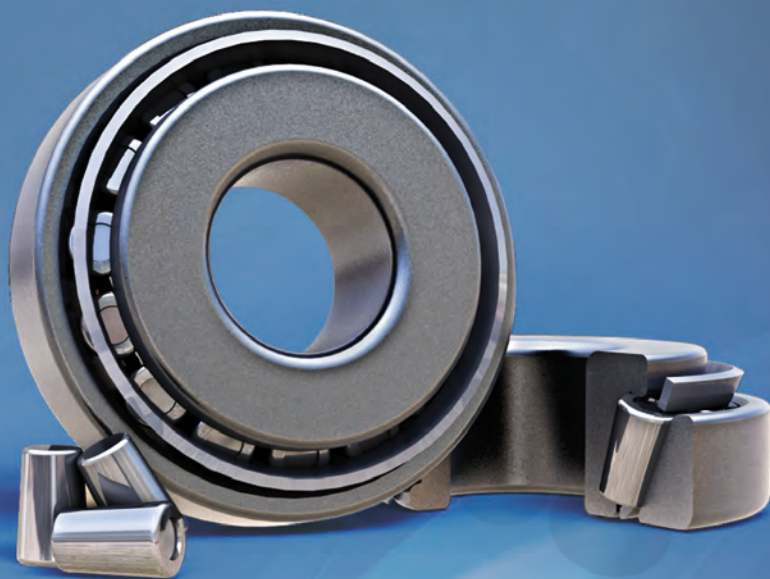


# 01/ Single row tapered roller bearings Rodamientos de rodillos cónicos



## Single row tapered roller bearings

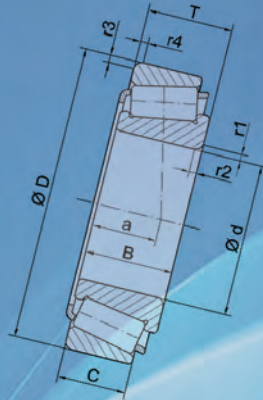
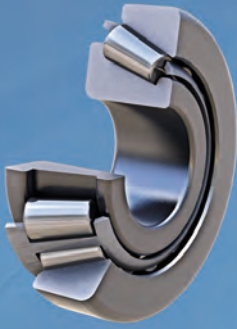
### Rodamientos cónicos

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## 1.0 Technical introduction

### Introducción técnica

#### Product Overview

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## 1.1 Metric series

### Series métricas

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# Product overview / Introducción

## Description

Tapered roller bearings manufactured by Fersa Bearings are appropriate for supporting relatively large combined radial and axial thrusts.

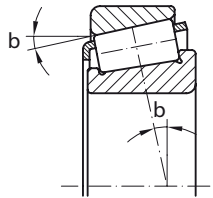
Moreover, these bearings, due to their geometric shape, are always assembled in opposing pairs in order to counteract any force that tries to separate one of the bearings. The inclined raceways allow taper roller bearings to support axial loads and radial loads combined. The axial load capacity of the bearings is mostly set by the contact angle  $\alpha$ .

## Descripción

Los rodamientos de rodillos cónicos fabricados por Fersa Bearings son indicados para soportar cargas combinadas de empuje axial y radial relativamente grandes.

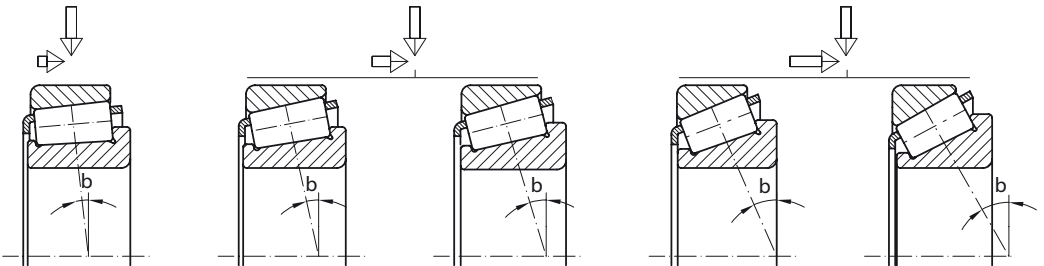
Además, debido a su forma geométrica estos rodamientos se montan siempre en parejas y contrapuestos para contrarrestar cualquier fuerza que intente separar uno de los rodamientos.

Las pistas de rodadura inclinadas permiten a los rodamientos de rodillos cónicos soportar cargas combinadas axiales y radiales. La capacidad de carga axial de los rodamientos está indicada por el ángulo de contacto  $\alpha$ .



Smaller angles are more suitable for heavy radial loads while wider angles are suitable for heavy axial loads.

El ángulo cerrado permite una carga radial mayor, mientras que un ángulo más abierto permite una carga axial mayor.



## Design

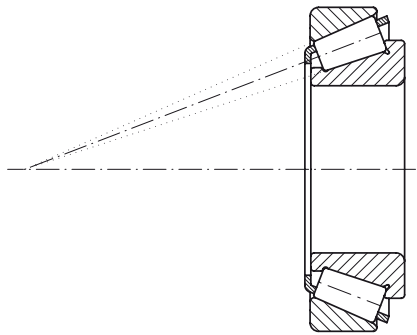
Tapered roller bearings consist of 4 fundamental parts:

- Inner raceway
- Outer raceway
- Tapered rollers
- Cage

A characteristic feature of this type of bearing is that it is possible to separate the outer ring from the rest of the assembly, which facilitates its assembly.

In normal working conditions, the inner raceway, the outer raceway and the rollers are the ones in charge of sustaining the loads, while the function of the cage is just to keep the rollers uniformly separated.

Likewise, the interior design of the bearing in which the lines resulting from prolongation of the inner and outer raceway surfaces converge at a common point on the bearing rotation axis, which allows for the rollers to rotate without slipping on the raceways along the whole contact surface.



The total alignment of the rollers is one of the main advantages of the tapered roller bearings. The conical geometry of the rollers not only gives a rolling movement without slipping with a load line (between raceway and rollers) but also a seating force between the large end of the roller and the rib of the cone. This seating force keeps the rollers aligned on the raceway surface.

## Diseño

Los rodamientos de rodillos cónicos tienen 4 partes fundamentales:

- Pista de rodadura interior
- Pista de rodadura exterior
- Rodillos cónicos
- Jaula

Una característica de este tipo de rodamientos es que se puede separar el aro exterior del resto de la disposición, facilitando así el montaje.

En condiciones de funcionamiento normales, la pista interior, la pista exterior y los rodillos son los encargados de soportar la carga, mientras que la jaula es para mantener los rodillos uniformemente separados.

De la misma forma, el diseño interior del rodamiento, en el cual la prolongación de las generatrices de la superficie de las pistas interior y exterior convergen en un punto común del eje de rotación del movimiento, permite a los rodillos el movimiento de rotación sin deslizamientos sobre las pistas a lo largo de toda la superficie de contacto.

La total alineación de los rodillos es una de las principales ventajas de los rodamientos de rodillos cónicos.

La geometría cónica de los rodillos, además de favorecer un movimiento de rotación con una línea de carga sin deslizamientos (entre las pistas y los rodillos), permite una fuerza de asentamiento entre la cabeza del rodillo y el labio del cono. Esta fuerza de asentamiento mantiene la alineación de los rodillos sobre la superficie de la pista.

