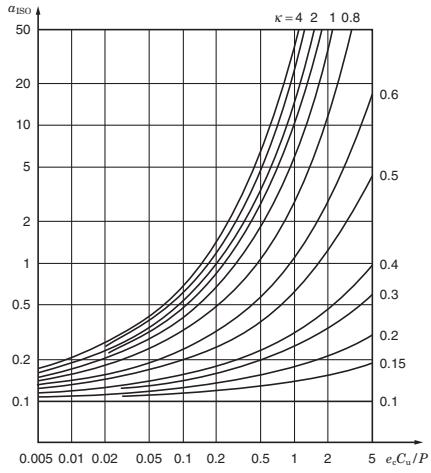


Fig. 3.2 Life modification factor a_{ISO} (Radial roller bearings)

(**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)

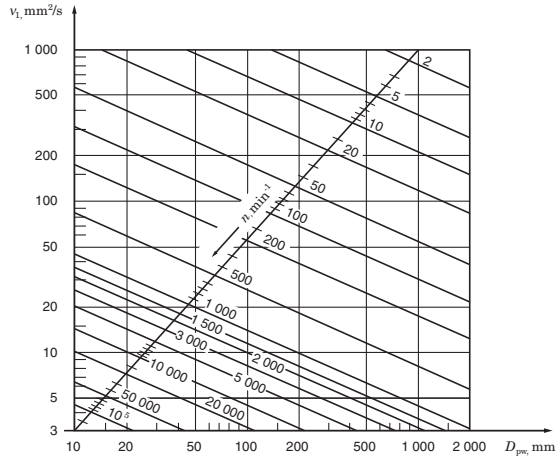


Fig. 3.3 Reference kinematic viscosity ν_1

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

Table 3.4 Speed factor

Rotational speed n ($\mathrm{min^{-1}}$)	Coefficient of rotational speed f_n	Rotational speed n ($\mathrm{min^{-1}}$)	Coefficient of rotational speed f_n	Rotational speed n ($\mathrm{min^{-1}}$)	Coefficient of rotational speed f_n	Rotational speed n ($\mathrm{min^{-1}}$)	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 3.6**)

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	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

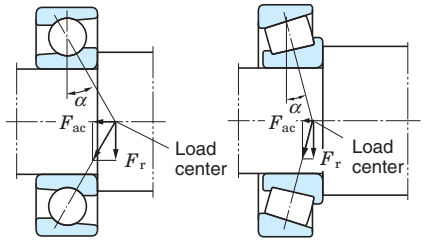
X : radial load factor

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.

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

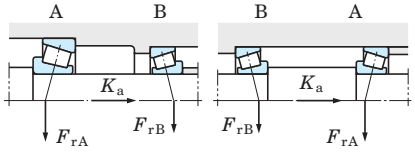


(Load center position is listed in the bearing specification table.)

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

Applied bearing type	Cone bore d				Single plane mean bore diameter deviation Δ_{dmp}													
	over		up to		Class 4			Class 2			Class 3			Class 0			Class 00		
					upper		lower	upper		lower	upper		lower	upper		lower	upper		lower
	mm	inch	mm	inch	μm	inch		μm	inch		μm	inch		μm	inch		μm	inch	
All types	–	–	**76.2**	**3.0**	13	0.0005	0	13	0.0005	0	13	0.0005	0	13	0.0005	0	8	0.0003	0
	76.2	**3.0**	**304.8**	**12.0**	25	0.0010	0	25	0.0010	0	13	0.0005	0	13	0.0005	0	8	0.0003	0
	304.8	**12.0**	**609.6**	**24.0**	51	0.0020	0	51	0.0020	0	25	0.0010	0	–	–	–	–	–	–
	609.6	**24.0**	**914.4**	**36.0**	76	0.0030	0	–	–	–	38	0.0015	0	–	–	–	–	–	–
	914.4	**36.0**	**1 219.2**	**48.0**	102	0.0040	0	–	–	–	51	0.0020	0	–	–	–	–	–	–
	1 219.2	**48.0**	**1 828.8**	**72.0**	127	0.0050	0	–	–	–	76	0.0030	0	–	–	–	–	–	–

(2) Cup

Applied bearing type	Cup outside diameter D				Single plane mean outside diameter deviation Δ_{Dmp}													
	over		up to		Class 4			Class 2			Class 3			Class 0			Class 00		
					upper		lower	upper		lower	upper		lower	upper		lower	upper		lower
	mm	inch	mm	inch	μm	inch		μm	inch		μm	inch		μm	inch		μm	inch	
All types	–	–	**304.8**	**12.0**	25	0.0010	0	25	0.0010	0	13	0.0005	0	13	0.0005	0	8	0.0003	0
	304.8	**12.0**	**609.6**	**24.0**	51	0.0020	0	51	0.0020	0	25	0.0010	0	–	–	–	–	–	–
	609.6	**24.0**	**914.4**	**36.0**	76	0.0030	0	76	0.0030	0	38	0.0015	0	–	–	–	–	–	–
	914.4	**36.0**	**1 219.2**	**48.0**	102	0.0040	0	–	–	–	51	0.0020	0	–	–	–	–	–	–
	1 219.2	**48.0**	**2 133.6**	**84.0**	127	0.0050	0	–	–	–	76	0.0030	0	–	–	–	–	–	–

(3) Assembled bearing width and overall width

Applied bearing type	Cone bore d				Cup OD D				Actual bearing width deviation Δ_{Ts}													
	over		up to		over		up to		Class 4				Class 2				Class 3				Class 0, 00			
									upper		lower		upper		lower		upper		lower		upper		lower	
	mm	inch	mm	inch	mm	inch	mm	inch	μm	inch	μm	inch	μm	inch	μm	inch	μm	inch	μm	inch	μm	inch	μm	inch
Single row	**0**	**0**	**101.6**	**4**	**0**	**0**	**2 133.6**	**84**	203	0.0080	0	0	203	0.0080	0	0	203	0.0080	–203	–0.0080	203	0.0080	–203	–0.0080
	101.6	**4**	**304.8**	**12**	**0**	**0**	**2 133.6**	**84**	356	0.0140	–254	–0.0100	203	0.0080	0	0	203	0.0080	–203	–0.0080	203	0.0080	–203	–0.0080
	304.8	**12**	**609.6**	**24**	**0**	**0**	**508.0**	**20**	381	0.0150	–381	–0.0150	381	0.0150	–381	–0.0150	203	0.0080	–203	–0.0080	–	–	–	–
	304.8	**12**	**609.6**	**24**	**508**	**20**	**2 133.6**	**84**	381	0.0150	–381	–0.0150	381	0.0150	–381	–0.0150	381	0.0150	–381	–0.0150	–	–	–	–
	609.6	**24**	**1 828.8**	**72**	**0**	**0**	**2 133.6**	**84**	381	0.0150	–381	–0.0150	–	–	–	–	381	0.0150	–381	–0.0150	–	–	–	–
Double row	**0**	**0**	**101.6**	**4**	**0**	**0**	**2 133.6**	**84**	406	0.0160	0	0	406	0.0160	0	0	406	0.0160	–406	–0.0160	406	0.0160	–406	–0.0160
	101.6	**4**	**304.8**	**12**	**0**	**0**	**2 133.6**	**84**	711	0.0280	–508	–0.0200	406	0.0160	–203	–0.0080	406	0.0160	–406	–0.0160	406	0.0160	–406	–0.0160
	304.8	**12**	**609.6**	**24**	**0**	**0**	**508.0**	**20**	762	0.0300	–762	–0.0300	762	0.0300	–762	–0.0300	406	0.0160	–406	–0.0160	–	–	–	–
	304.8	**12**	**609.8**	**24**	**508**	**20**	**2 133.6**	**84**	762	0.0300	–762	–0.0300	762	0.0300	–762	–0.0300	762	0.0300	–762	–0.0300	–	–	–	–
	609.8	**24**	**1 828.8**	**72**	**0**	**0**	**2 133.6**	**84**	762	0.0300	–762	–0.0300	–	–	–	–	762	0.0300	–762	–0.0300	–	–	–	–

(4) Radial runout of assmbled bearing cone / cup

Applied bearing type	Cup outside diameter D				Assembled bearing runout K_{ia}, K_{ea}									
	over		up to		Class 4		Class 2		Class 3		Class 0		Class 00	
					max.		max.		max.		max.		max.	
	mm	inch	mm	inch	μm	inch	μm	inch	μm	inch	μm	inch	μm	inch
All types	–	–	**304.8**	**12**	51	0.0020	38	0.0015	8	0.0003	4	0.00015	2	0.000075
	304.8	**12**	**609.6**	**24**	51	0.0020	38	0.0015	18	0.0007	–	–	–	–
	609.6	**24**	**914.4**	**36**	76	0.0030	51	0.0020	51	0.0020	–	–	–	–
	914.4	**36**	**2 133.6**	**84**	76	0.0030	–	–	76	0.0030	–	–	–	–

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

(1) Bore diameter and width of cone and assembled width

Unit : μm

Cone Bore d (mm)		Single plane mean bore diameter deviation Δ_{dmp}								Single cone width deviation Δ_{Bs}								Actual bearing width deviation Δ_{Ts}							
		Class K		Class N		Class C		Class B		Class K		Class N		Class C		Class B		Class K		Class N		Class C		Class B	
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
0	**10**	0	– 12	0	–12	0	– 7	0	– 5	0	– 120	0	–50	0	– 200	0	–200	200	0	100	0	200	–200	200	–200
10	**18**	0	– 12	0	–12	0	– 7	0	– 5	0	– 120	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	– 120	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	– 120	0	–50	0	– 240	0	–240	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	– 200	0	–50	0	– 400	0	–400	200	– 200	100	0	200	–200	200	–200
120	**180**	0	– 25	0	–25	0	–18	0	–13	0	– 250	0	–50	0	– 500	0	–500	350	– 250	150	0	350	–250	350	–250
180	**250**	0	– 30	0	–30	0	–22	0	–15	0	– 300	0	–50	0	– 600	0	–600	350	– 250	150	0	350	–250	350	–250
250	**315**	0	– 35	0	–35	0	–25	0	–18	0	– 350	0	–50	0	– 700	0	–700	400	– 400	200	0	350	–250	350	–250
315	**400**	0	– 40	0	–40	0	–30	–	–	0	– 400	0	–50	0	– 800	–	–	450	– 450	200	0	400	–400	–	–
400	**500**	0	– 45	0	–45	0	–35	–	–	0	– 450	0	–50	0	– 900	–	–	500	– 500	200	0	450	–450	–	–
500	**630**	0	– 60	–	–	0	–40	–	–	0	– 500	0	–50	0	–1 100	–	–	600	– 600	–	–	500	–500	–	–
630	**800**	0	– 75	–	–	0	–50	–	–	0	– 750	–	–	0	–1 600	–	–	750	– 750	–	–	600	–600	–	–
800	**1 000**	0	–100	–	–	0	–60	–	–	0	–1 000	–	–	0	–2 000	–	–	900	– 900	–	–	750	–750	–	–
1 000	**1 250**	0	–125	–	–	0	–75	–	–	0	–1 250	–	–	0	–2 000	–	–	1 050	–1 050	–	–	750	–750	–	–
1 250	**1 600**	0	–160	–	–	0	–90	–	–	0	–1 600	–	–	0	–2 000	–	–	1 200	–1 200	–	–	900	–900	–	–

(2) Outside diameter and width of cup and radial runout of assembled bearing cone / cup

Unit : μm

Cup OD D (mm)		Single plane mean outside diameter deviation Δ_{Dmp}								Single cup width deviation Δ_{Cs}								Assembled bearing radial runout K_{ia}, K_{ea}							
		Class K		Class N		Class C		Class B		Class K		Class N		Class C		Class B		Class K		Class N		Class C		Class B	
over	up to	upper	lower	upper	lower	upper	lower	upper	lower	upper	lower	upper	lower	upper	lower	upper	lower	K_{ia} max.	K_{ea} max.	K_{ia} max.	K_{ea} max.	K_{ia} max.	K_{ea} max.	K_{ia} max.	K_{ea} max.
0	**18**	0	– 12	0	–12	0	– 8	0	– 6	0	– 120	0	–100	0	– 200	0	–200	15	18	15	18	5	6	3	4
18	**30**	0	– 12	0	–12	0	– 8	0	– 6	0	– 120	0	–100	0	– 200	0	–200	15	18	15	18	5	6	3	4
30	**50**	0	– 14	0	–14	0	– 9	0	– 7	0	– 120	0	–100	0	– 200	0	–200	18	20	18	20	5	7	3	5
50	**80**	0	– 16	0	–16	0	– 11	0	– 9	0	– 120	0	–100	0	– 240	0	–240	20	25	20	25	6	8	4	5
80	**120**	0	– 18	0	–18	0	– 13	0	–10	0	– 150	0	–100	0	– 300	0	–300	25	35	25	35	7	10	4	6
120	**150**	0	– 20	0	–20	0	– 15	0	–11	0	– 200	0	–100	0	– 400	0	–400	30	40	30	40	8	11	5	7
150	**180**	0	– 25	0	–25	0	– 18	0	–13	0	– 250	0	–100	0	– 500	0	–500	35	45	35	45	11	13	6	8
180	**250**	0	– 30	0	–30	0	– 20	0	–15	0	– 300	0	–100	0	– 600	0	–600	50	50	50	50	13	15	8	10
250	**315**	0	– 35	0	–35	0	– 25	0	–18	0	– 350	0	–100	0	– 700	0	–700	60	60	60	60	13	18	9	11
315	**400**	0	– 40	0	–40	0	– 28	0	–20	0	– 400	0	–100	0	– 800	–	–	70	70	70	70	15	20	–	13
400	**500**	0	– 45	0	–45	0	– 33	–	–	0	– 450	0	–100	0	– 900	–	–	80	80	80	80	20	24	–	–
500	**630**	0	– 50	0	–50	0	– 38	–	–	0	– 500	–	–	0	–1 100	–	–	90	100	–	100	25	30	–	–
630	**800**	0	– 75	–	–	0	– 45	–	–	0	– 750	–	–	0	–1 600	–	–	100	120	–	–	30	36	–	–
800	**1 000**	0	–100	–	–	0	– 60	–	–	0	–1 000	–	–	0	–2 000	–	–	115	140	–	–	37	43	–	–
1 000	**1 250**	0	–125	–	–	0	– 80	–	–	0	–1 250	–	–	0	–2 000	–	–	130	160	–	–	45	52	–	–
1 250	**1 600**	0	–160	–	–	0	–100	–	–	0	–1 600	–	–	0	–2 000	–	–	150	180	–	–	55	62	–	–

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.

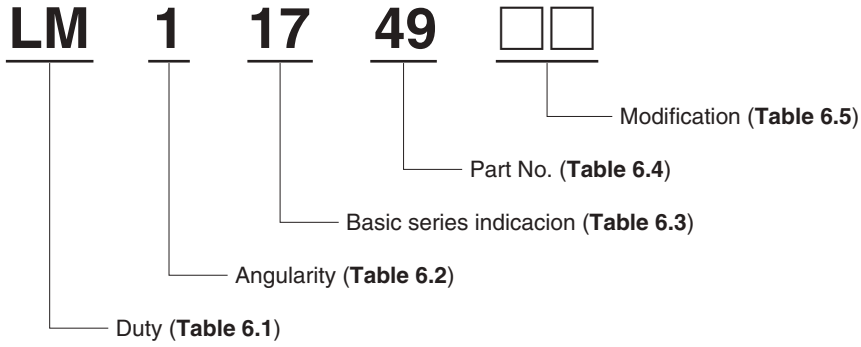


Table 6.1 Duty

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 cup 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	$28^\circ\ 30' \leqq \alpha < 30^\circ\ 30'$
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
Cup : (Outer ring)	Expressed by 10 to 19, and 10 is used for the cup of the minimum outside diameter of the series.
Cone : (Inner ring)	Expressed by 30 to 49, and 49 is used for the cone of the maximum bore size of the series.

Table 6.5 Modification

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

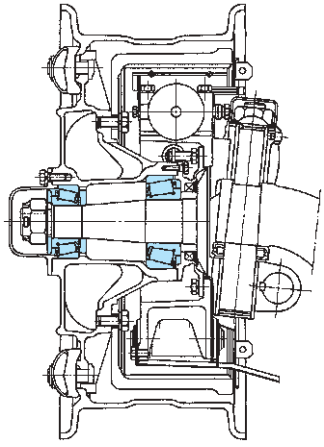
Code	Details
A	Bearing limit for overall width or size in master closer then standard.
B	Single cup with flange.
BR	Single or double cup or cone with snap ring.
BW	Single cup with flange and slotted.
CR	Rib cup.
CP	Chrome plated cone and cup.
D	Double cone or cup – minimum length.
DA	Spherical O.D. –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

7 Typical applications

Automotive

• Front wheels

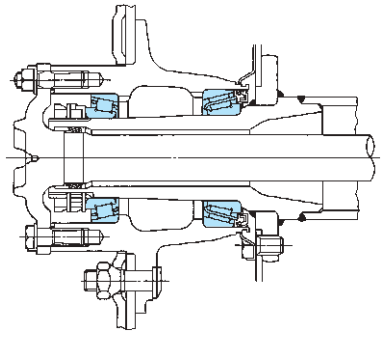
In general, automotive front wheel bearings are primarily subjected to radial loads. However, during cornering or running on bad roads, substantial moment loads can be imposed. Therefore, it is extremely important to select bearings which can absorb these moment loads without difficulty. At the present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

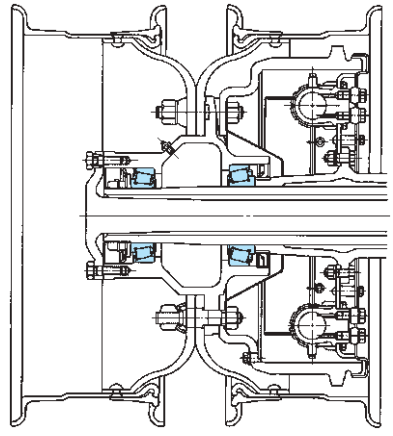


• Rear wheels

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

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



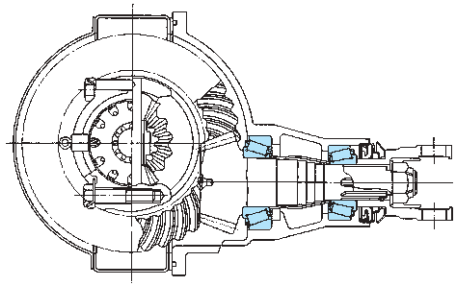


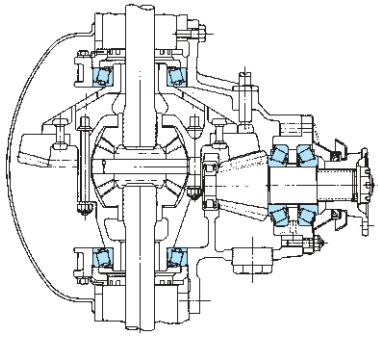
• Differentials

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.

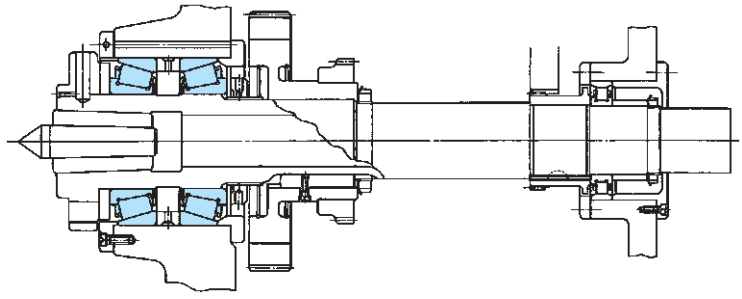




General industries

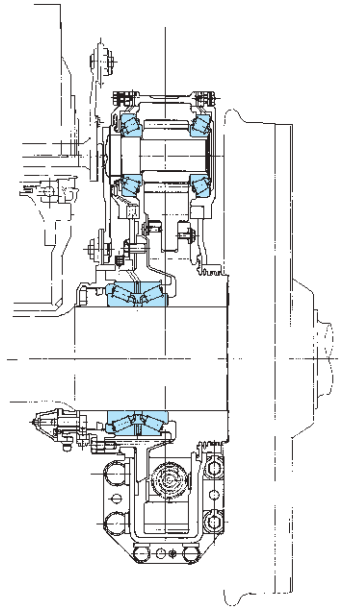
• Machine tool spindles

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.

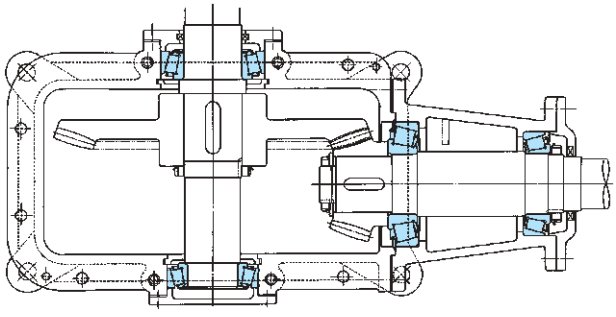


• Electric railway car gear units

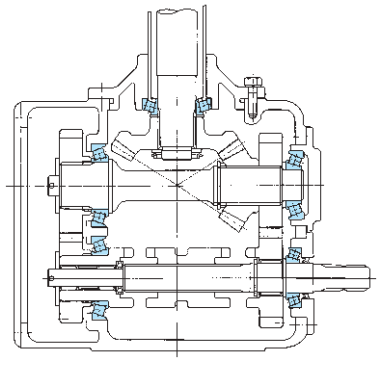
The driving axles of electric cars are equipped with gearing units to transmit the torque and rotation generated by the traction main motors. In the parallel cardan gear units (currently more widely used than square cardan gear units), both the pinion shaft and gear housing are generally fitted with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



• Bevel-gear units



• Farm equipment, transmission



Specification tables of tapered roller bearings

Single-row

INDEX 24

TS type 38

TSS type 102

TS type (Metric "J" series) 108

Double-row

TDI type..... 110

TDIS type 120

TDIT type..... 122

TDO · TDOS type 126

TNA type 146

Series No.	Cone (Inner ring)	Page	Cup (Outer ring)	Page
335	334	47	332	41,43,45,47,
	335	51		49,51,53,55,
	335S	49		57,59,61
	336	59	332A	43,47,51,53,
	337	55		55,59
	338	43		
	339	53		
	339X	53		
	340	51		
	341	41		
	342	59		
	342A	59		
	342S	61		
	343	51		
	344	57		
	344A	57		
	346	49		
	347	55		
	348	45		
355	350	59	352	59,65
	350A	57	353	63
	355	61,63	354	61
	355A	63	354A	57,61,63,65
	355X	63	354X	57
	357	57		
	358	65		
	358A	65		
	359A	65		
	359S	65		
365	365	67	362	65
	365A	59	362A	59,65,67,69,
	365S	67		71
	366	67	363	65
	367	65		
	368	69		
	368A	69		
	368S	71		
	369A	65		
	369S	65		
	370A	69		
375	375	69	372	65,67,71
	375S	69	372A	69
	376	65	374	69
	376A	65		
	377	71		
	377A	71		
	377S	71		

Series No.	Cone (Inner ring)	Page	Cup (Outer ring)	Page
375	378A	67		
385	385	73	382	73
	385A	69	382A	65,69,73,75
	385AS	69	382S	69
	385AX	69	383A	71
	385X	73	383X	73
	386	73		
	386A	65		
	387	73		
	387A	73		
	387AS	73		
	387S	73		
	388A	75		
	389	73		
	389AS	71		
	389S	73		
395	390	75	393A	75
	390A	77	393AS	75
	392	77	394	69,75,77
	395	77	394A	67,75,77,79,
	395A	79		81
	395S	79	394AS	69
	396	67		
	397	75		
	398	69		
	399	79		
	399A	81		
	399AS	81		
415	415	57	414	45,51,53,57,
	416	45		59
	417	51	414A	45,53,57
	418	57	414X	57
	419	59		
	420	59		
	421	53		
	422	57		
	423X	59		
	424X	53		
435	435	63	432	51,53,59,61,
	436	65		63
	438	63	432A	49,57,61,63,
	439	61		65
	440	57		
	441	53		
	442S	59		
	443	49		
	444	57		

Series No.	Cone (Inner ring)	Page	Cup (Outer ring)	Page
435	447	61		
	449	51		
455	455	69	452	69
	455S	69	453	71
	456	71	453A	61,63,67,73
	458	63	453X	61,65,67,71,
	458S	65		73
	460	63	454	69,73
	461	61		
	462	73		
	463	67		
	464	61		
	464A	61		
	465	67		
	465A	67		
	466	73		
	466S	73		
	467	67		
	468	71		
	469	73		
475	475	73	472	77,79,81
	475X	73	472A	73,77,79,81,
	476	77		83
	476A	77	472X	79,83
	477	79		
	478	79		
	478S	81		
	479	81		
	480	81		
	482	81,83		
	482A	81		
	483	79		
	484	83		
	486X	83		
495	495	87	492	87
	495A	85	492A	83,85,87,89
	495AS	87	493	85,87,89,91
	495AX	85		
	495S	83		
	495X	91		
	496	87		
	496AS	87		
	496X	87		
	497	89		
	497A	89		
	498	89		
	499A	89		

Series No.	Cone (Inner ring)	Page	Cup (Outer ring)	Page
525	525	57	522	57,61,63,65,
	525A	57		67,69
	525X	57		
	526	61		
	526A	61		
	527	63		
	527S	65		
	528	67		
	528A	67		
	529	69		
	529X	69		
535	535	63	532	63,67
	536	67	532A	63
	537	69	532X	57,59,61,67,
	539	71		69,71
	539A	71	533A	71
	540	71		
	541	61		
	542	57		
	543	59		
	545	67		
	546	67		
555	554	77	552	77
	555	71	552A	71,75
	555S	75	553	77
	555SA	75	553X	71,75,77,79,
	557A	77		81
	557S	71		
	558	77		
	558A	77		
	559	79		
	560	81		
	560S	81		
565	565	79	563	79,81,83,85
	565S	79		
	566	83		
	566S	83		
	567	83		
	567A	83		
	567S	83		
	568	85		
	569	79		
	570	81		
575R	575R	85	572	83,85,87,89
	575SR	85	572X	89
	576R	83		
	577R	85		

Series No.	Cone (Inner ring)	Page	Cup (Outer ring)	Page
575R	578R	87		
	580R	89		
	581R	87		
	582R	89		
595	590	87	592	91
	590A	85	592A	87,89,91
	593	91	592XE	85,91,93
	593A	91	592XS	87
	593S	91	593X	89
	594	93		
	594A	93		
	595	89		
	595A	87		
	596	91		
	596S	91		
	596X	89		
	597	93		
	597X	93		
	598	93		
	598A	93		
	599X	89		
615	615	63	612	57,63,67,71,
	617	67		73,75
	618X	67	612A	57,63,67,71,
	619	71		75
	620	57	612S	71
	621	71	613X	71
	622A	73		
	622X	73		
	623	75		
	623A	75		
	624	71		
635	635	75	632	75,81
	636	73	633	73,77,79,81,
	637	77		83
	639	79		
	641	81		
	642	81		
	643	83		
	644	83		
	645	83		
655	655	83	652	85,89
	656	79	652A	83,89
	657	83,85	653	79,83,85,87,
	658	85		89,91
	659	85	653X	85
	661	87		

Series No.	Cone (Inner ring)	Page	Cup (Outer ring)	Page
655	662	87		
	663	89		
	663A	89		
	664	89		
	665	91		
	665A	91		
675	677	91	672	91,93,95
	679	91	673SA	91
	681	93		
	681A	93		
	683	93		
	685	93		
	687	95		
745R	740R	87	742	79,83,85,87,
	744AR	83		89
	744R	85		
	745AR	83		
	745SR	79		
	747SR	79		
	748R	87		
	748SR	85		
	749AR	89		
	749R	89		
	749SR	89		
	750AR	89		
	750R	87		
755	755	85,87	752	85,87,89,91,
	756A	87		93
	757	89	752A	85,91
	758	91	753	87
	759	91		
	760	93		
	762	85		
	766	91		
775	775	91	772	91,93,95
	776	93		
	778	93		
	779	93		
	780	95		
	782	95		
	783	95		
	786	95		
	787	95		
795	795	97	792	97,99
	797	99		
	799	99		

Series No.	Cone (Inner ring)	Page	Cup (Outer ring)	Page
835R	835R	83	832	83,87,89,91
	838XR	87		
	839R	89		
	841R	91		
	850AR	91		
855R	855R	91	854	87,89,91,93,
	857R	93		95
	857XR	91	854X	91
	860R	95		
	861R	95		
	862R	93		
	863R	95		
	863XR	95		
	864R	93		
	864XR	87		
	865XR	89		
	866R	93		
	867AR	93		
	867XR	89		
	869R	91		
935	935	95	930	97
	936	95	932	95,97
	938	97		
	938S	97		
	939	97		
	941	95		
	942	97		
	947	97		
1200	1280	41	1220	41
1300	1380	41	1328	41
			1329	41
1600	1674	47	1620	47,49
	1680	49		
1700	1755	41	1729	39,41
	1774	39	1729X	39,41
	1775	39	1730	39,41
	1779	41		
	1780	41		
1900R	1975R	41	1922	41,43
	1985R	43	1931	41
	1986R	41	1932	41
	1987R	43		
	1988R	43		
	1994XR	41		
	1997XR	43		

Series No.	Cone (Inner ring)	Page	Cup (Outer ring)	Page
A2000	A2031	39	A2126	39
	A2037	39		
	A2043	39		
	A2047	39		
2500	2558	45	2520	43,47,49
	2559	45	2523	45
	2578	43	2523S	45
	2580	47	2525	45
	2581	49		
	2582	47		
	2585	49		
	2586	45		
2600	2682	43	2631	39,41,43,45
	2684	41		
	2685	41		
	2687	43		
	2688	43		
	2689	43		
	2689X	43		
	2690	45		
	2691	45		
	2693X	39		
	2694X	41		
	2695X	45		
2700R	2776R	55	2720	51
	2780R	53	2729	49,55
	2785R	49	2729X	51
	2786R	51	2734	53
	2788AR	55	2735X	49,51,53,55,
	2788R	55		57
	2789R	57	2736	49
	2790R	49		
	2793R	51		
	2794R	53		
	2796R	51		
2800	2875	47	2820	47,51,53
	2876	49	2821	49,51
	2877	51		
	2878	51		
	2879	49		
	2880	53		
2900	2973	61	2924	61,63,65
	2975	63	2925	65
	2984	65		

Series No.	Cone (Inner ring)	Page	Cup (Outer ring)	Page
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	3188	47		49
	3188S	47	3125	47
	3188X	41	3126	47
	3189	43	3129	47
	3189X	43	3130	43,47,49
	3190	45		
	3190S	45		
	3191	47		
	3192	45		
	3193	47		
	3194	49		
	3196	49		
	3197	49		
	3198	45		
	3199	47		
3300	3378	53	3320	53,57
	3379	51	3325	51
	3381	55	3328	57,59
	3382	57	3329	53,57
	3383	59	3331	55
	3384	59	3339	55
	3386	57		
	3387	55		
3400	3474	47	3420	47,49,51,53,
	3476	49		55
	3476X	49	3422	49
	3477	49		
	3478	51		
	3479	53		
	3480	53		
	3482	51		
	3483	49		
	3490	55		
	3492X	53		
3500R	3576R	59	3520	55,59,61,65
	3577R	59	3525	51,59,63
	3578AR	63	3526	57
	3578R	61		
	3579R	61		
	3580R	55		
	3581R	51		
	3582R	59		
	3583R	57		
	3585R	59		
	3586R	65		

Series No.	Cone (Inner ring)	Page	Cup (Outer ring)	Page
3700	3767	71	3720	57,63,65,67,
	3774	57		69
	3775	69	3726	65
	3776	65	3730	63,65,67,69,
	3777	65		71
	3778	65	3732	63,65,69
	3779	65		
	3780	69		
	3781	67		
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	3782	63		
	3783	63		
	3784	69		
3800	3872	51	3820	51,53
	3872A	51	3821	51,55,59
	3875	55		
	3876	55		
	3877	59		
	3877A	59		
	3878	53		
	3879	59		
	3880	59		
3900	3975	69	3920	75
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LM806600	LM806649	71	LM806610	71
HM807000	HM807035	61	HM807010	61,63,67,69,
	HM807040	63		71
	HM807044	67		
	HM807046	69		
	HM807049	71		
HM813800	HM813836	71	HM813810	73,77
	HM813840	73	HM813811	71,77,79,81,
	HM813841	77		83
	HM813841A	77		
	HM813842	79		
	HM813843	77		
	HM813844	81		
	HM813846	83		
	HM813849	83		
LM814800	LM814845	83	LM814810	83,87
	LM814849	87		
L879900	L879947	101	L879910	101

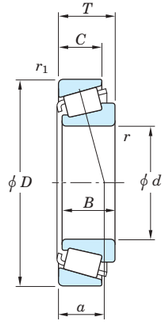
Series No.	Cone (Inner ring)	Page	Cup (Outer ring)	Page
HM903200	HM903241	103	HM903210	103,105
	HM903245	103		
	HM903248	105		
	HM903249	103		
M903300	M903345	103	M903310	103
HM907600	HM907635	103	HM907614	103,105
	HM907639	105		
	HM907643	105		
HM911200R	HM911242R	105	HM911210	105
	HM911245R	105		
	HM911249R	105		
H913800R	H913842R	105	H913810	105,107
	H913849R	107		
HH914400	HH914449	105	HH914412	105
HH923600	HH923649	107	HH923610	107
			HH923611	107
H924000	H924045	107	H924010	107
HH926700	HH926744	97	HH926710	97
	HH926749	97	HH926716	97
HM926700	HM926740	107	HM926710	107
	HM926747	107		
	HM926749	107		
HH932100	HH932132	107	HH932110	107
	HH932145	107		
H936300	H936340	107	H936310	107
	H936349	107	H936316	107
HH953700	HH953749	107	HH953710	107
H961600	H961649	107	H961610	107
LM961500	LM961548	107	LM961510	107

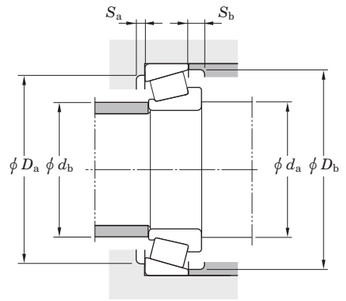
Metric "J" series

Series No.	Cone (Inner ring)	Page	Cup (Outer ring)	Page
JL69300	JL69349	109	JL69310	109
JLM104900	JLM104948	109	JLM104910	109
JM205100	JM205149	109	JM205110	109
JM207000	JM207049	109	JM207010	109
JH211700	JH211749	109	JH211710	109
	JH211749A	109		
JH217200	JH217249	109	JH217210	109
JH307700	JH307749	109	JH307710	109
JHM318400	JHM318448	109	JHM318410	109
JH415600	JH415647	109	JH415610	109
JLM506800	JLM506849	109	JLM506810	109
JLM508700	JLM508748	109	JLM508710	109
JM511900	JM511946	109	JM511910	109
JM515600	JM515649	109	JM515610	109
JHM516800	JHM516849	109	JHM516810	109
JHM522600	JHM522649	109	JHM522610	109
JHM534100	JHM534149	109	JHM534110	109
JM612900	JM612949	109	JM612910	109
JLM710900	JLM710949	109	JLM710910	109
JLM714100	JLM714149	109	JLM714110	109
JM714200	JM714249	109	JM714210	109
JM716600	JM716649	109	JM716610	109
JM718100	JM718149	109	JM718110	109
JM719100	JM719149	109	JM719113	109
JHM720200	JHM720249	109	JHM720210	109
JM720200	JM720249	109	JM720210	109
JM734400	JM734449	109	JM734410	109
JM736100	JM736149	109	JM736110	109
JM738200	JM738249	109	JM738210	109
JHM807000	JHM807045	109	JHM807012	109
JLM813000	JLM813049	109	JLM813010	109
JM822000	JM822049	109	JM822010	109
JHM840400	JHM840449	109	JHM840410	109

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.