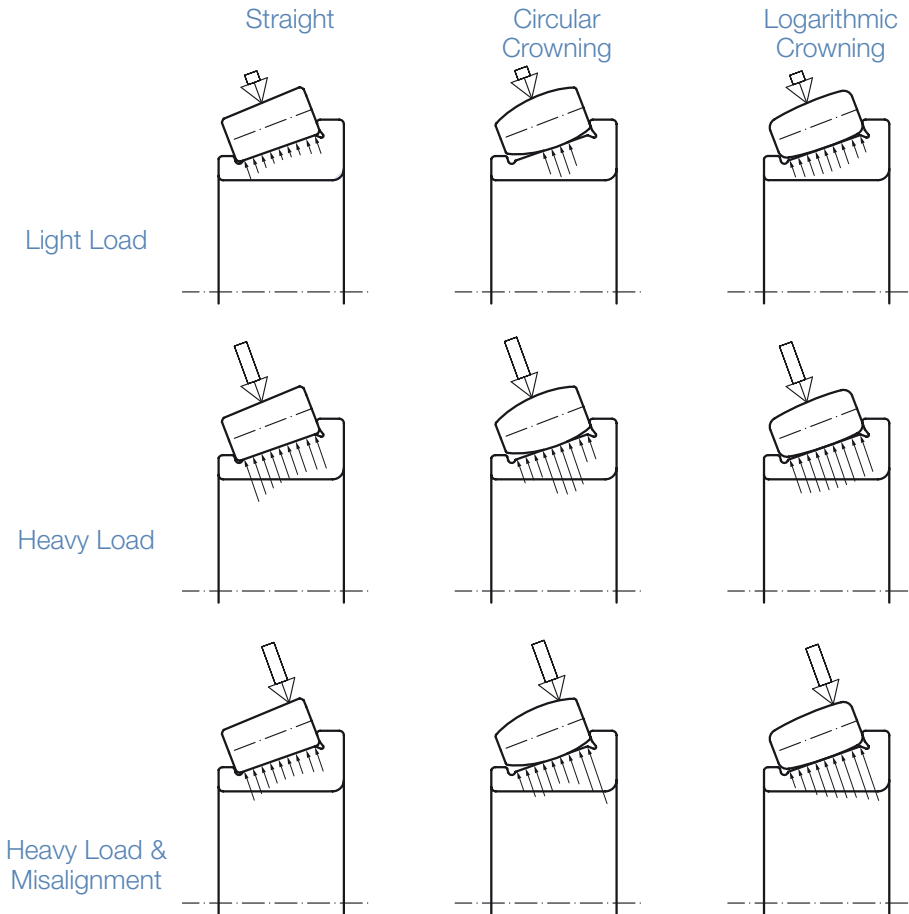
Tapered roller bearings have a spherical surface in the large end of the rollers. Due to this design, when there is no load there is only a contact point between the roller and the rib while with loads, this contact point becomes an elliptical area.

Standard tapered roller bearings under normal working conditions provide a uniform stress distribution on the roller and raceways contacts. Modified profiles can be designed so as to increase operational reliability and reduced sensitivity to misalignment preventing edge stresses.

Los rodamientos de rodillos cónicos tienen una superficie esférica en la cabeza de los rodillos. Debido a este diseño, cuando no hay carga solo hay un punto de contacto entre el rodillo y la testa, mientras que con carga, este punto de contacto se convierte en un área elíptica.

En condiciones de funcionamiento normales, los rodamientos de rodillos cónicos estándar permiten una distribución de tensiones uniforme en los contactos de los rodillos y pistas.

Se pueden diseñar con perfiles modificados para incrementar la fiabilidad operacional y reducir la sensibilidad a la desalineación evitando tensión en los extremos.



## Bearing features / Características de los rodamientos

### Tolerances

Fersa manufactures bearings called metric, which are perfectly standardized with tolerances in compliance with the ISO 492 International Standards, and bearings called inches in compliance with the International Standards ANSI ABMA Std. 19.2. Fersa also provides special Bearings subject to the specific needs of our clients, as well as other bearings different from those already previously.

The tolerances applied by Fersa to the metric bearings correspond to the ISO 492 Normal and 6X class.

The precision of a bearing is given by combining the main dimension tolerances and the operating tolerances, which refer to the deviations that may exist with the rotating parts.

The operating tolerances are based on the values of the following factors:

**Kia** – Radial deviation of the raceway of the inner ring.

**Kea** – Radial deviation of the raceway of the outer ring.

### Tolerancias

Fersa fabrica rodamientos denominados métricos, que están perfectamente estandarizados con tolerancias de acuerdo con la Normativa Internacional ISO 492, y además rodamientos denominados pulgadas de acuerdo a la Normativa Internacional ANSI ABMA Std. 19.2. Fersa Bearings también fabrica rodamientos especiales, de acuerdo a las especificaciones particulares solicitadas por nuestros clientes, o que tienen otras especificaciones a las mencionadas anteriormente.

Las tolerancias aplicadas por Fersa a los rodamientos métricos son las correspondientes a las clases Normal y 6X según la norma ISO 492.

La precisión de un rodamiento viene dada por la combinación de las principales dimensiones de tolerancias y las tolerancias de funcionamiento, que hacen referencia a las desviaciones que puedan existir con las partes giratorias.

Las tolerancias de funcionamiento están basadas en los valores de los siguientes factores:

**Kia** – Desviación radial de la pista de rodadura del aro interior.

**Kea** – Desviación radial de la pista de rodadura del aro exterior.

## a) Metric series / Serie métrica

Normal class / Clase Normal

Bore diameter / Diámetro interior

d		$\Delta_{dmp}$		$V_{dp}$	$V_{dmp}$	$K_{ia}$
over	incl	high	low	max	max	max
mm		$\mu m$		$\mu m$	$\mu m$	$\mu m$
-	10	0	-12	12	9	15
10	18	0	-12	12	9	15
18	30	0	-12	12	9	18
30	50	0	-12	12	9	20
50	80	0	-15	15	11	25
80	120	0	-20	20	15	30
120	180	0	-25	25	19	35
180	250	0	-30	30	23	50

Outer diameter / Diámetro exterior

D		$\Delta_{Dmp}$		$V_{Dp}$	$V_{Dmp}$	$K_{ia}$
over	incl	high	low	max	max	max
mm		$\mu m$		$\mu m$	$\mu m$	$\mu m$
-	18	0	-12	12	9	18
18	30	0	-12	12	9	18
30	50	0	-14	14	11	20
50	80	0	-16	16	12	25
80	120	0	-18	18	14	35
120	150	0	-20	20	15	40
150	180	0	-25	25	19	45
180	250	0	-30	30	23	50
250	315	0	-35	35	26	60
315	400	0	-40	40	30	70

Bearing width (normal class) / Anchura del rodamiento (clase normal)

d		$\Delta B_s$		$\Delta C_s$		$\Delta T_s$	
over	incl	high	low	high	low	high	low
mm		$\mu m$		$\mu m$		$\mu m$	
-	10	0	-120	0	-120	200	0
10	18	0	-120	0	-120	200	0
18	30	0	-120	0	-120	200	0
30	50	0	-120	0	-120	200	0
50	80	0	-150	0	-150	200	0
80	120	0	-200	0	-200	200	-200
120	180	0	-250	0	-250	350	-250
180	250	0	-300	0	-300	350	-250

P6X class / P6X Clase

width (P6X class) / Anchura (clase P6X)

d		$\Delta B_s$		$\Delta C_s$		$\Delta T_s$	
over	incl	high	low	high	low	high	low
mm		$\mu m$		$\mu m$		$\mu m$	
-	10	0	-50	0	-100	100	0
10	18	0	-50	0	-100	100	0
18	30	0	-50	0	-100	100	0
30	50	0	-50	0	-100	100	0
50	80	0	-50	0	-100	100	0
80	120	0	-50	0	-100	100	0
120	180	0	-50	0	-100	150	0
180	250	0	-50	0	-100	150	0

## B) Inch series (normal class) / Series pulgadas (clase normal)

Bore diameter / Diámetro interior

d		$\Delta_{dmp}$		$\Delta Bs$		kia
over	incl	high	low	high	low	max
mm		$\mu m$		$\mu m$		$\mu m$
-	76,2	13	0	76	-254	51
76,200	152,400	25	0	76	-254	51
152,400	304,800	25	0	-	-	51
304,800	609,600	51	0	-	-	51
609,600	-	76	0	-	-	76

Outer diameter / Diámetro exterior

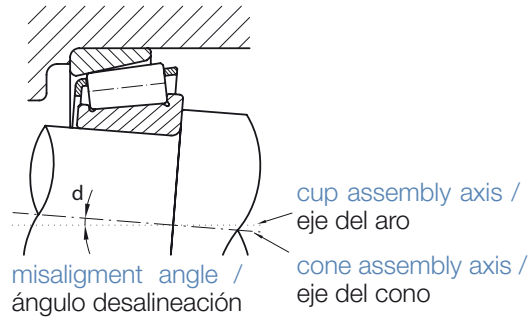
D		$\Delta_{dmp}$		$\Delta Cs$		Kea
over	incl	high	low	high	low	max
mm		$\mu m$		$\mu m$		$\mu m$
-	101,600	25	0	51	-254	51
101,600	304,800	25	0	51	-254	51
304,800	355,600	51	0	51	-254	51
355,600	609,600	51	0	-	-	51
609,600	-	76	0	-	-	76

width (normal class) / Anchura (clase normal)

d		$\Delta Ts$	
over	incl	high	low
mm		$\mu m$	$\mu m$
-	76,2	203	0
76,200	101,600	203	-254
101,600	304,800	356	-381
304,800	609,600	381	-381
609,600	-	381	-381

## Misalignment

Misalignment is defined, in tapered roller bearing, as the angle between the bearing cone assembly axis and the cup axis.



## Desalineación

La desalineación en los rodamientos de rodillos cónicos se define como la diferencia de ángulo entre el eje del cono montado y el eje del aro.

The ability of tapered roller bearing to accommodate angular misalignment of the inner ring with respect to the outer ring is limited to a few minutes.

La capacidad de los rodamientos de rodillos cónicos de soportar una desalineación angular del aro interior con respecto al aro exterior se limita a unos minutos.

## Internal clearance

In tapered roller bearings, the axial internal clearance is the result of mounting against a second bearing during installation. Therefore internal clearance of single row tapered roller bearings can only be obtained after mounting and it is determined by adjustment of the bearing against a second bearing, which provides location in the opposite direction.

## Juego Interior

En los rodamientos de rodillos cónicos, el juego axial interior solo se puede obtener tras el montaje y se determina por el ajuste de un rodamiento contra un segundo rodamiento, que permite una fijación en la dirección opuesta.

## Speed

Tapered rollers bearings speed can be express as:

a) Thermal reference speed.

It is the permissible operational speed of a bearing subjected to a certain load and running with a certain lubricant viscosity according to the ISO 15312. In these specific conditions, there is equilibrium between the heat that is generated by the bearing and the heat that is dissipated from the bearing to the shaft, housing and lubricant.

## Velocidad

La velocidad de los rodamientos de rodillos cónicos se puede expresar de la siguiente manera:

a) Velocidad termal.

Es la velocidad funcional permitida de un rodamiento sometido a una carga determinada y que está funcionando con una viscosidad de lubricante determinada de acuerdo a la Normativa ISO 15312. Bajo estas condiciones específicas hay un equilibrio entre el calor generado por el rodamiento y el calor que se disipa del rodamiento al eje, caja y lubricante.

b) Limiting speed

The speed limit is based on practical experience and laboratory tests that takes into account the strength of the cage, lubrication, sealing function and centrifugal forces.

**Cages**

Fersa is able to supply cages made in different materials:

- Pressed steel.
- Synthetic materials such as polyamide P<sub>A</sub> 66.



b) Límite de velocidad

El límite de velocidad se basa en la experiencia práctica y en las pruebas de laboratorio que toman en cuenta la solidez de la caja, el lubricante, la función de obturación y las fuerzas centrífugas.

**Jaulas**

Fersa puede suministrar jaulas en diferentes materiales:

- Acero prensado.
- Materiales sintéticos, como la poliamida P<sub>A</sub> 66.



**Equivalent dynamic bearing load**

The nominal capacity of the radial dynamic load Cr is the radial load with constant intensity and direction that a bearing can theoretically support for a nominal duration of 1 million revolutions (ISO 281). Its value for each bearing is determined in the Fersa catalogues.

In most cases, the loads applicable to the bearings are a combination of radial and axial loads which, moreover, fluctuate in magnitude and direction. Because of this, in order to calculate the service life of a bearing, an equivalent dynamic load must be calculated using the following formula:

$$Pr = X Fr + Y Fa$$

The values of the X and Y factors are given in the Fersa catalogue, accompanying each reference.

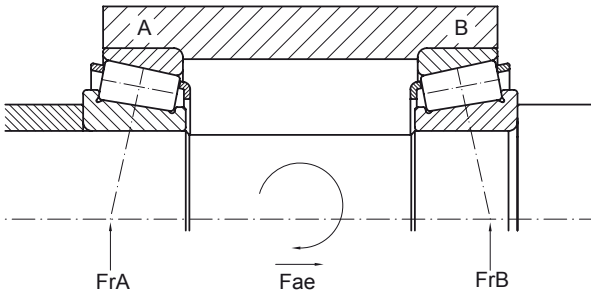
**Carga dinámica equivalente de rodamiento**

La capacidad nominal de carga dinámica radial Cr es la carga radial con intensidad y dirección constante que puede soportar teóricamente un rodamiento por una duración nominal de 1 millón de revoluciones (ISO 281). El valor para cada rodamiento viene determinado en los catálogos Fersa.

En la mayoría de los casos, las cargas aplicadas a los rodamientos son una combinación de cargas radiales y axiales que, además, fluctúan en magnitud y dirección. Debido a esto, para calcular la vida útil de un rodamiento, se debe calcular la carga dinámica equivalente utilizando la siguiente fórmula:

$$Pr = X Fr + Y Fa$$

Los valores de los factores X e Y vienen especificados, junto a cada referencia, en los catálogos de Fersa.



#### Axle load 1 conditions

Condición de carga axial 2

$$\frac{0,5 F_{rA}}{Y_A} \leq \frac{0,5 F_{rB}}{Y_B} + F_{06}$$

#### Total axle load on the bearing

Carga axial total sobre el rodamiento

$$F_{oA} = \frac{0,5 F_{rA}}{Y_A}$$

$$F_{oB} = \frac{0,5 F_{rA}}{Y_A} + F_{06}$$

#### Equivalent dynamic radial load

Carga radial dinámica equivalente

$$P_A = F_{rA}$$

$$\text{si } \frac{F_{aB}}{F_{rB}} \leq e_B, P_B = F_{rA}$$

$$F_{oA} = \frac{0,5 F_{rA}}{Y_A}$$

$$\text{si } \frac{F_{oB}}{F_{rB}} > e_B$$

$$P_B = 0,4 F_{rB} + Y_B F_{aB}$$

#### Axle load 1 conditions

Condición de carga axial 1

$$\frac{0,5 F_{rA}}{Y_A} \leq \frac{0,5 F_{rB}}{Y_B} + F_{06}$$

#### Total axle load on the bearing

Carga axial total sobre el rodamiento

$$F_{oA} = \frac{0,5 F_{rB}}{Y_B} + F_{06}$$

$$F_{oB} = \frac{0,5 F_{rB}}{Y_B}$$

#### Equivalent dynamic radial load

Carga radial dinámica equivalente

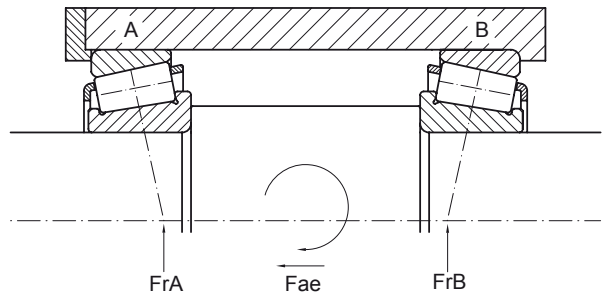
$$\text{si } \frac{F_{aA}}{F_{rA}} \leq e_A$$