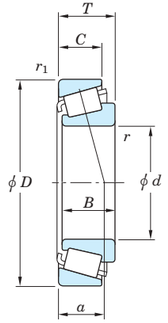
Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Constant	Axial load factors		Reference rating (kN) (500 rpm for 3 000 Hrs.)		Factor
d		D		T		B		C		$r^{1)}$ (min.)		$r_1{}^{1)}$ (min.)		C_r	C_{0r}	C_u	Cone (Inner ring)	Cup (Outer ring)	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	SP	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

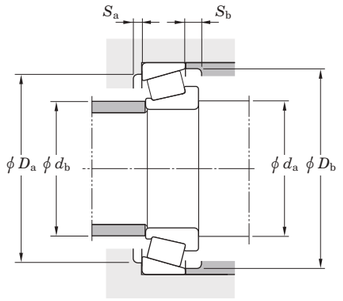
Note 1) SP indicates the specially chamfered from.

Koyo

TS type

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





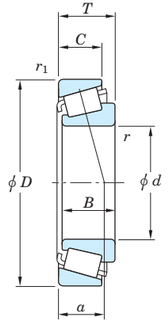
$P = XF_r + YF_a$ $P_0 = 0.5\,F_r + Y_0F_a$ or $P_0 = F_r$			
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

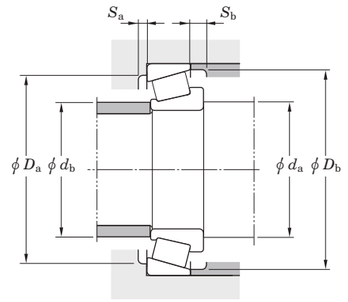
Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

Boundary dimensions														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		$r^{1)}$ (min.)		$r_1{}^{1)}$ (min.)		C_r	C_{0r}	C_u	Cone (Inner ring)	Cup (Outer ring)	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					
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.

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





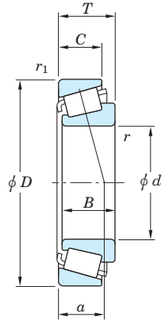
$P = XF_r + YF_a$ $P_0 = 0.5\,F_r + Y_0F_a$ or $P_0 = F_r$			
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

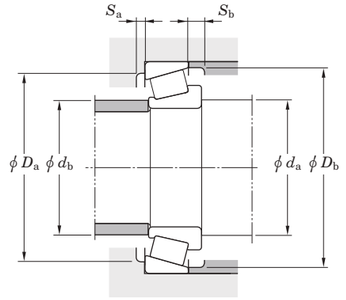
Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Constant	Axial load factors		Reference rating (kN)		Factor
d		D		T		B		C		$r^{1)}$ (min.)		$r_1{}^{1)}$ (min.)					Cone (Inner ring)	Cup (Outer ring)	a		d_a		d_b		D_a		D_b		e	Y_1	Y_0	(500 rpm for 3 000 Hrs.) Radial	Axial	K
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	C_r	C_{0r}	C_u			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	SP	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.

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

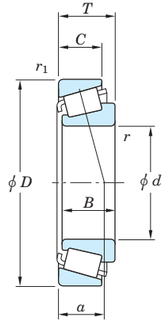
Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

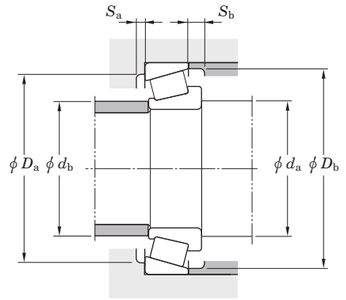
Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Constant	Axial load factors		Reference rating (kN) (500 rpm for 3 000 Hrs.)		Factor
d		D		T		B		C		$r^{1)}$ (min.)		$r_1{}^{1)}$ (min.)		C_r	C_{0r}	C_u	Cone (Inner ring)	Cup (Outer ring)	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





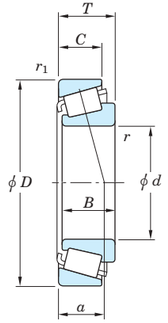
$P = XF_r + YF_a$ $P_0 = 0.5\,F_r + Y_0F_a$ or $P_0 = F_r$			
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

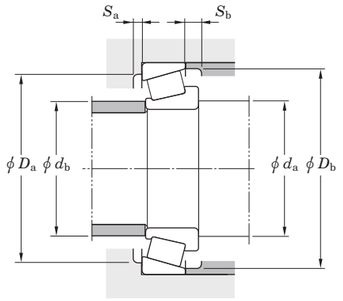
Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Constant	Axial load factors		Reference rating (kN)		Factor
d		D		T		B		C		$r^{1)}$ (min.)		$r_1{}^{1)}$ (min.)					Cone (Inner ring)	Cup (Outer ring)	a		d_a		d_b		D_a		D_b		e	Y_1	Y_0	(500 rpm for 3 000 Hrs.) Radial	Axial	K
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	C_r	C_{0r}	C_u			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	SP	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	SP	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

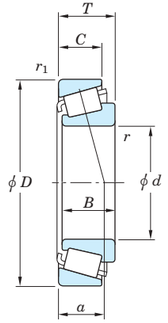
Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

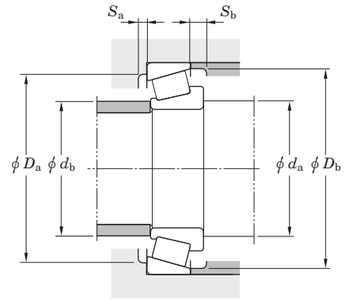
Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Constant	Axial load factors		Reference rating (kN)		Factor
d		D		T		B		C		$r^{1)}$ (min.)		$r_1{}^{1)}$ (min.)		C_r	C_{0r}	C_u	Cone (Inner ring)	Cup (Outer ring)	a		d_a		d_b		D_a		D_b		e	Y_1	Y_0	(500 rpm for 3 000 Hrs.) 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						
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.

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

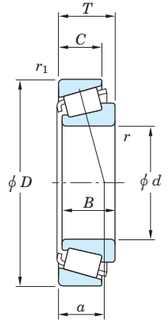
Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

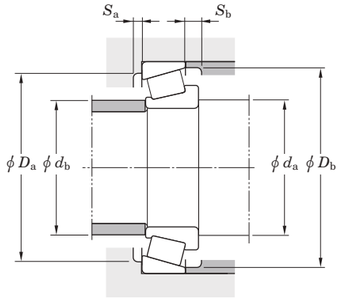
Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Constant	Axial load factors		Reference rating (kN)		Factor
d		D		T		B		C		$r^{1)}$ (min.)		$r_1{}^{1)}$ (min.)					Cone (Inner ring)	Cup (Outer ring)	a		d_a		d_b		D_a		D_b		e	Y_1	Y_0	(500 rpm for 3 000 Hrs.) Radial	Axial	K
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	C_r	C_{0r}	C_u			mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						
34.925	1.3750	65.088	2.5625	18.034	0.7100	18.288	0.7200	13.970	0.5500	SP	SP	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	SP	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.

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

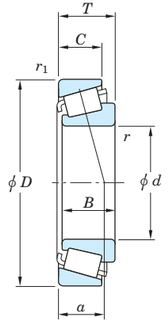
Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

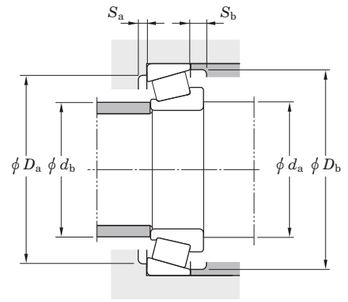
Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Constant	Axial load factors		Reference rating (kN) (500 rpm for 3 000 Hrs.)		Factor
d		D		T		B		C		$r^{1)}$ (min.)		$r_1{}^{1)}$ (min.)		C_r	C_{0r}	C_u	Cone (Inner ring)	Cup (Outer ring)	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					
34.980	1.3772	59.975	2.3612	15.875	0.6250	16.764	0.6600	11.938	0.4700	SP	SP	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	SP	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.

TS type

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





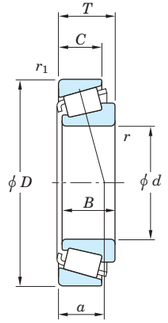
$P = XF_r + YF_a$ $P_0 = 0.5\,F_r + Y_0F_a$ or $P_0 = F_r$			
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

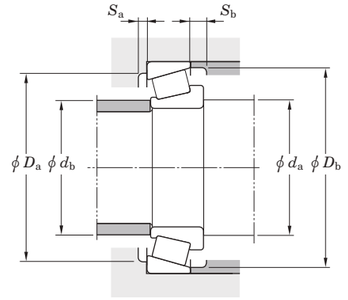
Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Constant	Axial load factors		Reference rating (kN) (500 rpm for 3 000 Hrs.)		Factor
d		D		T		B		C		$r^{1)}$ (min.)		$r_1{}^{1)}$ (min.)		C_r	C_{0r}	C_u	Cone (Inner ring)	Cup (Outer ring)	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	SP	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.

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





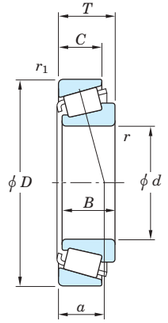
$P = XF_r + YF_a$ $P_0 = 0.5\,F_r + Y_0F_a$ or $P_0 = F_r$			
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

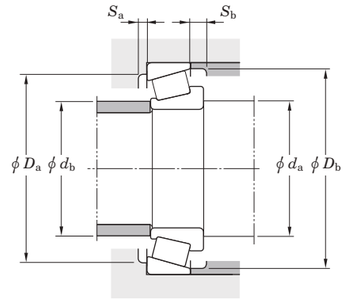
Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

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		$r^{1)}$ (min.)		$r_1{}^{1)}$ (min.)		C_r	C_{0r}	C_u	Cone (Inner ring)	Cup (Outer ring)	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.

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





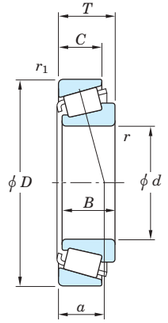
$P = XF_r + YF_a$ $P_0 = 0.5\,F_r + Y_0F_a$ or $P_0 = F_r$			
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

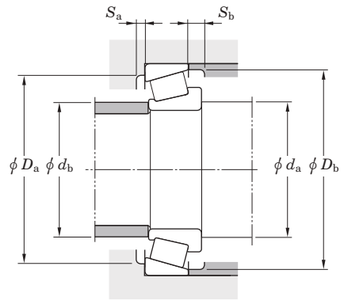
Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Constant	Axial load factors		Reference rating (kN)		Factor
d		D		T		B		C		$r^{1)}$ (min.)		$r_1{}^{1)}$ (min.)					Cone (Inner ring)	Cup (Outer ring)	a		d_a		d_b		D_a		D_b		e	Y_1	Y_0	(500 rpm for 3 000 Hrs.) Radial	Axial	K
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	C_r	C_{0r}	C_u			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.

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

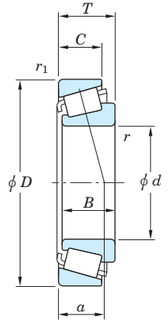
Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

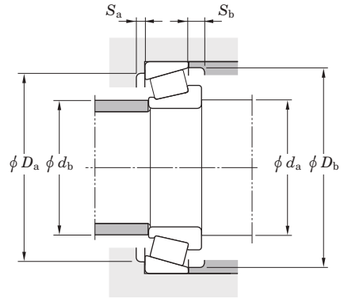
Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Constant	Axial load factors		Reference rating (kN) (500 rpm for 3 000 Hrs.)		Factor
d		D		T		B		C		$r^{1)}$ (min.)		$r_1{}^{1)}$ (min.)		C_r	C_{0r}	C_u	Cone (Inner ring)	Cup (Outer ring)	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	SP	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.

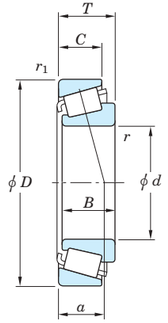
Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Constant	Axial load factors		Reference rating (kN) (500 rpm for 3 000 Hrs.)		Factor
d		D		T		B		C		$r^{1)}$ (min.)		$r_1{}^{1)}$ (min.)		C_r	C_{0r}	C_u	Cone (Inner ring)	Cup (Outer ring)	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

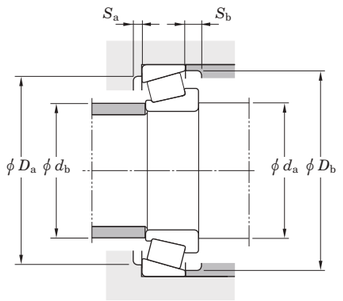
Note 1) SP indicates the specially chamfered from.

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 $P_0 = F_r$

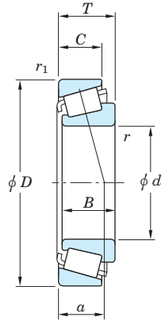
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

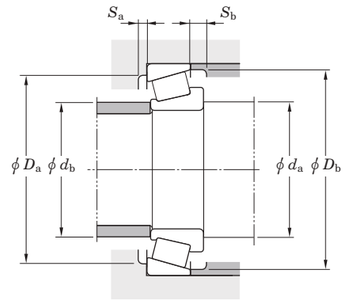
Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

Boundary dimensions														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		$r^{1)}$ (min.)		$r_1^{1)}$ (min.)		C_r	C_{0r}	C_u	Cone (Inner ring)	Cup (Outer ring)	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						
44.869	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.

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





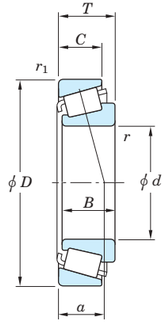
$P = XF_r + YF_a$ $P_0 = 0.5\,F_r + Y_0F_a$ or $P_0 = F_r$			
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

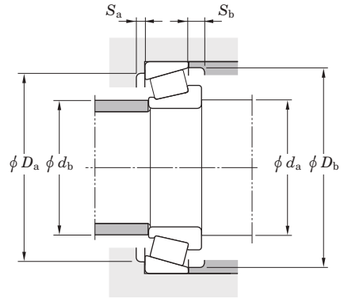
Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

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		$r^{1)}$ (min.)		$r_1{}^{1)}$ (min.)		C_r	C_{0r}	C_u	Cone (Inner ring)	Cup (Outer ring)	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.

TS type
d (50.800) mm
(2.0000) inch





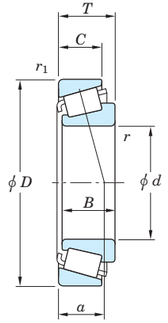
$P = XF_r + YF_a$ $P_0 = 0.5\,F_r + Y_0F_a$ or $P_0 = F_r$			
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

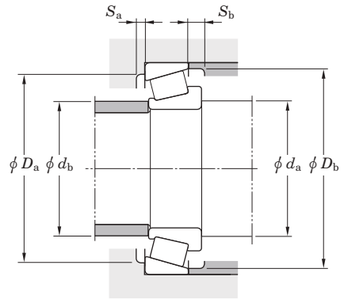
Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

Boundary dimensions														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		$r^{1)}$ (min.)		$r_1{}^{1)}$ (min.)		C_r	C_{0r}	C_u	Cone (Inner ring)	Cup (Outer ring)	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	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

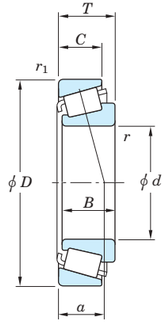
Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

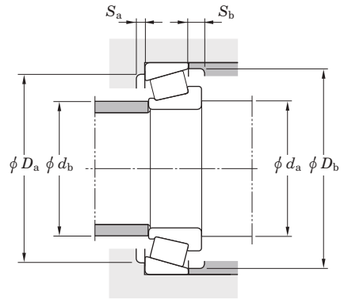
Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Constant	Axial load factors		Reference rating (kN) (500 rpm for 3 000 Hrs.)		Factor
d		D		T		B		C		$r^{1)}$ (min.)		$r_1{}^{1)}$ (min.)		C_r	C_{0r}	C_u	Cone (Inner ring)	Cup (Outer ring)	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.

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

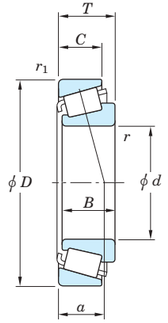
Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

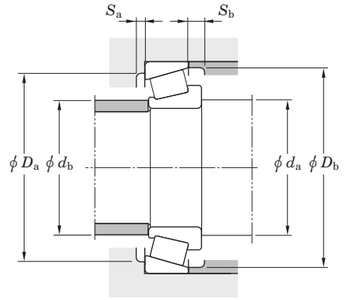
Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Constant	Axial load factors		Reference rating (kN) (500 rpm for 3 000 Hrs.)		Factor
d		D		T		B		C		$r^{1)}$ (min.)		$r_1{}^{1)}$ (min.)		C_r	C_{0r}	C_u	Cone (Inner ring)	Cup (Outer ring)	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	SP	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.

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

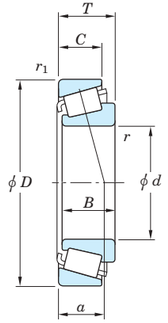
Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

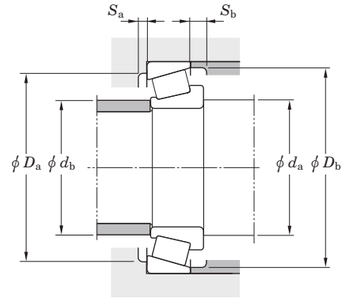
Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Constant	Axial load factors		Reference rating (kN) (500 rpm for 3 000 Hrs.)		Factor
d		D		T		B		C		$r^{1)}$ (min.)		$r_1{}^{1)}$ (min.)		C_r	C_{0r}	C_u	Cone (Inner ring)	Cup (Outer ring)	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.

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

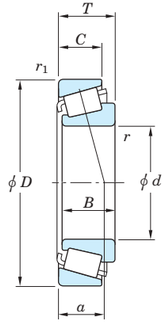
Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

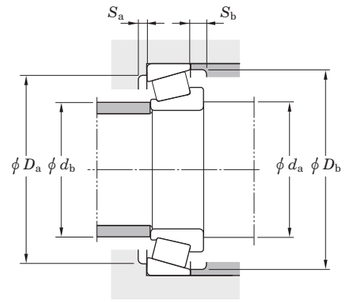
Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Constant	Axial load factors		Reference rating (kN)		Factor
d		D		T		B		C		$r^{1)}$ (min.)		$r_1{}^{1)}$ (min.)		C_r	C_{0r}	C_u	Cone (Inner ring)	Cup (Outer ring)	a		d_a		d_b		D_a		D_b		e	Y_1	Y_0	(500 rpm for 3 000 Hrs.) 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.

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

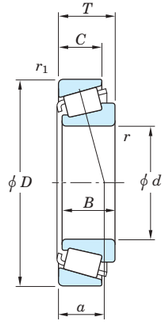
Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

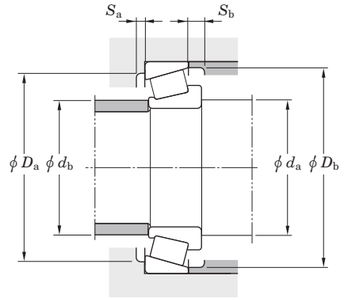
Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Constant	Axial load factors		Reference rating (kN) (500 rpm for 3 000 Hrs.)		Factor
d		D		T		B		C		$r^{1)}$ (min.)		$r_1{}^{1)}$ (min.)		C_r	C_{0r}	C_u	Cone (Inner ring)	Cup (Outer ring)	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.

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

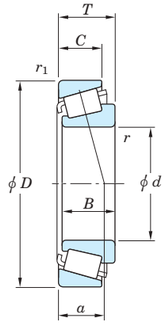
Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

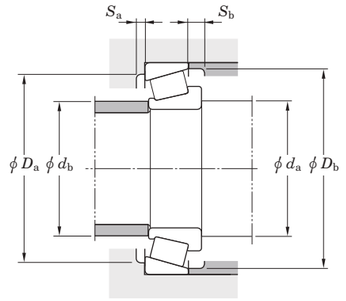
Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Constant	Axial load factors		Reference rating (kN) (500 rpm for 3 000 Hrs.)		Factor
d		D		T		B		C		$r^{1)}$ (min.)		$r_1{}^{1)}$ (min.)		C_r	C_{0r}	C_u	Cone (Inner ring)	Cup (Outer ring)	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.

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

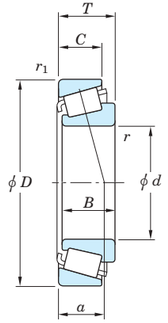
Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

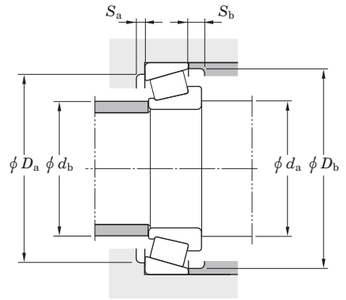
Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Constant	Axial load factors		Reference rating (kN)		Factor
d		D		T		B		C		$r^{1)}$ (min.)		$r_1{}^{1)}$ (min.)					Cone (Inner ring)	Cup (Outer ring)	a		d_a		d_b		D_a		D_b		e	Y_1	Y_0	(500 rpm for 3 000 Hrs.) Radial	Axial	K
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	C_r	C_{0r}	C_u			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.

TS type

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





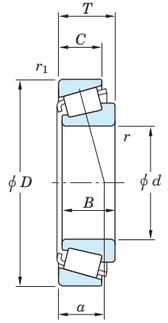
$P = XF_r + YF_a$ $P_0 = 0.5\,F_r + Y_0F_a$ or $P_0 = F_r$			
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

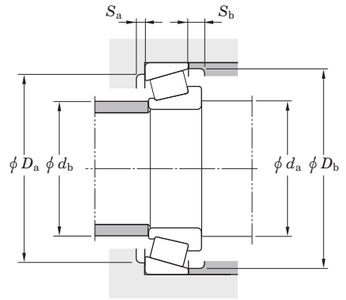
Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Constant	Axial load factors		Reference rating (kN)		Factor
d		D		T		B		C		$r^{1)}$ (min.)		$r_1{}^{1)}$ (min.)					Cone (Inner ring)	Cup (Outer ring)	a		d_a		d_b		D_a		D_b					(500 rpm for 3 000 Hrs.)		
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	C_r	C_{0r}	C_u			mm	inch	mm	inch	mm	inch	mm	inch	e	Y_1	Y_0	Radial	Axial	K
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.

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

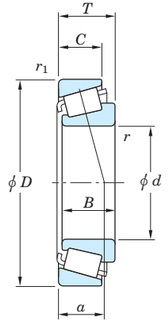
Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

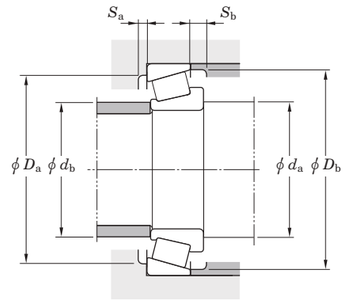
Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Constant	Axial load factors		Reference rating (kN)		Factor
d		D		T		B		C		$r^{1)}$ (min.)		$r_1{}^{1)}$ (min.)		C_r	C_{0r}	C_u	Cone (Inner ring)	Cup (Outer ring)	a		d_a		d_b		D_a		D_b		e	Y_1	Y_0	(500 rpm for 3 000 Hrs.) 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						
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.

TS type

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





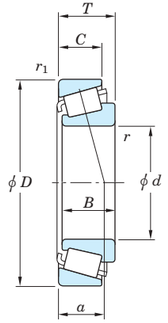
$P = XF_r + YF_a$ $P_0 = 0.5\,F_r + Y_0F_a$ or $P_0 = F_r$			
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

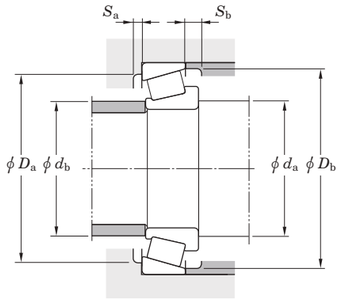
Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Constant	Axial load factors		Reference rating (kN)		Factor
d		D		T		B		C		$r^{1)}$ (min.)		$r_1{}^{1)}$ (min.)		C_r	C_{0r}	C_u	Cone (Inner ring)	Cup (Outer ring)	a		d_a		d_b		D_a		D_b		e	Y_1	Y_0	(500 rpm for 3 000 Hrs.) 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.

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

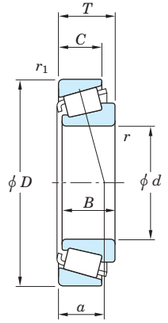
Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

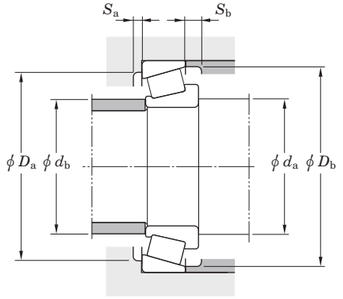
Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Constant	Axial load factors		Reference rating (kN)		Factor
d		D		T		B		C		$r^{1)}$ (min.)		$r_1{}^{1)}$ (min.)					Cone (Inner ring)	Cup (Outer ring)	a		d_a		d_b		D_a		D_b		e	Y_1	Y_0	(500 rpm for 3 000 Hrs.) Radial	Axial	K
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	C_r	C_{0r}	C_u			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.

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

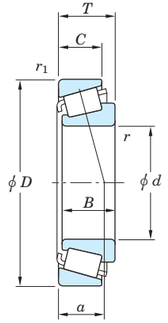
Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

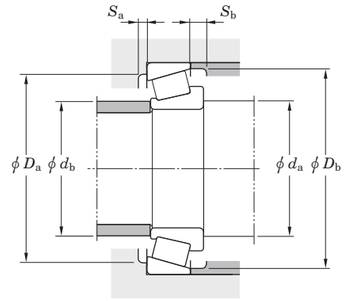
Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Constant	Axial load factors		Reference rating (kN) (500 rpm for 3 000 Hrs.)		Factor
d		D		T		B		C		$r^{1)}$ (min.)		$r_1^{1)}$ (min.)		C_r	C_{0r}	C_u	Cone (Inner ring)	Cup (Outer ring)	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.

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.

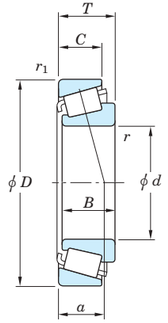
Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Constant	Axial load factors		Reference rating (kN) (500 rpm for 3 000 Hrs.)		Factor
d		D		T		B		C		$r^{1)}$ (min.)		$r_1{}^{1)}$ (min.)		C_r	C_{0r}	C_u	Cone (Inner ring)	Cup (Outer ring)	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

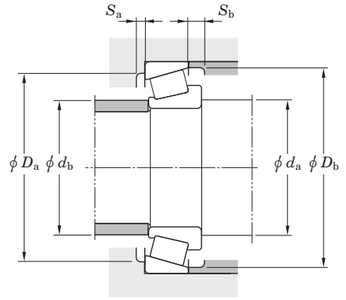
Note 1) SP indicates the specially chamfered from.

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.

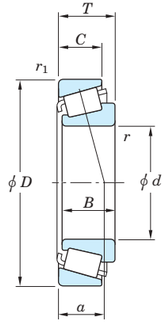
Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Constant	Axial load factors		Reference rating (kN) (500 rpm for 3 000 Hrs.)		Factor
d		D		T		B		C		$r^{1)}$ (min.)		$r_1{}^{1)}$ (min.)		C_r	C_{0r}	C_u	Cone (Inner ring)	Cup (Outer ring)	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

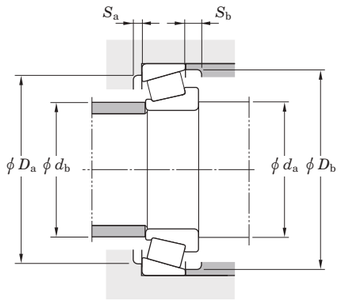
Note 1) SP indicates the specially chamfered from.

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.

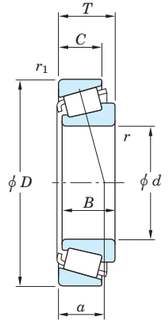
Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Constant	Axial load factors		Reference rating (kN)		Factor
d		D		T		B		C		$r^{1)}$ (min.)		$r_1{}^{1)}$ (min.)					Cone (Inner ring)	Cup (Outer ring)	a		d_a		d_b		D_a		D_b		e	Y_1	Y_0	(500 rpm for 3 000 Hrs.) Radial	Axial	K
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	C_r	C_{0r}	C_u			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

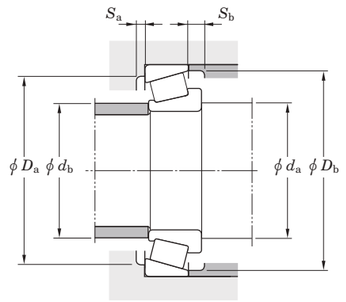
Note 1) SP indicates the specially chamfered from.

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

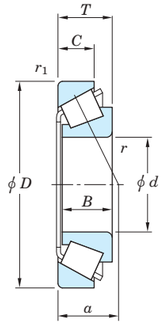
Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

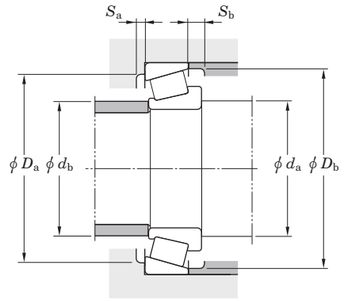
Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions						Constant	Axial load factors		Reference rating (kN) (500 rpm for 3 000 Hrs.)		Factor
d		D		T		B		C		$r^{1)}$ (min.)		$r_1^{1)}$ (min.)		C_r	C_{0r}	C_u	Cone (Inner ring)	Cup (Outer ring)	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.

TSS type

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





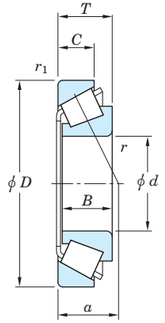
$P = XF_r + YF_a$
$P_0 = 0.5\,F_r + Y_0F_a$ or $P_0 = F_r$

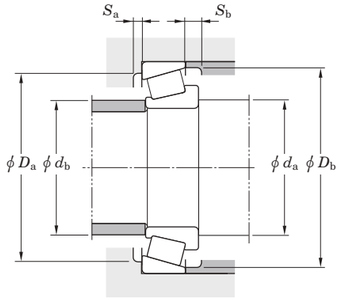
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

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

Boundary dimensions														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	Cone (Inner ring)	Cup (Outer ring)	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						
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

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 $P_0 = F_r$

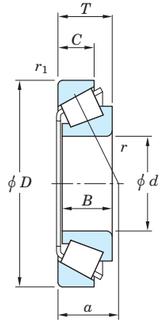
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

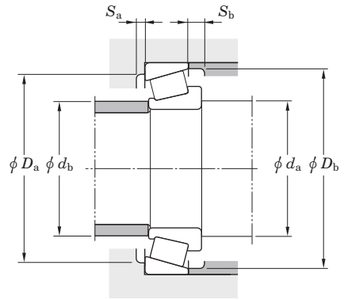
Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								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	Cone (Inner ring)	Cup (Outer ring)	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

TSS type

d 69.850 ~ 342.900 mm
2.7500 ~ 13.5000 inch



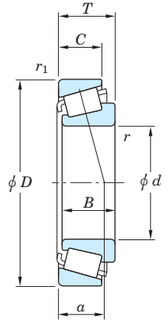


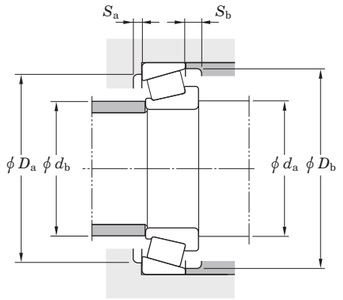
$P = XF_r + YF_a$ $P_0 = 0.5\,F_r + Y_0F_a$ or $P_0 = F_r$			
$F_a / F_r \leqq e$		$F_a / F_r > e$	
X	Y	X	Y
1	0	0.4	Y_1

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								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	Cone (Inner ring)	Cup (Outer ring)	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

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

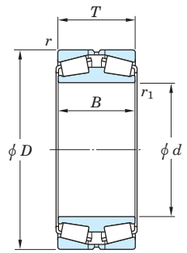
Note) The Values of "e" "Y_1" and "Y_0" are given in the table below.

Boundary dimensions														Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.		Load center		Mounting dimensions								Constant	Axial load factors		Reference rating (kN) (500 rpm for 3 000 Hrs.)		Factor
d		D		T		B		C		$r^{1)}$ (min.)		$r_1{}^{1)}$ (min.)		C_r	C_{0r}	C_u	Cone (Inner ring)	Cup (Outer ring)	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	SP	SP	SP	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

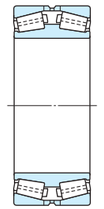
Note 1) SP indicates the specially chamfered from.