$$P_A = F_{rA}$$

$$\text{si } \frac{F_{aA}}{F_{rA}} > e_A$$

$$P_A = 0,4 F_{rA} + Y_A F_{aA}$$

$$P_B = F_{rB}$$



## Equivalent static bearing load

When a bearing is subject to an excessive load, or to a large impulse load which surpasses the elastic limit, permanent local deformations may be produced on the raceway surfaces.

The value that regulates this possibility is the nominal capacity of the radial static load  $C_{or}$ , and is defined as the radial static load that corresponds to the calculation of a reaction in the centre of the roller contact / most loaded path equal to 4000 MPa (ISO 76).

There also exists an equivalent static load, due to the variety of possibilities of load application, with the formula:

$$P_{or} = X_o Fr + Y_o Fr$$

There are different restrictive factors to be kept in mind in more extreme situations such as: high temperatures, reduction due to hardness of shafts and housings, of impact, of safety, etc.

The suitability of a bearing selected for heavily loaded applications should be checked to ensure that its basic static load rating is adequate. This can be determined with the aid of the static safety factor  $S_0$ , which is given by the equation:

$$S_0 = C_0 / P_0$$

where:

- $C_0$  = basic static load rating [kN]
- $P_0$  = equivalent static bearing load [kN]
- $S_0$  = static safety factor

Where the bearing is dynamically loaded and the selection has been made on the basis of life, it is also advisable to check that the basic static load rating is adequate for attaining the performance requirements of the application.

Guideline values of  $S_0$  for various types of operation and application requirements regarding smooth and vibration free running are applicable to rotating bearings and are based on experience: T 3.1.3.

## Carga estática equivalente del rodamiento

Cuando un rodamiento está sometido a una carga excesiva, o a una carga de inercia grande que sobrepasa el límite de elasticidad, se pueden producir deformaciones permanentes en la pista de rodadura.

El valor que regula esto es la capacidad nominal de la carga radial estática  $C_{or}$ , y se define como la carga radial estática correspondiente al cálculo de una reacción en el centro del contacto del rodillo / camino más cargado igual a 4000 MPa (ISO 76).

También existe un equivalente a la carga estática debido a la variedad de posibilidades de la aplicación de la carga, con la fórmula:

$$P_{or} = X_o Fr + Y_o Fr$$

En cuanto a las situaciones más extremas se deben tener en cuenta factores restrictivos diferentes, tales como: temperaturas altas, reducción de caja y ejes debido a la dureza, el impacto, la seguridad, etc.

Se debe de confirmar la idoneidad de un rodamiento seleccionado para aplicaciones de cargas muy grandes, para asegurar que la referencia de carga estática básica es la adecuada. Esto se puede determinar con la ayuda del factor de seguridad estática  $S_0$ , que viene dado por la ecuación:

$$S_0 = C_0 / P_0$$

donde:

- $C_0$  = referencia de carga estática básica [kN]
- $P_0$  = carga estática equivalente de rodamiento [kN]
- $S_0$  = actor estático de seguridad

Cuando el rodamiento está cargado dinámicamente y la selección se ha hecho en base a la vida útil del rodamiento, también se aconseja comprobar que la referencia de carga estática es la adecuada para lograr los requisitos de funcionamiento de la aplicación.

Valores recomendados para  $S_0$  según los requisitos de varios tipos de funcionamiento y aplicación con respecto a un funcionamiento suave y sin vibraciones son aplicables a los rodamientos de rotación y se basan en la experiencia: T 3.1.3.

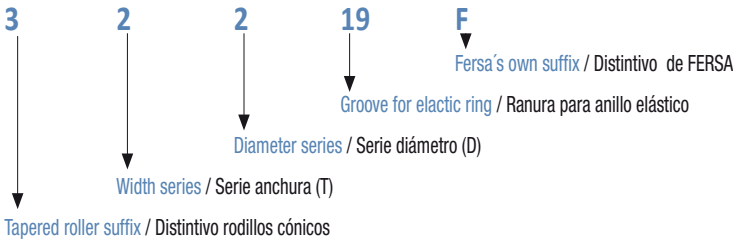
Type of operation / Tipo de operación	So min
Quiet running applications: smooth-running, vibration, high rotational accuracy / Aplicaciones ligeras: rodaje suave, sin vibraciones, alta precisión de giro.	3
Normal-run applications: smooth-running, vibration-free, normal rotational accuracy / Aplicaciones normales: rodaje suave, sin vibraciones, precisión de giro normal.	1,5
Applications subjected to shock loads: pronounced shock loads a / Aplicaciones sujetas a impactos: cargas continuadas de golpes	3

## Designation (prefix, suffix)

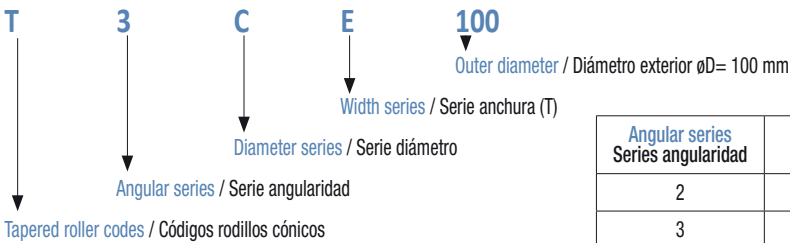
### 2.7.1 Metric

#### a) Initial Nomenclature:

- Included by the ISO 15 Standard.
- Only one reference to identify cup and cone



#### b) New nomenclature (ISO 355 Standard)



Diameter series Series diámetro	D/d <sup>0,77</sup>	
B	3,4	3,8
C	3,8	4,4
D	4,4	4,7
E	4,7	5
F	5	5,6
G	5,6	7

## Designación (prefijo, sufijo)

### 2.7.1 Métricos

#### a) Nomenclatura original:

- Recogida en la norma ISO 15.
- Una única referencia para identificar aro y cono

#### b) Nueva nomenclatura (Norma ISO 355)

Angular series Series angularidad	a	
2	10°	13°52'
3	13°	15° 59'
4	15° 59'	18°55'
5	18° 55'	23'
6	23°	27'
7	27°	30'

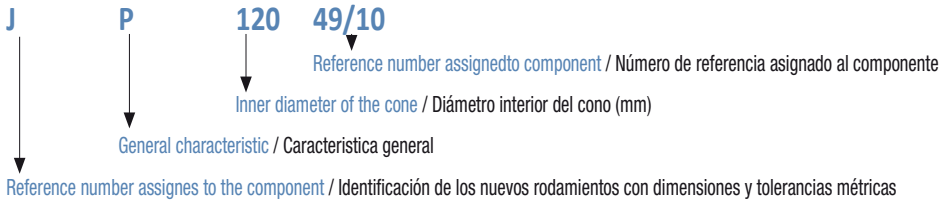
Width Series anchura	T/(D-d) <sup>0,95</sup>	
B	0,5	0,68
C	0,68	0,8
D	0,8	0,88
E	0,88	1

c) “New” metric series nomenclature:

- New series for bearings included in the ISO 355 Standard.
- Dimensions with metric measurements.
- Combined nomenclature with the ABMA inches system.

c) Nomenclatura “nuevas” series de métricos:

- Nuevas series de rodamientos incluidos en la norma ISO 355.
- Dimensiones con cotas métricas.
- Nomenclatura combinada con el sistema de numeración en pulgadas ABMA.