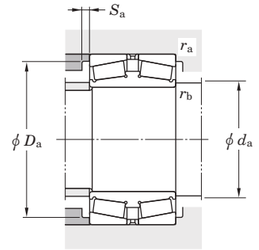
TDI type

d 104.775 ~ (206.375) mm
4.1250 ~ (8.1250) inch



Design 1


Design 1-P

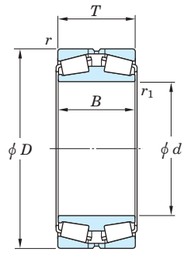


Boundary dimensions												Basic load ratings (kN)		Fatigue load limit (kN)		Bearing No.	De-sign	Mounting dimensions												Con-stant	Axial load factors		
d		D		B		T		$r^{1)}$ (min.)		$r_1{}^{1)}$ (min.)								d_a (max.)		D_a (max.)		D_a (min.)		S_a (min.)		r_a (max.)		$r_b{}^{1)}$ (max.)					
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	C_r	C_{0r}	C_u				mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	e	Y_2	Y_3	Y_0
104.775	4.1250	180.975	7.1250	102.362	4.0300	101.600	4.0000	3.200	0.1260	1.600	0.0630	620	876	113		**782D/772**	1	120.000	4.7244	166.000	6.5354	156.000	6.1417	4.400	0.1732	3.200	0.1260	1.600	0.0630	0.39	1.75	2.61	1.71
127.000	5.0000	182.563	7.1875	76.200	3.0000	76.200	3.0000	3.200	0.1260	1.600	0.0630	487	858	120		**48290D/48220**	1	141.000	5.5512	171.000	6.7323	167.000	6.5748	3.800	0.1496	3.200	0.1260	1.600	0.0630	0.31	2.21	3.29	2.16
	5.0000	234.950	9.2500	139.700	5.5000	152.400	6.0000	3.200	0.1260	5.200	0.2047	1 120	1 650	200		**95499D/95925**	1	151.000	5.9449	223.000	8.7795	205.000	8.0709	8.000	0.3150	3.200	0.1260	5.200	0.2047	0.37	1.83	2.72	1.79
	5.0000	254.000	10.0000	161.925	6.3750	171.450	6.7500	6.400	0.2520	3.200	0.1260	1 480	2 010	240		**EE153053D/153100**	1	154.000	6.0630	236.000	9.2913	218.000	8.5827	11.000	0.4331	6.400	0.2520	3.200	0.1260	0.32	2.10	3.13	2.05
130.005	5.1183	215.900	8.5000	123.825	4.8750	123.825	4.8750	3.200	0.1260	1.600	0.0630	691	1 100	132		**74510D/74850**	1	154.000	6.0630	204.000	8.0315	194.000	7.6378	5.000	0.1969	3.200	0.1260	1.600	0.0630	0.49	1.38	2.06	1.35
133.350	5.2500	196.850	7.7500	92.075	3.6250	92.075	3.6250	3.200	0.1260	1.600	0.0630	669	1 120	137		**67390D/67322**	1	146.000	5.7480	185.000	7.2835	181.000	7.1260	5.000	0.1969	3.200	0.1260	1.600	0.0630	0.34	1.96	2.92	1.92
	5.2500	203.200	8.0000	92.075	3.6250	92.075	3.6250	3.200	0.1260	1.600	0.0630	669	1 120	137		**67390D/67320**	1	146.000	5.7480	191.000	7.5197	181.000	7.1260	5.000	0.1969	3.200	0.1260	1.600	0.0630	0.34	1.96	2.92	1.92
136.525	5.3750	190.500	7.5000	77.788	3.0625	77.788	3.0625	3.200	0.1260	1.600	0.0630	505	944	129		**48393D/48320**	1	150.000	5.9055	179.000	7.0472	175.000	6.8898	4.700	0.1850	3.200	0.1260	1.600	0.0630	0.32	2.10	3.13	2.06
	5.3750	225.425	8.8750	120.650	4.7500	120.650	4.7500	3.200	0.1260	1.600	0.0630	1 020	1 610	194		**H228649D/H228610**	1	156.000	6.1417	214.000	8.4252	202.000	7.9528	6.000	0.2362	3.200	0.1260	1.600	0.0630	0.33	2.03	3.02	1.98
	5.3750	225.425	8.8750	120.650	4.7500	120.650	4.7500	3.200	0.1260	1.600	0.0630	1 020	1 610	194		**45T272312**	1	155.000	6.1024	211.000	8.3071	201.000	7.9134	6.000	0.2362	3.200	0.1260	1.600	0.0630	0.33	2.03	3.02	1.98
139.700	5.5000	200.025	7.8750	77.788	3.0625	75.408	2.9688	3.300	0.1299	0.800	0.0315	527	982	133		**48680D/48620**	1	155.000	6.1024	188.000	7.4016	183.000	7.2047	4.000	0.1575	3.300	0.1299	0.800	0.0315	0.34	2.01	2.99	1.96
149.225	5.8750	254.000	10.0000	120.650	4.7500	120.650	4.7500	3.200	0.1260	1.600	0.0630	1 180	1 830	215		**99587D/99100**	1	172.000	6.7717	242.000	9.5276	224.000	8.8189	8.000	0.3150	3.200	0.1260	1.600	0.0630	0.41	1.66	2.47	1.62
152.400	6.0000	222.250	8.7500	84.138	3.3125	84.138	3.3125	1.600	0.0630	1.600	0.0630	678	1 190	159		**M231649D/M231610**	1	168.000	6.6142	214.000	8.4252	202.000	7.9528	6.000	0.2362	1.600	0.0630	1.600	0.0630	0.33	2.03	3.02	1.98
	6.0000	254.000	10.0000	133.350	5.2500	133.350	5.2500	3.200	0.1260	1.600	0.0630	1 180	1 830	215		**99600D/99100**	1	172.000	6.7717	242.000	9.5276	224.000	8.8189	8.000	0.3150	3.200	0.1260	1.600	0.0630	0.41	1.66	2.47	1.62
	6.0000	254.000	10.0000	158.750	6.2500	158.750	6.2500	3.200	0.1260	1.600	0.0630	1 180	1 830	215		**99603D/99100**	1	172.000	6.7717	242.000	9.5276	224.000	8.8189	8.000	0.3150	3.200	0.1260	1.600	0.0630	0.41	1.66	2.47	1.62
177.800	7.0000	247.650	9.7500	90.488	3.5625	90.488	3.5625	3.200	0.1260	1.600	0.0630	741	1 400	160		**67790D/67720**	1	190.000	7.4803	236.000	9.2913	227.000	8.9370	5.000	0.1969	3.200	0.1260	1.600	0.0630	0.44	1.54	2.29	1.50
	7.0000	279.400	11.0000	112.710	4.4374	112.713	4.4375	3.200	0.1260	1.600	0.0630	1 040	1 640	187		**82680D/82620**	1	197.000	7.7559	268.000	10.5512	252.000	9.9213	7.000	0.2756	3.200	0.1260	1.600	0.0630	0.52	1.29	1.92	1.26
	7.0000	285.750	11.2500	106.360	4.1874	106.363	4.1875	3.200	0.1260	1.600	0.0630	956	1 430	165		**EE91700D/91112**	1	201.000	7.9134	274.000	10.7874	252.000	9.9213	4.000	0.1575	3.200	0.1260	1.600	0.0630	0.43	1.57	2.34	1.53
	7.0000	288.925	11.3750	123.825	4.8750	123.825	4.8750	3.200	0.1260	1.600	0.0630	1 180	1 920	216		**94706D/94113**	1	201.000	7.9134	277.000	10.9055	255.000	10.0394	8.000	0.3150	3.200	0.1260	1.600	0.0630	0.47	1.44	2.15	1.41
	7.0000	288.925	11.3750	123.825	4.8750	123.825	4.8750	3.200	0.1260	1.600	0.0630	1 430	1 950	245		**HM237546D/HM237510**	1	201.000	7.9134	277.000	10.9055	261.000	10.2756	8.000	0.3150	3.200	0.1260	1.600	0.0630	0.32	2.12	3.15	2.07
	7.0000	288.925	11.3750	158.750	6.2500	158.750	6.2500	3.200	0.1260	1.600	0.0630	1 430	1 950	245		**HM237546DD/HM237510**	1	201.000	7.9134	277.500	10.9252	261.000	10.2756	8.000	0.3150	3.200	0.1260	1.600	0.0630	0.32	2.12	3.15	2.07
	7.0000	304.800	12.0000	109.438	4.3086	114.300	4.5000	3.200	0.1260	3.200	0.1260	1 220	1 690	199		**EE280700D/281200**	1	208.000	8.1890	293.000	11.5354	272.000	10.7087	7.000	0.2756	3.200	0.1260	3.200	0.1260	0.36	1.87	2.79	1.83
187.325	7.3750	269.875	10.6250	101.600	4.0000	101.600	4.0000	3.200	0.1260	1.600	0.0630	880	1 610	183		**M238849D/M238810**	1	207.000	8.1496	258.000	10.1575	246.000	9.6850	5.000	0.1969	3.200	0.1260	1.600	0.0630	0.33	2.03	3.02	1.98
	7.3750	319.964	12.5970	168.275	6.6250	161.925	6.3750	4.800	0.1890	3.200	0.1260	1 610	2 450	271		**EE222074D/222126**	1	212.000	8.3465	305.000	12.0079	281.000	11.0630	4.000	0.1575	4.800	0.1890	3.200	0.1260	0.40	1.68	2.50	1.64
	7.3750	319.964	12.5970	168.275	6.6250	161.925	6.3750	4.800	0.1890	3.200	0.1260	1 830	2 530	285		**H239649D/H239610**	1	212.000	8.3465	305.000	12.0079	287.000	11.2992	5.000	0.1969	4.800	0.1890	3.200	0.1260	0.32	2.12	3.15	2.07
	7.3750	320.675	12.6250	168.275	6.6250	161.925	6.3750	4.800	0.1890	3.200	0.1260	1 610	2 450	271		**EE222074D/222128**	1	212.000	8.3465	306.000	12.0472	281.000	11.0630	4.000	0.1575	4.800	0.1890	3.200	0.1260	0.40	1.68	2.50	1.64
	7.3750	320.675	12.6250	168.275	6.6250	161.925	6.3750	4.800	0.1890	3.200	0.1260	1 830	2 530	285		**H239649D/H239612**	1	212.000	8.3465	306.000	12.0472	287.000	11.2992	5.000	0.1969	4.800	0.1890	3.200	0.1260	0.32	2.12	3.15	2.07
190.500	7.5000	365.049	14.3720	158.750	6.2500	152.400	6.0000	3.200	0.1260	3.200	0.1260	2 020	2 920	319		**EE420750D/421437**	1	239.000	9.4094	353.000	13.8976	317.000	12.4803	6.000	0.2362	3.200	0.1260	3.200	0.1260	0.40	1.68	2.50	1.64
	7.5000	368.300	14.5000	158.750	6.2500	152.400	6.0000	3.200	0.1260	3.200	0.1260	2 020	2 920	319		**EE420750D/421450**	1	239.000	9.4094	356.000	14.0157	317.000	12.4803	6.000	0.2362	3.200	0.1260	3.200	0.1260	0.40	1.68	2.50	1.64
199.975	7.8730	317.500	12.5000	133.350	5.2500	133.350	5.2500	3.200	0.1260	6.400	0.2520	1 300	2 270	244		**93788D/93125**	1	223.000	8.7795	306.000	12.0472	279.000	10.9843	7.000	0.2756	3.200	0.1260	6.400	0.2520	0.52	1.29	1.92	1.26
203.200	8.0000	317.500	12.5000	123.825	4.8750	123.825	4.8750	3.200	0.1260	1.600	0.0630	1 300	2 270	244		**93800D/93125**	1	223.000	8.7795	305.000	12.0079	278.000	10.9449	7.000	0.2756	3.200	0.1260	1.600	0.0630	0.52	1.29	1.92	1.26
	8.0000	317.500	12.5000	133.350	5.2500	133.350	5.2500	3.200	0.1260	6.400	0.2520	1 300	2 270	244		**93801D/93125**	1	223.000	8.7795	305.000	12.0079	279.000	10.9843	7.000	0.2756	3.200	0.1260	6.400	0.2520	0.52	1.29	1.92	1.26
	8.0000	365.049	14.3720	158.750	6.2500	152.400	6.0000	3.200	0.1260	3.200	0.1260	2 020	2 920	319		**EE420800D/421437**	1	239.000	9.4094	352.000	13.8583	317.000	12.4803	6.000	0.2362	3.200	0.1260	3.200	0.1260	0.40	1.68	2.50	1.64
	8.0000	368.300	14.5000	158.750	6.2500	152.400	6.0000	3.200	0.1260	3.200	0.1260	2 020	2 920	319		**EE420800D/421450**	1	239.000	9.4094	355.000	13.9764	317.000	12.4803	6.000	0.2362	3.200	0.1260	3.200	0.1260	0.40	1.68	2.50	1.64
206.375	8.1250	282.575	11.1250	87.313	3.4375	87.313	3.4375	3.200	0.1260	0.800	0.0315	749	1 410	155		**67985D/67920**	1	220.000	8.6614	270.000	10.6299	260.000	10.2362	7.000	0.2756	3.200	0.1260	0.800	0.0315	0.51	1.33	1.97	1.30

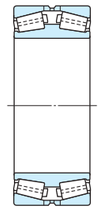
Note 1) SP indicates the specially chamfered from.

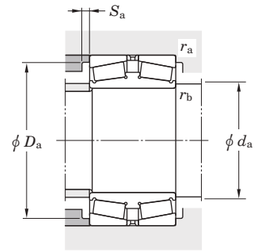
TDI type

d (206.375) ~ 266.700 mm
(8.1250) ~ 10.5000 inch



Design 1


Design 1-P

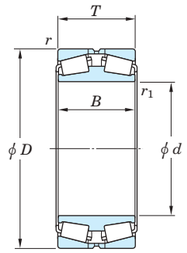


Boundary dimensions												Basic load ratings (kN)		Fatigue load limit (kN)		Bearing No.	Design	Mounting dimensions												Constant	Axial load factors		
d		D		B		T		$r^{1)}$ (min.)		$r_1{}^{1)}$ (min.)								d_a (max.)		D_a (max.)		D_a (min.)		S_a (min.)		r_a (max.)		$r_b{}^{1)}$ (max.)					
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	C_r	C_{0r}	C_u				mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	e	Y_2	Y_3	Y_0
206.375	8.1250	336.550	13.2500	180.975	7.1250	184.150	7.2500	3.200	0.1260	1.600	0.0630	2 230	3 800	400		**H242649D/H242610**	1	233.000	9.1732	324.000	12.7559	301.000	11.8504	9.000	0.3543	3.200	0.1260	1.600	0.0630	0.33	2.03	3.02	1.98
215.900	8.5000	285.750	11.2500	85.725	3.3750	85.725	3.3750	3.200	0.1260	0.800	0.0315	766	1 560	190		**LM742749D/LM742710**	1	228.000	8.9764	273.000	10.7480	266.000	10.4724	6.000	0.2362	3.200	0.1260	0.800	0.0315	0.48	1.40	2.09	1.37
	8.5000	288.925	11.3750	85.750	3.3760	85.725	3.3750	3.200	0.1260	0.800	0.0315	766	1 560	190		**LM742749D/LM742714**	1	228.000	8.9764	276.000	10.8661	266.000	10.4724	6.000	0.2362	3.200	0.1260	0.800	0.0315	0.48	1.40	2.09	1.37
216.103	8.5080	330.200	13.0000	130.175	5.1250	127.000	5.0000	3.200	0.1260	1.600	0.0630	1 430	2 360	255		**9974D/9920**	1	237.000	9.3307	317.000	12.4803	301.000	11.8504	7.000	0.2756	3.200	0.1260	1.600	0.0630	0.55	1.22	1.82	1.19
	8.5080	330.200	13.0000	152.400	6.0000	142.875	5.6250	3.200	0.1260	3.200	0.1260	1 430	2 360	255		**9977D/9920**	1	239.000	9.4094	317.000	12.4803	301.000	11.8504	7.000	0.2756	3.200	0.1260	3.200	0.1260	0.55	1.22	1.82	1.19
218.000	8.5827	314.325	12.3750	115.888	4.5625	115.888	4.5625	3.200	0.1260	1.600	0.0630	1 400	2 550	281		**45T443112**	1	240.000	9.4488	304.000	11.9685	289.000	11.3780	9.000	0.3543	3.200	0.1260	1.600	0.0630	0.33	2.03	3.02	1.98
219.075	8.6250	358.775	14.1250	196.850	7.7500	200.025	7.8750	6.400	0.2520	1.600	0.0630	2 660	4 580	469		**H244849D/H244810**	1	245.000	9.6457	340.000	13.3858	320.000	12.5984	9.000	0.3543	6.400	0.2520	1.600	0.0630	0.33	2.03	3.02	1.98
220.663	8.6875	314.325	12.3750	115.888	4.5625	115.888	4.5625	3.200	0.1260	1.600	0.0630	1 320	2 450	269		**M244249D/M244210**	1	241.000	9.4882	301.000	11.8504	289.000	11.3780	5.000	0.1969	3.200	0.1260	1.600	0.0630	0.33	2.03	3.02	1.98
228.600	9.0000	400.050	15.7500	139.700	5.5000	139.700	5.5000	3.200	0.1260	3.200	0.1260	1 960	2 950	318		**EE529091D/529157**	1	277.000	10.9055	387.000	15.2362	352.000	13.8583	6.000	0.2362	3.200	0.1260	3.200	0.1260	0.31	2.19	3.25	2.14
	9.0000	431.800	17.0000	177.800	7.0000	177.800	7.0000	6.000	0.2362	6.000	0.2362	2 980	4 280	447		**45T464318D**	1-P	280.000	11.0236	403.000	15.8661	377.000	14.8425	10.000	0.3937	5.000	0.1969	5.000	0.1969	0.40	1.68	2.50	1.64
	9.0000	431.800	17.0000	177.800	7.0000	177.800	7.0000	6.000	0.2362	6.000	0.2362	2 980	4 280	447		**45T464318D**	1-P	279.000	10.9843	403.000	15.8661	377.000	14.8425	10.000	0.3937	6.000	0.2362	6.000	0.2362	0.40	1.68	2.50	1.64
234.950	9.2500	327.025	12.8750	93.663	3.6875	93.663	3.6875	3.200	0.1260	1.600	0.0630	1 000	1 860	200		**8576D/8520**	1	256.000	10.0787	314.000	12.3622	300.000	11.8110	7.000	0.2756	3.200	0.1260	1.600	0.0630	0.41	1.66	2.47	1.62
	9.2500	384.175	15.1250	209.550	8.2500	209.550	8.2500	6.400	0.2520	1.600	0.0630	3 120	5 370	542		**H247549D/H247510**	1-P	262.000	10.3150	365.000	14.3701	342.000	13.4646	8.000	0.3150	6.400	0.2520	1.600	0.0630	0.33	2.03	3.02	1.98
241.300	9.5000	355.524	13.9970	109.525	4.3120	109.525	4.3120	SP	SP	SP	SP	1 190	2 050	224		**45T483611**	1	267.000	10.5118	336.000	13.2283	319.000	12.5591	6.000	0.2362	2.500	0.0984	2.000	0.0787	0.35	1.91	2.84	1.86
	9.5000	355.600	14.0000	92.710	3.6500	92.862	3.6560	3.200	0.1260	1.600	0.0630	1 090	1 850	203		**EE170951D/171400**	1	278.000	10.9449	343.000	13.5039	328.000	12.9134	10.000	0.3937	3.200	0.1260	1.600	0.0630	0.36	1.86	2.77	1.82
	9.5000	368.300	14.5000	92.710	3.6500	92.862	3.6560	3.200	0.1260	1.600	0.0630	1 090	1 850	203		**EE170951D/171450**	1	278.000	10.9449	355.000	13.9764	328.000	12.9134	10.000	0.3937	3.200	0.1260	1.600	0.0630	0.36	1.86	2.77	1.82
241.478	9.5070	349.148	13.7460	107.950	4.2500	107.950	4.2500	3.200	0.1260	1.600	0.0630	1 190	2 050	224		**EE127097D/127135**	1	268.000	10.5512	336.000	13.2283	320.000	12.5984	7.000	0.2756	3.200	0.1260	1.600	0.0630	0.35	1.91	2.84	1.86
244.475	9.6250	327.025	12.8750	92.075	3.6250	92.075	3.6250	3.200	0.1260	1.600	0.0630	985	1 890	203		**LM247748D/LM247710**	1	265.000	10.4331	314.000	12.3622	306.000	12.0472	7.000	0.2756	3.200	0.1260	1.600	0.0630	0.32	2.10	3.13	2.06
	9.6250	381.000	15.0000	146.050	5.7500	146.050	5.7500	4.800	0.1890	3.200	0.1260	1 690	2 930	306		**EE126096D/126150**	1	269.000	10.5906	365.000	14.3701	337.000	13.2677	5.000	0.1969	4.800	0.1890	3.200	0.1260	0.52	1.31	1.95	1.28
247.650	9.7500	400.050	15.7500	119.060	4.6874	114.300	4.5000	6.400	0.2520	1.600	0.0630	1 630	2 570	274		**EE220975D/221575**	1	292.000	11.4961	381.000	15.0000	360.000	14.1732	6.000	0.2362	6.400	0.2520	1.600	0.0630	0.39	1.71	2.54	1.67
	9.7500	406.400	16.0000	215.900	8.5000	219.075	8.6250	6.400	0.2520	3.200	0.1260	3 490	6 250	612		**HH249949D/HH249910**	1-P	279.000	10.9843	387.000	15.2362	362.000	14.2520	11.000	0.4331	6.400	0.2520	3.200	0.1260	0.33	2.03	3.02	1.98
254.000	10.0000	355.600	14.0000	92.710	3.6500	92.862	3.6560	3.200	0.1260	1.600	0.0630	1 090	1 850	203		**EE171000D/171400**	1	278.000	10.9449	343.000	13.5039	328.000	12.9134	10.000	0.3937	3.200	0.1260	1.600	0.0630	0.36	1.86	2.77	1.82
	10.0000	358.775	14.1250	130.175	5.1250	130.175	5.1250	3.200	0.1260	3.200	0.1260	1 660	3 170	333		**M249748D/M249710**	1	277.000	10.9055	346.000	13.6220	330.100	12.9961	8.000	0.3150	3.200	0.1260	3.200	0.1260	0.33	2.03	3.02	1.98
	10.0000	368.300	14.5000	92.710	3.6500	92.862	3.6560	3.200	0.1260	1.600	0.0630	1 090	1 850	203		**EE171000D/171450**	1	278.000	10.9449	355.000	13.9764	328.000	12.9134	10.000	0.3937	3.200	0.1260	1.600	0.0630	0.36	1.86	2.77	1.82
	10.0000	438.150	17.2500	165.100	6.5000	165.100	6.5000	6.400	0.2520	3.200	0.1260	2 960	4 370	454		**EE738101D/738172**	1	298.000	11.7323	410.000	16.1417	394.000	15.5118	12.000	0.4724	6.400	0.2520	3.200	0.1260	0.36	1.88	2.81	1.84
	10.0000	444.500	17.5000	133.350	5.2500	133.350	5.2500	6.400	0.2520	3.200	0.1260	1 850	2 770	294		**EE822101D/822175**	1	311.000	12.2441	425.000	16.7323	393.000	15.4724	7.000	0.2756	6.400	0.2520	3.200	0.1260	0.42	1.62	2.42	1.59
260.350	10.2500	365.125	14.3750	107.950	4.2500	107.950	4.2500	6.400	0.2520	3.200	0.1260	1 210	2 150	231		**EE134102D/134143**	1	283.000	11.1417	346.000	13.6220	334.700	13.1772	8.000	0.3150	6.400	0.2520	3.200	0.1260	0.37	1.80	2.69	1.76
	10.2500	400.050	15.7500	119.060	4.6874	114.300	4.5000	6.400	0.2520	6.400	0.2520	1 630	2 570	274		**EE221025D/221575**	1	292.000	11.4961	381.000	15.0000	360.000	14.1732	6.000	0.2362	6.400	0.2520	6.400	0.2520	0.39	1.71	2.54	1.67
	10.2500	419.100	16.5000	155.575	6.1250	158.750	6.2500	3.200	0.1260	3.200	0.1260	2 110	3 520	363		**EE435103D/435165**	1	286.000	11.2598	405.000	15.9449	369.000	14.5276	5.500	0.2165	3.200	0.1260	3.200	0.1260	0.60	1.12	1.66	1.09
	10.2500	422.275	16.6250	152.400	6.0000	139.700	5.5000	3.200	0.1260	3.600	0.1417	2 180	3 360	355		**HM252347D/HM252310**	1	306.000	12.0472	409.000	16.1024	385.000	15.1575	1.000	0.0394	3.200	0.1260	3.600	0.1417	0.33	2.03	3.02	1.98
	10.2500	422.275	16.6250	155.575	6.1250	152.400	6.0000	3.200	0.1260	6.400	0.2520	2 180	3 360	355		**HM252348D/HM252310**	1	304.000	11.9685	409.000	16.1024	385.000	15.1575	1.000	0.0394	3.200	0.1260	6.400	0.2520	0.33	2.03	3.02	1.98
	10.2500	431.724	16.9970	148.433	5.8438	152.400	6.0000	3.600	0.1417	6.400	0.2520	2 180	3 360	355		**HM252348D/HM252315**	1	304.000	11.9685	418.000	16.4567	385.000	15.1575	4.000	0.1575	3.600	0.1417	6.400	0.2520	0.33	2.03	3.02	1.98
266.700	10.5000	355.600	14.0000	107.950	4.2500	109.538	4.3125	3.200	0.1260	1.600	0.0630	1 300	2 550	267		**LM451349D/LM451310**	1	285.000	11.2205	343.000	13.5039	332.000	13.0709	8.000	0.3150	3.200	0.1260	1.600	0.0630	0.36	1.87	2.79	1.83
	10.5000	393.700	15.5000	130.175	5.1250	130.175	5.1250	6.400	0.2520	3.200	0.1260	1 590	3 090	325		**EE275106D/275155**	1	309.000	12.1654	374.000	14.7244	365.000	14.3701	5.000	0.1969	6.400	0.2520	3.200	0.1260	0.40	1.68	2.50	1.64

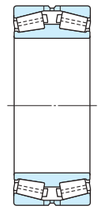
Note 1) SP indicates the specially chamfered from.

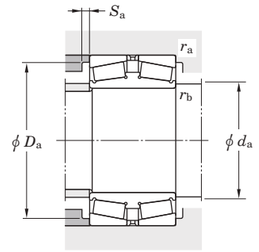
TDI type

d 269.875 ~ 355.600 mm
10.6250 ~ 14.0000 inch



Design 1


Design 1-P

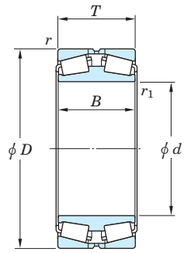


Boundary dimensions												Basic load ratings (kN)		Fatigue load limit (kN)		Bearing No.	Design	Mounting dimensions												Constant	Axial load factors		
d		D		B		T		$r^{1)}$ (min.)		$r_1{}^{1)}$ (min.)		C_r	C_{0r}	C_u				d_a (max.)		D_a (max.)		D_a (min.)		S_a (min.)		r_a (max.)		$r_b{}^{1)}$ (max.)		e	Y_2	Y_3	Y_0
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch							mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch				
269.875	10.6250	381.000	15.0000	136.525	5.3750	136.525	5.3750	3.200	0.1260	3.200	0.1260	1 840	3 350	349		**M252349D/M252310**	1	291.000	11.4567	368.000	14.4882	351.000	13.8189	6.000	0.2362	3.200	0.1260	3.200	0.1260	0.33	2.03	3.02	1.98
276.225	10.8750	393.700	15.5000	130.175	5.1250	130.175	5.1250	6.400	0.2520	1.600	0.0630	1 590	3 090	325		**EE275109D/275155**	1	309.000	12.1654	374.000	14.7244	365.000	14.3701	5.000	0.1969	6.400	0.2520	1.600	0.0630	0.40	1.68	2.50	1.64
	10.8750	406.400	16.0000	122.240	4.8126	130.175	5.1250	6.400	0.2520	1.600	0.0630	1 590	3 090	325		**EE275109D/275160**	1	309.000	12.1654	387.000	15.2362	366.000	14.4094	9.000	0.3543	6.400	0.2520	1.600	0.0630	0.40	1.68	2.50	1.64
279.400	11.0000	393.700	15.5000	127.000	5.0000	127.000	5.0000	6.400	0.2520	1.600	0.0630	1 510	2 780	287		**EE135111D/135155**	1	305.000	12.0079	374.000	14.7244	361.000	14.2126	9.000	0.3543	6.400	0.2520	1.600	0.0630	0.38	1.77	2.64	1.73
	11.0000	457.200	18.0000	244.475	9.6250	244.475	9.6250	6.400	0.2520	1.600	0.0630	4 150	7 540	713		**HH255149D/HH255110**	1	315.000	12.4016	438.000	17.2441	407.000	16.0236	11.000	0.4331	6.400	0.2520	1.600	0.0630	0.33	2.03	3.02	1.98
	11.0000	482.600	19.0000	177.800	7.0000	177.800	7.0000	4.800	0.1890	4.800	0.1890	2 660	3 980	399		**45T564818A**	1-P	309.000	12.1654	460.000	18.1102	424.000	16.6929	6.500	0.2559	4.800	0.1890	4.800	0.1890	0.80	0.85	1.26	0.83
279.578	11.0070	380.898	14.9960	117.475	4.6250	117.475	4.6250	3.200	0.1260	1.600	0.0630	1 420	2 820	286		**LM654644D/LM654610**	1	303.000	11.9291	368.000	14.4882	357.000	14.0551	7.000	0.2756	3.200	0.1260	1.600	0.0630	0.43	1.57	2.34	1.53
285.750	11.2500	380.898	14.9960	117.475	4.6250	117.475	4.6250	3.200	0.1260	1.600	0.0630	1 420	2 820	286		**LM654648D/LM654610**	1	303.000	11.9291	368.000	14.4882	357.000	14.0551	7.000	0.2756	3.200	0.1260	1.600	0.0630	0.43	1.57	2.34	1.53
288.925	11.3750	406.400	16.0000	144.463	5.6875	144.463	5.6875	3.200	0.1260	3.200	0.1260	2 160	4 420	445		**M255449D/M255410**	1	316.000	12.4409	394.000	15.5118	374.000	14.7244	8.000	0.3150	3.200	0.1260	3.200	0.1260	0.34	2.00	2.97	1.95
292.100	11.5000	422.275	16.6250	130.175	5.1250	130.175	5.1250	3.200	0.1260	6.400	0.2520	1 980	3 410	358		**EE330116D/330166**	1	321.000	12.6378	409.000	16.1024	388.000	15.2756	7.000	0.2756	3.200	0.1260	6.400	0.2520	0.32	2.11	3.14	2.06
299.974	11.8100	438.048	17.2460	133.350	5.2500	134.938	5.3125	4.800	0.1890	3.200	0.1260	1 690	3 230	325		**EE129119D/129172**	1	339.000	13.3465	422.000	16.6142	401.000	15.7874	7.000	0.2756	4.800	0.1890	3.200	0.1260	0.40	1.68	2.50	1.64
300.038	11.8125	422.275	16.6250	150.813	5.9375	150.813	5.9375	3.200	0.1260	3.200	0.1260	2 130	4 030	409		**HM256849D/HM256810**	1	324.000	12.7559	408.000	16.0630	389.000	15.3150	7.000	0.2756	3.200	0.1260	3.200	0.1260	0.34	2.00	2.98	1.96
303.213	11.9375	495.300	19.5000	263.525	10.3750	263.525	10.3750	6.400	0.2520	3.200	0.1260	5 020	9 340	858		**HH258249D/HH258210**	1-P	342.000	13.4646	475.000	18.7008	442.000	17.4016	8.000	0.3150	6.400	0.2520	3.200	0.1260	0.33	2.03	3.02	1.98
304.648	11.9940	438.048	17.2460	131.763	5.1875	131.763	5.1875	3.200	0.1260	3.200	0.1260	1 890	3 450	350		**EE329117D/329172**	1	337.000	13.2677	424.000	16.6929	400.000	15.7480	10.000	0.3937	3.200	0.1260	3.200	0.1260	0.33	2.04	3.04	2.00
304.800	12.0000	419.100	16.5000	130.175	5.1250	130.175	5.1250	6.400	0.2520	1.600	0.0630	1 770	3 480	350		**M257149D/M257110**	1	331.000	13.0315	399.000	15.7087	388.000	15.2756	7.000	0.2756	6.400	0.2520	1.600	0.0630	0.33	2.03	3.02	1.98
	12.0000	444.500	17.5000	111.125	4.3750	107.950	4.2500	1.600	0.0630	7.900	0.3110	1 550	2 760	288		**EE291200D/291750**	1	344.000	13.5433	434.000	17.0866	404.000	15.9055	11.000	0.4331	1.600	0.0630	7.900	0.3110	0.38	1.79	2.66	1.75
	12.0000	495.300	19.5000	171.450	6.7500	165.100	6.5000	6.400	0.2520	3.200	0.1260	2 740	4 680	461		**EE724121D/724195**	1	355.000	13.9764	475.000	18.7008	439.000	17.2835	6.000	0.2362	6.400	0.2520	3.200	0.1260	0.40	1.68	2.50	1.64
304.902	12.0040	412.648	16.2460	128.588	5.0625	128.588	5.0625	3.200	0.1260	3.200	0.1260	1 870	3 340	373		**M257248D/M257210**	1	330.000	12.9921	399.000	15.7087	386.000	15.1969	6.000	0.2362	3.200	0.1260	3.200	0.1260	0.32	2.12	3.15	2.07
305.003	12.0080	438.048	17.2460	133.350	5.2500	134.938	5.3125	4.800	0.1890	3.200	0.1260	1 690	3 230	325		**EE129123D/129172**	1	339.000	13.3465	421.000	16.5748	401.000	15.7874	7.000	0.2756	4.800	0.1890	3.200	0.1260	0.40	1.68	2.50	1.64
305.054	12.0100	499.948	19.6830	200.000	7.8740	200.000	7.8740	6.400	0.2520	3.200	0.1260	3 530	5 820	565		**HM858548D/HM858511**	1	343.000	13.5039	480.000	18.8976	447.000	17.5984	10.000	0.3937	6.400	0.2520	3.200	0.1260	0.49	1.36	2.03	1.33
317.500	12.5000	447.675	17.6250	158.750	6.2500	158.750	6.2500	3.300	0.1299	1.600	0.0630	2 400	4 770	465		**HM259049D/HM259010**	1	346.000	13.6220	434.000	17.0866	412.000	16.2205	10.000	0.3937	3.300	0.1299	1.600	0.0630	0.33	2.02	3.00	1.97
333.375	13.1250	469.900	18.5000	166.688	6.5625	166.688	6.5625	3.200	0.1260	3.200	0.1260	2 900	5 680	548		**HM261049D/HM261010**	1-P	360.000	14.1732	456.000	17.9528	433.000	17.0472	8.000	0.3150	3.200	0.1260	3.200	0.1260	0.33	2.02	3.00	1.97
342.900	13.5000	533.400	21.0000	139.690	5.4996	146.050	5.7500	3.200	0.1260	3.200	0.1260	2 350	3 580	362		**EE971355D/972100**	1	392.000	15.4331	520.000	20.4724	483.000	19.0157	8.000	0.3150	3.200	0.1260	3.200	0.1260	0.33	2.03	3.02	1.98
	13.5000	533.400	21.0000	146.050	5.7500	139.690	5.4996	6.400	0.2520	6.400	0.2520	2 770	4 550	453		**45T695315A**	1	393.000	15.4724	505.000	19.8819	484.000	19.0551	11.000	0.4331	6.400	0.2520	6.400	0.2520	0.33	2.03	3.02	1.98
343.052	13.5060	457.098	17.9960	120.650	4.7500	120.650	4.7500	SP	SP	SP	SP	1 780	3 470	340		**45T694612**	1	363.000	14.2913	438.000	17.2441	425.000	16.7323	7.000	0.2756	2.000	0.0787	0.800	0.0315	0.47	1.43	2.12	1.40
346.075	13.6250	488.950	19.2500	174.625	6.8750	174.625	6.8750	3.200	0.1260	3.200	0.1260	2 890	5 800	553		**HM262749D/HM262710**	1	378.000	14.8819	475.000	18.7008	450.000	17.7165	8.000	0.3150	3.200	0.1260	3.200	0.1260	0.33	2.02	3.00	1.97
347.663	13.6875	469.900	18.5000	138.113	5.4375	138.113	5.4375	3.200	0.1260	3.200	0.1260	2 240	4 520	439		**M262449D/M262410**	1	374.000	14.7244	456.000	17.9528	437.000	17.2047	9.000	0.3543	3.200	0.1260	3.200	0.1260	0.33	2.03	3.02	1.98
355.600	14.0000	444.500	17.5000	112.713	4.4375	114.300	4.5000	3.200	0.1260	1.600	0.0630	1 390	3 450	332		**L163149D/L163110**	1	377.000	14.8425	431.000	16.9685	418.000	16.4567	8.000	0.3150	3.200	0.1260	1.600	0.0630	0.31	2.20	3.27	2.15
	14.0000	482.600	19.0000	133.350	5.2500	128.588	5.0625	3.200	0.1260	1.600	0.0630	1 910	3 510	346		**LM763449D/LM763410**	1	381.000	15.0000	469.000	18.4646	451.000	17.7559	4.000	0.1575	3.200	0.1260	1.600	0.0630	0.47	1.43	2.14	1.40
	14.0000	501.650	19.7500	127.000	5.0000	111.125	4.3750	3.200	0.1260	3.200	0.1260	1 700	3 280	322		**EE231401D/231975**	1	405.000	15.9449	488.000	19.2126	466.000	18.3465	2.000	0.0787	3.200	0.1260	3.200	0.1260	0.44	1.53	2.28	1.50

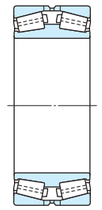
Note 1) SP indicates the specially chamfered from.

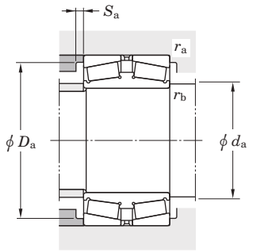
TDI type

d 368.300 ~ 536.575 mm
14.5000 ~ 21.1250 inch



Design 1


Design 1-P

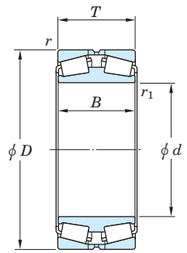


Boundary dimensions												Basic load ratings (kN)		Fatigue load limit (kN)		Bearing No.	Design	Mounting dimensions												Constant	Axial load factors		
d		D		B		T		$r^{1)}$ (min.)		$r_1{}^{1)}$ (min.)		C_r	C_{0r}	C_u				d_a (max.)		D_a (max.)		D_a (min.)		S_a (min.)		r_a (max.)		$r_b{}^{1)}$ (max.)		e	Y_2	Y_3	Y_0
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch							mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch				
368.300	14.5000	523.875	20.6250	185.738	7.3125	185.738	7.3125	6.400	0.2520	3.200	0.1260	3 420	6 780	644		**HM265049D/HM265010**	1-P	403.000	15.8661	500.000	19.6850	484.000	19.0551	7.000	0.2756	6.400	0.2520	3.200	0.1260	0.33	2.03	3.02	1.98
	14.5000	609.600	24.0000	254.000	10.0000	279.400	11.0000	6.400	0.2520	3.200	0.1260	5 420	9 060	813		**EE321146D/321240**	1	416.000	16.3780	585.000	23.0315	545.000	21.4567	7.000	0.2756	6.400	0.2520	3.200	0.1260	0.36	1.90	2.83	1.86
374.574	14.7470	546.100	21.5000	193.675	7.6250	193.675	7.6250	6.400	0.2520	3.200	0.1260	4 090	8 430	773		**HM266445D/HM266410**	1-P	418.000	16.4567	525.000	20.6693	505.000	19.8819	10.000	0.3937	6.400	0.2520	3.200	0.1260	0.33	2.03	3.02	1.98
384.175	15.1250	546.100	21.5000	193.675	7.6250	193.675	7.6250	6.400	0.2520	3.200	0.1260	4 090	8 430	773		**HM266449D/HM266410**	1-P	418.000	16.4567	525.000	20.6693	505.000	19.8819	10.000	0.3937	6.400	0.2520	3.200	0.1260	0.33	2.03	3.02	1.98
393.700	15.5000	546.100	21.5000	141.288	5.5625	120.650	4.7500	6.400	0.2520	3.200	0.1260	1 860	3 810	357		**EE234157D/234215**	1	437.000	17.2047	525.000	20.6693	497.600	19.5906	1.000	0.0394	6.400	0.2520	3.200	0.1260	0.48	1.42	2.11	1.39
	15.5000	546.100	21.5000	138.113	5.4375	138.113	5.4375	6.400	0.2520	1.600	0.0630	2 300	4 700	445		**LM767745D/LM767710**	1	435.000	17.1260	525.000	20.6693	510.000	20.0787	9.000	0.3543	6.400	0.2520	1.600	0.0630	0.48	1.42	2.11	1.39
400.000	15.7480	650.000	25.5906	250.000	9.8425	250.000	9.8425	SP	SP	SP	SP	5 860	9 790	868		**45T806525**	1-P	460.000	18.1102	620.000	24.4094	585.000	23.0315	13.000	0.5118	5.000	0.1969	5.000	0.1969	0.39	1.74	2.59	1.70
406.400	16.0000	546.100	21.5000	141.288	5.5625	120.650	4.7500	6.400	0.2520	1.600	0.0630	1 860	3 810	357		**EE234161D/234215**	1	437.000	17.2047	520.000	20.4724	497.600	19.5906	1.000	0.0394	6.400	0.2520	1.600	0.0630	0.48	1.42	2.11	1.39
	16.0000	546.100	21.5000	138.113	5.4375	138.113	5.4375	6.400	0.2520	1.600	0.0630	2 300	4 700	445		**LM767749D/LM767710**	1	435.000	17.1260	520.000	20.4724	510.000	20.0787	9.000	0.3543	6.400	0.2520	1.600	0.0630	0.48	1.42	2.11	1.39
415.925	16.3750	590.550	23.2500	209.550	8.2500	209.550	8.2500	6.400	0.2520	3.200	0.1260	4 240	8 930	803		**M268749D/M268710**	1-P	456.000	17.9528	565.000	22.2441	545.000	21.4567	9.000	0.3543	6.400	0.2520	3.200	0.1260	0.33	2.03	3.02	1.98
	16.3750	590.550	23.2500	209.550	8.2500	209.550	8.2500	6.400	0.2520	3.200	0.1260	4 590	9 070	818		**45T835921A**	1-P	451.000	17.7559	562.000	22.1260	548.000	21.5748	12.000	0.4724	6.400	0.2520	3.200	0.1260	0.33	2.03	3.02	1.98
419.227	16.5050	736.448	28.9940	406.400	16.0000	406.400	16.0000	6.400	0.2520	6.400	0.2520	10 900	19 000	1 540		**EE323166D/323290**	1-P	480.100	18.9016	710.000	27.9528	655.000	25.7874	9.000	0.3543	6.400	0.2520	6.400	0.2520	0.37	1.80	2.69	1.76
431.800	17.0000	635.000	25.0000	173.038	6.8125	173.038	6.8125	6.400	0.2520	6.400	0.2520	3 960	6 870	647		**EE931170D/931250**	1-P	482.000	18.9764	610.000	24.0157	585.000	23.0315	8.000	0.3150	6.400	0.2520	6.400	0.2520	0.32	2.10	3.13	2.06
431.902	17.0040	685.698	26.9960	254.000	10.0000	253.873	9.9950	6.400	0.2520	3.200	0.1260	6 420	11 600	1 000		**EE328172D/328269**	1-P	484.000	19.0551	660.000	25.9843	620.000	24.4094	11.000	0.4331	6.400	0.2520	3.200	0.1260	0.40	1.68	2.50	1.64
432.003	17.0080	609.524	23.9970	152.400	6.0000	152.400	6.0000	6.400	0.2520	3.600	0.1417	3 260	6 060	567		**EE736173D/736238**	1	473.000	18.6220	585.000	23.0315	565.000	22.2441	8.000	0.3150	6.400	0.2520	3.600	0.1417	0.35	1.95	2.90	1.91
447.675	17.6250	635.000	25.0000	223.838	8.8125	223.838	8.8125	6.400	0.2520	3.200	0.1260	4 920	10 500	917		**M270748D/M270710**	1-P	491.000	19.3307	610.000	24.0157	585.000	23.0315	8.000	0.3150	6.400	0.2520	3.200	0.1260	0.33	2.03	3.02	1.98
	17.6250	635.000	25.0000	223.838	8.8125	223.838	8.8125	6.400	0.2520	3.200	0.1260	4 920	10 500	917		**M270749D/M270710**	1-P	491.000	19.3307	610.000	24.0157	585.000	23.0315	8.000	0.3150	6.400	0.2520	3.200	0.1260	0.33	2.03	3.02	1.98
457.200	18.0000	596.900	23.5000	133.350	5.2500	130.175	5.1250	3.200	0.1260	1.600	0.0630	2 410	5 230	486		**EE244181D/244235**	1	488.000	19.2126	580.000	22.8346	555.000	21.8504	7.000	0.2756	3.200	0.1260	1.600	0.0630	0.40	1.67	2.48	1.63
	18.0000	596.900	23.5000	136.525	5.3750	133.350	5.2500	3.200	0.1260	1.600	0.0630	2 420	5 110	476		**L770849D/L770810**	1	488.000	19.2126	580.000	22.8346	560.000	22.0472	7.000	0.2756	3.200	0.1260	1.600	0.0630	0.47	1.43	2.12	1.40
	18.0000	660.400	26.0000	155.572	6.1249	155.575	6.1250	6.400	0.2520	3.200	0.1260	2 900	5 260	482		**EE737179D/737260**	1	500.000	19.6850	635.000	25.0000	600.000	23.6220	7.000	0.2756	6.400	0.2520	3.200	0.1260	0.37	1.80	2.69	1.76
479.425	18.8750	679.450	26.7500	238.125	9.3750	238.125	9.3750	6.400	0.2520	3.200	0.1260	5 200	10 800	924		**57567**	1	520.000	20.4724	655.000	25.7874	630.000	24.8031	7.000	0.2756	6.400	0.2520	3.200	0.1260	0.33	2.03	3.02	1.98
	18.8750	679.450	26.7500	238.125	9.3750	238.125	9.3750	6.400	0.2520	3.200	0.1260	5 310	11 100	952		**M272749D/M272710**	1-P	520.000	20.4724	655.000	25.7874	630.000	24.8031	7.000	0.2756	6.400	0.2520	3.200	0.1260	0.33	2.03	3.02	1.98
	18.8750	679.450	26.7500	238.125	9.3750	238.125	9.3750	6.400	0.2520	4.600	0.1811	5 740	11 600	1 000		**45T966824**	1-P	522.000	20.5512	651.000	25.6299	629.000	24.7638	12.500	0.4921	6.400	0.2520	SP	SP	0.33	2.03	3.02	1.98
482.600	19.0000	615.950	24.2500	158.750	6.2500	158.750	6.2500	6.400	0.2520	3.200	0.1260	3 040	7 110	639		**LM272249D/LM272210**	1	510.000	20.0787	590.000	23.2283	585.000	23.0315	8.000	0.3150	6.400	0.2520	3.200	0.1260	0.33	2.03	3.02	1.98
489.026	19.2530	634.873	24.9950	153.988	6.0625	153.988	6.0625	3.200	0.1260	3.200	0.1260	3 090	6 840	613		**LM772749D/LM772710**	1	510.000	20.0787	620.000	24.4094	595.000	23.4252	9.000	0.3543	3.200	0.1260	3.200	0.1260	0.47	1.43	2.12	1.40
501.650	19.7500	711.200	28.0000	250.825	9.8750	250.825	9.8750	6.400	0.2520	3.200	0.1260	5 890	12 400	1 040		**2TR502**	1	515.000	20.2756	683.000	26.8898	656.000	25.8268	10.000	0.3937	6.400	0.2520	3.200	0.1260	0.33	2.03	3.02	1.98
	19.7500	711.200	28.0000	250.825	9.8750	250.825	9.8750	6.400	0.2520	3.200	0.1260	6 150	12 800	1 100		**M274149D/M274110**	1-P	545.000	21.4567	685.000	26.9685	655.000	25.7874	10.000	0.3937	6.400	0.2520	3.200	0.1260	0.33	2.03	3.02	1.98
508.000	20.0000	762.000	30.0000	219.075	8.6250	219.075	8.6250	6.400	0.2520	6.400	0.2520	5 690	9 970	888		**EE531201D/531300**	1-P	560.000	22.0472	740.000	29.1339	695.000	27.3622	11.000	0.4331	6.400	0.2520	6.400	0.2520	0.38	1.78	2.65	1.74
	20.0000	838.200	33.0000	266.700	10.5000	266.700	10.5000	9.500	0.3740	6.400	0.2520	7 160	11 700	1 000		**EE426201D/426330**	1-P	580.000	22.8346	810.000	31.8898	755.000	29.7244	7.000	0.2756	9.500	0.3740	6.400	0.2520	0.48	1.41	2.10	1.38
519.113	20.4375	736.600	29.0000	258.763	10.1875	258.763	10.1875	6.400	0.2520	3.200	0.1260	6 630	13 600	1 140		**M275349D/M275310**	1-P	560.000	22.0472	710.000	27.9528	680.000	26.7717	10.000	0.3937	6.400	0.2520	3.200	0.1260	0.33	2.03	3.02	1.98
536.575	21.1250	761.873	29.9950	269.875	10.6250	269.875	10.6250	6.400	0.2520	3.200	0.1260	7 050	14 400	1 190		**M276449D/M276410**	1-P	575.000	22.6378	740.000	29.1339	700.000	27.5591	9.000	0.3543	6.400	0.2520	3.200	0.1260	0.33	2.03	3.02	1.98
	21.1250	761.873	29.9950	269.875	10.6250	269.875	10.6250	6.400	0.2520	3.200	0.1260	6 520	1 300	1 090		**2TR537**	1-P	578.000	22.7559	733.000	28.8583	700.000	27.5591	1.500	0.0591	6.400	0.2520	3.200	0.1260	0.33	2.03	3.02	1.98

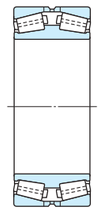
Note 1) SP indicates the specially chamfered from.

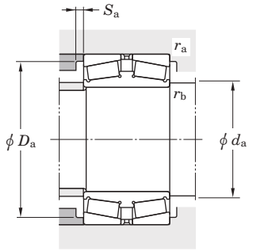
TDI type

d 555.625 ~ 939.800 mm
21.8750 ~ 37.0000 inch



Design 1


Design 1-P



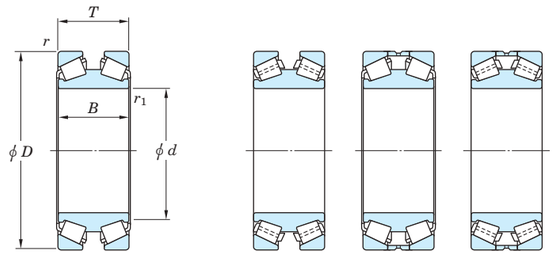
Boundary dimensions												Basic load ratings (kN)		Fatigue load limit (kN)		Bearing No.	Design	Mounting dimensions										Constant	Axial load factors		
d		D		B		T		$r^{1)}$ (min.)		$r_1{}^{1)}$ (min.)		C_r	C_{0r}	C_u				d_a (max.)		D_a (max.)		D_a (min.)		S_a (min.)		r_a (max.)		$r_b{}^{1)}$ (max.)		e	Y_2	Y_3	Y_0
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch							mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch				
555.625	21.8750	698.500	27.5000	165.100	6.5000	165.100	6.5000	6.400	0.2520	3.200	0.1260	3 580	8 510	737		**2TR555**	1-P	569.000	22.4016	670.000	26.3780	662.000	26.0630	10.000	0.3937	6.400	0.2520	3.200	0.1260	0.33	2.03	3.02	1.98
558.800	22.0000	736.600	29.0000	196.850	7.7500	196.850	7.7500	6.400	0.2520	3.200	0.1260	4 500	9 870	854		**LM377449D/LM377410**	1-P	595.000	23.4252	710.000	27.9528	690.000	27.1654	9.000	0.3543	6.400	0.2520	3.200	0.1260	0.35	1.95	2.90	1.91
	22.0000	736.600	29.0000	196.850	7.7500	196.850	7.7500	6.400	0.2520	3.200	0.1260	4 800	10 800	923		**2TR559J**	1-P	595.000	23.4252	708.000	27.8740	689.000	27.1260	10.500	0.4134	6.400	0.2520	3.200	0.1260	0.35	1.95	2.90	1.91
571.500	22.5000	812.800	32.0000	285.750	11.2500	285.750	11.2500	6.400	0.2520	3.200	0.1260	8 150	17 500	1 400		**M278749D/M278710**	1-P	620.000	24.4094	790.000	31.1024	750.000	29.5276	11.000	0.4331	6.400	0.2520	3.200	0.1260	0.33	2.03	3.02	1.98
	22.5000	812.800	32.0000	285.750	11.2500	285.750	11.2500	6.400	0.2520	3.200	0.1260	7 190	16 300	1 300		**2TR572C**	1	629.000	24.7638	784.000	30.8661	743.000	29.2520	6.500	0.2559	6.400	0.2520	3.200	0.1260	0.33	2.03	3.02	1.98
595.313	23.4375	844.550	33.2500	296.863	11.6875	296.863	11.6875	6.400	0.2520	3.200	0.1260	8 500	18 500	1 460		**M280049D/M280010**	1-P	650.000	25.5906	820.000	32.2835	785.000	30.9055	7.000	0.2756	6.400	0.2520	3.200	0.1260	0.33	2.03	3.02	1.98
609.600	24.0000	787.400	31.0000	171.450	6.7500	171.450	6.7500	6.400	0.2520	3.200	0.1260	4 260	9 940	840		**EE649241D/649310**	1-P	645.000	25.3937	760.000	29.9213	740.000	29.1339	12.000	0.4724	6.400	0.2520	3.200	0.1260	0.37	1.82	2.70	1.78
635.000	25.0000	901.700	35.5000	317.500	12.5000	317.500	12.5000	6.400	0.2520	3.200	0.1260	9 370	19 900	1 540		**M281049D/M281010**	1-P	690.000	27.1654	870.000	34.2520	840.000	33.0709	7.000	0.2756	6.400	0.2520	3.200	0.1260	0.33	2.03	3.02	1.98
	25.0000	939.800	37.0000	304.800	12.0000	304.800	12.0000	6.500	0.2559	4.000	0.1575	9 890	19 800	1 540		**2TR635D**	1-P	653.000	25.7087	911.000	35.8661	863.000	33.9764	16.000	0.6299	5.000	0.1969	3.000	0.1181	0.33	2.03	3.02	1.98
	25.0000	939.800	37.0000	304.800	12.0000	304.800	12.0000	6.500	0.2559	4.000	0.1575	9 890	19 800	1 540		**2TR635D**	1-P	710.000	27.9528	911.000	35.8661	863.000	33.9764	15.500	0.6102	6.500	0.2559	4.000	0.1575	0.33	2.03	3.02	1.98
682.625	26.8750	965.200	38.0000	338.138	13.3125	338.138	13.3125	6.400	0.2520	3.200	0.1260	11 500	25 400	1 910		**2TR683**	1-P	744.000	29.2913	937.000	36.8898	894.000	35.1969	15.500	0.6102	6.400	0.2520	3.200	0.1260	0.33	2.03	3.02	1.98
685.800	27.0000	876.300	34.5000	171.450	6.7500	168.275	6.6250	6.400	0.2520	3.200	0.1260	4 400	10 800	880		**EE655271D/655345**	1-P	730.000	28.7402	850.000	33.4646	830.000	32.6772	9.000	0.3543	6.400	0.2520	3.200	0.1260	0.42	1.62	2.42	1.59
711.200	28.0000	914.400	36.0000	149.225	5.8750	149.225	5.8750	6.400	0.2520	3.200	0.1260	3 780	8 930	747		**EE755281D/755360**	1-P	770.000	30.3150	890.000	35.0394	870.000	34.2520	8.000	0.3150	6.400	0.2520	3.200	0.1260	0.38	1.78	2.65	1.74
714.375	28.1250	1 016.000	40.0000	339.725	13.3750	339.725	13.3750	6.400	0.2520	3.200	0.1260	12 200	26 100	1 940		**M383240D/M383210**	1-P	775.000	30.5118	990.000	38.9764	940.000	37.0079	14.000	0.5512	6.400	0.2520	3.200	0.1260	0.35	1.92	2.86	1.88
730.250	28.7500	1 035.050	40.7500	365.125	14.3750	365.125	14.3750	6.400	0.2520	3.200	0.1260	12 300	27 100	2 000		**M283449D/M283410**	1-P	790.000	31.1024	1 010.000	39.7638	960.000	37.7953	10.000	0.3937	6.400	0.2520	3.200	0.1260	0.33	2.03	3.02	1.98
749.300	29.5000	990.600	39.0000	293.000	11.5354	293.000	11.5354	6.400	0.2520	3.200	0.1260	9 820	23 900	1 780		**LM283649D/LM283610**	1-P	800.000	31.4961	960.000	37.7953	930.000	36.6142	12.000	0.4724	6.400	0.2520	3.200	0.1260	0.32	2.12	3.15	2.07
762.000	30.0000	1 079.500	42.5000	381.000	15.0000	381.000	15.0000	12.700	0.5000	4.800	0.1890	13 900	31 300	2 270		**M284249D/M284210**	1-P	830.000	32.6772	1 040.000	40.9449	1 000.000	39.3701	11.000	0.4331	12.700	0.5000	4.800	0.1890	0.33	2.03	3.02	1.98
825.500	32.5000	1 168.400	46.0000	409.575	16.1250	409.575	16.1250	12.700	0.5000	4.800	0.1890	16 300	36 200	2 550		**M285848D/M285810**	1-P	890.000	35.0394	1 130.000	44.4882	1 090.000	42.9134	15.000	0.5906	12.700	0.5000	4.800	0.1890	0.33	2.03	3.02	1.98
863.600	34.0000	1 130.300	44.5000	323.850	12.7500	323.850	12.7500	12.700	0.5000	4.800	0.1890	12 000	29 800	2 130		**LM286249D/LM286210**	1-P	920.000	36.2205	1 090.000	42.9134	1 070.000	42.1260	15.000	0.5906	12.700	0.5000	4.800	0.1890	0.32	2.08	3.10	2.04
	34.0000	1 219.200	48.0000	438.150	17.2500	425.450	16.7500	12.700	0.5000	4.800	0.1890	17 900	42 300	2 910		**EE547341D/547480**	1-P	940.000	37.0079	1 180.000	46.4567	1 130.000	44.4882	9.000	0.3543	12.700	0.5000	4.800	0.1890	0.33	2.03	3.02	1.98
939.800	37.0000	1 333.500	52.5000	463.550	18.2500	463.550	18.2500	12.700	0.5000	4.800	0.1890	21 000	47 700	3 210		**LM287849D/LM287810**	1-P	1 020.000	40.1575	1 290.000	50.7874	1 240.000	48.8189	15.000	0.5906	12.700	0.5000	4.800	0.1890	0.33	2.03	3.02	1.98

Note 1) SP indicates the specially chamfered from.

TDIS type

d 228.600 ~ 685.800 mm

9.0000 ~ 27.0000 inch

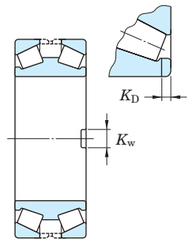


Design 1

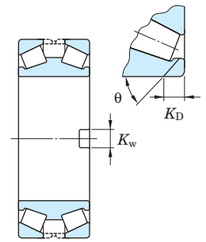
Design 1-P

Design 2

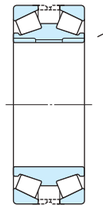
Design 2-P



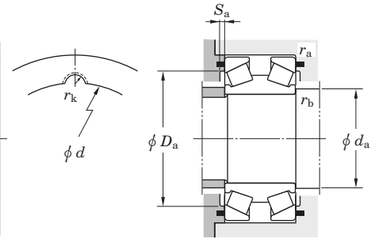
Face key way : A



Face key way : B



Bore key way : C

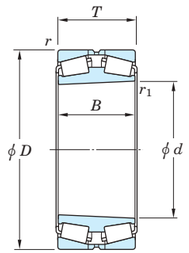


Boundary dimensions						Radial			Axial			Bearing No.	De-sign		Mounting dimensions						Face key way					Bore key way	Con-stant	Axial load factors		
						Basic load ratings (kN)		Fatigue load limit (kN)	Basic load ratings (kN)		Fatigue load limit (kN)				d_a (max.)	D_a (max.)	D_a (min.)	S_a (min.)	r_a (max.)	r_b (max.)	Type	K_w	K_D	θ	qty×Position	R_k				
d	D	B	T	$r^{1)}$ (min.)	$r_1{}^{1)}$ (min.)	C_r	C_{0r}	C_u	C_r	C_{0r}	C_u				mm inch	mm inch	mm inch	mm inch	mm inch	mm inch		mm inch	mm inch	deg		mm inch	e	Y_2	Y_3	Y_0
228.600 9.0000	431.800 17.0000	177.800 7.0000	177.800 7.0000	6.000 0.2362	SP SP	2 440	3 400	348	2 140	4 530	467	**45T464318A-1**	2-P		259.000 10.1969	377.000 14.8425	342.000 13.4646	8.500 0.3346	5.000 0.1969	5.000 0.1969	A	35 1.3780	15 0.5906	— —	1×2	— —	0.88	0.76	1.14	0.75
260.350 10.2500	419.100 16.5000	155.575 6.1250	158.750 6.2500	3.200 0.1260	3.200 0.1260	2 210	3 710	378	1 320	3 370	344	**45T524216**	2		291.000 11.4567	374.000 14.7244	349.000 13.7402	7.500 0.2953	3.000 0.1181	3.000 0.1181	B	40.2 1.5827	18 0.7087	45 45	1×2	— —	0.60	1.12	1.67	1.10
273.050 10.7500	393.700 15.5000	130.175 5.1250	130.175 5.1250	6.400 0.2520	1.600 0.0630	1 480	2 760	281	1 030	2 930	298	**45T553913**	2		292.000 11.4961	359.000 14.1339	337.000 13.2677	7.500 0.2953	5.000 0.1969	1.500 0.0591	—	—	—	—	—	—	0.70	0.97	1.44	0.94
279.400 11.0000	482.600 19.0000	177.800 7.0000	177.800 7.0000	4.800 0.1890	4.800 0.1890	2 660	3 980	399	2 110	4 800	482	**45T564818B**	1-P		310.000 12.2047	424.000 16.6929	392.000 15.4331	6.500 0.2559	4.000 0.1575	4.000 0.1575	A	40 1.5748	12 0.4724	— —	1×2	— —	0.80	0.85	1.26	0.83
365.600 14.3937	514.350 20.2500	140.000 5.5118	140.000 5.5118	4.000 0.1575	SP SP	1 740	3 730	348	1 500	4 910	456	**45T735114A**	1		394.000 15.5118	457.000 17.9921	428.000 16.8504	5.500 0.2165	3.000 0.1181	2.500 0.0984	B	40 1.5748	20 0.7874	45 45	2×2	— —	0.87	0.78	1.16	0.76
374.650 14.7500	501.650 19.7500	120.650 4.7500	130.175 5.1250	6.000 0.2362	3.300 0.1299	1 590	3 160	303	1 370	4 160	397	**45T755013A**	1		399.000 15.7087	463.000 18.2283	436.000 17.1654	2.500 0.0984	5.000 0.1969	3.000 0.1181	B	50 1.9685	10 0.3937	— —	1×2	— —	0.87	0.78	1.16	0.76
406.400 16.0000	546.100 21.5000	138.112 5.4375	138.112 5.4375	6.400 0.2520	SP SP	1 870	3 920	368	1 610	5 160	482	**45T815514**	1		436.000 17.1654	502.000 19.7638	474.000 18.6614	5.000 0.1969	5.000 0.1969	3.000 0.1181	A	50 1.9685	11 0.4331	— —	1×2	— —	0.87	0.78	1.16	0.76
482.600 19.0000	733.501 28.8780	200.025 7.8750	200.000 7.8740	6.400 0.2520	6.400 0.2520	3 690	7 100	611	4 000	11 600	1 010	**45T977320C**	1-P		513.000 20.1969	651.000 25.6299	603.000 23.7402	5.000 0.1969	5.000 0.1969	5.000 0.1969	B+C	50.8 2.0000	38.1 1.5000	45 45	2×2	8.05 0.3169	1.09	0.62	0.92	0.61
482.600 19.0000	733.501 28.8780	200.025 7.8750	200.000 7.8740	17.500 0.6890	6.400 0.2520	3 690	7 100	611	4 000	11 600	1 010	**45T977320D**	1-P		513.000 20.1969	651.000 25.6299	603.000 23.7402	5.000 0.1969	10.000 0.3937	5.000 0.1969	A	50.8 2.0000	19.05 0.7500	— —	2×2	— —	1.09	0.62	0.92	0.61
482.600 19.0000	733.501 28.8780	200.025 7.8750	200.000 7.8740	17.500 0.6890	6.400 0.2520	3 690	7 100	611	4 000	11 600	1 010	**45T977320J**	1-P		513.000 20.1969	651.000 25.6299	603.000 23.7402	5.000 0.1969	10.000 0.3937	5.000 0.1969	A	50.8 2.0000	19.05 0.7500	— —	1×2	— —	1.09	0.62	0.92	0.61
509.998 20.0787	733.500 28.8780	200.020 7.8748	200.020 7.8748	5.000 0.1969	6.000 0.2362	4 030	8 000	696	3 270	9 880	859	**2TR510L-1**	1-P		560.000 22.0472	667.000 26.2598	630.000 24.8031	3.500 0.1378	4.000 0.1575	5.000 0.1969	B	50.8 2.0000	38.1 1.5000	45 45	2×2	— —	0.81	0.83	1.23	0.81
660.000 25.9843	814.000 32.0472	176.212 6.9375	176.212 6.9375	6.400 0.2520	SP SP	3 280	8 780	709	2 280	9 340	752	**2TR660C**	1		686.000 27.0079	766.000 30.1575	735.000 28.9370	5.000 0.1969	5.000 0.1969	2.500 0.0984	B	50 1.9685	20 0.7874	45 45	1×2	— —	0.70	0.97	1.44	0.94
685.800 27.0000	939.800 37.0000	235.000 9.2520	228.600 9.0000	SP SP	SP SP	6 160	12 800	1 030	4 690	14 900	1 190	**2TR686A**	1-P		730.000 28.7402	868.000 34.1732	827.000 32.5591	8.500 0.3346	1.000 0.0394	3.000 0.1181	B	63.6 2.5039	38.5 1.5157	45 45	1×2	— —	0.76	0.88	1.31	0.86
685.800 27.0000	939.800 37.0000	234.950 9.2500	227.810 8.9689	6.400 0.2520	SP SP	5 500	13 000	1 020	4 740	17 200	1 340	**2TR686C**	1-P		745.000 29.3307	865.000 34.0551	819.000 32.2441	6.500 0.2559	5.000 0.1969	3.000 0.1181	B	80 3.1496	38.1 1.5000	45 45	2×2	— —	0.87	0.78	1.16	0.76

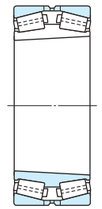
Note 1) SP indicates the specially chamfered from.

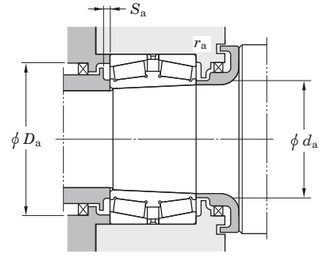
TDIT type

d 127.000 ~ 406.400 mm
5.0000 ~ 16.0000 inch



Design 1

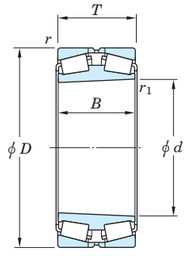

Design 1-P



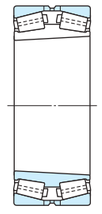
Boundary dimensions												Basic load ratings (kN)		Fatigue load limit (kN)		Bearing No.	De-sign	Mounting dimensions												Con-stant	Axial load factors		
d		D		B		T		r (min.)		r_1 (min.)								d_a (max.)		D_a (max.)		D_a (min.)		S_a (min.)		r_a (max.)		r_b (max.)					
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	C_r	C_{0r}	C_u				mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	e	Y_2	Y_3	Y_0
127.000	5.0000	182.563	7.1875	76.200	3.0000	76.200	3.0000	3.200	0.1260	1.600	0.0630	487	858	120		**48290TD/48220**	1	141.000	5.5512	171.000	6.7323	166.000	6.5354	3.800	0.1496	3.200	0.1260	1.600	0.0630	0.31	2.21	3.29	2.16
133.350	5.2500	196.850	7.7500	92.075	3.6250	92.075	3.6250	3.200	0.1260	1.600	0.0630	669	1 120	137		**67390TD/67322**	1	146.000	5.7480	185.000	7.2835	180.000	7.0866	5.000	0.1969	3.200	0.1260	1.600	0.0630	0.34	1.96	2.92	1.92
136.525	5.3750	215.900	8.5000	123.825	4.8750	123.825	4.8750	3.200	0.1260	1.600	0.0630	691	1 100	132		**74539TD/74850**	1	154.000	6.0630	204.000	8.0315	193.000	7.5984	5.000	0.1969	3.200	0.1260	1.600	0.0630	0.49	1.38	2.06	1.35
142.875	5.6250	200.025	7.8750	74.613	2.9375	77.788	3.0625	3.300	0.1299	0.800	0.0315	527	982	133		**48685TD/48620**	1	156.000	6.1417	188.000	7.4016	182.000	7.1654	4.000	0.1575	3.300	0.1299	0.800	0.0315	0.34	2.01	2.99	1.96
147.638	5.8125	241.300	9.5000	132.334	5.2100	133.351	5.2500	3.200	0.1260	1.600	0.0630	904	1 460	171		**82581TD/82950**	1	166.000	6.5354	229.000	9.0157	211.000	8.3071	7.000	0.2756	3.200	0.1260	1.600	0.0630	0.44	1.53	2.27	1.49
152.400	6.0000	254.000	10.0000	120.650	4.7500	120.650	4.7500	3.200	0.1260	1.600	0.0630	1 180	1 830	215		**99600TD/99100**	1	172.000	6.7717	242.000	9.5276	223.000	8.7795	8.000	0.3150	3.200	0.1260	1.600	0.0630	0.41	1.66	2.47	1.62
165.100	6.5000	269.875	10.6250	146.050	5.7500	146.050	5.7500	3.200	0.1260	1.600	0.0630	1 430	2 220	252		**H234649TD/H234610**	1	187.000	7.3622	258.000	10.1575	243.000	9.5669	5.000	0.1969	3.200	0.1260	1.600	0.0630	0.33	2.03	3.02	1.98
180.975	7.1250	288.925	11.3750	158.750	6.2500	158.750	6.2500	3.200	0.1260	1.600	0.0630	1 180	1 920	216		**94713TD/94113**	1	201.000	7.9134	277.000	10.9055	255.000	10.0394	8.000	0.3150	3.200	0.1260	1.600	0.0630	0.47	1.44	2.15	1.41
	7.1250	288.925	11.3750	158.750	6.2500	158.750	6.2500	3.200	0.1260	1.600	0.0630	1 430	1 950	245		**HM237549TD/HM237510**	1	201.000	7.9134	277.000	10.9055	260.000	10.2362	8.000	0.3150	3.200	0.1260	1.600	0.0630	0.32	2.12	3.15	2.07
190.500	7.5000	365.049	14.3720	152.400	6.0000	158.750	6.2500	3.200	0.1260	3.200	0.1260	2 020	2 920	319		**EE420750TD/421437**	1	239.000	9.4094	353.000	13.8976	317.000	12.4803	6.000	0.2362	3.200	0.1260	3.200	0.1260	0.40	1.68	2.50	1.64
198.438	7.8125	282.575	11.1250	87.313	3.4375	87.313	3.4375	3.200	0.1260	0.800	0.0315	749	1 410	155		**67980TD/67920**	1	220.000	8.6614	271.000	10.6693	259.000	10.1969	7.000	0.2756	3.200	0.1260	0.800	0.0315	0.51	1.33	1.97	1.30
209.550	8.2500	317.500	12.5000	184.150	7.2500	184.150	7.2500	3.200	0.1260	1.600	0.0630	1 300	2 270	244		**93826TD/93125**	1	223.000	8.7795	306.000	12.0472	278.000	10.9449	7.000	0.2756	3.200	0.1260	1.600	0.0630	0.52	1.29	1.92	1.26
219.075	8.6250	358.775	14.1250	200.025	7.8750	196.850	7.7500	6.400	0.2520	1.600	0.0630	2 660	4 580	469		**H244848TD/H244810**	1	245.000	9.6457	340.000	13.3858	319.000	12.5591	9.000	0.3543	6.400	0.2520	1.600	0.0630	0.33	2.03	3.02	1.98
222.250	8.7500	355.600	14.0000	130.175	5.1250	127.000	5.0000	3.200	0.1260	1.600	0.0630	1 410	2 630	278		**96876TD/96140**	1	253.000	9.9606	343.000	13.5039	312.000	12.2835	8.000	0.3150	3.200	0.1260	1.600	0.0630	0.59	1.14	1.70	1.12
252.413	9.9375	358.775	14.1250	139.700	5.5000	130.175	5.1250	3.200	0.1260	1.600	0.0630	1 660	3 170	333		**M249746TD/M249710**	1	275.000	10.8268	346.000	13.6220	330.000	12.9921	8.000	0.3150	3.200	0.1260	1.600	0.0630	0.33	2.03	3.02	1.98
263.525	10.3750	400.050	15.7500	192.088	7.5625	196.848	7.7499	6.400	0.2520	1.600	0.0630	1 630	2 570	274		**EE221039TD/221575**	1	292.000	11.4961	381.000	15.0000	359.000	14.1339	6.000	0.2362	6.400	0.2520	1.600	0.0630	0.39	1.71	2.54	1.67
266.700	10.5000	355.600	14.0000	109.538	4.3125	107.950	4.2500	3.200	0.1260	1.600	0.0630	1 300	2 550	267		**LM451349TD/LM451310**	1	285.000	11.2205	343.000	13.5039	332.000	13.0709	8.000	0.3150	3.200	0.1260	1.600	0.0630	0.36	1.87	2.79	1.83
280.000	11.0236	406.400	16.0000	206.375	8.1250	206.375	8.1250	3.200	0.1260	3.200	0.1260	1 650	2 950	307		**EE128113TD/128160**	1	308.000	12.1260	394.000	15.5118	368.000	14.4882	7.000	0.2756	3.200	0.1260	3.200	0.1260	0.39	1.75	2.61	1.71
288.925	11.3750	406.400	16.0000	144.463	5.6875	144.463	5.6875	3.200	0.1260	3.200	0.1260	2 160	4 420	445		**M255449TD/M255410**	1	316.000	12.4409	394.000	15.5118	373.000	14.6850	8.000	0.3150	3.200	0.1260	3.200	0.1260	0.34	2.00	2.97	1.95
303.213	11.9375	495.300	19.5000	263.525	10.3750	263.525	10.3750	6.400	0.2520	3.200	0.1260	5 020	9 340	858		**HH258249TD/HH258210**	1-P	342.000	13.4646	476.000	18.7402	441.000	17.3622	8.000	0.3150	6.400	0.2520	3.200	0.1260	0.33	2.03	3.02	1.98
333.375	13.1250	469.900	18.5000	166.688	6.5625	166.688	6.5625	3.200	0.1260	3.200	0.1260	2 900	5 680	548		**HM261049TD/HM261010**	1-P	360.000	14.1732	456.000	17.9528	432.000	17.0079	8.000	0.3150	3.200	0.1260	3.200	0.1260	0.33	2.02	3.00	1.97
	13.1250	523.875	20.6250	185.738	7.3125	185.738	7.3125	6.400	0.2520	3.200	0.1260	3 420	6 780	644		**HM265032TD/HM265010**	1-P	403.000	15.8661	500.000	19.6850	483.000	19.0157	7.000	0.2756	6.400	0.2520	3.200	0.1260	0.33	2.03	3.02	1.98
344.091	13.5469	488.950	19.2500	184.150	7.2500	174.625	6.8750	3.200	0.1260	3.200	0.1260	2 890	5 800	553		**HM262746TD/HM262710**	1	376.000	14.8031	475.000	18.7008	450.000	17.7165	8.000	0.3150	3.200	0.1260	3.200	0.1260	0.33	2.02	3.00	1.97
346.075	13.6250	488.950	19.2500	174.625	6.8750	174.625	6.8750	3.200	0.1260	3.200	0.1260	2 890	5 800	553		**HM262749TD/HM262710**	1	378.000	14.8819	475.000	18.7008	450.000	17.7165	8.000	0.3150	3.200	0.1260	3.200	0.1260	0.33	2.02	3.00	1.97
368.300	14.5000	523.875	20.6250	185.738	7.3125	185.738	7.3125	6.400	0.2520	3.200	0.1260	3 420	6 780	644		**HM265049TD/HM265010**	1-P	403.000	15.8661	500.000	19.6850	483.000	19.0157	7.000	0.2756	6.400	0.2520	3.200	0.1260	0.33	2.03	3.02	1.98
384.175	15.1250	546.100	21.5000	193.675	7.6250	193.675	7.6250	6.400	0.2520	3.200	0.1260	4 090	8 430	773		**HM266449TD/HM266410**	1-P	418.000	16.4567	525.000	20.6693	505.000	19.8819	10.000	0.3937	6.400	0.2520	3.200	0.1260	0.33	2.03	3.02	1.98
406.400	16.0000	590.550	23.2500	209.550	8.2500	209.550	8.2500	6.400	0.2520	3.200	0.1260	4 240	8 930	803		**M268743TD/M268710**	1-P	456.000	17.9528	570.000	22.4409	545.000	21.4567	9.000	0.3543	6.400	0.2520	3.200	0.1260	0.33	2.03	3.02	1.98