Reference number assigns to the component / Identificación de los nuevos rodamientos con dimensiones y tolerancias métricas

General characteristic Característica general	
C,D,K	For general industrial application / Para aplicaciones industriales en general
N	For general and head application pinions industrial / Para aplicaciones industriales en general y piñones de ataque
P	For high speed / Para alta velocidad
S,T	For head pinions / Para piñones de ataque
W	For heavy axial loads / Para grandes cargas axiales

2.7.2 Inches:

- Combination of an initial nomenclature developed and the subsequent ANSI ABMA 19.2 Standard.
- Any inner set can be assembled with a ring from the same serie, that is the reason why the cone and the cup have individual designations.
- Depending on the loads to be supported, the variation of the amount of rollers and raceways angles can generate a whole new assortment of bearings: radial (smaller angles) or axial (wider angles).
- The term “bearing series” is used to describe bearings having the same basic internal geometry (roller size, inner raceway and outer race angle). Any inner raceway (including roller set) can be matched with any outer raceway within the same series providing that the same type of bearing is being used.

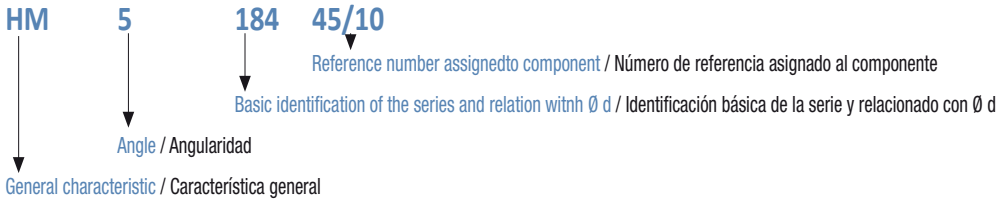
2.7.2 Pulgadas:

- Mezcla de una nomenclatura original desarrollada inicialmente y la norma ANSI ABMA 19.2 posterior.
- Cualquier conjunto interior puede montarse con cualquier aro de la misma serie. Por este motivo, el cono y el aro cuentan con designaciones individuales.
- Variando la cantidad de rodillos y los ángulos de las pistas, pueden generarse toda una gama de rodamientos según las cargas que tuvieran que soportar: radiales (ángulos más cerrados) o axiales (ángulos más abiertos).
- El término “series de rodamientos” se usa para describir los rodamientos que tienen la misma geometría interna (conjunto de rodillos y ángulo de pista interior y exterior). Toda pista interior (incluido un conjunto de rodillo) puede ajustarse a una pista

- The series are defined with a series of digits that go between 3 digits (initial nomenclature) to 6 digits (ABMA).

exterior dentro de la misma serie, siempre que se utilice el mismo tipo de rodamiento.

- Las series están definidas por entre 3 (nomenclatura original) y 6 (ABMA) dígitos.



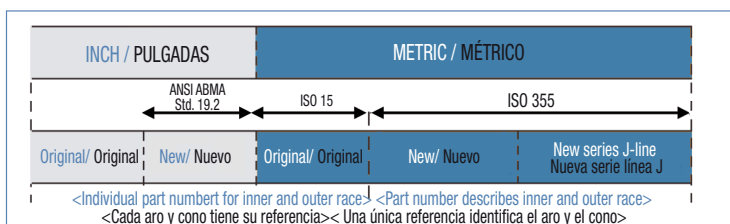
Angle-angle of the raceway / Angularidad - ángulo pista del aro			
1	0° - 24°	6	30o30'-32o30'
2	24° - 25° 30'	7	32o30'-36o
3	25°30' - 27°	8	36o-45o
4	27°-28°30'	9	>45o
5	28°30'-30°30'	0	90o(rod.solo axial)

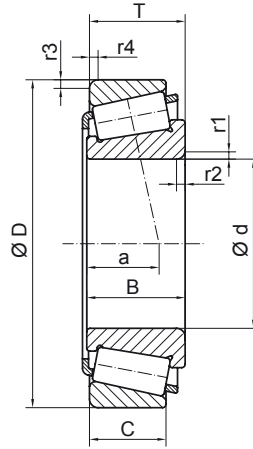
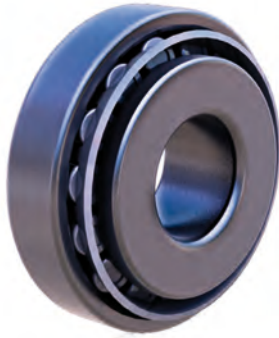
General characteristics / Característica general			
EE/EL	Extra Light	HM	Heavy Medium
L	Light	HM	Heavy Medium
LL	Light Light	HH	Heavy Heavy
LM	Light Medium	EH	Extra Heavy
M	Medium	T	Solo axial
J	Cotas métricas		

Basic identification of the series / Identificación básica de la serie ( $\emptyset d$ )					
$\emptyset d(p)$	serie	$\emptyset d(p)$	serie	$\emptyset d(p)$	serie
0-1	00-19	10-11	470-509	21-22	740-754
1-2	20-99 000-029	11-12	510-549	22-23	755-769
		12-13	550-579	23-24	770-784
2-3	030-129	13-14	580-609	24-25	785-799
3-4	130-189	14-15	610-639	25-30	800-829
4-5	190-239	15-16	640-659	30-35	830-859
5-6	240-289	16-17	660-679	35-40	860-879
6-7	290-339	17-18	680-694	40-50	880-889
7-8	340-389	18-19	695-709	50-72,5	890-899
8-9	390-429	19-20	710-724	>72,5	900-999
9-10	430-469	20-21	725-739		

As summary, the following standards are applied:

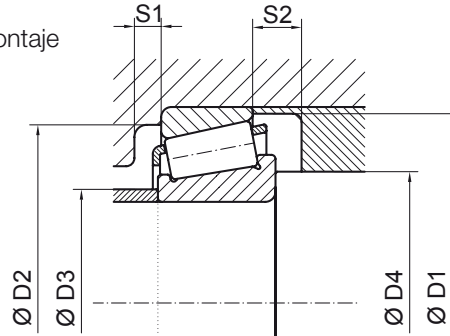
Los siguientes estándares son los aplicables:



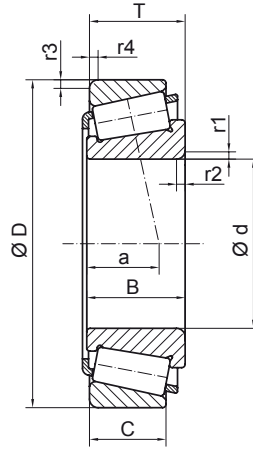


DIMENSIONS / DIMENSIONES													REFERENCES REFERENCIAS	ISO REF REF ISO
d		D		T		B		C		r1/r2 min	r3/r4 min	a		
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch					
<b>15,000</b>	<b>0,591</b>	35,000	1,378	11,750	0,463	11,000	0,433	10,000	0,394	1,0	1,0	8,3	<b>30202 F</b>	---
		42,000	1,654	14,250	0,561	13,000	0,512	11,000	0,433	1,0	1,0	9,6	<b>30302 F</b>	T2FB015
<b>17,000</b>	<b>0,669</b>	40,000	1,575	13,250	0,522	12,000	0,472	11,000	0,433	1,0	1,0	9,9	<b>30203 F</b>	T2DB017
		47,000	1,850	15,250	0,600	14,000	0,551	12,000	0,472	1,0	1,0	10,0	<b>30303 F</b>	T2FB017
		47,000	1,850	15,250	0,600	14,000	0,551	10,500	0,413	1,5	1,5	15,9	<b>31303 F</b>	---
		47,000	1,850	20,250	0,797	19,000	0,748	16,000	0,630	1,0	1,0	12,0	<b>32303 F</b>	T2FD017
<b>20,000</b>	<b>0,787</b>	42,000	1,654	15,000	0,591	15,000	0,591	12,000	0,472	0,6	0,6	10,0	<b>32004 XF</b>	T3CC020
		42,000	1,654	15,000	0,591	15,000	0,591	12,000	0,472	3,0	0,6	10,0	<b>32004 XR</b>	---
		47,000	1,850	15,250	0,600	14,000	0,551	12,000	0,472	1,0	1,0	11,0	<b>30204 F</b>	T2DB020
		47,000	1,850	19,250	0,758	18,000	0,709	15,000	0,591	1,0	1,0	12,6	<b>32204 F</b>	T2DD020
		47,000	1,850	19,250	0,758	18,000	0,709	13,000	0,512	0,3	0,5	12,6	<b>32204 FR</b>	---
		52,000	2,047	16,250	0,640	15,000	0,591	13,000	0,512	1,5	1,5	11,0	<b>30304 F</b>	T2FB020
		52,000	2,047	22,250	0,876	21,000	0,827	18,000	0,709	1,5	1,5	14,0	<b>32304 F</b>	T2FD020
<b>22,000</b>	<b>0,866</b>	44,000	1,732	15,000	0,591	15,000	0,591	11,500	0,453	0,6	0,6	11,0	<b>320/22 XF</b>	---
<b>25,000</b>	<b>0,984</b>	47,000	1,850	15,000	0,591	15,000	0,591	11,500	0,453	0,6	0,6	11,6	<b>32005 XF</b>	T4CC025
		47,000	1,850	15,000	0,591	15,000	0,591	11,500	0,453	4,5	1,0	11,6	<b>32005 XR</b>	---
		52,000	2,047	16,250	0,640	15,000	0,591	13,000	0,512	3,5	1,0	12,0	<b>30205 FR</b>	---
		52,000	2,047	16,250	0,640	15,000	0,591	13,000	0,512	1,0	1,0	12,0	<b>30205 F</b>	T3CC025
		52,000	2,047	19,250	0,758	18,000	0,709	16,000	0,630	1,0	1,0	13,5	<b>32205 F</b>	T2CD025
		52,000	2,047	19,250	0,758	18,000	0,709	15,000	0,591	1,0	1,0	16,0	<b>32205 BF</b>	T5CD025
		52,000	2,047	22,000	0,866	22,000	0,866	18,000	0,709	1,0	1,0	14,1	<b>33205 F</b>	T2DE025
		62,000	2,441	18,250	0,719	17,000	0,669	15,000	0,591	1,5	1,5	13,1	<b>30305 F</b>	T2FB025
		62,000	2,441	18,250	0,719	17,000	0,669	13,000	0,512	1,5	1,5	20,0	<b>31305 F</b>	T7FB025
		62,000	2,441	25,250	0,994	24,000	0,945	20,000	0,787	1,5	1,5	15,6	<b>32305 F</b>	T2FD025
<b>28,000</b>	<b>1,102</b>	52,000	2,047	16,000	0,630	16,000	0,630	12,000	0,472	1,0	1,0	13,0	<b>320/28 XF</b>	T4CC028
		68,000	2,677	19,750	0,778	18,000	0,709	16,000	0,630	1,5	1,5	14,1	<b>303/28 F</b>	---
<b>30,000</b>	<b>1,181</b>	55,000	2,165	17,000	0,669	17,000	0,669	13,000	0,512	1,0	1,0	13,4	<b>32006 XF</b>	T4CC030

### Assembly / Montaje

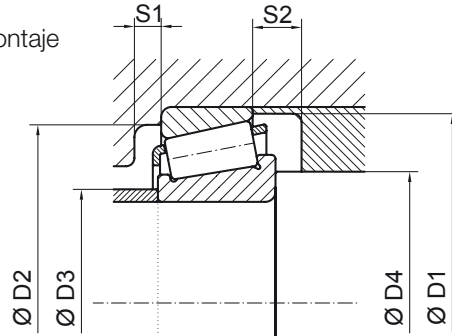


WEIGHT / PESO		ASSEMBLY / MONTAJE						LOAD / CARGA (kN)		LOAD FACTORS / FACTORES DE CARGA			SPEED / VELOCIDAD (rpm)		REFERENCES / REFERENCIAS	
								DYNAMIC / DINÁMICA	STATIC / ESTÁTICA	DYNAMICS / DINÁMICOS	STATICS / ESTÁTICOS	OIL / ACEITE	GREASE / GRASA			
kg	lb	D1min	D2min	D2max	D3max	D4min	S1	S2	C	Co	e	Y	Yo	na	ng	
0,05	0,11	32,0	30,0	30,0	20,0	19,0	2,0	1,5	15,4	15,0	0,32	1,88	1,04	16000	11900	30202 F
0,10	0,21	38,0	36,5	36,0	22,0	21,0	2,0	3,0	26,9	27,0	0,28	2,10	1,15	13800	10200	30302 F
0,08	0,17	37,0	34,5	35,0	23,5	20,8	2,0	2,0	21,7	21,2	0,34	1,74	0,95	13700	10100	30203 F
0,13	0,29	42,0	40,5	42,0	25,0	21,0	3,0	3,0	32,9	30,5	0,28	2,10	1,15	12300	9100	30303 F
0,13	0,28	45,0	36,0	41,0	27,0	23,0	3,0	4,5	23,3	23,7	0,83	0,73	0,40	12500	9300	31303 F
0,17	0,37	43,0	39,5	41,0	24,0	21,0	3,0	4,0	39,7	39,2	0,28	2,10	1,15	12300	9100	32303 F
0,10	0,22	39,0	36,0	38,0	25,0	23,0	3,0	3,0	27,6	31,3	0,37	1,60	0,88	12500	9300	32004 XF
0,10	0,22	39,0	36,0	38,0	25,0	23,0	3,0	3,0	27,6	31,3	0,37	1,60	0,88	12500	9300	32004 XR
0,12	0,26	43,0	40,5	42,0	27,0	24,0	2,0	3,0	32,5	33,8	0,34	1,74	0,95	11600	8600	30204 F
0,16	0,35	43,0	39,0	42,0	27,5	24,0	2,0	4,0	40,9	44,3	0,33	1,81	1,00	11700	8700	32204 F
0,16	0,35	43,0	39,0	42,0	27,5	24,0	2,0	4,0	40,9	44,3	0,33	1,81	1,00	11700	8700	32204 FR
0,17	0,37	47,0	44,5	46,0	28,0	26,0	3,0	3,0	39,9	38,9	0,30	2,00	1,10	10900	8100	30304 F
0,23	0,51	47,0	42,5	46,0	27,0	26,0	3,0	4,0	49,7	52,0	0,30	2,00	1,10	10900	8100	32304 F
0,11	0,23	38,5	38,0	40,0	27,0	25,0	3,0	3,5	29,4	33,8	0,39	1,51	0,83	11700	8700	320/22 XF
0,11	0,24	44,0	40,5	42,5	30,0	29,2	3,0	3,5	30,7	37,8	0,43	1,39	0,76	10700	7900	32005 XF
0,11	0,24	44,0	40,5	42,5	30,0	32,0	3,0	3,5	30,7	37,8	0,43	1,39	0,76	10700	7900	32005 XR
0,15	0,33	48,0	40,5	47,0	31,0	29,0	2,0	3,0	37,7	42,9	0,37	1,60	0,88	10700	7900	30205 FR
0,15	0,33	48,0	44,5	47,0	31,0	29,0	2,0	3,0	37,7	42,9	0,37	1,60	0,88	10100	7500	30205 F
0,19	0,41	49,0	44,5	47,0	31,0	29,0	2,0	3,0	38,7	44,9	0,37	1,60	0,88	10100	7500	32205 F
0,19	0,42	49,0	41,0	47,0	31,0	29,0	2,0	4,0	42,0	51,8	0,58	1,03	0,57	9700	7200	32205 BF
0,22	0,47	49,0	43,5	46,0	30,0	31,0	4,0	4,0	49,0	57,9	0,35	1,71	0,94	10100	7500	33205 F
0,26	0,57	57,0	54,0	54,5	34,0	32,5	3,0	3,0	52,8	51,7	0,30	2,00	1,10	9000	6700	30305 F
0,26	0,57	59,0	47,5	56,0	34,0	31,0	3,0	5,0	46,1	50,1	0,82	0,72	0,40	8100	6000	31305 F
0,36	0,79	57,0	52,0	54,5	33,5	32,5	3,0	5,0	67,9	71,9	0,30	2,00	1,10	9000	6700	32305 F
0,15	0,32	49,0	45,0	47,0	33,0	32,0	3,0	4,0	37,6	43,6	0,43	1,39	0,76	9600	7100	320/28 XF
0,35	0,76	61,5	57,5	62,0	37,5	34,0	3,0	3,5	58,8	58,4	0,30	1,96	1,07	8200	6100	303/28 F
0,17	0,37	52,0	47,5	49,0	35,5	34,2	3,0	4,0	42,1	53,2	0,43	1,39	0,76	9000	6700	32006 XF