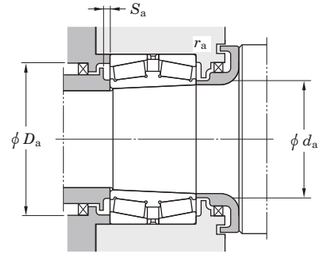
TDIT type

d 415.925 ~ 519.113 mm
16.3750 ~ 20.4375 inch



Design 1

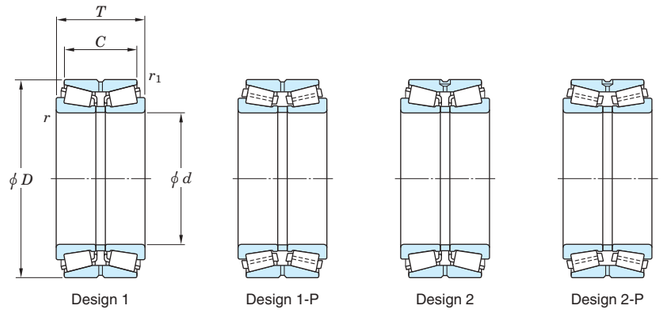

Design 1-P



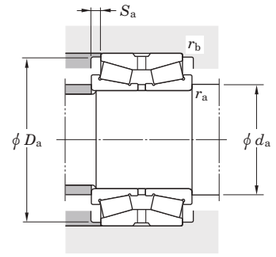
Boundary dimensions												Basic load ratings (kN)		Fatigue load limit (kN)		Bearing No.	Design	Mounting dimensions												Constant	Axial load factors		
d		D		B		T		r (min.)		r_1 (min.)		C_r	C_{0r}	C_u				d_a (max.)		D_a (max.)		D_a (min.)		S_a (min.)		r_a (max.)		r_b (max.)		e	Y_2	Y_3	Y_0
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch							mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch				
415.925	16.3750	590.550	23.2500	209.550	8.2500	209.550	8.2500	6.400	0.2520	3.200	0.1260	4 240	8 930	803		**M268749TD/M268710**	1-P	456.000	17.9528	570.000	22.4409	545.000	21.4567	9.000	0.3543	6.400	0.2520	3.200	0.1260	0.33	2.03	3.02	1.98
447.675	17.6250	635.000	25.0000	223.838	8.8125	223.838	8.8125	6.400	0.2520	3.200	0.1260	4 920	10 500	917		**M270749TD/M270710**	1-P	491.000	19.3307	610.000	24.0157	585.000	23.0315	8.000	0.3150	6.400	0.2520	3.200	0.1260	0.33	2.03	3.02	1.98
479.425	18.8750	679.450	26.7500	238.125	9.3750	238.125	9.3750	6.400	0.2520	3.200	0.1260	5 310	11 100	952		**M272749TD/M272710**	1-P	520.000	20.4724	655.000	25.7874	630.000	24.8031	7.000	0.2756	6.400	0.2520	3.200	0.1260	0.33	2.03	3.02	1.98
501.650	19.7500	711.200	28.0000	250.825	9.8750	250.825	9.8750	6.400	0.2520	3.200	0.1260	6 150	12 800	1 100		**M274149TD/M274110**	1-P	545.000	21.4567	690.000	27.1654	655.000	25.7874	10.000	0.3937	6.400	0.2520	3.200	0.1260	0.33	2.03	3.02	1.98
519.113	20.4375	736.600	29.0000	258.763	10.1875	258.763	10.1875	6.400	0.2520	3.200	0.1260	6 630	13 600	1 140		**M275349TD/M275310**	1-P	560.000	22.0472	710.000	27.9528	680.000	26.7717	10.000	0.3937	6.400	0.2520	3.200	0.1260	0.33	2.03	3.02	1.98

TDO · TDOS type

d 73.025 ~ (133.350) mm
2.8750 ~ (5.2500) inch



Design 1 | Design 1-P | Design 2 | Design 2-P

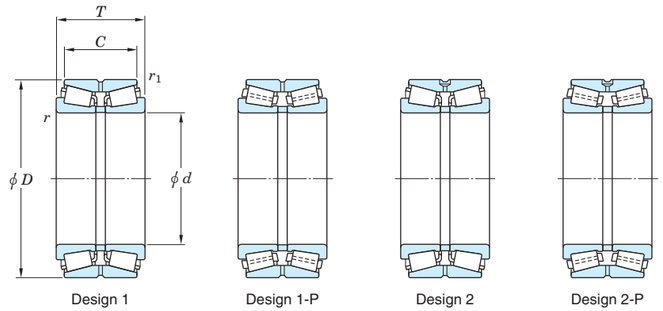


Boundary dimensions												Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.	Design	Mounting dimensions										Constant	Axial load factors		
d		D		C		T		$r^{1)}$ (min.)		$r_1{}^{1)}$ (min.)		C_r	C_{0r}	C_u			d_a (min.)		D_a (min.)		S_a (min.)		r_a (max.)		$r_b{}^{1)}$ (max.)		e	Y_2	Y_3	Y_0
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	127.000	5.0000	65.088	2.5625	80.963	3.1875	1.600	0.0630	3.600	0.1417	337	453	71.0	**567/563D**	1	92.000	3.6220	118.000	4.6457	8.000	0.3150	1.600	0.0630	3.600	0.1417	0.36	1.86	2.76	1.81
76.200	3.0000	161.925	6.3750	70.637	2.7810	105.562	4.1560	0.800	0.0315	3.600	0.1417	526	573	78.0	**9285R/9220D**	1	95.000	3.7402	152.000	5.9843	17.500	0.6890	0.800	0.0315	3.600	0.1417	0.71	0.95	1.42	0.93
80.963	3.1875	136.525	5.3750	53.975	2.1250	69.850	2.7500	0.800	0.0315	3.600	0.1417	287	396	60.0	**496/493D**	1	99.000	3.8976	127.000	5.0000	8.000	0.3150	0.800	0.0315	3.600	0.1417	0.44	1.52	2.26	1.49
88.900	3.5000	152.400	6.0000	63.500	2.5000	82.550	3.2500	0.800	0.0315	3.600	0.1417	395	575	85.0	**593/592D**	1	107.000	4.2126	140.000	5.5118	9.600	0.3780	0.800	0.0315	3.600	0.1417	0.44	1.53	2.27	1.49
	3.5000	171.450	6.7500	95.250	3.7500	114.300	4.5000	0.800	0.0315	3.600	0.1417	591	779	103	**46T191710**	1	107.000	4.2126	158.000	6.2205	9.600	0.3780	0.800	0.0315	3.600	0.1417	0.37	1.84	2.74	1.80
95.250	3.7500	149.225	5.8750	52.388	2.0625	66.672	2.6249	0.800	0.0315	3.000	0.1181	307	449	66.0	**42375/587D**	1	110.000	4.3307	140.000	5.5118	7.200	0.2835	0.800	0.0315	3.000	0.1181	0.49	1.37	2.04	1.34
100.000	3.9370	304.800	12.0000	127.000	5.0000	184.160	7.2504	SP	SP	SP	SP	1 490	1 630	187	**46T203018**	1	117.000	4.6063	285.000	11.2205	28.000	1.1024	4.000	0.1575	2.000	0.0787	0.80	0.85	1.26	0.83
101.600	4.0000	168.275	6.6250	69.850	2.7500	92.075	3.6250	0.800	0.0315	3.600	0.1417	484	698	101	**687/672D**	1	120.000	4.7244	156.000	6.1417	11.200	0.4409	0.800	0.0315	3.600	0.1417	0.47	1.43	2.14	1.40
	4.0000	200.025	7.8750	80.216	3.1581	115.888	4.5625	2.400	0.0945	3.600	0.1417	743	941	118	**98400/98789D**	1	120.000	4.7244	185.000	7.2835	17.900	0.7047	2.400	0.0945	3.600	0.1417	0.63	1.07	1.59	1.04
104.775	4.1250	180.975	7.1250	85.725	3.3750	104.775	4.1250	1.600	0.0630	3.600	0.1417	620	876	113	**782/774D**	1	123.000	4.8425	165.000	6.4961	9.600	0.3780	1.600	0.0630	3.600	0.1417	0.39	1.75	2.61	1.71
105.000	4.1339	190.000	7.4803	70.000	2.7559	88.000	3.4646	SP	SP	SP	SP	530	632	84.0	**46T211909**	1	117.000	4.6063	178.000	7.0079	9.000	0.3543	2.000	0.0787	0.800	0.0315	0.42	1.60	2.38	1.56
107.950	4.2500	146.050	5.7500	39.688	1.5625	49.213	1.9375	0.800	0.0315	1.600	0.0630	186	334	47.0	**L521949R/L521910D**	1	117.000	4.6063	138.000	5.4331	4.800	0.1890	0.800	0.0315	1.600	0.0630	0.39	1.72	2.56	1.68
111.125	4.3750	214.313	8.4375	84.138	3.3125	115.888	4.5625	1.600	0.0630	3.600	0.1417	868	1 160	141	**H924045/H924010D**	1	130.000	5.1181	202.000	7.9528	15.900	0.6260	1.600	0.0630	3.600	0.1417	0.67	1.00	1.49	0.98
114.300	4.5000	212.725	8.3750	117.475	4.6250	142.875	5.6250	1.600	0.0630	7.100	0.2795	965	1 350	168	**938/932D**	1	143.000	5.6299	192.000	7.5591	12.700	0.5000	1.600	0.0630	7.100	0.2795	0.33	2.07	3.09	2.03
127.000	5.0000	169.975	6.6919	49.213	1.9375	58.738	2.3125	1.600	0.0630	1.000	0.0394	282	501	69.6	**L225849/L225812D**	1	136.000	5.3543	162.000	6.3780	4.800	0.1890	1.600	0.0630	1.000	0.0394	0.33	2.03	3.02	1.98
	5.0000	182.563	7.1875	73.025	2.8750	85.725	3.3750	3.600	0.1417	0.800	0.0315	487	858	120	**48290/48220D**	1	140.000	5.5118	174.000	6.8504	6.400	0.2520	3.600	0.1417	0.800	0.0315	0.31	2.21	3.29	2.16
	5.0000	196.850	7.7500	85.725	3.3750	101.600	4.0000	3.600	0.1417	0.800	0.0315	669	1 120	137	**67388/67322D**	1	140.000	5.5118	189.000	7.4409	7.900	0.3110	3.600	0.1417	0.800	0.0315	0.34	1.96	2.92	1.92
	5.0000	200.025	7.8750	85.725	3.3750	101.600	4.0000	3.600	0.1417	0.800	0.0315	669	1 120	137	**67388/67325D**	1	140.000	5.5118	189.000	7.4409	7.900	0.3110	3.600	0.1417	0.800	0.0315	0.34	1.96	2.92	1.92
	5.0000	215.900	8.5000	80.963	3.1875	106.363	4.1875	3.600	0.1417	1.600	0.0630	691	1 100	132	**74500/74851D**	1	140.000	5.5118	205.000	8.0709	12.700	0.5000	3.600	0.1417	1.600	0.0630	0.49	1.38	2.06	1.35
	5.0000	228.600	9.0000	84.138	3.3125	115.888	4.5625	3.600	0.1417	2.400	0.0945	700	918	111	**97500/97901D**	1	140.000	5.5118	213.000	8.3858	15.900	0.6260	3.600	0.1417	2.400	0.0945	0.74	0.92	1.36	0.90
	5.0000	228.600	9.0000	84.138	3.3125	115.888	4.5625	3.600	0.1417	2.400	0.0945	925	1 300	154	**HM926747/HM926710D**	1	140.000	5.5118	219.000	8.6220	15.900	0.6260	3.600	0.1417	2.400	0.0945	0.74	0.92	1.36	0.90
	5.0000	234.950	9.2500	114.300	4.5000	142.875	5.6250	6.400	0.2520	1.600	0.0630	1 120	1 650	200	**95500/95927D**	1	145.000	5.7087	217.000	8.5433	14.300	0.5630	6.400	0.2520	1.600	0.0630	0.37	1.83	2.72	1.79
127.792	5.0312	228.600	9.0000	84.138	3.3125	115.888	4.5625	3.600	0.1417	2.400	0.0945	925	1 300	154	**HM926749/HM926710D**	1	140.000	5.5118	219.000	8.6220	15.900	0.6260	3.600	0.1417	2.400	0.0945	0.74	0.92	1.36	0.90
128.588	5.0625	206.375	8.1250	82.550	3.2500	107.950	4.2500	3.200	0.1260	0.800	0.0315	702	1 100	134	**799/792D**	1	140.000	5.5118	195.000	7.6772	12.700	0.5000	3.200	0.1260	0.800	0.0315	0.46	1.47	2.19	1.44
130.000	5.1181	206.375	8.1250	82.550	3.2500	107.950	4.2500	3.600	0.1417	0.800	0.0315	702	1 100	134	**797/792D**	1	143.000	5.6299	195.000	7.6772	12.700	0.5000	3.600	0.1417	0.800	0.0315	0.46	1.47	2.19	1.44
130.175	5.1250	196.850	7.7500	85.725	3.3750	101.600	4.0000	3.600	0.1417	0.800	0.0315	669	1 120	137	**67389/67322D**	1	143.000	5.6299	189.000	7.4409	7.900	0.3110	3.600	0.1417	0.800	0.0315	0.34	1.96	2.92	1.92
	5.1250	206.375	8.1250	82.550	3.2500	107.950	4.2500	3.600	0.1417	0.800	0.0315	702	1 100	134	**799A/792D**	1	143.000	5.6299	195.000	7.6772	12.700	0.5000	3.600	0.1417	0.800	0.0315	0.46	1.47	2.19	1.44
133.350	5.2500	177.008	6.9688	47.625	1.8750	57.150	2.2500	1.600	0.0630	0.800	0.0315	302	557	76.4	**L327249/L327210D**	1	142.000	5.5906	169.000	6.6535	4.800	0.1890	1.600	0.0630	0.800	0.0315	0.35	1.94	2.89	1.90
	5.2500	190.500	7.5000	73.025	2.8750	85.725	3.3750	3.600	0.1417	0.800	0.0315	505	944	129	**48385/48320D**	1	146.000	5.7480	182.000	7.1654	6.400	0.2520	3.600	0.1417	0.800	0.0315	0.32	2.10	3.13	2.06
	5.2500	196.850	7.7500	85.725	3.3750	101.600	4.0000	3.600	0.1417	0.800	0.0315	669	1 120	137	**67390/67322D**	1	146.000	5.7480	189.000	7.4409	7.900	0.3110	3.600	0.1417	0.800	0.0315	0.34	1.96	2.92	1.92
	5.2500	196.850	7.7500	85.725	3.3750	101.600	4.0000	7.900	0.3110	0.800	0.0315	669	1 120	137	**67391/67322D**	1	155.000	6.1024	189.000	7.4409	7.900	0.3110	7.900	0.3110	0.800	0.0315	0.34	1.96	2.92	1.92
	5.2500	200.025	7.8750	85.725	3.3750	101.600	4.0000	3.600	0.1417	0.800	0.0315	669	1 120	137	**67390/67325D**	1	146.000	5.7480	189.000	7.4409	7.900	0.3110	3.600	0.1417	0.800	0.0315	0.34	1.96	2.92	1.92

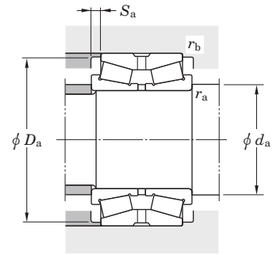
Note 1) SP indicates the specially chamfered from.

TDO · TDOS type

d (133.350) ~ (165.100) mm
(5.2500) ~ (6.5000) inch



Design 1 | Design 1-P | Design 2 | Design 2-P

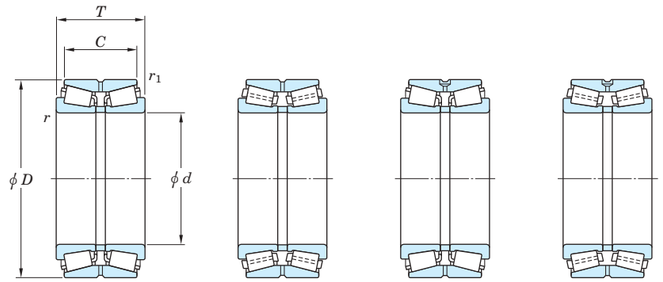


Boundary dimensions												Basic load ratings (kN)		Fatigue load limit (kN)		Bearing No.	Design	Mounting dimensions										Constant	Axial load factors		
d		D		C		T		$r^{1)}$ (min.)		$r_1{}^{1)}$ (min.)		C_r	C_{0r}	C_u				d_a (min.)		D_a (min.)		S_a (min.)		r_a (max.)		$r_b{}^{1)}$ (max.)		e	Y_2	Y_3	Y_0
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch							mm	inch	mm	inch	mm	inch	mm	inch	mm	inch				
133.350	5.2500	215.900	8.5000	80.963	3.1875	106.363	4.1875	3.600	0.1417	1.600	0.0630	691	1 100	132		**74525/74851D**	1	146.000	5.7480	205.000	8.0709	12.700	0.5000	3.600	0.1417	1.600	0.0630	0.49	1.38	2.06	1.35
	5.2500	234.950	9.2500	114.300	4.5000	142.875	5.6250	9.500	0.3740	1.600	0.0630	1 120	1 650	200		**95525/95927D**	1	158.000	6.2205	217.000	8.5433	14.300	0.5630	9.500	0.3740	1.600	0.0630	0.37	1.83	2.72	1.79
	5.2500	234.950	9.2500	114.300	4.5000	142.875	5.6250	4.700	0.1850	1.600	0.0630	1 120	1 650	200		**95528/95927D**	1	148.000	5.8268	217.000	8.5433	14.300	0.5630	4.700	0.1850	1.600	0.0630	0.37	1.83	2.72	1.79
136.525	5.3750	190.500	7.5000	73.025	2.8750	85.725	3.3750	3.600	0.1417	0.800	0.0315	505	944	129		**48393/48320D**	1	149.000	5.8661	182.000	7.1654	6.400	0.2520	3.600	0.1417	0.800	0.0315	0.32	2.10	3.13	2.06
	5.3750	215.900	8.5000	80.963	3.1875	106.363	4.1875	3.600	0.1417	1.600	0.0630	691	1 100	132		**74537/74851D**	1	149.000	5.8661	205.000	8.0709	12.700	0.5000	3.600	0.1417	1.600	0.0630	0.49	1.38	2.06	1.35
	5.3750	228.600	9.0000	98.425	3.8750	123.825	4.8750	3.600	0.1417	1.600	0.0630	947	1 460	175		**896/892D**	1	149.000	5.8661	215.000	8.4646	12.700	0.5000	3.600	0.1417	1.600	0.0630	0.42	1.60	2.39	1.57
139.700	5.5000	215.900	8.5000	80.963	3.1875	106.363	4.1875	3.600	0.1417	1.600	0.0630	691	1 100	132		**74550/74851D**	1	152.000	5.9843	205.000	8.0709	12.700	0.5000	3.600	0.1417	1.600	0.0630	0.49	1.38	2.06	1.35
	5.5000	215.900	8.5000	80.963	3.1875	106.363	4.1875	6.400	0.2520	1.600	0.0630	691	1 100	132		**74550A/74851D**	1	158.000	6.2205	205.000	8.0709	12.700	0.5000	6.400	0.2520	1.600	0.0630	0.49	1.38	2.06	1.35
	5.5000	228.600	9.0000	98.425	3.8750	123.825	4.8750	3.600	0.1417	1.600	0.0630	947	1 460	175		**898/892D**	1	152.000	5.9843	215.000	8.4646	12.700	0.5000	3.600	0.1417	1.600	0.0630	0.42	1.60	2.39	1.57
	5.5000	228.600	9.0000	98.425	3.8750	123.825	4.8750	6.400	0.2520	1.600	0.0630	947	1 460	175		**898A/892D**	1	158.000	6.2205	215.000	8.4646	12.700	0.5000	6.400	0.2520	1.600	0.0630	0.42	1.60	2.39	1.57
	5.5000	236.538	9.3125	106.363	4.1875	131.763	5.1875	3.600	0.1417	1.600	0.0630	904	1 460	171		**82550/82932D**	1	152.000	5.9843	225.000	8.8583	12.700	0.5000	3.600	0.1417	1.600	0.0630	0.44	1.53	2.27	1.49
	5.5000	236.538	9.3125	106.363	4.1875	131.763	5.1875	3.600	0.1417	1.600	0.0630	1 080	1 660	198		**HM231132/HM231111D**	1	152.000	5.9843	223.000	8.7795	12.700	0.5000	3.600	0.1417	1.600	0.0630	0.32	2.12	3.15	2.07
	5.5000	254.000	10.0000	111.125	4.3750	149.225	5.8750	7.100	0.2795	1.600	0.0630	1 180	1 830	215		**99550/99102D**	1	159.000	6.2598	237.000	9.3307	19.100	0.7520	7.100	0.2795	1.600	0.0630	0.41	1.66	2.47	1.62
	5.5000	307.975	12.1250	155.575	6.1250	200.025	7.8750	9.500	0.3740	2.400	0.0945	2 180	2 900	331		**HH234031/HH234011D**	1	164.000	6.4567	285.000	11.2205	22.200	0.8740	9.500	0.3740	2.400	0.0945	0.33	2.07	3.08	2.02
142.875	5.6250	200.025	7.8750	73.025	2.8750	87.315	3.4376	7.900	0.3110	0.800	0.0315	527	982	133		**48684/48620D**	1	164.000	6.4567	191.000	7.5197	7.100	0.2795	7.900	0.3110	0.800	0.0315	0.34	2.01	2.99	1.96
	5.6250	200.025	7.8750	73.025	2.8750	87.315	3.4376	3.600	0.1417	0.800	0.0315	527	982	133		**48685/48620D**	1	156.000	6.1417	191.000	7.5197	7.100	0.2795	3.600	0.1417	0.800	0.0315	0.34	2.01	2.99	1.96
	5.6250	236.538	9.3125	106.363	4.1875	131.763	5.1875	3.600	0.1417	1.600	0.0630	904	1 460	171		**82562/82932D**	1	156.000	6.1417	225.000	8.8583	12.700	0.5000	3.600	0.1417	1.600	0.0630	0.44	1.53	2.27	1.49
146.050	5.7500	193.675	7.6250	53.975	2.1250	65.085	2.5624	1.600	0.0630	0.800	0.0315	402	750	101		**36690/36620D**	1	155.000	6.1024	186.000	7.3228	5.600	0.2205	1.600	0.0630	0.800	0.0315	0.37	1.83	2.73	1.79
	5.7500	193.675	7.6250	53.975	2.1250	65.085	2.5624	4.800	0.1890	0.800	0.0315	402	750	101		**36691/36620D**	1	161.000	6.3386	186.000	7.3228	5.600	0.2205	4.800	0.1890	0.800	0.0315	0.37	1.83	2.73	1.79
	5.7500	236.538	9.3125	106.363	4.1875	131.763	5.1875	3.600	0.1417	1.600	0.0630	904	1 460	171		**82576/82932D**	1	159.000	6.2598	225.000	8.8583	12.700	0.5000	3.600	0.1417	1.600	0.0630	0.44	1.53	2.27	1.49
	5.7500	236.538	9.3125	106.363	4.1875	131.763	5.1875	3.600	0.1417	1.600	0.0630	1 080	1 660	198		**HM231140/HM231111D**	1	159.000	6.2598	223.000	8.7795	12.700	0.5000	3.600	0.1417	1.600	0.0630	0.32	2.12	3.15	2.07
	5.7500	254.000	10.0000	111.125	4.3750	149.225	5.8750	7.100	0.2795	1.600	0.0630	1 180	1 830	215		**99575/99102D**	1	166.000	6.5354	237.000	9.3307	19.100	0.7520	7.100	0.2795	1.600	0.0630	0.41	1.66	2.47	1.62
	5.7500	268.288	10.5625	125.413	4.9375	160.338	6.3125	6.400	0.2520	1.600	0.0630	1 410	2 090	239		**EE107057/107105D**	1	164.000	6.4567	249.000	9.8031	17.500	0.6890	6.400	0.2520	1.600	0.0630	0.39	1.74	2.59	1.70
	5.7500	304.800	12.0000	97.633	3.8438	135.733	5.3438	3.200	0.1260	1.600	0.0630	1 280	1 600	195		**EE750576/751204D**	1-P	158.000	6.2205	268.000	10.5512	19.100	0.7520	3.200	0.1260	1.600	0.0630	0.33	2.03	3.02	1.98
149.225	5.8750	236.538	9.3125	106.363	4.1875	131.763	5.1875	3.600	0.1417	1.600	0.0630	904	1 460	171		**82587/82932D**	1	162.000	6.3780	225.000	8.8583	12.700	0.5000	3.600	0.1417	1.600	0.0630	0.44	1.53	2.27	1.49
	5.8750	236.538	9.3125	106.363	4.1875	131.763	5.1875	6.400	0.2520	1.600	0.0630	1 080	1 660	198		**HM231148/HM231111D**	1	167.000	6.5748	223.000	8.7795	12.700	0.5000	6.400	0.2520	1.600	0.0630	0.32	2.12	3.15	2.07
	5.8750	236.538	9.3125	106.363	4.1875	131.763	5.1875	3.600	0.1417	1.600	0.0630	1 080	1 660	198		**HM231149/HM231111D**	1	162.000	6.3780	223.000	8.7795	12.700	0.5000	3.600	0.1417	1.600	0.0630	0.32	2.12	3.15	2.07
150.813	5.9375	244.475	9.6250	79.375	3.1250	107.950	4.2500	3.600	0.1417	1.600	0.0630	694	989	131		**81593/81963D**	1	163.000	6.4173	227.000	8.9370	14.300	0.5630	3.600	0.1417	1.600	0.0630	0.35	1.93	2.88	1.89
152.400	6.0000	222.250	8.7500	76.200	3.0000	100.010	3.9374	3.600	0.1417	0.800	0.0315	678	1 190	159		**M231649/M231610D**	1	165.000	6.4961	210.000	8.2677	11.900	0.4685	3.600	0.1417	0.800	0.0315	0.33	2.03	3.02	1.98
	6.0000	244.475	9.6250	79.375	3.1250	107.950	4.2500	3.600	0.1417	1.600	0.0630	694	989	131		**81600/81963D**	1	165.000	6.4961	227.000	8.9370	14.300	0.5630	3.600	0.1417	1.600	0.0630	0.35	1.93	2.88	1.89
	6.0000	254.000	10.0000	111.125	4.3750	149.225	5.8750	7.100	0.2795	1.600	0.0630	1 180	1 830	215		**99600/99102D**	1	172.000	6.7717	237.000	9.3307	19.100	0.7520	7.100	0.2795	1.600	0.0630	0.41	1.66	2.47	1.62
	6.0000	268.288	10.5625	125.413	4.9375	160.338	6.3125	6.400	0.2520	1.600	0.0630	1 410	2 090	239		**EE107060/107105D**	1	171.000	6.7323	249.000	9.8031	17.500	0.6890	6.400	0.2520	1.600	0.0630	0.39	1.74	2.59	1.70
	6.0000	307.975	12.1250	146.050	5.7500	200.025	7.8750	9.500	0.3740	2.400	0.0945	1 700	2 300	268		**EE450601/451215D**	1	177.000	6.9685	275.000	10.8268	27.000	1.0630	9.500	0.3740	2.400	0.0945	0.33	2.07	3.09	2.03
	6.0000	307.975	12.1250	155.575	6.1250	200.025	7.8750	9.500	0.3740	2.400	0.0945	2 180	2 900	331		**HH234048/HH234011D**	1	177.000	6.9685	285.000	11.2205	22.200	0.8740	9.500	0.3740	2.400	0.0945	0.33	2.07	3.08	2.02
158.750	6.2500	225.425	8.8750	69.850	2.7500	85.725	3.3750	3.600	0.1417	0.800	0.0315	554	1 140	148		**46780R/46720D**	1	171.000	6.7323	215.000	8.4646	7.900	0.3110	3.600	0.1417	0.800	0.0315	0.38	1.76	2.62	1.72
160.325	6.3120	288.925	11.3750	111.125	4.3750	142.875	5.6250	7.100	0.2795	1.600	0.0630	1 350	1 950	223		**HM237532/HM237510D**	1	180.000	7.0866	271.000	10.6693	15.900	0.6260	7.100	0.2795	1.600	0.0630	0.32	2.12	3.15	2.07
165.100	6.5000	215.900	8.5000	47.625	1.8750	58.740	2.3126	1.600	0.0630	0.800	0.0315	331	600	78.1		**L433749/L433710D**	1	174.000	6.8504	207.000	8.1496	5.600	0.2205	1.600	0.0630	0.800	0.0315	0.36	1.85	2.76	1.81

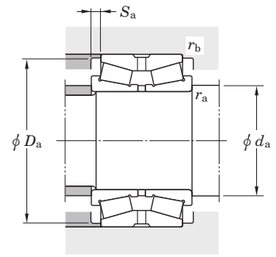
Note 1) SP indicates the specially chamfered from.

TDO · TDOS type

d (165.100) ~ 187.325 mm
(6.5000) ~ 7.3750 inch



Design 1 | Design 1-P | Design 2 | Design 2-P



Boundary dimensions												Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.	Design[2]	Mounting dimensions										Constant	Axial load factors		
d		D		C		T		r[1] (min.)		r_1[1] (min.)		C_r	C_{0r}	C_u			d_a (min.)		D_a (min.)		S_a (min.)		r_a (max.)		r_b[1] (max.)		e	Y_2	Y_3	Y_0
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						mm	inch	mm	inch	mm	inch	mm	inch	mm	inch				
165.100	6.5000	225.425	8.8750	69.850	2.7500	85.725	3.3750	3.600	0.1417	0.800	0.0315	554	1 140	148	**46790R/46720D**	1	177.300	6.9803	215.000	8.4646	7.900	0.3110	3.600	0.1417	0.800	0.0315	0.38	1.76	2.62	1.72
	6.5000	247.650	9.7500	84.138	3.3125	103.188	4.0625	3.600	0.1417	0.800	0.0315	741	1 400	160	**67780/67720D**	1	178.000	7.0079	238.000	9.3701	9.500	0.3740	3.600	0.1417	0.800	0.0315	0.44	1.54	2.29	1.50
	6.5000	254.000	10.0000	76.200	3.0000	101.600	4.0000	4.800	0.1890	1.600	0.0630	815	1 240	162	**M235145/M235113D**	1	180.000	7.0866	240.000	9.4488	12.700	0.5000	4.800	0.1890	1.600	0.0630	0.32	2.12	3.15	2.07
	6.5000	288.925	11.3750	111.125	4.3750	142.875	5.6250	7.100	0.2795	1.600	0.0630	1 180	1 920	216	**94649/94114D**	1	185.000	7.2835	270.000	10.6299	15.900	0.6260	7.100	0.2795	1.600	0.0630	0.47	1.44	2.15	1.41
	6.5000	288.925	11.3750	111.125	4.3750	142.875	5.6250	7.100	0.2795	1.600	0.0630	1 430	2 090	245	**HM237535/HM237510D**	1	185.000	7.2835	271.000	10.6693	15.900	0.6260	7.100	0.2795	1.600	0.0630	0.32	2.12	3.15	2.07
	6.5000	288.925	11.3750	114.300	4.5000	146.050	5.7500	7.100	0.2795	1.600	0.0630	1 430	2 090	245	**HM237535/HM237511XD**	1	185.000	7.2835	271.000	10.6693	15.900	0.6260	7.100	0.2795	1.600	0.0630	0.32	2.12	3.15	2.07
168.275	6.6250	247.650	9.7500	84.138	3.3125	103.188	4.0625	3.600	0.1417	0.800	0.0315	741	1 400	160	**67782/67720D**	1	181.000	7.1260	238.000	9.3701	9.500	0.3740	3.600	0.1417	0.800	0.0315	0.44	1.54	2.29	1.50
	6.6250	250.000	9.8425	84.140	3.3126	103.190	4.0626	SP	SP	SP	SP	880	1 410	185	**46T342510**	1	180.300	7.0984	236.000	9.2913	9.500	0.3740	2.000	0.0787	0.500	0.0197	0.33	2.03	3.02	1.98
	6.6250	250.000	9.8425	84.140	3.3126	103.190	4.0626	0.800	0.0315	3.500	0.1378	880	1 410	185	**46T342510**	1	187.000	7.3622	235.000	9.2520	9.600	0.3780	0.800	0.0315	3.500	0.1378	0.33	2.03	3.02	1.98
	6.6250	360.000	14.1732	130.000	5.1181	190.000	7.4803	SP	SP	SP	SP	2 020	2 570	280	**46T343619**	1	186.100	7.3268	339.000	13.3465	30.000	1.1811	4.000	0.1575	1.000	0.0394	0.80	0.85	1.26	0.83
	6.6250	360.000	14.1732	130.000	5.1181	190.000	7.4803	1.600	0.0630	6.400	0.2520	2 020	2 570	280	**46T343619**	1	197.000	7.7559	338.000	13.3071	30.000	1.1811	1.600	0.0630	6.400	0.2520	0.80	0.85	1.26	0.83
170.000	6.6929	254.000	10.0000	76.200	3.0000	101.600	4.0000	4.800	0.1890	1.600	0.0630	815	1 240	162	**M235149/M235113D**	1	185.000	7.2835	240.000	9.4488	12.700	0.5000	4.800	0.1890	1.600	0.0630	0.32	2.12	3.15	2.07
	6.6250	360.000	14.1732	130.000	5.1181	190.000	7.4803	1.600	0.0630	6.400	0.2520	2 020	2 570	280	**46T343619**	1	197.000	7.7559	338.000	13.3071	30.000	1.1811	1.600	0.0630	6.400	0.2520	0.80	0.85	1.26	0.83
171.450	6.7500	288.925	11.3750	111.125	4.3750	142.875	5.6250	7.100	0.2795	1.600	0.0630	1 180	1 920	216	**94675/94114D**	1	191.000	7.5197	270.000	10.6299	15.900	0.6260	7.100	0.2795	1.600	0.0630	0.47	1.44	2.15	1.41
174.625	6.8750	247.650	9.7500	84.138	3.3125	103.188	4.0625	7.900	0.3110	0.800	0.0315	741	1 400	160	**67786/67720D**	1	196.000	7.7165	238.000	9.3701	9.500	0.3740	7.900	0.3110	0.800	0.0315	0.44	1.54	2.29	1.50
	6.8750	247.650	9.7500	84.138	3.3125	103.188	4.0625	3.600	0.1417	0.800	0.0315	741	1 400	160	**67787/67720D**	1	187.000	7.3622	238.000	9.3701	9.500	0.3740	3.600	0.1417	0.800	0.0315	0.44	1.54	2.29	1.50
	6.8750	288.925	11.3750	111.125	4.3750	142.875	5.6250	7.100	0.2795	1.600	0.0630	1 180	1 920	216	**94687/94114D**	1	194.000	7.6378	270.000	10.6299	15.900	0.6260	7.100	0.2795	1.600	0.0630	0.47	1.44	2.15	1.41
	6.8750	288.925	11.3750	111.125	4.3750	142.875	5.6250	7.100	0.2795	1.600	0.0630	1 350	1 950	223	**HM237542/HM237510D**	1	194.000	7.6378	271.000	10.6693	15.900	0.6260	7.100	0.2795	1.600	0.0630	0.32	2.12	3.15	2.07
177.800	7.0000	227.013	8.9375	52.388	2.0625	66.672	2.6249	1.600	0.0630	0.800	0.0315	381	805	102	**36990/36920D**	1	186.000	7.3228	220.000	8.6614	7.100	0.2795	1.600	0.0630	0.800	0.0315	0.44	1.53	2.28	1.50
	7.0000	247.650	9.7500	84.138	3.3125	103.188	4.0625	3.600	0.1417	0.800	0.0315	741	1 400	160	**67790/67720D**	1	190.000	7.4803	238.000	9.3701	9.500	0.3740	3.600	0.1417	0.800	0.0315	0.44	1.54	2.29	1.50
	7.0000	247.650	9.7500	84.138	3.3125	103.188	4.0625	10.400	0.4094	0.800	0.0315	741	1 400	160	**67791/67720D**	1	204.000	8.0315	238.000	9.3701	9.500	0.3740	10.400	0.4094	0.800	0.0315	0.44	1.54	2.29	1.50
	7.0000	269.875	10.6250	93.663	3.6875	119.063	4.6875	3.600	0.1417	1.600	0.0630	880	1 610	183	**M238840/M238810D**	1	190.000	7.4803	255.000	10.0394	12.700	0.5000	3.600	0.1417	1.600	0.0630	0.33	2.03	3.02	1.98
	7.0000	285.750	11.2500	92.075	3.6250	136.525	5.3750	6.400	0.2520	1.600	0.0630	956	1 430	165	**EE91702/91113XD**	1*	196.000	7.7165	264.000	10.3937	22.200	0.8740	6.400	0.2520	1.600	0.0630	0.43	1.57	2.34	1.53
	7.0000	288.925	11.3750	111.125	4.3750	142.875	5.6250	7.100	0.2795	1.600	0.0630	1 180	1 920	216	**94700/94114D**	1	197.000	7.7559	270.000	10.6299	15.900	0.6260	7.100	0.2795	1.600	0.0630	0.47	1.44	2.15	1.41
	7.0000	288.925	11.3750	111.125	4.3750	142.875	5.6250	7.100	0.2795	1.600	0.0630	1 350	1 950	223	**HM237545/HM237510D**	1	197.000	7.7559	271.000	10.6693	15.900	0.6260	7.100	0.2795	1.600	0.0630	0.32	2.12	3.15	2.07
	7.0000	288.925	11.3750	114.300	4.5000	146.050	5.7500	7.100	0.2795	1.600	0.0630	1 350	1 950	223	**HM237545/HM237511XD**	1*	197.000	7.7559	271.000	10.6693	15.900	0.6260	7.100	0.2795	1.600	0.0630	0.32	2.12	3.15	2.07
	7.0000	304.800	12.0000	98.425	3.8750	147.838	5.8204	6.400	0.2520	1.600	0.0630	1 220	1 600	199	**EE280702/281201D**	1	196.000	7.7165	282.000	11.1024	24.700	0.9724	6.400	0.2520	1.600	0.0630	0.36	1.87	2.79	1.83
	7.0000	320.675	12.6250	138.112	5.4375	185.738	7.3125	3.600	0.1417	1.600	0.0630	1 610	2 450	271	**EE222070/222127D**	1	190.000	7.4803	298.000	11.7323	23.800	0.9370	3.600	0.1417	1.600	0.0630	0.40	1.68	2.50	1.64
	7.0000	320.675	12.6250	138.113	5.4375	185.738	7.3125	3.600	0.1417	1.600	0.0630	1 830	2 530	285	**H239640/H239612D**	1	190.000	7.4803	301.000	11.8504	23.800	0.9370	3.600	0.1417	1.600	0.0630	0.32	2.12	3.15	2.07
179.975	7.0856	317.500	12.5000	111.125	4.3750	146.050	5.7500	3.600	0.1417	1.600	0.0630	1 300	2 270	244	**93708/93127D**	1	193.000	7.5984	295.000	11.6142	17.500	0.6890	3.600	0.1417	1.600	0.0630	0.52	1.29	1.92	1.26
	7.0856	319.976	12.5975	111.125	4.3750	146.050	5.7500	3.600	0.1417	1.600	0.0630	1 300	2 270	244	**93708/93128XD**	1*	193.000	7.5984	295.000	11.6142	17.500	0.6890	3.600	0.1417	1.600	0.0630	0.52	1.29	1.92	1.26
184.150	7.2500	266.700	10.5000	84.138	3.3125	103.188	4.0625	3.600	0.1417	0.800	0.0315	769	1 520	169	**67883/67820D**	1	197.000	7.7559	257.000	10.1181	9.500	0.3740	3.600	0.1417	0.800	0.0315	0.48	1.41	2.11	1.38
	7.2500	288.925	11.3750	111.120	4.3748	142.880	5.6252	SP	SP	SP	SP	1 220	1 920	214	**46T372914**	1	203.200	8.0000	276.000	10.8661	15.900	0.6260	4.000	0.1575	SP	SP	0.40	1.68	2.50	1.64
	7.2500	288.925	11.3750	111.120	4.3748	142.880	5.6252	1.600	0.0630	7.000	0.2756	1 220	1 920	214	**46T372914**	1	213.000	8.3858	275.000	10.8268	15.900	0.6260	1.600	0.0630	7.000	0.2756	0.40	1.68	2.50	1.64
187.325	7.3750	266.700	10.5000	84.138	3.3125	103.188	4.0625	3.600	0.1417	0.800	0.0315	769	1 520	169	**67884/67820D**	1	200.000	7.8740	257.000	10.1181	9.500	0.3740	3.600	0.1417	0.800	0.0315	0.48	1.41	2.11	1.38
	7.3750	269.875	10.6250	93.663	3.6875	119.063	4.6875	3.600	0.1417	1.600	0.0630	880	1 610	183	**M238849/M238810D**	1	200.000	7.8740	255.000	10.0394	12.700	0.5000	3.600	0.1417	1.600	0.0630	0.33	2.03	3.02	1.98
	7.3750	282.575	11.1250	79.375	3.1250	107.950	4.2500	3.600	0.1417	1.600	0.0630	880	1 450	182	**87737/87112D**	1	200.000	7.8740	267.000	10.5118	14.300	0.5630	3.600	0.1417	1.600	0.0630	0.42	1.62	2.42	1.59
	7.3750	320.675	12.6250	138.113	5.4375	185.738	7.3125	5.600	0.2205	1.600	0.0630	1 830	2 530	285	**H239649/H239612D**	1	204.000	8.0315	301.000	11.8504	23.800	0.9370	5.600	0.2205	1.600	0.0630	0.32	2.12	3.15	2.07

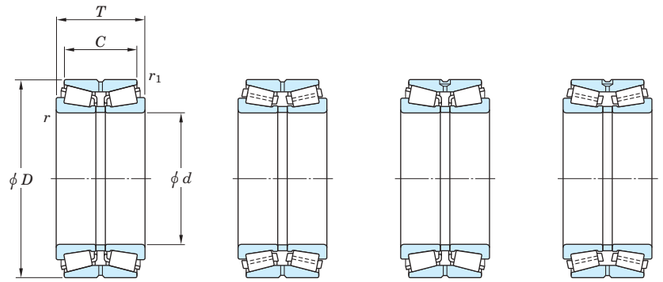
Note 1) SP indicates the specially chamfered from.

2) * means no lubrication holes or grooves on double cup.

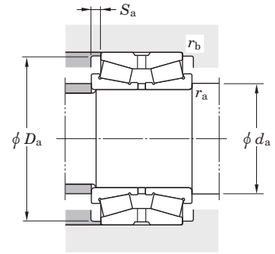
TDO · TDOS type

d 190.500 ~ (228.600) mm

7.5000 ~ (9.0000) inch



Design 1 | Design 1-P | Design 2 | Design 2-P

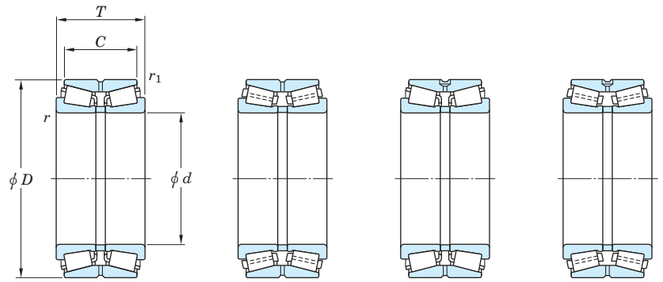


Boundary dimensions												Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.	Design	Mounting dimensions										Constant	Axial load factors		
d		D		C		T		$r^{1)}$ (min.)		$r_1{}^{1)}$ (min.)		C_r	C_{0r}	C_u			d_a (min.)		D_a (min.)		S_a (min.)		r_a (max.)		$r_b{}^{1)}$ (max.)		e	Y_2	Y_3	Y_0
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						mm	inch	mm	inch	mm	inch	mm	inch	mm	inch				
190.500	7.5000	266.700	10.5000	84.138	3.3125	103.188	4.0625	3.600	0.1417	0.800	0.0315	769	1 520	169	**67885/67820D**	1	203.000	7.9921	257.000	10.1181	9.500	0.3740	3.600	0.1417	0.800	0.0315	0.48	1.41	2.11	1.38
	7.5000	282.575	11.1250	79.375	3.1250	107.950	4.2500	3.600	0.1417	1.600	0.0630	880	1 450	182	**87750/87112D**	1	203.000	7.9921	267.000	10.5118	14.300	0.5630	3.600	0.1417	1.600	0.0630	0.42	1.62	2.42	1.59
	7.5000	317.500	12.5000	111.125	4.3750	146.050	5.7500	4.300	0.1693	1.600	0.0630	1 300	2 270	244	**93750/93127D**	1	205.000	8.0709	295.000	11.6142	17.500	0.6890	4.300	0.1693	1.600	0.0630	0.52	1.29	1.92	1.26
	7.5000	368.300	14.5000	136.525	5.3750	193.675	7.6250	6.400	0.2520	1.600	0.0630	2 020	2 920	319	**EE420751/421451D**	1	209.000	8.2283	334.000	13.1496	28.600	1.1260	6.400	0.2520	1.600	0.0630	0.40	1.68	2.50	1.64
193.675	7.6250	282.575	11.1250	79.375	3.1250	107.950	4.2500	3.600	0.1417	1.600	0.0630	880	1 450	182	**87762/87112D**	1	206.000	8.1102	267.000	10.5118	14.300	0.5630	3.600	0.1417	1.600	0.0630	0.42	1.62	2.42	1.59
196.850	7.7500	254.000	10.0000	47.625	1.8750	61.910	2.4374	1.600	0.0630	0.800	0.0315	404	773	96.5	**L540049/L540010D**	1	206.000	8.1102	244.000	9.6063	7.100	0.2795	1.600	0.0630	0.800	0.0315	0.40	1.70	2.53	1.66
	7.7500	257.175	10.1250	66.675	2.6250	85.725	3.3750	3.600	0.1417	0.800	0.0315	576	1 260	157	**LM739749/LM739710D**	1	210.000	8.2677	247.000	9.7244	9.500	0.3740	3.600	0.1417	0.800	0.0315	0.45	1.51	2.25	1.48
200.025	7.8750	317.500	12.5000	111.125	4.3750	146.050	5.7500	4.300	0.1693	1.600	0.0630	1 300	2 270	244	**93787/93127D**	1	215.000	8.4646	294.500	11.5945	17.500	0.6890	4.300	0.1693	1.600	0.0630	0.52	1.29	1.92	1.26
	7.8750	355.600	14.0000	111.125	4.3750	152.400	6.0000	6.700	0.2638	1.600	0.0630	1 560	2 610	280	**EE130787/131401D**	1	220.000	8.6614	330.000	12.9921	20.600	0.8110	6.700	0.2638	1.600	0.0630	0.33	2.04	3.04	2.00
	7.8750	384.175	15.1250	193.675	7.6250	238.125	9.3750	6.400	0.2520	1.600	0.0630	3 120	5 370	542	**H247535/H247510D**	1-P	219.000	8.6220	362.000	14.2520	22.200	0.8740	6.400	0.2520	1.600	0.0630	0.33	2.03	3.02	1.98
203.200	8.0000	276.225	10.8750	73.025	2.8750	90.485	3.5624	3.600	0.1417	0.800	0.0315	804	1 430	179	**LM241149/LM241110D**	1	217.000	8.5433	265.000	10.4331	8.700	0.3425	3.600	0.1417	0.800	0.0315	0.32	2.12	3.15	2.07
	8.0000	282.575	11.1250	82.550	3.2500	101.600	4.0000	3.600	0.1417	0.800	0.0315	749	1 410	155	**67983/67920D**	1	217.000	8.5433	272.000	10.7087	9.500	0.3740	3.600	0.1417	0.800	0.0315	0.51	1.33	1.97	1.30
	8.0000	292.100	11.5000	101.600	4.0000	125.415	4.9376	3.600	0.1417	1.600	0.0630	1 170	2 050	230	**M241547/M241510D**	1	217.000	8.5433	278.000	10.9449	11.900	0.4685	3.600	0.1417	1.600	0.0630	0.33	2.03	3.02	1.98
	8.0000	317.500	12.5000	111.125	4.3750	146.050	5.7500	4.300	0.1693	1.600	0.0630	1 300	2 270	244	**93800/93127D**	1	218.000	8.5827	295.000	11.6142	17.500	0.6890	4.300	0.1693	1.600	0.0630	0.52	1.29	1.92	1.26
	8.0000	317.500	12.5000	111.125	4.3750	146.050	5.7500	7.900	0.3110	1.600	0.0630	1 300	2 270	244	**93800A/93127D**	1	225.000	8.8583	295.000	11.6142	17.500	0.6890	7.900	0.3110	1.600	0.0630	0.52	1.29	1.92	1.26
	8.0000	368.300	14.5000	136.525	5.3750	193.675	7.6250	3.200	0.1260	1.600	0.0630	2 020	2 920	319	**EE420801/421451D**	1	216.000	8.5039	334.000	13.1496	28.600	1.1260	3.200	0.1260	1.600	0.0630	0.40	1.68	2.50	1.64
	8.0000	406.400	16.0000	127.000	5.0000	196.850	7.7500	6.400	0.2520	3.200	0.1260	2 050	2 920	303	**EE114080/114161D**	1	222.000	8.7402	368.000	14.4882	34.900	1.3740	6.400	0.2520	3.200	0.1260	0.79	0.85	1.27	0.83
204.788	8.0625	292.100	11.5000	101.600	4.0000	125.415	4.9376	3.600	0.1417	1.600	0.0630	1 170	2 050	230	**M241549/M241510D**	1	218.000	8.5827	278.000	10.9449	11.900	0.4685	3.600	0.1417	1.600	0.0630	0.33	2.03	3.02	1.98
206.375	8.1250	282.575	11.1250	82.550	3.2500	101.600	4.0000	3.600	0.1417	0.800	0.0315	749	1 410	155	**67985/67920D**	1	220.000	8.6614	271.500	10.6890	9.500	0.3740	3.600	0.1417	0.800	0.0315	0.51	1.33	1.97	1.30
	8.1250	317.500	12.5000	88.900	3.5000	127.000	5.0000	4.000	0.1575	1.600	0.0630	944	1 450	166	**EE132084/132126D**	1	221.000	8.7008	293.000	11.5354	19.100	0.7520	4.000	0.1575	1.600	0.0630	0.31	2.15	3.21	2.11
	8.1250	336.550	13.2500	169.863	6.6875	211.138	8.3125	3.200	0.1260	1.600	0.0630	2 230	3 800	400	**H242649/H242610DC**	2	219.000	8.6220	318.000	12.5197	20.600	0.8110	3.200	0.1260	1.600	0.0630	0.33	2.03	3.02	1.98
209.550	8.2500	282.575	11.1250	82.550	3.2500	101.600	4.0000	3.600	0.1417	0.800	0.0315	749	1 410	155	**67989/67920D**	1	223.000	8.7795	272.000	10.7087	9.500	0.3740	3.600	0.1417	0.800	0.0315	0.51	1.33	1.97	1.30
	8.2500	317.500	12.5000	111.125	4.3750	146.050	5.7500	4.300	0.1693	1.600	0.0630	1 300	2 270	244	**93825/93127D**	1	225.000	8.8583	295.000	11.6142	17.500	0.6890	4.300	0.1693	1.600	0.0630	0.52	1.29	1.92	1.26
	8.2500	333.375	13.1250	114.300	4.5000	149.225	5.8750	6.400	0.2520	1.600	0.0630	1 520	2 480	265	**HM743345/HM743310D**	1	229.000	9.0157	316.000	12.4409	17.500	0.6890	6.400	0.2520	1.600	0.0630	0.44	1.54	2.29	1.50
212.725	8.3750	285.750	11.2500	76.200	3.0000	98.425	3.8750	3.600	0.1417	0.800	0.0315	766	1 560	190	**LM742745/LM742710D**	1	226.000	8.8976	277.000	10.9055	11.100	0.4370	3.600	0.1417	0.800	0.0315	0.48	1.40	2.09	1.37
215.900	8.5000	285.750	11.2500	76.200	3.0000	98.425	3.8750	3.600	0.1417	0.800	0.0315	766	1 560	190	**LM742749/LM742710D**	1	230.000	9.0551	277.000	10.9055	11.100	0.4370	3.600	0.1417	0.800	0.0315	0.48	1.40	2.09	1.37
	8.5000	406.400	16.0000	147.638	5.8125	195.263	7.6875	6.400	0.2520	1.600	0.0630	2 420	3 480	370	**EE820085/820161D**	1	235.000	9.2520	372.000	14.6457	23.800	0.9370	6.400	0.2520	1.600	0.0630	0.39	1.71	2.55	1.67
219.075	8.6250	358.775	14.1250	181.440	7.1433	196.850	7.7500	SP	SP	SP	SP	2 080	3 590	376	**46T443620**	2	237.900	9.3661	338.000	13.3071	7.700	0.3031	4.000	0.1575	1.000	0.0394	0.33	2.03	3.02	1.98
220.663	8.6875	314.325	12.3750	106.363	4.1875	131.763	5.1875	6.400	0.2520	1.600	0.0630	1 320	2 450	269	**M244249/M244210D**	1	240.000	9.4488	299.000	11.7717	12.700	0.5000	6.400	0.2520	1.600	0.0630	0.33	2.03	3.02	1.98
225.425	8.8750	355.600	14.0000	111.125	4.3750	152.400	6.0000	6.700	0.2638	1.600	0.0630	1 560	2 610	280	**EE130889/131401D**	1	245.000	9.6457	330.000	12.9921	20.600	0.8110	6.700	0.2638	1.600	0.0630	0.33	2.04	3.04	2.00
228.397	8.9920	431.800	17.0000	111.125	4.3750	196.850	7.7500	6.400	0.2520	3.200	0.1260	2 140	2 890	304	**EE113089/113171D**	1-P	248.000	9.7638	397.000	15.6299	42.900	1.6890	6.400	0.2520	3.200	0.1260	0.88	0.76	1.14	0.75
228.460	8.9945	431.800	17.0000	111.125	4.3750	196.850	7.7500	6.400	0.2520	3.200	0.1260	2 140	2 890	304	**EE113091/113171D**	1-P	248.000	9.7638	397.000	15.6299	42.900	1.6890	6.400	0.2520	3.200	0.1260	0.88	0.76	1.14	0.75
228.600	9.0000	327.025	12.8750	82.550	3.2500	114.300	4.5000	6.400	0.2520	1.600	0.0630	1 000	1 860	200	**8573/8520D**	1	248.000	9.7638	310.000	12.2047	15.900	0.6260	6.400	0.2520	1.600	0.0630	0.41	1.66	2.47	1.62
	9.0000	355.600	14.0000	111.125	4.3750	152.400	6.0000	7.100	0.2795	1.600	0.0630	1 410	2 630	278	**96900/96140D**	1	249.000	9.8031	332.000	13.0709	20.600	0.8110	7.100	0.2795	1.600	0.0630	0.59	1.14	1.70	1.12

Note 1) SP indicates the specially chamfered from.

TDO · TDOS type

d (228.600) ~ (254.000) mm
(9.0000) ~ (10.0000) inch

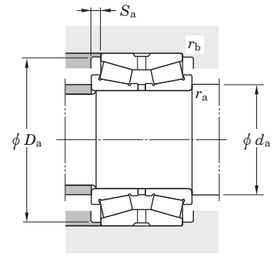


Design 1

Design 1-P

Design 2

Design 2-P

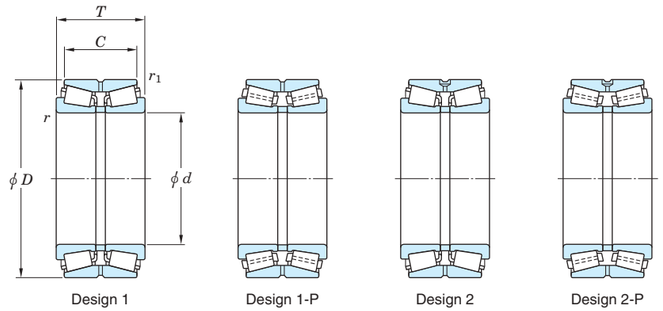


Boundary dimensions												Basic load ratings (kN)		Fatigue load limit (kN)		Bearing No.	Design	Mounting dimensions										Constant	Axial load factors		
d		D		C		T		$r^{1)}$ (min.)		$r_1{}^{1)}$ (min.)								d_a (min.)		D_a (min.)		S_a (min.)		r_a (max.)		$r_b{}^{1)}$ (max.)					
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	C_r	C_{0r}	C_u				mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	e	Y_2	Y_3	Y_0
228.600	9.0000	355.600	14.0000	111.125	4.3750	152.400	6.0000	6.700	0.2638	1.600	0.0630	1 560	2 610	280		**EE130902/131401D**	1	248.000	9.7638	330.000	12.9921	20.600	0.8110	6.700	0.2638	1.600	0.0630	0.33	2.04	3.04	2.00
	9.0000	355.600	14.0000	114.300	4.5000	152.400	6.0000	6.400	0.2520	1.600	0.0630	1 660	2 740	295		**HM746646/HM746610D**	1	248.000	9.7638	339.000	13.3465	19.100	0.7520	6.400	0.2520	1.600	0.0630	0.47	1.43	2.12	1.40
	9.0000	358.775	14.1250	117.475	4.6250	152.400	6.0000	3.600	0.1417	1.600	0.0630	1 660	3 170	333		**M249732/M249710D**	1	242.000	9.5276	343.000	13.5039	17.500	0.6890	3.600	0.1417	1.600	0.0630	0.33	2.03	3.02	1.98
	9.0000	400.050	15.7500	136.525	5.3750	187.325	7.3750	10.400	0.4094	1.600	0.0630	2 130	3 210	338		**EE430900/431576D**	1	256.000	10.0787	374.000	14.7244	25.400	1.0000	10.400	0.4094	1.600	0.0630	0.44	1.54	2.29	1.50
	9.0000	425.450	16.7500	158.750	6.2500	209.550	8.2500	7.100	0.2795	1.600	0.0630	2 530	3 950	411		**EE700091/700168D**	1	249.000	9.8031	382.000	15.0394	25.400	1.0000	7.100	0.2795	1.600	0.0630	0.33	2.03	3.02	1.98
	9.0000	488.950	19.2500	220.000	8.6614	345.000	13.5827	SP	SP	SP	SP	4 560	7 010	614		**46T464935B**	1-P	246.600	9.7087	465.000	18.3071	62.500	2.4606	4.000	0.1575	1.000	0.0394	0.94	0.72	1.07	0.70
	9.0000	488.950	19.2500	220.000	8.6614	345.000	13.5827	2.000	0.0787	6.000	0.2362	4 560	7 010	614		**46T464935B**	1-P	257.000	10.1181	464.000	18.2677	62.500	2.4606	2.000	0.0787	6.000	0.2362	0.94	0.72	1.07	0.70
	9.0000	488.950	19.2500	152.400	6.0000	254.000	10.0000	1.600	0.0630	6.400	0.2520	3 470	4 540	446		**HH949549/HH949510D**	1-P	257.000	10.1181	455.000	17.9134	50.800	2.0000	1.600	0.0630	6.400	0.2520	0.94	0.72	1.07	0.70
231.775	9.1250	358.775	14.1250	117.475	4.6250	152.400	6.0000	6.400	0.2520	1.600	0.0630	1 660	3 170	333		**M249734/M249710D**	1	251.000	9.8819	343.000	13.5039	17.500	0.6890	6.400	0.2520	1.600	0.0630	0.33	2.03	3.02	1.98
234.950	9.2500	327.025	12.8750	82.550	3.2500	114.300	4.5000	6.400	0.2520	1.600	0.0630	1 000	1 860	200		**8575/8520D**	1	254.000	10.0000	310.000	12.2047	15.900	0.6260	6.400	0.2520	1.600	0.0630	0.41	1.66	2.47	1.62
	9.2500	355.600	14.0000	111.125	4.3750	152.400	6.0000	7.100	0.2795	1.600	0.0630	1 410	2 630	278		**96925/96140D**	1	256.000	10.0787	332.000	13.0709	20.600	0.8110	7.100	0.2795	1.600	0.0630	0.59	1.14	1.70	1.12
	9.2500	384.175	15.1250	193.675	7.6250	238.125	9.3750	6.400	0.2520	1.600	0.0630	3 120	5 370	542		**H247548/H247510D**	1-P	254.000	10.0000	362.000	14.2520	22.200	0.8740	6.400	0.2520	1.600	0.0630	0.33	2.03	3.02	1.98
	9.2500	384.175	15.1250	193.675	7.6250	238.125	9.3750	6.400	0.2520	1.600	0.0630	3 120	5 370	542		**H247549/H247510D**	1-P	254.000	10.0000	362.000	14.2520	22.200	0.8740	6.400	0.2520	1.600	0.0630	0.33	2.03	3.02	1.98
237.330	9.3437	358.775	14.1250	117.475	4.6250	152.400	6.0000	6.400	0.2520	1.600	0.0630	1 660	3 170	333		**M249736/M249710D**	1	257.000	10.1181	343.000	13.5039	17.500	0.6890	6.400	0.2520	1.600	0.0630	0.33	2.03	3.02	1.98
241.300	9.5000	327.025	12.8750	82.550	3.2500	114.300	4.5000	6.400	0.2520	1.600	0.0630	1 000	1 860	200		**8578/8520D**	1	261.000	10.2756	310.000	12.2047	15.900	0.6260	6.400	0.2520	1.600	0.0630	0.41	1.66	2.47	1.62
	9.5000	349.148	13.7460	101.600	4.0000	127.000	5.0000	6.400	0.2520	1.600	0.0630	1 190	2 050	224		**EE127095/127136D**	1	261.000	10.2756	330.000	12.9921	12.700	0.5000	6.400	0.2520	1.600	0.0630	0.35	1.91	2.84	1.86
	9.5000	355.498	13.9960	101.600	4.0000	127.000	5.0000	6.400	0.2520	1.600	0.0630	1 190	2 050	224		**EE127095/127139D**	1	261.000	10.2756	330.000	12.9921	12.700	0.5000	6.400	0.2520	1.600	0.0630	0.35	1.91	2.84	1.86
	9.5000	368.300	14.5000	85.725	3.3750	120.650	4.7500	6.400	0.2520	1.600	0.0630	1 090	1 850	203		**EE170950/171451D**	1	261.000	10.2756	336.000	13.2283	17.500	0.6890	6.400	0.2520	1.600	0.0630	0.36	1.86	2.77	1.82
	9.5000	393.700	15.5000	109.538	4.3125	157.163	6.1875	6.400	0.2520	1.600	0.0630	1 590	3 090	325		**EE275095/275156D**	1	261.000	10.2756	378.000	14.8819	23.800	0.9370	6.400	0.2520	1.600	0.0630	0.40	1.68	2.50	1.64
	9.5000	406.400	16.0000	107.950	4.2500	155.575	6.1250	6.400	0.2520	1.600	0.0630	1 590	3 090	325		**EE275095/275161D**	1	261.000	10.2756	378.000	14.8819	23.800	0.9370	6.400	0.2520	1.600	0.0630	0.40	1.68	2.50	1.64
	9.5000	406.400	16.0000	184.150	7.2500	215.900	8.5000	6.400	0.2520	1.600	0.0630	2 950	4 810	494		**H249148/H249111D**	1	261.000	10.2756	385.000	15.1575	15.900	0.6260	6.400	0.2520	1.600	0.0630	0.33	2.03	3.02	1.98
	9.5000	444.500	17.5000	158.750	6.2500	209.550	8.2500	6.400	0.2520	1.600	0.0630	2 750	3 960	408		**EE923095/923176D**	1	261.000	10.2756	407.000	16.0236	25.400	1.0000	6.400	0.2520	1.600	0.0630	0.34	2.01	2.99	1.96
	9.5000	488.950	19.2500	196.850	7.7500	254.000	10.0000	6.400	0.2520	1.600	0.0630	3 610	5 570	553		**EE295950/295192D**	1	261.000	10.2756	446.000	17.5591	28.600	1.1260	6.400	0.2520	1.600	0.0630	0.31	2.18	3.24	2.13
244.475	9.6250	380.898	14.9960	127.000	5.0000	171.450	6.7500	6.400	0.2520	1.600	0.0630	1 690	2 930	306		**EE126097/126149D**	1	264.000	10.3937	357.000	14.0551	22.200	0.8740	6.400	0.2520	1.600	0.0630	0.52	1.31	1.95	1.28
	9.6250	381.000	15.0000	127.000	5.0000	171.450	6.7500	6.400	0.2520	1.600	0.0630	1 690	2 930	306		**EE126097/126151D**	1	264.000	10.3937	357.000	14.0551	22.200	0.8740	6.400	0.2520	1.600	0.0630	0.52	1.31	1.95	1.28
247.650	9.7500	368.300	14.5000	85.725	3.3750	120.650	4.7500	6.400	0.2520	1.600	0.0630	1 090	1 850	203		**EE170975/171451D**	1	267.000	10.5118	336.000	13.2283	17.500	0.6890	6.400	0.2520	1.600	0.0630	0.36	1.86	2.77	1.82
	9.7500	406.400	16.0000	203.200	8.0000	247.650	9.7500	6.400	0.2520	1.600	0.0630	3 490	6 250	612		**HH249949/HH249910D**	1-P	267.000	10.5118	383.000	15.0787	22.200	0.8740	6.400	0.2520	1.600	0.0630	0.33	2.03	3.02	1.98
249.250	9.8130	380.898	14.9960	127.000	5.0000	171.450	6.7500	6.400	0.2520	1.600	0.0630	1 690	2 930	306		**EE126098/126149D**	1	269.000	10.5906	357.000	14.0551	22.200	0.8740	6.400	0.2520	1.600	0.0630	0.52	1.31	1.95	1.28
	9.8130	381.000	15.0000	127.000	5.0000	171.450	6.7500	6.400	0.2520	1.600	0.0630	1 690	2 930	306		**EE126098/126151D**	1	269.000	10.5906	357.000	14.0551	22.200	0.8740	6.400	0.2520	1.600	0.0630	0.52	1.31	1.95	1.28
254.000	10.0000	347.663	13.6875	69.850	2.7500	101.600	4.0000	3.600	0.1417	1.600	0.0630	1 010	1 690	192		**LM249748/LM249710D**	1	268.000	10.5512	332.000	13.0709	15.900	0.6260	3.600	0.1417	1.600	0.0630	0.33	2.03	3.02	1.98
	10.0000	358.775	14.1250	117.475	4.6250	152.400	6.0000	3.600	0.1417	1.600	0.0630	1 660	3 170	333		**M249749/M249710D**	1	268.000	10.5512	343.000	13.5039	17.500	0.6890	3.600	0.1417	1.600	0.0630	0.33	2.03	3.02	1.98
	10.0000	365.125	14.3750	98.425	3.8750	130.175	5.1250	6.400	0.2520	1.600	0.0630	1 210	2 150	231		**EE134100/134144D**	1	273.000	10.7480	346.000	13.6220	15.900	0.6260	6.400	0.2520	1.600	0.0630	0.37	1.80	2.69	1.76
	10.0000	393.700	15.5000	109.538	4.3125	157.163	6.1875	6.400	0.2520	1.600	0.0630	1 590	3 090	325		**EE275100/275156D**	1	273.000	10.7480	378.000	14.8819	23.800	0.9370	6.400	0.2520	1.600	0.0630	0.40	1.68	2.50	1.64
	10.0000	406.400	16.0000	107.950	4.2500	155.575	6.1250	6.400	0.2520	1.600	0.0630	1 590	3 090	325		**EE275100/275161D**	1	273.000	10.7480	378.000	14.8819	23.800	0.9370	6.400	0.2520	1.600	0.0630	0.40	1.68	2.50	1.64
	10.0000	422.275	16.6250	128.588	5.0625	173.038	6.8125	6.700	0.2638	1.600	0.0630	2 180	3 360	355		**HM252343/HM252311D**	1	274.000	10.7874	398.000	15.6693	22.200	0.8740	6.700	0.2638	1.600	0.0630	0.33	2.03	3.02	1.98
	10.0000	422.275	16.6250	128.588	5.0625	173.038	6.8125	6.700	0.2638	1.600	0.0630	2 180	3 360	355		**HM252344/HM252311D**	1	274.000	10.7874	398.000	15.6693	22.200	0.8740	6.700	0.2638	1.600	0.0630	0.33	2.03	3.02	1.98
	10.0000	422.275	16.6250	139.700	5.5000	178.592	7.0312	6.700	0.2638	1.600	0.0630	2 180	3 360	355		**HM252343/HM252310D**	1	274.000	10.7874	400.000	15.7480	19.400	0.7638	6.700	0.2638	1.600	0.0630	0.33	2.03	3.02	1.98
	10.0000	422.275	16.6250	139.700	5.5000	178.592	7.0312	6.700	0.2638	1.600	0.0630	2 180	3 360	355		**HM252344/HM252310D**	1	274.000	10.7874	400.000	15.7480	19.400	0.7638	6.700	0.2638	1.600	0.0630	0.33	2.03	3.02	1.98

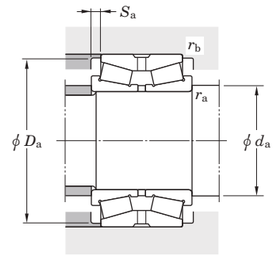
Note 1) SP indicates the specially chamfered from.