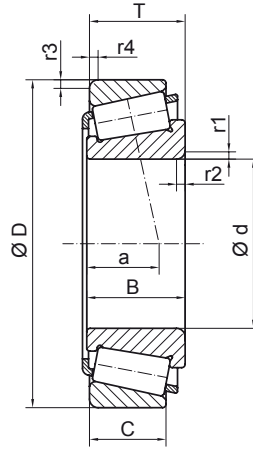


DIMENSIONS / DIMENSIONES													REFERENCES REFERENCIAS	ISO REF REF ISO
d		D		T		B		C		r1/r2 min	r3/r4 min	a		
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch					
30,000	1,181	55,000	2,165	20,000	0,787	20,000	0,787	16,000	0,630	1,0	1,0	13,0	33006 F	T2CE030
		62,000	2,441	17,250	0,679	16,000	0,630	14,000	0,551	1,0	1,0	13,9	30206 F	T3DB030
		62,000	2,441	18,000	0,709	18,000	0,709	14,000	0,551	1,0	1,0	15,5	32007 X 30/32007 XF	---
		62,000	2,441	21,250	0,837	20,000	0,787	17,000	0,669	1,0	1,0	15,5	32206 F	T3DC030
		62,000	2,441	25,000	0,984	25,000	0,984	19,500	0,768	1,0	1,0	16,0	33206 F	T2DE030
		72,000	2,835	20,750	0,817	19,000	0,748	16,000	0,630	1,5	1,5	15,0	30306 F	T2FB030
		72,000	2,835	20,750	0,817	19,000	0,748	14,000	0,551	1,5	1,5	22,0	31306 F	T7FB030
		72,000	2,835	28,750	1,132	27,000	1,063	23,000	0,906	1,5	1,5	22,0	32306 BF	T5FD030
		72,000	2,835	28,750	1,132	27,000	1,063	23,000	0,906	2,0	2,0	22,8	32306 C	---
32,000	1,260	58,000	2,283	17,000	0,669	17,000	0,669	13,000	0,512	1,0	1,0	14,0	320/32 XF	T4CC032
		58,000	2,283	17,000	0,669	17,000	0,669	13,000	0,512	4,5	1,0	14,0	320/32 XR	---
		65,000	2,559	26,000	1,024	26,000	1,024	20,500	0,807	1,0	1,0	16,7	332/32 F	T2DE032
		62,000	2,441	18,000	0,709	18,000	0,709	14,000	0,551	1,0	1,0	15,5	32007 X 34/32007 XF	---
34,000	1,339	62,000	2,441	18,000	0,709	18,000	0,709	14,000	0,551	1,0	1,0	15,5	32007 XF	T4CC035
		62,000	2,441	18,000	0,709	18,000	0,709	14,000	0,551	4,5	1,0	15,5	32007 XR	---
		62,000	2,441	21,000	0,827	21,000	0,827	17,000	0,669	1,0	1,0	14,0	33007 F	T2CE035
		72,000	2,835	18,250	0,719	17,000	0,669	15,000	0,591	1,5	1,5	15,0	30207 F	T3DB035
		72,000	2,835	24,250	0,955	23,000	0,906	19,000	0,748	1,5	1,5	17,8	32207 F	T3DC035
		72,000	2,835	28,000	1,102	28,000	1,102	22,000	0,866	1,5	1,5	18,0	33207 F	T2DE035
		80,000	3,150	18,250	0,719	17,000	0,669	15,000	0,591	1,5	1,5	15,3	30207/80 F	---
		80,000	3,150	22,750	0,896	21,000	0,827	18,000	0,709	2,0	1,5	16,6	30307 F	T2FB035
		80,000	3,150	22,750	0,896	21,000	0,827	15,000	0,591	2,0	1,5	25,2	31307 F	T7FB035
80,000	3,150	32,750	1,289	31,000	1,220	25,000	0,984	2,0	1,5	20,3	32307 F	T2FE035		
37,000	1,457	72,000	2,835	18,250	0,719	17,000	0,669	15,000	0,591	1,5	1,5	15,3	30207/37 F	---
38,000	1,496	90,000	3,543	35,250	1,388	33,000	1,299	27,000	1,063	2,0	1,5	23,3	323/38 F	---
40,000	1,575	68,000	2,677	19,000	0,748	19,000	0,748	14,500	0,571	1,0	1,0	15,0	32008 XF	T3CD040