TDO · TDOS type

d (254.000) ~ 292.100 mm
(10.0000) ~ 11.5000 inch



Design 1 | Design 1-P | Design 2 | Design 2-P

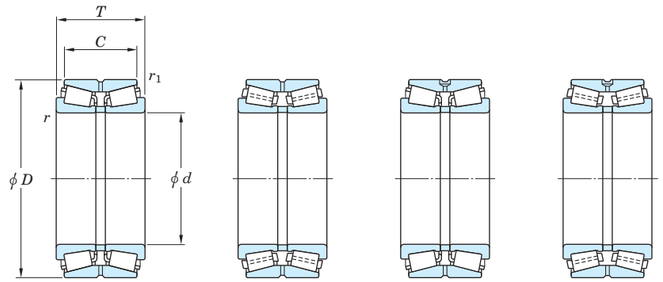


Boundary dimensions												Basic load ratings (kN)		Fatigue load limit (kN)		Bearing No.	Design	Mounting dimensions										Constant	Axial load factors		
d		D		C		T		$r^{1)}$ (min.)		$r_1{}^{1)}$ (min.)		C_r	C_{0r}	C_u				d_a (min.)		D_a (min.)		S_a (min.)		r_a (max.)		$r_b{}^{1)}$ (max.)		e	Y_2	Y_3	Y_0
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch							mm	inch	mm	inch	mm	inch	mm	inch	mm	inch				
254.000	10.0000	431.724	16.9970	128.588	5.0625	173.038	6.8125	6.700	0.2638	1.600	0.0630	2 180	3 360	355		**HM252343/HM252315D**	1	274.000	10.7874	398.000	15.6693	22.200	0.8740	6.700	0.2638	1.600	0.0630	0.33	2.03	3.02	1.98
	10.0000	431.724	16.9970	128.588	5.0625	173.038	6.8125	6.700	0.2638	1.600	0.0630	2 180	3 360	355		**HM252344/HM252315D**	1	274.000	10.7874	398.000	15.6693	22.200	0.8740	6.700	0.2638	1.600	0.0630	0.33	2.03	3.02	1.98
	10.0000	533.400	21.0000	165.100	6.5000	276.225	10.8750	6.400	0.2520	1.600	0.0630	3 820	5 600	524		**HH953749/HH953710D**	1-P	273.000	10.7480	496.000	19.5276	55.600	2.1890	6.400	0.2520	1.600	0.0630	0.94	0.72	1.07	0.70
260.350	10.2500	365.125	14.3750	98.425	3.8750	130.175	5.1250	6.400	0.2520	1.600	0.0630	1 210	2 150	231		**EE134102/134144D**	1	280.000	11.0236	355.000	13.9764	15.900	0.6260	6.400	0.2520	1.600	0.0630	0.37	1.80	2.69	1.76
	10.2500	400.050	15.7500	107.950	4.2500	155.575	6.1250	9.500	0.3740	1.600	0.0630	1 630	2 570	274		**EE221026/221576D**	1	286.000	11.2598	372.000	14.6457	23.800	0.9370	9.500	0.3740	1.600	0.0630	0.39	1.71	2.54	1.67
	10.2500	422.275	16.6250	128.588	5.0625	173.038	6.8125	6.700	0.2638	1.600	0.0630	2 180	3 360	355		**HM252348/HM252311D**	1	280.000	11.0236	398.000	15.6693	22.200	0.8740	6.700	0.2638	1.600	0.0630	0.33	2.03	3.02	1.98
	10.2500	422.275	16.6250	139.700	5.5000	178.592	7.0312	6.700	0.2638	1.600	0.0630	2 180	3 360	355		**HM252348/HM252310D**	1	280.000	11.0236	400.000	15.7480	19.400	0.7638	6.700	0.2638	1.600	0.0630	0.33	2.03	3.02	1.98
	10.2500	422.275	16.6250	139.700	5.5000	178.592	7.0312	6.700	0.2638	1.600	0.0630	2 180	3 360	355		**HM252349/HM252310D**	1	280.000	11.0236	400.000	15.7480	19.400	0.7638	6.700	0.2638	1.600	0.0630	0.33	2.03	3.02	1.98
	10.2500	431.724	16.9970	128.588	5.0625	173.038	6.8125	6.700	0.2638	1.600	0.0630	2 180	3 360	355		**HM252348/HM252315D**	1	280.000	11.0236	398.000	15.6693	22.200	0.8740	6.700	0.2638	1.600	0.0630	0.33	2.03	3.02	1.98
	10.2500	431.724	16.9970	128.588	5.0625	173.038	6.8125	6.700	0.2638	1.600	0.0630	2 180	3 360	355		**HM252349/HM252315D**	1	280.000	11.0236	398.000	15.6693	22.200	0.8740	6.700	0.2638	1.600	0.0630	0.33	2.03	3.02	1.98
	10.2500	488.950	19.2500	196.850	7.7500	254.000	10.0000	6.400	0.2520	1.600	0.0630	3 610	5 570	553		**EE295102/295192D**	1	280.000	11.0236	446.000	17.5591	28.600	1.1260	6.400	0.2520	1.600	0.0630	0.31	2.18	3.24	2.13
263.525	10.3750	355.600	14.0000	101.600	4.0000	127.000	5.0000	3.600	0.1417	1.600	0.0630	1 300	2 550	267		**LM451345/LM451310D**	1	277.000	10.9055	343.000	13.5039	12.700	0.5000	3.600	0.1417	1.600	0.0630	0.36	1.87	2.79	1.83
266.700	10.5000	355.600	14.0000	101.600	4.0000	127.000	5.0000	3.600	0.1417	1.600	0.0630	1 300	2 550	267		**LM451349/LM451310D**	1	280.000	11.0236	343.000	13.5039	12.700	0.5000	3.600	0.1417	1.600	0.0630	0.36	1.87	2.79	1.83
	10.5000	357.200	14.0630	101.600	4.0000	127.000	5.0000	3.600	0.1417	1.600	0.0630	1 300	2 550	267		**LM451349/LM451312D**	1	280.000	11.0236	343.000	13.5039	12.700	0.5000	3.600	0.1417	1.600	0.0630	0.36	1.87	2.79	1.83
	10.5000	393.700	15.5000	109.538	4.3125	157.163	6.1875	6.400	0.2520	1.600	0.0630	1 590	3 090	325		**EE275105/275156D**	1	286.000	11.2598	378.000	14.8819	23.800	0.9370	6.400	0.2520	1.500	0.0591	0.40	1.68	2.50	1.64
	10.5000	406.400	16.0000	107.950	4.2500	155.575	6.1250	6.400	0.2520	1.600	0.0630	1 590	3 090	325		**EE275105/275161D**	1	286.000	11.2598	378.000	14.8819	23.800	0.9370	6.400	0.2520	1.600	0.0630	0.40	1.68	2.50	1.64
	10.5000	422.275	16.6250	139.700	5.5000	178.598	7.0314	6.700	0.2638	1.600	0.0630	2 110	3 420	352		**EE551050/551663D**	1	287.000	11.2992	390.000	15.3543	19.400	0.7638	6.700	0.2638	1.600	0.0630	0.33	2.03	3.02	1.98
	10.5000	431.724	16.9970	128.588	5.0625	173.038	6.8125	6.700	0.2638	1.600	0.0630	2 110	3 420	352		**EE551050/551701D**	1	287.000	11.2992	389.000	15.3150	22.200	0.8740	6.700	0.2638	1.600	0.0630	0.33	2.03	3.02	1.98
269.875	10.6250	381.000	15.0000	123.825	4.8750	158.750	6.2500	6.400	0.2520	1.600	0.0630	1 840	3 350	349		**M252349/M252310D**	1	289.000	11.3780	364.000	14.3307	17.500	0.6890	6.400	0.2520	1.600	0.0630	0.33	2.03	3.02	1.98
273.050	10.7500	393.700	15.5000	109.538	4.3125	157.163	6.1875	6.400	0.2520	1.600	0.0630	1 590	3 090	325		**EE275108/275156D**	1	292.000	11.4961	378.000	14.8819	23.800	0.9370	6.400	0.2520	1.600	0.0630	0.40	1.68	2.50	1.64
	10.7500	406.400	16.0000	107.950	4.2500	155.575	6.1250	6.400	0.2520	1.600	0.0630	1 590	3 090	325		**EE275108/275161D**	1	292.000	11.4961	378.000	14.8819	23.800	0.9370	6.400	0.2520	1.600	0.0630	0.40	1.68	2.50	1.64
273.060	10.7504	422.280	16.6252	177.800	7.0000	178.592	7.0312	3.100	0.1220	8.000	0.3150	2 180	3 360	355		**46T554218**	1	310.000	12.2047	407.000	16.0236	0.400	0.0157	4.000	0.1575	8.000	0.3150	0.33	2.03	3.02	1.98
279.400	11.0000	469.900	18.5000	149.225	5.8750	200.025	7.8750	9.500	0.3740	1.600	0.0630	2 650	4 370	437		**EE722110/722186D**	1	305.000	12.0079	431.000	16.9685	25.400	1.0000	9.500	0.3740	1.600	0.0630	0.38	1.79	2.67	1.75
	11.0000	488.950	19.2500	196.850	7.7500	254.000	10.0000	1.200	0.0472	1.600	0.0630	3 610	5 570	553		**EE295110/295192D**	1	288.000	11.3386	446.000	17.5591	28.600	1.1260	1.200	0.0472	1.600	0.0630	0.31	2.18	3.24	2.13
279.982	11.0229	380.898	14.9960	107.950	4.2500	139.700	5.5000	3.600	0.1417	1.600	0.0630	1 420	2 820	286		**LM654642/LM654610D**	1	294.000	11.5748	371.000	14.6063	15.900	0.6260	3.600	0.1417	1.600	0.0630	0.43	1.57	2.34	1.53
280.000	11.0236	406.400	16.0000	117.475	4.6250	149.225	5.8750	6.400	0.2520	1.600	0.0630	1 650	2 950	307		**EE128112/128160D**	1	299.000	11.7717	383.000	15.0787	15.900	0.6260	6.400	0.2520	1.600	0.0630	0.39	1.75	2.61	1.71
	11.0236	406.400	16.0000	117.475	4.6250	149.225	5.8750	6.400	0.2520	1.600	0.0630	1 650	2 950	307		**EE128114/128160D**	1	299.000	11.7717	383.000	15.0787	15.900	0.6260	6.400	0.2520	1.600	0.0630	0.39	1.75	2.61	1.71
280.192	11.0312	406.400	16.0000	85.725	3.3750	120.650	4.7500	6.700	0.2638	1.600	0.0630	1 120	1 980	209		**EE101103/101601D**	1	300.000	11.8110	375.000	14.7638	17.500	0.6890	6.700	0.2638	1.600	0.0630	0.41	1.66	2.47	1.62
	11.0312	406.400	16.0000	117.475	4.6250	149.225	5.8750	6.700	0.2638	1.600	0.0630	1 650	2 950	307		**EE128111/128160D**	1	300.000	11.8110	383.000	15.0787	15.900	0.6260	6.700	0.2638	1.600	0.0630	0.39	1.75	2.61	1.71
285.750	11.2500	358.775	14.1250	53.975	2.1250	76.200	3.0000	3.600	0.1417	1.600	0.0630	516	1 070	122		**545112/545142D**	1	299.000	11.7717	345.000	13.5827	11.100	0.4370	3.600	0.1417	1.600	0.0630	0.49	1.38	2.06	1.35
	11.2500	380.898	14.9960	107.950	4.2500	139.700	5.5000	3.600	0.1417	1.600	0.0630	1 420	2 820	286		**LM654649/LM654610D**	1	299.000	11.7717	371.000	14.6063	15.900	0.6260	3.600	0.1417	1.600	0.0630	0.43	1.57	2.34	1.53
	11.2500	501.650	19.7500	120.650	4.7500	203.200	8.0000	6.400	0.2520	3.200	0.1260	2 440	3 460	345		**EE147112/147198D**	1	305.000	12.0079	467.000	18.3858	41.300	1.6260	6.400	0.2520	3.200	0.1260	0.83	0.81	1.20	0.79
288.925	11.3750	406.400	16.0000	130.175	5.1250	165.100	6.5000	6.400	0.2520	1.600	0.0630	2 160	4 420	445		**M255449/M255410D**	1	308.000	12.1260	388.000	15.2756	17.500	0.6890	6.400	0.2520	1.600	0.0630	0.34	2.00	2.97	1.95
292.100	11.5000	374.650	14.7500	79.375	3.1250	104.775	4.1250	3.600	0.1417	1.600	0.0630	1 010	1 940	222		**L555249/L555210D**	1	306.000	12.0472	361.000	14.2126	12.700	0.5000	3.600	0.1417	1.600	0.0630	0.40	1.68	2.50	1.64
	11.5000	469.900	18.5000	149.225	5.8750	200.025	7.8750	9.500	0.3740	1.600	0.0630	2 650	4 370	437		**EE722115/722186D**	1	318.000	12.5197	431.000	16.9685	25.400	1.0000	9.500	0.3740	1.600	0.0630	0.38	1.79	2.67	1.75
	11.5000	558.800	22.0000	222.250	8.7500	298.450	11.7500	6.400	0.2520	1.600	0.0630	5 060	8 000	746		**EE790114/790223D**	1-P	311.000	12.2441	515.000	20.2756	38.100	1.5000	6.400	0.2520	1.600	0.0630	0.40	1.71	2.54	1.67

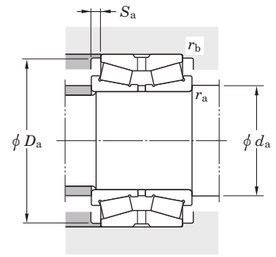
Note 1) SP indicates the specially chamfered from.

TDO · TDOS type

d 298.450 ~ 371.475 mm
11.7500 ~ 14.6250 inch



Design 1 | Design 1-P | Design 2 | Design 2-P

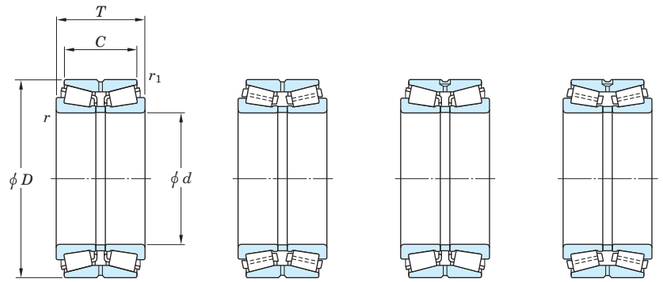


Boundary dimensions												Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.	Design	Mounting dimensions										Constant	Axial load factors		
d		D		C		T		$r^{1)}$ (min.)		$r_1{}^{1)}$ (min.)		C_r	C_{0r}	C_u			d_a (min.)		D_a (min.)		S_a (min.)		r_a (max.)		$r_b{}^{1)}$ (max.)		e	Y_2	Y_3	Y_0
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						mm	inch	mm	inch	mm	inch	mm	inch	mm	inch				
298.450	11.7500	444.500	17.5000	98.425	3.8750	146.050	5.7500	7.900	0.3110	1.600	0.0630	1 550	2 760	288	**EE291175/291751D**	1	321.000	12.6378	414.000	16.2992	23.800	0.9370	7.900	0.3110	1.600	0.0630	0.38	1.79	2.66	1.75
300.038	11.8125	422.275	16.6250	136.525	5.3750	174.625	6.8750	6.400	0.2520	1.600	0.0630	2 130	4 030	409	**HM256849/HM256810D**	1	320.000	12.5984	403.000	15.8661	19.100	0.7520	6.400	0.2520	1.600	0.0630	0.34	2.00	2.98	1.96
304.800	12.0000	393.700	15.5000	82.550	3.2500	107.950	4.2500	6.400	0.2520	1.600	0.0630	1 130	2 360	266	**L357049/L357010D**	1	325.000	12.7953	379.000	14.9213	12.700	0.5000	6.400	0.2520	1.600	0.0630	0.36	1.88	2.80	1.84
	12.0000	412.750	16.2500	92.075	3.6250	123.825	4.8750	6.400	0.2520	1.600	0.0630	1 280	2 410	250	**EE109120/109163D**	1	325.000	12.7953	394.000	15.5118	15.900	0.6260	6.400	0.2520	1.600	0.0630	0.43	1.58	2.35	1.55
	12.0000	444.500	17.5000	98.425	3.8750	146.050	5.7500	7.900	0.3110	1.600	0.0630	1 550	2 760	288	**EE291201/291751D**	1	328.000	12.9134	414.000	16.2992	23.800	0.9370	7.900	0.3110	1.600	0.0630	0.38	1.79	2.66	1.75
	12.0000	495.300	19.5000	120.650	4.7500	162.245	6.3876	6.400	0.2520	1.600	0.0630	2 360	3 840	393	**EE941205/941951D**	1	315.000	12.4016	463.000	18.2283	20.800	0.8189	6.400	0.2520	1.600	0.0630	0.40	1.68	2.50	1.64
	12.0000	495.300	19.5000	127.000	5.0000	168.595	6.6376	6.400	0.2520	1.600	0.0630	2 360	3 840	393	**EE941205/941953D**	1	315.000	12.4016	463.000	18.2283	20.800	0.8189	6.400	0.2520	1.600	0.0630	0.40	1.68	2.50	1.64
	12.0000	495.300	19.5000	146.050	5.7500	196.850	7.7500	16.000	0.6299	1.600	0.0630	2 740	4 680	461	**EE724119/724196D**	1	344.000	13.5433	458.000	18.0315	25.400	1.0000	16.000	0.6299	1.600	0.0630	0.40	1.68	2.50	1.64
	12.0000	495.300	19.5000	146.050	5.7500	196.850	7.7500	16.000	0.6299	1.600	0.0630	2 740	4 680	461	**EE724120/724196D**	1	344.000	13.5433	458.000	18.0315	25.400	1.0000	16.000	0.6299	1.600	0.0630	0.40	1.68	2.50	1.64
	12.0000	558.800	22.0000	222.250	8.7500	298.450	11.7500	1.200	0.0472	1.600	0.0630	5 060	8 000	746	**EE790120/790223D**	1-P	315.000	12.4016	515.000	20.2756	38.100	1.5000	1.200	0.0472	1.600	0.0630	0.40	1.71	2.54	1.67
311.150	12.2500	558.800	22.0000	111.125	4.3750	190.500	7.5000	9.500	0.3740	3.200	0.1260	2 360	3 490	346	**EE148122/148221D**	1	338.000	13.3071	505.000	19.8819	39.700	1.5630	9.500	0.3740	3.200	0.1260	0.88	0.77	1.15	0.75
317.500	12.5000	444.500	17.5000	98.425	3.8750	146.050	5.7500	7.900	0.3110	1.600	0.0630	1 550	2 760	288	**EE291250/291751D**	1	341.000	13.4252	414.000	16.2992	23.800	0.9370	7.900	0.3110	1.600	0.0630	0.38	1.79	2.66	1.75
	12.5000	447.675	17.6250	146.050	5.7500	180.975	7.1250	3.600	0.1417	1.600	0.0630	2 400	4 770	465	**HM259049./HM259010D.**	1	328.000	12.9134	428.000	16.8504	17.500	0.6890	3.600	0.1417	1.600	0.0630	0.33	2.02	3.00	1.97
	12.5000	622.300	24.5000	174.625	6.8750	304.800	12.0000	14.300	0.5630	3.200	0.1260	4 780	6 990	632	**H961649/H961610D**	1-P	354.000	13.9370	585.000	23.0315	65.100	2.5630	14.300	0.5630	3.200	0.1260	0.94	0.72	1.07	0.70
329.870	12.9870	533.400	21.0000	114.300	4.5000	165.100	6.5000	4.800	0.1890	1.600	0.0630	2 350	3 580	362	**EE971298/972102D**	1	346.500	13.6417	494.000	19.4488	25.400	1.0000	4.800	0.1890	1.600	0.0630	0.33	2.03	3.02	1.98
	12.9870	546.100	21.5000	152.400	6.0000	177.800	7.0000	4.800	0.1890	3.200	0.1260	2 350	3 580	362	**EE971298/972151D**	1	347.000	13.6614	500.000	19.6850	12.700	0.5000	4.800	0.1890	3.200	0.1260	0.33	2.03	3.02	1.98
330.200	13.0000	482.600	19.0000	88.900	3.5000	133.350	5.2500	7.100	0.2795	1.600	0.0630	1 320	2 500	247	**EE161300/161901D**	1	352.000	13.8583	454.000	17.8740	22.200	0.8740	7.100	0.2795	1.600	0.0630	0.50	1.35	2.01	1.32
	13.0000	482.600	19.0000	127.000	5.0000	177.800	7.0000	6.400	0.2520	1.600	0.0630	2 320	4 100	404	**EE526130/526191D**	1	350.000	13.7795	454.000	17.8740	25.400	1.0000	6.400	0.2520	1.600	0.0630	0.39	1.73	2.57	1.69
	13.0000	482.600	19.0000	127.000	5.0000	177.800	7.0000	3.200	0.1260	1.600	0.0630	2 320	4 100	404	**EE526132/526191D**	1	344.000	13.5433	454.000	17.8740	25.400	1.0000	3.200	0.1260	1.600	0.0630	0.39	1.73	2.57	1.69
333.375	13.1250	469.900	18.5000	152.400	6.0000	190.500	7.5000	6.400	0.2520	1.600	0.0630	2 900	5 680	548	**HM261049/HM261010D**	1-P	354.000	13.9370	449.000	17.6772	19.100	0.7520	6.400	0.2520	1.600	0.0630	0.33	2.02	3.00	1.97
342.900	13.5000	533.400	21.0000	114.300	4.5000	165.100	6.5000	4.800	0.1890	1.600	0.0630	2 350	3 580	362	**EE971354/972102D**	1	360.000	14.1732	494.000	19.4488	25.400	1.0000	4.800	0.1890	1.600	0.0630	0.33	2.03	3.02	1.98
	13.5000	546.100	21.5000	152.400	6.0000	177.800	7.0000	4.800	0.1890	3.200	0.1260	2 350	3 580	362	**EE971354/972151D**	1	360.000	14.1732	500.000	19.6850	12.700	0.5000	4.800	0.1890	3.200	0.1260	0.33	2.03	3.02	1.98
346.075	13.6250	482.600	19.0000	88.900	3.5000	133.350	5.2500	7.100	0.2795	1.600	0.0630	1 320	2 500	247	**EE161363/161901D**	1	368.000	14.4882	454.000	17.8740	22.200	0.8740	7.100	0.2795	1.600	0.0630	0.50	1.35	2.01	1.32
	13.6250	488.950	19.2500	158.750	6.2500	200.025	7.8750	6.400	0.2520	1.600	0.0630	2 890	5 800	553	**HM262749/HM262710D**	1	366.000	14.4094	467.000	18.3858	20.600	0.8110	6.400	0.2520	1.600	0.0630	0.33	2.02	3.00	1.97
349.250	13.7500	514.350	20.2500	152.400	6.0000	193.675	7.6250	6.400	0.2520	1.600	0.0630	2 740	5 070	499	**EE333137/333203D**	1	370.000	14.5669	483.000	19.0157	20.600	0.8110	6.400	0.2520	1.600	0.0630	0.37	1.80	2.69	1.76
355.600	14.0000	444.500	17.5000	111.125	4.3750	136.525	5.3750	3.600	0.1417	1.600	0.0630	1 390	3 450	332	**L163149/L163110D**	1	370.000	14.5669	428.000	16.8504	12.700	0.5000	3.600	0.1417	1.600	0.0630	0.31	2.20	3.27	2.15
	14.0000	482.600	19.0000	88.900	3.5000	133.350	5.2500	7.100	0.2795	1.600	0.0630	1 320	2 500	247	**EE161400/161901D**	1	377.000	14.8425	454.000	17.8740	22.200	0.8740	7.100	0.2795	1.600	0.0630	0.50	1.35	2.01	1.32
	14.0000	501.650	19.7500	107.950	4.2500	155.575	6.1250	6.400	0.2520	1.600	0.0630	1 700	3 280	322	**EE231400/231976D**	1	376.000	14.8031	481.000	18.9370	23.800	0.9370	6.400	0.2520	1.600	0.0630	0.44	1.53	2.28	1.50
	14.0000	514.350	20.2500	107.950	4.2500	155.575	6.1250	6.400	0.2520	1.600	0.0630	1 700	3 280	322	**EE231400/232026D**	1	376.000	14.8031	481.000	18.9370	23.800	0.9370	6.400	0.2520	1.600	0.0630	0.44	1.53	2.28	1.50
	14.0000	514.350	20.2500	152.400	6.0000	193.675	7.6250	6.400	0.2520	1.600	0.0630	2 740	5 070	499	**EE333140/333203D**	1	376.000	14.8031	483.000	19.0157	20.600	0.8110	6.400	0.2520	1.600	0.0630	0.37	1.80	2.69	1.76
368.249	14.4980	523.875	20.6250	169.863	6.6875	214.313	8.4375	6.400	0.2520	1.600	0.0630	3 590	7 060	663	**46T745221**	1	388.000	15.2756	505.000	19.8819	22.200	0.8740	6.400	0.2520	1.600	0.0630	0.33	2.03	3.02	1.98
	14.4980	523.875	20.6250	169.863	6.6875	214.313	8.4375	6.400	0.2520	1.600	0.0630	3 420	6 780	644	**HM265049/HM265010D**	1-P	388.000	15.2756	505.000	19.8819	22.200	0.8740	6.400	0.2520	1.600	0.0630	0.33	2.03	3.02	1.98
368.300	14.5000	596.900	23.5000	133.350	5.2500	203.200	8.0000	9.500	0.3740	2.400	0.0945	3 410	5 410	526	**EE181453/182351D**	1-P	395.000	15.5512	555.000	21.8504	34.900	1.3740	9.500	0.3740	2.400	0.0945	0.41	1.63	2.42	1.59
371.475	14.6250	501.650	19.7500	107.950	4.2500	155.575	6.1250	6.400	0.2520	1.600	0.0630	1 700	3 280	322	**EE231462/231976D**	1	392.000	15.4331	481.000	18.9370	23.800	0.9370	6.400	0.2520	1.600	0.0630	0.44	1.53	2.28	1.50
	14.6250	514.350	20.2500	107.950	4.2500	155.575	6.1250	6.400	0.2520	1.600	0.0630	1 700	3 280	322	**EE231462/232026D**	1	392.000	15.4331	481.000	18.9370	23.800	0.9370	6.400	0.2520	1.600	0.0630	0.44	1.53	2.28	1.50

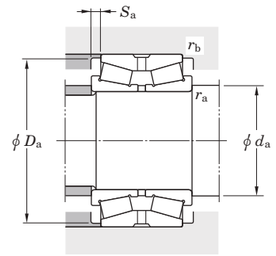
Note 1) SP indicates the specially chamfered from.

TDO · TDOS type

d 381.000 ~ 479.425 mm
15.0000 ~ 18.8750 inch



Design 1 | Design 1-P | Design 2 | Design 2-P

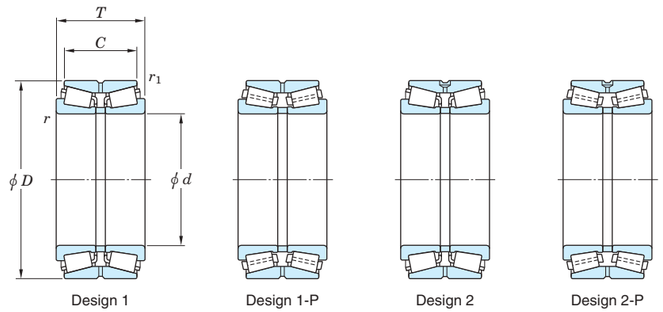


Boundary dimensions												Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.	Design	Mounting dimensions										Constant	Axial load factors		
d		D		C		T		$r^{1)}$ (min.)		$r_1{}^{1)}$ (min.)		C_r	C_{0r}	C_u			d_a (min.)		D_a (min.)		S_a (min.)		r_a (max.)		$r_b{}^{1)}$ (max.)		e	Y_2	Y_3	Y_0
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						mm	inch	mm	inch	mm	inch	mm	inch	mm	inch				
381.000	15.0000	508.000	20.0000	88.900	3.5000	139.700	5.5000	6.400	0.2520	1.600	0.0630	1 480	2 980	288	**EE192150/192201D**	1	401.000	15.7874	480.000	18.8976	25.400	1.0000	6.400	0.2520	1.600	0.0630	0.53	1.27	1.89	1.24
	15.0000	546.100	21.5000	177.800	7.0000	222.250	8.7500	6.400	0.2520	1.600	0.0630	4 090	8 430	773	**HM266447/HM266410D**	1-P	401.000	15.7874	520.000	20.4724	22.200	0.8740	6.400	0.2520	1.600	0.0630	0.33	2.03	3.02	1.98
	15.0000	546.100	21.5000	177.800	7.0000	222.250	8.7500	1.600	0.0630	6.400	0.2520	3 550	6 980	646	**46T765522A**	1	409.000	16.1024	520.000	20.4724	22.300	0.8780	1.600	0.0630	6.400	0.2520	0.33	2.03	3.02	1.98
	15.0000	590.550	23.2500	193.675	7.6250	244.475	9.6250	6.400	0.2520	1.600	0.0630	4 240	8 930	803	**M268730/M268710D**	1-P	401.000	15.7874	565.000	22.2441	25.400	1.0000	6.400	0.2520	1.600	0.0630	0.33	2.03	3.02	1.98
384.175	15.1250	546.100	21.5000	177.800	7.0000	222.250	8.7500	6.400	0.2520	1.600	0.0630	4 090	8 430	773	**HM266449/HM266410D**	1-P	404.000	15.9055	520.000	20.4724	22.200	0.8740	6.400	0.2520	1.600	0.0630	0.33	2.03	3.02	1.98
385.763	15.1875	514.350	20.2500	139.700	5.5000	177.800	7.0000	1.600	0.0630	6.400	0.2520	2 590	5 410	516	**LM665949/LM665910D**	1	414.000	16.2992	494.000	19.4488	19.100	0.7520	1.600	0.0630	6.400	0.2520	0.42	1.61	2.40	1.58
393.700	15.5000	539.750	21.2500	101.600	4.0000	142.875	5.6250	6.400	0.2520	1.600	0.0630	1 860	3 810	357	**EE234154/234213D**	1	414.000	16.2992	515.000	20.2756	20.600	0.8110	6.400	0.2520	1.600	0.0630	0.48	1.42	2.11	1.39
	15.5000	546.100	21.5000	117.475	4.6250	158.750	6.2500	6.400	0.2520	1.600	0.0630	1 860	3 810	357	**EE234154/234216D**	1	414.000	16.2992	515.000	20.2756	20.600	0.8110	6.400	0.2520	1.600	0.0630	0.48	1.42	2.11	1.39
396.875	15.6250	539.750	21.2500	101.600	4.0000	142.875	5.6250	6.400	0.2520	1.600	0.0630	1 860	3 810	357	**EE234156/234213D**	1	417.000	16.4173	515.000	20.2756	20.600	0.8110	6.400	0.2520	1.600	0.0630	0.48	1.42	2.11	1.39
	15.6250	546.100	21.5000	117.475	4.6250	158.750	6.2500	6.400	0.2520	1.600	0.0630	1 860	3 810	357	**EE234156/234216D**	1	417.000	16.4173	515.000	20.2756	20.600	0.8110	6.400	0.2520	1.600	0.0630	0.48	1.42	2.11	1.39
406.400	16.0000	539.750	21.2500	101.600	4.0000	142.875	5.6250	6.400	0.2520	1.600	0.0630	1 860	3 810	357	**EE234160/234213D**	1	428.000	16.8504	515.000	20.2756	20.600	0.8110	6.400	0.2520	1.600	0.0630	0.48	1.42	2.11	1.39
	16.0000	546.100	21.5000	117.475	4.6250	158.750	6.2500	6.400	0.2520	1.600	0.0630	1 860	3 810	357	**EE234160/234216D**	1	428.000	16.8504	515.000	20.2756	20.600	0.8110	6.400	0.2520	1.600	0.0630	0.48	1.42	2.11	1.39
	16.0000	574.675	22.6250	106.363	4.1875	157.163	6.1875	6.700	0.2638	1.600	0.0630	2 040	3 880	367	**EE285160/285228D**	1	428.000	16.8504	535.000	21.0630	25.400	1.0000	6.700	0.2638	1.600	0.0630	0.50	1.35	2.01	1.32
	16.0000	574.675	22.6250	118.000	4.6457	175.000	6.8898	SP	SP	SP	SP	2 530	4 620	439	**46T815718**	1-P	426.400	16.7874	550.000	21.6535	28.500	1.1220	4.000	0.1575	2.000	0.0787	0.70	0.97	1.44	0.94
	16.0000	590.550	23.2500	174.625	6.8750	228.600	9.0000	9.500	0.3740	1.600	0.0630	3 830	7 070	658	**EE833160X/833233D**	1	434.000	17.0866	560.000	22.0472	27.000	1.0630	9.500	0.3740	1.600	0.0630	0.32	2.08	3.10	2.04
	16.0000	609.524	23.9970	133.350	5.2500	177.800	7.0000	7.900	0.3110	1.600	0.0630	3 260	6 060	567	**EE736160/736239D**	1	431.000	16.9685	575.000	22.6378	22.200	0.8740	4.000	0.1575	7.900	0.3110	0.35	1.95	2.90	1.91
	16.0000	609.600	24.0000	123.825	4.8750	187.325	7.3750	6.700	0.2638	1.600	0.0630	3 060	5 280	503	**EE911600/912401D**	1	428.000	16.8504	570.000	22.4409	31.800	1.2520	6.700	0.2638	1.600	0.0630	0.38	1.76	2.62	1.72
	16.0000	673.100	26.5000	127.000	5.0000	192.639	7.5842	6.400	0.2520	1.600	0.0630	3 170	5 240	494	**EE571602/572651D**	1	428.000	16.8504	620.000	24.4094	32.800	1.2913	6.400	0.2520	1.600	0.0630	0.40	1.68	2.50	1.64
	16.0000	673.100	26.5000	152.400	6.0000	192.639	7.5842	6.400	0.2520	1.600	0.0630	3 170	5 240	494	**EE571602/572653D**	1	428.000	16.8504	630.000	24.8031	20.100	0.7913	6.400	0.2520	1.600	0.0630	0.40	1.68	2.50	1.64
409.575	16.1250	546.100	21.5000	147.638	5.8125	185.738	7.3125	6.400	0.2520	1.600	0.0630	2 850	5 740	541	**M667948/M667911D**	1	431.000	16.9685	530.000	20.8661	19.100	0.7520	6.400	0.2520	1.600	0.0630	0.42	1.62	2.42	1.59
415.925	16.3750	590.550	23.2500	193.675	7.6250	244.475	9.6250	6.400	0.2520	1.600	0.0630	4 240	8 930	803	**M268749/M268710D**	1-P	437.000	17.2047	565.000	22.2441	25.400	1.0000	6.400	0.2520	1.600	0.0630	0.33	2.03	3.02	1.98
430.213	16.9375	603.250	23.7500	104.775	4.1250	159.639	6.2850	6.400	0.2520	1.600	0.0630	2 090	3 770	361	**EE241693/242377D**	1	451.000	17.7559	565.000	22.2441	27.400	1.0787	6.400	0.2520	1.600	0.0630	0.53	1.28	1.91	1.26
431.800	17.0000	571.500	22.5000	111.125	4.3750	155.575	6.1250	3.200	0.1260	1.600	0.0630	2 110	4 270	405	**LM869448/LM869410D**	1	447.000	17.5984	555.000	21.8504	22.200	0.8740	3.200	0.1260	1.600	0.0630	0.55	1.24	1.84	1.21
	17.0000	603.250	23.7500	104.775	4.1250	159.639	6.2850	6.400	0.2520	1.600	0.0630	2 090	3 770	361	**EE241701/242377D**	1	453.000	17.8346	565.000	22.2441	27.400	1.0787	6.400	0.2520	1.600	0.0630	0.53	1.28	1.91	1.26
	17.0000	673.100	26.5000	127.000	5.0000	192.639	7.5842	6.400	0.2520	1.600	0.0630	3 170	5 240	494	**EE571703/572651D**	1	453.000	17.8346	620.000	24.4094	32.800	1.2913	6.400	0.2520	1.600	0.0630	0.40	1.68	2.50	1.64
	17.0000	673.100	26.5000	152.400	6.0000	192.639	7.5842	6.400	0.2520	1.600	0.0630	3 170	5 240	494	**EE571703/572653D**	1	453.000	17.8346	630.000	24.8031	20.100	0.7913	6.400	0.2520	1.600	0.0630	0.40	1.68	2.50	1.64
441.325	17.3750	660.400	26.0000	138.113	5.4375	195.263	7.6875	10.400	0.4094	1.600	0.0630	2 900	5 260	482	**EE737173/737261D**	1	471.000	18.5433	615.000	24.2126	28.600	1.1260	10.400	0.4094	1.600	0.0630	0.37	1.80	2.69	1.76
447.675	17.6250	635.000	25.0000	206.375	8.1250	257.175	10.1250	6.400	0.2520	1.600	0.0630	4 920	10 500	917	**M270749/M270710D**	1-P	469.000	18.4646	605.000	23.8189	25.400	1.0000	6.400	0.2520	1.600	0.0630	0.33	2.03	3.02	1.98
457.200	18.0000	596.900	23.5000	120.650	4.7500	165.100	6.5000	9.500	0.3740	1.600	0.0630	2 410	5 230	486	**EE244180/244236D**	1	485.000	19.0945	570.000	22.4409	22.200	0.8740	9.500	0.3740	1.600	0.0630	0.40	1.67	2.48	1.63
	18.0000	605.000	23.8189	120.650	4.7500	165.100	6.5000	SP	SP	SP	SP	2 410	5 230	486	**46T916117**	2-P	489.000	19.2520	575.000	22.6378	22.000	0.8661	6.000	0.2362	0.800	0.0315	0.40	1.67	2.48	1.63
479.425	18.8750	679.450	26.7500	222.250	8.7500	276.225	10.8750	6.400	0.2520	1.600	0.0630	5 940	12 700	1 070	**46T966828**	2-P	490.000	19.2913	649.000	25.5512	27.000	1.0630	6.400	0.2520	1.600	0.0630	0.33	2.03	3.02	1.98
	18.8750	679.450	26.7500	222.250	8.7500	276.225	10.8750	6.400	0.2520	1.600	0.0630	5 310	11 100	952	**M272749/M272710D**	1-P	500.000	19.6850	650.000	25.5906	27.000	1.0630	6.400	0.2520	1.600	0.0630	0.33	2.03	3.02	1.98
	18.8750	679.450	26.7500	222.250	8.7500	276.225	10.8750	1.600	0.0630	6.400	0.2520	5 940	12 700	1 070	**46T966828**	1	508.000	20.0000	650.000	25.5906	27.000	1.0630	1.600	0.0630	6.400	0.2520	0.33	2.03	3.02	1.98
	18.8750	740.000	29.1339	230.000	9.0551	300.000	11.8110	1.600	0.0630	6.400	0.2520	7 020	13 100	1 110	**46T967430**	1-P	508.000	20.0000	696.000	27.4016	35.000	1.3780	1.600	0.0630	6.400	0.2520	0.33	2.03	3.02	1.98

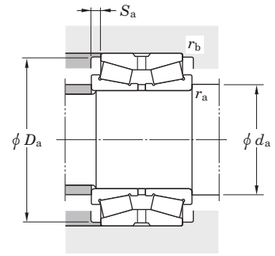
Note 1) SP indicates the specially chamfered from.

TDO · TDOS type

d 482.600 ~ (749.300) mm
19.0000 ~ (29.5000) inch



Design 1 | Design 1-P | Design 2 | Design 2-P

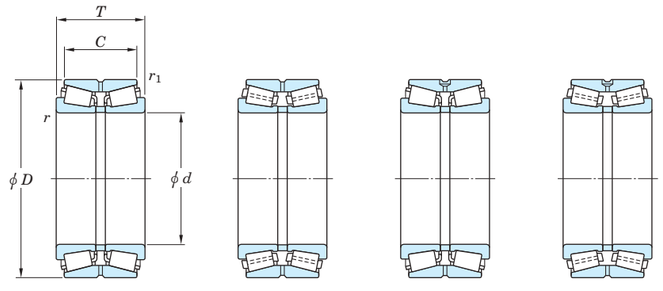


Boundary dimensions												Basic load ratings (kN)		Fatigue load limit (kN)	Bearing No.	Design	Mounting dimensions										Constant	Axial load factors		
d		D		C		T		$r^{1)}$ (min.)		$r_1{}^{1)}$ (min.)							d_a (min.)		D_a (min.)		S_a (min.)		r_a (max.)		$r_b{}^{1)}$ (max.)					
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	C_r	C_{0r}	C_u			mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	e	Y_2	Y_3	Y_0
482.600	19.0000	615.950	24.2500	146.050	5.7500	184.150	7.2500	6.400	0.2520	1.600	0.0630	3 040	7 110	639	**LM272249/LM272210D**	1	505.000	19.8819	595.000	23.4252	19.100	0.7520	6.400	0.2520	1.600	0.0630	0.33	2.03	3.02	1.98
	19.0000	634.873	24.9950	142.875	5.6250	177.800	7.0000	6.400	0.2520	1.600	0.0630	2 840	6 590	585	**EE243190/243251D**	1	505.000	19.8819	610.000	24.0157	17.500	0.6890	6.400	0.2520	1.600	0.0630	0.34	1.97	2.93	1.93
488.671	19.2390	660.400	26.0000	158.750	6.2500	206.375	8.1250	6.400	0.2520	1.600	0.0630	3 870	7 910	713	**EE640191/640261D**	1-P	510.000	20.0787	630.000	24.8031	23.800	0.9370	6.400	0.2520	1.600	0.0630	0.31	2.20	3.27	2.15
488.950	19.2500	634.873	24.9950	136.525	5.3750	180.975	7.1250	6.400	0.2520	1.600	0.0630	3 090	6 840	613	**LM772748/LM772710D**	1	510.000	20.0787	615.000	24.2126	22.200	0.8740	6.400	0.2520	1.600	0.0630	0.47	1.43	2.12	1.40
	19.2500	660.400	26.0000	158.750	6.2500	206.375	8.1250	6.400	0.2520	1.600	0.0630	3 870	7 910	713	**EE640192/640261D**	1-P	510.000	20.0787	630.000	24.8031	23.800	0.9370	6.400	0.2520	1.600	0.0630	0.31	2.20	3.27	2.15
	19.2500	660.400	26.0000	158.750	6.2500	206.375	8.1250	1.600	0.0630	6.400	0.2520	3 940	8 090	722	**46T986621**	1	517.000	20.3543	631.000	24.8425	23.900	0.9409	1.600	0.0630	6.400	0.2520	0.31	2.20	3.27	2.15
489.026	19.2530	634.873	24.9950	142.875	5.6250	177.800	7.0000	6.400	0.2520	1.600	0.0630	2 840	6 590	585	**EE243192/243251D**	1	510.000	20.0787	610.000	24.0157	17.500	0.6890	6.400	0.2520	1.600	0.0630	0.34	1.97	2.93	1.93
498.475	19.6250	634.873	24.9950	142.875	5.6250	177.800	7.0000	6.400	0.2520	1.600	0.0630	2 840	6 590	585	**EE243196/243251D**	1	520.000	20.4724	610.000	24.0157	17.500	0.6890	6.400	0.2520	1.600	0.0630	0.34	1.97	2.93	1.93
508.000	20.0000	736.600	29.0000	114.300	4.5000	186.502	7.3426	6.400	0.2520	1.600	0.0630	3 160	5 150	475	**EE982003/982901D**	1-P	530.000	20.8661	690.000	27.1654	36.100	1.4213	6.400	0.2520	1.600	0.0630	0.48	1.42	2.11	1.39
520.700	20.5000	736.600	29.0000	114.300	4.5000	186.502	7.3426	6.400	0.2520	1.600	0.0630	3 160	5 150	475	**EE982051/982901D**	1-P	545.000	21.4567	690.000	27.1654	36.100	1.4213	6.400	0.2520	1.600	0.0630	0.48	1.42	2.11	1.39
533.400	21.0000	812.800	32.0000	187.325	7.3750	269.875	10.6250	9.500	0.3740	3.200	0.1260	5 680	11 000	947	**EE626210/626321D**	1-P	565.000	22.2441	760.000	29.9213	41.300	1.6260	9.500	0.3740	3.200	0.1260	0.44	1.54	2.29	1.50
536.575	21.1250	761.873	29.9950	247.650	9.7500	311.150	12.2500	6.400	0.2520	1.600	0.0630	7 060	14 400	1 190	**M276449/10CD**	2-P	555.000	21.8504	726.000	28.5827	32.000	1.2598	6.400	0.2520	1.600	0.0630	0.33	2.03	3.02	1.98
546.100	21.5000	736.600	29.0000	114.300	4.5000	165.100	6.5000	6.400	0.2520	3.200	0.1260	3 030	6 100	550	**EE542215/542291D**	1-P	570.000	22.4409	705.000	27.7559	25.400	1.0000	6.400	0.2520	3.200	0.1260	0.51	1.33	1.97	1.30
558.800	22.0000	736.600	29.0000	114.300	4.5000	165.100	6.5000	6.400	0.2520	3.200	0.1260	3 030	6 100	550	**EE542220/542291D**	1-P	580.000	22.8346	705.000	27.7559	25.400	1.0000	6.400	0.2520	3.200	0.1260	0.51	1.33	1.97	1.30
	22.0000	736.600	29.0000	138.113	5.4375	187.328	7.3751	6.400	0.2520	1.600	0.0630	3 710	8 050	714	**EE843220/843291D**	1-P	580.000	22.8346	710.000	27.9528	24.600	0.9685	6.400	0.2520	1.600	0.0630	0.34	1.97	2.93	1.93
	22.0000	736.600	29.0000	160.000	6.2992	225.425	8.8750	6.400	0.2520	1.600	0.0630	4 050	9 180	776	**2TR559**	1-P	580.000	22.8346	720.000	28.3465	32.700	1.2874	6.400	0.2520	1.600	0.0630	0.70	0.97	1.44	0.94
	22.0000	736.600	29.0000	177.800	7.0000	225.425	8.8750	6.400	0.2520	1.600	0.0630	4 500	9 870	854	**LM377449/LM377410D**	1-P	580.000	22.8346	710.000	27.9528	23.800	0.9370	6.400	0.2520	1.600	0.0630	0.35	1.95	2.90	1.91
	22.0000	736.600	29.0000	177.800	7.0000	225.425	8.8750	1.600	0.0630	6.400	0.2520	4 800	10 800	923	**2TR559D**	1-P	587.000	23.1102	707.000	27.8346	23.900	0.9409	1.600	0.0630	6.400	0.2520	0.35	1.95	2.90	1.91
	22.0000	742.950	29.2500	138.113	5.4375	187.328	7.3751	6.400	0.2520	1.600	0.0630	3 710	8 050	714	**EE843220/843292D**	1-P	580.000	22.8346	710.000	27.9528	24.600	0.9685	6.400	0.2520	1.600	0.0630	0.34	1.97	2.93	1.93
560.000	22.0472	740.000	29.1339	140.000	5.5118	190.000	7.4803	SP	SP	SP	SP	3 710	8 050	714	**2TR560B**	1-P	585.000	23.0315	715.000	28.1496	25.000	0.9843	4.000	0.1575	0.800	0.0315	0.34	1.97	2.93	1.93
571.500	22.5000	812.800	32.0000	263.525	10.3750	333.375	13.1250	6.400	0.2520	1.600	0.0630	8 150	17 500	1 400	**M278749/10D**	1-P	600.000	23.6220	778.000	30.6299	35.000	1.3780	6.400	0.2520	1.600	0.0630	0.33	2.03	3.02	1.98
602.945	23.7380	787.400	31.0000	158.750	6.2500	206.375	8.1250	6.400	0.2520	1.600	0.0630	4 260	9 940	840	**EE649237/649311D**	1-P	625.000	24.6063	755.000	29.7244	23.800	0.9370	6.400	0.2520	1.600	0.0630	0.37	1.82	2.70	1.78
	23.7380	793.750	31.2500	158.750	6.2500	206.375	8.1250	6.400	0.2520	1.600	0.0630	4 260	9 940	840	**EE649237/649313D**	1-P	625.000	24.6063	755.000	29.7244	23.800	0.9370	6.400	0.2520	1.600	0.0630	0.37	1.82	2.70	1.78
609.600	24.0000	787.400	31.0000	158.750	6.2500	206.375	8.1250	6.400	0.2520	1.600	0.0630	4 260	9 940	840	**EE649240/649311D**	1-P	635.000	25.0000	755.000	29.7244	23.800	0.9370	6.400	0.2520	1.600	0.0630	0.37	1.82	2.70	1.78
	24.0000	793.750	31.2500	158.750	6.2500	206.375	8.1250	6.400	0.2520	1.600	0.0630	4 260	9 940	840	**EE649240/649313D**	1-P	635.000	25.0000	755.000	29.7244	23.800	0.9370	6.400	0.2520	1.600	0.0630	0.37	1.82	2.70	1.78
	24.0000	812.800	32.0000	146.050	5.7500	190.500	7.5000	6.400	0.2520	3.200	0.1260	4 100	8 590	743	**EE743240/743321D**	1-P	635.000	25.0000	770.000	30.3150	22.200	0.8740	6.400	0.2520	3.200	0.1260	0.33	2.06	3.06	2.01
682.625	26.8750	965.200	38.0000	311.150	12.2500	396.875	15.6250	9.500	0.3740	1.600	0.0630	11 500	25 400	1 910	**2TR683-1**	2-P	710.000	27.9528	926.000	36.4567	42.800	1.6850	9.500	0.3740	1.600	0.0630	0.33	2.03	3.02	1.98
685.800	27.0000	876.300	34.5000	152.400	6.0000	200.025	7.8750	6.400	0.2520	1.600	0.0630	4 400	10 800	880	**EE655270/655346D**	1-P	710.000	27.9528	850.000	33.4646	23.800	0.9370	6.400	0.2520	1.600	0.0630	0.42	1.62	2.42	1.59
711.200	28.0000	914.400	36.0000	139.700	5.5000	190.500	7.5000	6.400	0.2520	1.600	0.0630	3 780	8 930	747	**EE755280/755361D**	1-P	735.000	28.9370	880.000	34.6457	25.400	1.0000	6.400	0.2520	1.600	0.0630	0.38	1.78	2.65	1.74
723.900	28.5000	914.400	36.0000	139.700	5.5000	187.325	7.3750	3.200	0.1260	1.600	0.0630	3 780	8 930	747	**EE755285/755361D**	1-P	745.000	29.3307	880.000	34.6457	23.800	0.9370	3.200	0.1260	1.600	0.0630	0.38	1.78	2.65	1.74
749.300	29.5000	990.600	39.0000	265.000	10.4331	338.000	13.3071	6.400	0.2520	3.200	0.1260	9 820	23 900	1 780	**LM283649/LM283610D**	1-P	775.000	30.5118	960.000	37.7953	36.500	1.4370	6.400	0.2520	3.200	0.1260	0.32	2.12	3.15	2.07

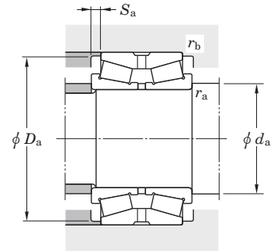
Note 1) SP indicates the specially chamfered from.

TDO · TDOS type

d (749.300) ~ 1 270.000 mm
(29.5000) ~ 50.0000 inch



Design 1 | Design 1-P | Design 2 | Design 2-P

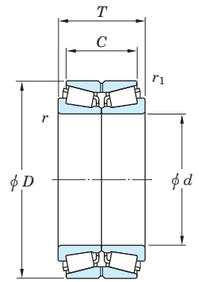


Boundary dimensions												Basic load ratings (kN)		Fatigue load limit (kN)		Bearing No.	Design	Mounting dimensions										Constant	Axial load factors		
d		D		C		T		$r^{1)}$ (min.)		$r_1{}^{1)}$ (min.)		C_r	C_{0r}	C_u				d_a (min.)		D_a (min.)		S_a (min.)		r_a (max.)		$r_b{}^{1)}$ (max.)		e	Y_2	Y_3	Y_0
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch							mm	inch	mm	inch	mm	inch	mm	inch	mm	inch				
749.300	29.5000	990.600	39.0000	265.000	10.4331	338.000	13.3071	3.200	0.1260	6.400	0.2520	9 820	23 900	1 780		**2TR749A**	1-P	778.000	30.6299	955.000	37.5984	36.500	1.4370	3.200	0.1260	6.400	0.2520	0.32	2.12	3.15	2.07
812.800	32.0000	1 016.000	40.0000	146.050	5.7500	190.500	7.5000	6.400	0.2520	1.600	0.0630	4 680	10 500	846		**EE762320/762401D**	1-P	840.000	33.0709	980.000	38.5827	22.200	0.8740	6.400	0.2520	1.600	0.0630	0.43	1.59	2.36	1.55
1 270.000	50.0000	1 435.100	56.5000	101.600	4.0000	146.050	5.7500	6.400	0.2520	3.200	0.1260	3 650	11 800	841		**LL889049/LL889010D**	1	1 300.000	51.1811	1 410.000	55.5118	22.200	0.8740	6.400	0.2520	3.200	0.1260	0.57	1.18	1.76	1.16

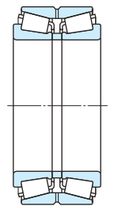
Note 1) SP indicates the specially chamfered from.

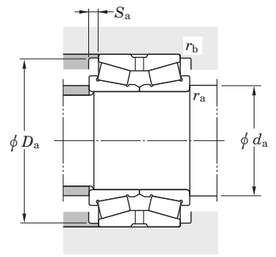
TNA type

d 60.325 ~ 203.200 mm
2.3750 ~ 8.0000 inch



Design 1

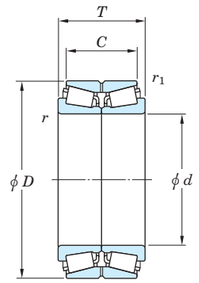

Design 2



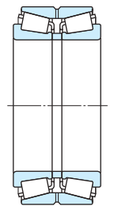
Boundary dimensions												Basic load ratings (kN)		Fatigue load limit (kN)		Bearing No.	Design	Mounting dimensions										Constant	Axial load factors		
d		D		C		T		r (min.)		r_1 (min.)		C_r	C_{0r}	C_u				d_a (min.)		D_a (min.)		S_a (min.)		r_a (max.)		r_b (max.)		e	Y_2	Y_3	Y_0
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch							mm	inch	mm	inch	mm	inch	mm	inch	mm	inch				
60.325	2.3750	123.825	4.8750	63.500	2.5000	79.375	3.1250	1.600	0.0630	3.600	0.1417	426	446	69.6		**NA558/552D**	—	79.000	3.1102	112.000	4.4094	8.000	0.3150	1.600	0.0630	3.600	0.1417	0.35	1.95	2.90	1.91
76.200	3.0000	136.525	5.3750	53.975	2.1250	69.850	2.7500	0.800	0.0315	3.600	0.1417	287	396	59.9		**NA495A/493D**	—	95.000	3.7402	127.000	5.0000	8.000	0.3150	0.800	0.0315	3.600	0.1417	0.44	1.52	2.26	1.49
88.900	3.5000	161.925	6.3750	85.725	3.3750	104.775	4.1250	1.600	0.0630	3.600	0.1417	587	782	105		**NA759/752D**	—	107.000	4.2126	147.000	5.7874	9.600	0.3780	1.600	0.0630	3.600	0.1417	0.34	1.98	2.95	1.94
95.250	3.7500	161.925	6.3750	61.913	2.4375	82.547	3.2499	0.800	0.0315	3.600	0.1417	388	576	83.4		**NA52375/52637D**	—	114.000	4.4882	150.000	5.9055	10.400	0.4094	0.800	0.0315	3.600	0.1417	0.47	1.42	2.12	1.39
101.600	4.0000	168.275	6.6250	69.850	2.7500	92.075	3.6250	3.600	0.1417	0.800	0.0315	484	698	101		**NA691/672D**	2	120.000	4.7244	156.000	6.1417	11.200	0.4409	3.600	0.1417	0.800	0.0315	0.47	1.43	2.14	1.40
104.775	4.1250	180.975	7.1250	85.725	3.3750	104.775	4.1250	3.600	0.1417	1.600	0.0630	620	876	113		**NA782/774D**	2	123.000	4.8425	165.000	6.4961	9.600	0.3780	3.600	0.1417	1.600	0.0630	0.39	1.75	2.61	1.71
114.300	4.5000	190.500	7.5000	80.963	3.1875	106.363	4.1875	3.600	0.1417	1.600	0.0630	654	965	122		**NA71450/751D**	2	133.000	5.2362	177.000	6.9685	12.700	0.5000	3.600	0.1417	1.600	0.0630	0.42	1.62	2.42	1.59
	4.5000	212.725	8.3750	117.475	4.6250	142.875	5.6250	3.600	0.1417	1.600	0.0630	965	1 350	168		**NA938//932D**	1	133.000	5.2362	192.000	7.5591	12.700	0.5000	3.600	0.1417	1.600	0.0630	0.33	2.07	3.09	2.03
127.000	5.0000	182.563	7.1875	73.025	2.8750	85.725	3.3750	3.600	0.1417	0.800	0.0315	487	858	120		**NA48291/48220D**	2	145.000	5.7087	173.000	6.8110	6.400	0.2520	3.600	0.1417	0.800	0.0315	0.31	2.21	3.29	2.16
	5.0000	206.375	8.1250	82.550	3.2500	107.950	4.2500	3.600	0.1417	0.800	0.0315	702	1 100	134		**NA798/792D**	2	145.000	5.7087	194.000	7.6378	12.700	0.5000	3.600	0.1417	0.800	0.0315	0.46	1.47	2.19	1.44
	5.0000	234.950	9.2500	114.300	4.5000	142.875	5.6250	3.600	0.1417	1.600	0.0630	1 120	1 650	200		**NA95500//95927D**	1	145.000	5.7087	216.000	8.5039	14.300	0.5630	3.600	0.1417	1.600	0.0630	0.37	1.83	2.72	1.79
133.350	5.2500	215.900	8.5000	80.963	3.1875	106.363	4.1875	3.600	0.1417	1.600	0.0630	691	1 100	132		**NA74525//74851D**	1	152.000	5.9843	204.000	8.0315	12.700	0.5000	3.600	0.1417	1.600	0.0630	0.49	1.38	2.06	1.35
136.525	5.3750	190.500	7.5000	73.025	2.8750	85.725	3.3750	3.600	0.1417	0.800	0.0315	505	944	129		**NA48390//48320D**	1	155.000	6.1024	181.000	7.1260	6.400	0.2520	3.600	0.1417	0.800	0.0315	0.32	2.10	3.13	2.06
139.700	5.5000	244.475	9.6250	79.375	3.1250	107.950	4.2500	3.600	0.1417	1.600	0.0630	694	989	131		**NA81550/81963D**	2	158.000	6.2205	226.000	8.8976	14.300	0.5630	3.600	0.1417	1.600	0.0630	0.35	1.93	2.88	1.89
142.875	5.6250	200.025	7.8750	73.025	2.8750	93.665	3.6876	3.600	0.1417	0.800	0.0315	527	982	133		**NA48686/48620D**	2	161.000	6.3386	190.000	7.4803	10.300	0.4055	3.600	0.1417	0.800	0.0315	0.34	2.01	2.99	1.96
146.050	5.7500	236.538	9.3125	106.363	4.1875	131.763	5.1875	3.600	0.1417	1.600	0.0630	904	1 460	171		**NA82576/82932D**	2	164.000	6.4567	224.000	8.8189	12.700	0.5000	3.600	0.1417	1.600	0.0630	0.44	1.53	2.27	1.49
	5.7500	241.300	9.5000	106.363	4.1875	131.763	5.1875	3.600	0.1417	1.600	0.0630	904	1 460	171		**NA82576/82951D**	2	164.000	6.4567	224.000	8.8189	12.700	0.5000	3.600	0.1417	1.600	0.0630	0.44	1.53	2.27	1.49
149.225	5.8750	236.538	9.3125	106.363	4.1875	131.763	5.1875	3.600	0.1417	1.600	0.0630	1 080	1 660	198		**HM231149NA/HM231111D**	2	168.000	6.6142	222.000	8.7402	12.700	0.5000	3.600	0.1417	1.600	0.0630	0.32	2.12	3.15	2.07
152.400	6.0000	244.475	9.6250	79.375	3.1250	107.950	4.2500	3.600	0.1417	1.600	0.0630	694	989	131		**NA81600/81963D**	2	171.000	6.7323	226.000	8.8976	14.300	0.5630	3.600	0.1417	1.600	0.0630	0.35	1.93	2.88	1.89
	6.0000	254.000	10.0000	111.125	4.3750	149.225	5.8750	3.600	0.1417	1.600	0.0630	1 180	1 830	215		**NA99600/99102D**	2	171.000	6.7323	236.000	9.2913	19.100	0.7520	3.600	0.1417	1.600	0.0630	0.41	1.66	2.47	1.62
165.100	6.5000	288.925	11.3750	111.125	4.3750	142.875	5.6250	3.600	0.1417	1.600	0.0630	1 350	1 950	223		**HM237536NA/HM237510D**	2	184.000	7.2441	270.000	10.6299	15.900	0.6260	3.600	0.1417	1.600	0.0630	0.32	2.12	3.15	2.07
165.496	6.5156	225.425	8.8750	69.850	2.7500	95.250	3.7500	3.600	0.1417	0.800	0.0315	554	1 140	148		**NA46791R/46720D**	2	184.000	7.2441	215.000	8.4646	12.700	0.5000	3.600	0.1417	0.800	0.0315	0.38	1.76	2.62	1.72
174.625	6.8750	247.650	9.7500	84.138	3.3125	103.188	4.0625	3.600	0.1417	0.800	0.0315	741	1 400	160		**NA67787//67720D**	1	193.000	7.5984	237.000	9.3307	9.500	0.3740	3.600	0.1417	0.800	0.0315	0.44	1.54	2.29	1.50
177.800	7.0000	247.650	9.7500	84.138	3.3125	103.188	4.0625	3.600	0.1417	0.800	0.0315	741	1 400	160		**NA67790/67720D**	2	196.000	7.7165	237.000	9.3307	9.500	0.3740	3.600	0.1417	0.800	0.0315	0.44	1.54	2.29	1.50
	7.0000	282.575	11.1250	79.375	3.1250	107.950	4.2500	3.600	0.1417	1.600	0.0630	880	1 450	182		**NA87700//87112D**	1	196.000	7.7165	266.000	10.4724	14.300	0.5630	3.600	0.1417	1.600	0.0630	0.42	1.62	2.42	1.59
	7.0000	288.925	11.3750	111.125	4.3750	142.875	5.6250	5.600	0.2205	1.600	0.0630	1 180	1 920	216		**NA94700//94114D**	1	206.000	8.1102	269.000	10.5906	15.900	0.6260	5.600	0.2205	1.600	0.0630	0.47	1.44	2.15	1.41
187.325	7.3750	320.675	12.6250	138.113	5.4375	185.738	7.3125	5.600	0.2205	1.600	0.0630	1 830	2 530	285		**H239649NA/H239612D**	2	216.000	8.5039	300.000	11.8110	23.800	0.9370	5.600	0.2205	1.600	0.0630	0.32	2.12	3.15	2.07
190.500	7.5000	266.700	10.5000	84.138	3.3125	109.538	4.3125	3.600	0.1417	0.800	0.0315	728	1 410	156		**NA67885SW//20D**	1	209.000	8.2283	257.000	10.1181	12.700	0.5000	3.600	0.1417	0.800	0.0315	0.48	1.42	2.11	1.38
203.200	8.0000	317.500	12.5000	88.900	3.5000	120.650	4.7500	6.400	0.2520	1.600	0.0630	944	1 450	166		**NA132083//132126D**	1	232.000	9.1339	292.000	11.4961	15.900	0.6260	6.400	0.2520	1.600	0.0630	0.31	2.15	3.21	2.11
	8.0000	317.500	12.5000	111.125	4.3750	146.050	5.7500	5.600	0.2205	1.600	0.0630	1 300	2 270	244		**NA93800/93127D**	2	232.000	9.1339	294.000	11.5748	17.500	0.6890	5.600	0.2205	1.600	0.0630	0.52	1.29	1.92	1.26

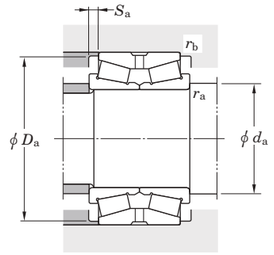
TNA type

d 228.600 ~ 406.400 mm
9.0000 ~ 16.0000 inch



Design 1


Design 2



Boundary dimensions												Basic load ratings (kN)		Fatigue load limit (kN)		Bearing No.	Design	Mounting dimensions										Constant	Axial load factors		
d		D		C		T		r (min.)		r_1 (min.)		C_r	C_{0r}	C_u				d_a (min.)		D_a (min.)		S_a (min.)		r_a (max.)		r_b (max.)		e	Y_2	Y_3	Y_0
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch							mm	inch	mm	inch	mm	inch	mm	inch	mm	inch				
228.600	9.0000	355.600	14.0000	111.125	4.3750	146.050	5.7500	6.400	0.2520	1.600	0.0630	1 560	2 610	280		**NA130902/131401D**	2	257.000	10.1181	330.000	12.9921	17.500	0.6890	6.400	0.2520	1.600	0.0630	0.33	2.04	3.04	2.00
241.300	9.5000	368.300	14.5000	85.725	3.3750	120.650	4.7500	6.400	0.2520	1.600	0.0630	1 090	1 850	203		**NA170950//171451D**	1	270.000	10.6299	335.000	13.1890	17.500	0.6890	6.400	0.2520	1.600	0.0630	0.36	1.86	2.77	1.82
244.475	9.6250	349.148	13.7460	101.600	4.0000	133.350	5.2500	6.400	0.2520	1.600	0.0630	1 190	2 050	224		**NA127096/127136D**	2	273.000	10.7480	329.000	12.9528	15.900	0.6260	6.400	0.2520	1.600	0.0630	0.35	1.91	2.84	1.86
254.000	10.0000	422.275	16.6250	128.588	5.0625	173.038	6.8125	6.400	0.2520	1.600	0.0630	2 180	3 360	355		**HM252343NA/HM252311D**	2	282.000	11.1024	397.000	15.6299	22.200	0.8740	6.400	0.2520	1.600	0.0630	0.33	2.03	3.02	1.98
	10.0000	431.724	16.9970	128.588	5.0625	173.038	6.8125	6.400	0.2520	1.600	0.0630	2 180	3 360	355		**HM252344NA/HM252315D**	2	282.000	11.1024	397.000	15.6299	22.200	0.8740	6.400	0.2520	1.600	0.0630	0.33	2.03	3.02	1.98
	10.0000	431.724	16.9970	128.588	5.0625	173.038	6.8125	6.400	0.2520	1.600	0.0630	2 110	3 420	352		**NA551002/551701D**	2	282.000	11.1024	388.000	15.2756	22.200	0.8740	6.400	0.2520	1.600	0.0630	0.33	2.03	3.02	1.98
260.350	10.2500	400.050	15.7500	107.950	4.2500	146.050	5.7500	6.400	0.2520	1.600	0.0630	1 630	2 570	274		**NA221026/221576D**	2	289.000	11.3780	371.000	14.6063	19.100	0.7520	6.400	0.2520	1.600	0.0630	0.39	1.71	2.54	1.67
	10.2500	422.275	16.6250	128.588	5.0625	173.038	6.8125	6.400	0.2520	1.600	0.0630	2 180	3 360	355		**HM252349NA/HM252311D**	2	289.000	11.3780	397.000	15.6299	22.200	0.8740	1.600	0.0630	1.600	0.0630	0.33	2.03	3.02	1.98
	10.2500	431.724	16.9970	128.588	5.0625	173.038	6.8125	6.400	0.2520	1.600	0.0630	2 180	3 360	355		**HM252349NA/HM252315D**	2	289.000	11.3780	397.000	15.6299	22.200	0.8740	1.600	0.0630	1.600	0.0630	0.33	2.03	3.02	1.98
304.800	12.0000	438.048	17.2460	123.825	4.8750	161.925	6.3750	1.600	0.0630	6.400	0.2520	1 890	3 450	350		**NA329120/329173D**	—	333.000	13.1102	411.000	16.1811	19.100	0.7520	1.600	0.0630	6.400	0.2520	0.33	2.04	3.04	2.00
	12.0000	444.500	17.5000	98.425	3.8750	139.700	5.5000	6.400	0.2520	1.600	0.0630	1 550	2 760	288		**NA291201//291751D**	1	333.000	13.1102	413.000	16.2598	20.600	0.8110	6.400	0.2520	1.600	0.0630	0.38	1.79	2.66	1.75
355.600	14.0000	501.650	19.7500	107.950	4.2500	146.050	5.7500	6.400	0.2520	1.600	0.0630	1 700	3 280	322		**NA231400//231976D**	1	384.000	15.1181	480.000	18.8976	19.100	0.7520	6.400	0.2520	1.600	0.0630	0.44	1.53	2.28	1.50
406.400	16.0000	574.675	22.6250	106.363	4.1875	157.163	6.1875	6.400	0.2520	1.600	0.0630	2 040	3 880	367		**NA285160//285228D**	1	435.000	17.1260	535.000	21.0630	25.400	1.0000	6.400	0.2520	1.600	0.0630	0.50	1.35	2.01	1.32

Supplementary tables

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2 Housing bore tolerances (deviation from nominal dimensions) 154

3 SI units and conversion factors 156

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Supplementary table 1 Shaft tolerances (deviation from nominal dimensions)

Nominal shaft dia. (mm)		Deviation classes of shaft dia.															
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
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	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
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
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
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
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
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
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
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
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
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
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
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	–	–
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	–	–
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	–	–

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

Unit : μm

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)
+ 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
+ 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
+ 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
+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
+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
+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	
+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	
+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	
+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	
+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	
+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	
+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	
+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	
+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	
+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	

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

Nominal bore dia. (mm)		Deviation classes of housing bore														
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
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
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
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
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
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
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
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
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
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
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
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	–	–
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	–	–
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	–	–
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	–	–

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

Unit : μm

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)
+ 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
+ 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
+ 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
+ 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**	
+ 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**	
+ 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**	
+ 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**	
+ 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**	
+ 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**	
+ 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**	
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**	
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**	
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**	
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**	

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 = 10^3 ℓ 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)] ∗ erg [erg(s)] kgf·m lbf·ft	1 eV = (1.602 189 2 ± 0.000 004 6) × 10^{-19} J 1 erg = 10^{-7} J 1 kgf·m = 9.806 65 J 1 lbf·ft = 1.355 82 J	 1 J = 10^{7} erg 1 J = 0.101 97 kgf·m 1 J = 0.737 56 lbf·ft
Power	W [watt(s)]	erg / s [ergs per second] kgf·m / s PS [French horse-power] HP [horse-power (British)] lbf·ft / s	1 erg / s = 10^{-7} W 1 kgf·m / s = 9.806 65 W 1 PS = 75 kgf·m / s = 735.5 W 1 HP = 550 lbf·ft / s = 745.7 W 1 lbf·ft / s = 1.355 82 W	 1 W = 0.101 97 kgf·m / s 1 W = 0.001 36 PS 1 W = 0.001 34 HP
Thermo-dynamic temperature	K [kelvin(s)]			
Celsius temperature	ºC [celsius(s)] {t ºC = (t + 273.15) K}	ºF [degree(s) Fahrenheit]	t ºF = $\frac{5}{9}$ (t − 32) ºC	t ºC = ($\frac{9}{5}$ t + 32) ºF
Linear expansion coefficient	K^{-1}	$ºC^{-1}$ [per degree]		
Heat	J [joule(s)] {1 J = 1 N·m}	erg [erg(s)] kgf·m cal_{IT} [I. T. calories]	1 erg = 10^{-7} J 1 cal_{IT} = 4.186 8 J 1 $Mcal_{IT}$ = 1.163 kW·h	1 J = 10^{7} erg 1 J = 0.238 85 cal_{IT} 1 kW·h = 0.86 × 10^{6} cal_{IT}
Thermal conductivity	W / (m·K)	W / (m·ºC) cal / (s·m·ºC)	1 W / (m·ºC) = 1 W / (m·K) 1 cal / (s·m·ºC) = 4.186 05 W / (m·K)	
Coefficient of heat transfer	W / (m^2·K)	W / (m^2·ºC) cal / (s·m^2·ºC)	1 W / (m^2·ºC) = 1 W/ (m^2·K) 1 cal / (s·m^2·ºC) = 4.186 05 W / (m^2·K)	
Heat capacity	J / K	J / ºC	1 J / ºC = 1 J / K	
Massic heat capacity	J / (kg·K)	J / (kg·ºC)		

[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 / m^2 = 1 V·s / m^2}	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	*Α*	*α*	nu	Ν	*Ν*	*ν*
beta	Β	*Β*	*β*	xi	Ξ	*Ξ*	*ξ*
gamma	Γ	*Γ*	*γ*	omicron	Ο	*Ο*	*ο*
delta	Δ	*Δ*	*δ*	pi	Π	*Π*	*π*
epsilon	Ε	*Ε*	*ε*	rho	Ρ	*Ρ*	*ρ*
zeta	Ζ	*Ζ*	*ζ*	sigma	Σ	*Σ*	*σ*
eta	Η	*Η*	*η*	tau	Τ	*Τ*	*τ*
theta	Θ	*Θ*	*θ*	upsilon	Υ	*Υ*	*υ*
iota	Ι	*Ι*	*ι*	phi	Φ	*Φ*	*ϕ*
kappa	Κ	*Κ*	*κ*	chi	Χ	*Χ*	*χ*
lambda	Λ	*Λ*	*λ*	psi	Ψ	*Ψ*	*ψ*
mu	Μ	*Μ*	*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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