### Assembly / Montaje

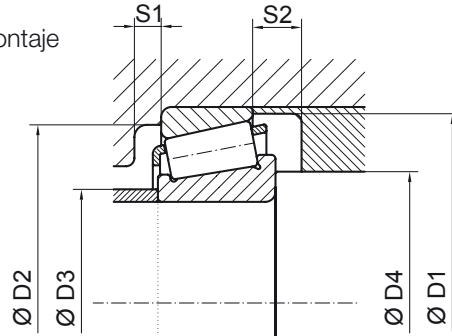


WEIGHT / PESO		ASSEMBLY / MONTAJE						LOAD / CARGA (kN)		LOAD FACTORS / FACTORES DE CARGA			SPEED / VELOCIDAD (rpm)		REFERENCES / REFERENCIAS		
								DYNAMIC / DINÁMICA	STATIC / ESTÁTICA	DYNAMICS / DINÁMICOS	STATICS / ESTÁTICOS	OIL / ACEITE	GREASE / GRASA	C	Co	e	Y
kg	lb	D1min	D2min	D2max	D3max	D4min	S1	S2									
0,20	0,44	46,0	48,5	50,0	35,5	34,0	3,0	4,0	47,0	59,9	0,29	2,05	1,13	9200	6800	33006 F	
0,22	0,49	57,0	53,0	56,0	37,5	36,0	2,0	3,0	47,6	52,6	0,37	1,60	0,88	8400	6200	30206 F	
0,26	0,56	58,0	53,5	56,0	41,0	36,0	4,0	4,0	40,4	52,7	0,44	1,35	0,74	8300	6200	32007 X 30/32007 XF	
0,28	0,62	59,0	52,0	56,0	37,0	36,0	2,5	4,0	57,2	66,6	0,37	1,60	0,88	8400	6200	32206 F	
0,36	0,79	59,0	52,5	57,0	36,0	34,0	5,0	5,5	72,3	86,1	0,34	1,75	0,97	8500	6300	33206 F	
0,39	0,86	66,0	61,5	64,5	40,0	37,5	3,0	4,5	65,8	67,2	0,31	1,90	1,04	7700	5700	30306 F	
0,39	0,86	68,0	55,0	66,0	40,0	36,0	3,0	6,5	57,6	63,2	0,82	0,72	0,40	6900	5100	31306 F	
0,58	1,28	66,0	53,5	66,0	39,0	36,0	3,0	5,5	85,0	100,4	0,55	1,10	0,60	7400	5500	32306 BF	
0,59	1,30	67,5	51,0	64,0	38,5	37,0	3,0	5,5	75,2	95,6	0,61	0,99	0,54	7300	5400	32306 C	
0,55	1,21	66,0	59,0	64,5	39,0	37,5	3,0	5,5	86,6	96,2	0,31	1,90	1,04	7700	5700	32306 F	
0,20	0,43	55,0	50,0	53,0	38,0	36,0	3,0	4,0	42,9	52,3	0,45	1,32	0,72	8500	6300	320/32 XF	
0,20	0,43	55,0	50,0	53,0	38,0	36,0	3,0	4,0	42,9	52,3	0,45	1,32	0,72	8500	6300	320/32 XR	
0,39	0,86	62,0	55,0	60,0	38,0	36,0	5,0	5,5	78,0	95,1	0,34	1,73	0,95	8000	5900	332/32 F	
0,22	0,48	58,0	53,5	56,0	40,0	39,0	4,0	4,0	40,4	52,7	0,44	1,35	0,74	8000	5900	32007 X 34/32007 XF	
0,22	0,48	59,0	53,5	56,0	41,0	41,0	4,0	4,0	40,4	52,7	0,44	1,35	0,74	7900	5900	32007 XF	
0,22	0,47	59,0	53,5	56,0	40,0	39,0	4,0	4,0	40,4	52,7	0,44	1,35	0,74	7900	5900	32007 XR	
0,26	0,57	59,0	54,5	57,0	41,0	39,0	3,0	4,0	55,8	75,2	0,31	1,96	1,08	8100	6000	33007 F	
0,32	0,70	67,0	62,0	64,5	44,0	42,5	3,0	3,0	61,4	69,0	0,37	1,60	0,88	7300	5400	30207 F	
0,43	0,95	67,0	60,5	64,5	42,5	42,5	3,0	5,0	74,6	88,6	0,37	1,60	0,88	7300	5400	32207 F	
0,55	1,21	68,0	60,5	66,0	42,0	41,0	5,0	6,0	95,1	116,6	0,35	1,70	0,93	7300	5400	33207 F	
0,43	0,95	67,0	62,0	74,0	44,0	41,0	3,0	3,0	60,1	66,9	0,37	1,60	0,88	6700	5000	30207/80 F	
0,52	1,14	74,0	69,0	70,5	45,0	44,5	3,0	4,5	83,6	87,3	0,31	1,90	1,04	6800	5000	30307 F	
0,52	1,14	76,0	62,0	70,5	44,0	44,5	3,0	7,5	73,7	81,9	0,82	0,72	0,40	6100	4500	31307 F	
0,73	1,61	74,0	66,0	70,5	44,0	44,5	3,0	7,5	106,6	120,0	0,31	1,90	1,04	6800	5000	32307 F	
0,31	0,67	67,0	62,0	64,5	44,0	43,0	3,0	3,0	60,1	66,9	0,37	1,60	0,88	7100	5300	30207/37 F	
1,04	2,29	82,5	66,0	80,5	50,0	46,0	3,0	8,0	128,6	156,0	0,34	1,74	0,95	6100	4500	323/38 F	
0,27	0,59	65,0	60,0	63,0	46,0	44,0	4,0	4,5	54,9	76,0	0,38	1,58	0,87	7200	5300	32008 XF	

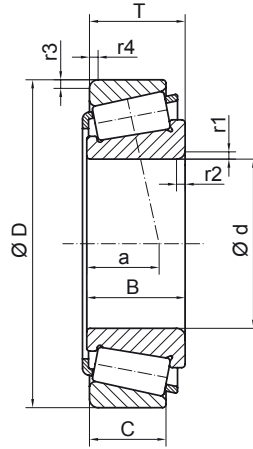


DIMENSIONS / DIMENSIONES													REFERENCES REFERENCIAS	ISO REF REF ISO
d		D		T		B		C		r1/r2 min	r3/r4 min	a		
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch					
40,000	1,575	68,000	2,677	22,000	0,866	22,000	0,866	18,000	0,709	1,0	1,0	14,7	33008 F	T2BE040
		75,000	2,953	26,000	1,024	26,000	1,024	20,500	0,807	1,5	1,5	18,0	33108 F	T2CE040
		80,000	3,150	19,750	0,778	18,000	0,709	16,000	0,630	1,5	1,5	16,5	30208 F	T3DB040
		80,000	3,150	24,750	0,974	23,000	0,906	19,000	0,748	1,5	1,5	19,0	32208 F	T3DC040
		80,000	3,150	32,000	1,260	32,000	1,260	25,000	0,984	1,5	1,5	20,7	33208 F	T2DE040
		90,000	3,543	25,250	0,994	23,000	0,906	20,000	0,787	2,0	1,5	18,9	30308 F	T2FB040
		90,000	3,543	25,250	0,994	23,000	0,906	17,000	0,669	2,0	1,5	28,3	31308 F	T7FB040
		90,000	3,543	35,250	1,388	33,000	1,299	26,000	1,024	2,0	1,5	27,8	32308 C	---
		90,000	3,543	35,250	1,388	33,000	1,299	27,000	1,063	2,0	1,5	23,3	32308 F	T2FD040
		90,000	3,543	35,250	1,388	33,000	1,299	27,000	1,063	2,0	1,5	27,8	32308 BF	T5FD040
45,000	1,772	75,000	2,953	20,000	0,787	20,000	0,787	15,500	0,610	1,0	1,0	16,0	32009 XF	T3CC045
		75,000	2,953	24,000	0,945	24,000	0,945	19,000	0,748	1,0	1,0	16,5	33009 F	T2CE045
		80,000	3,150	26,000	1,024	26,000	1,024	20,500	0,807	1,5	1,5	19,0	33109 F	T3CE045
		85,000	3,346	20,750	0,817	19,000	0,748	16,000	0,630	1,5	1,5	18,2	30209 F	T3DB045
		85,000	3,346	24,750	0,974	23,000	0,906	19,000	0,748	1,5	1,5	20,2	32209 F	T3DC045
		85,000	3,346	32,000	1,260	32,000	1,260	25,000	0,984	1,5	1,5	22,0	33209 F	T3DE045
		90,000	3,543	24,750	0,974	23,000	0,906	19,000	0,748	1,5	1,5	21,1	32210/45	---
		100,000	3,937	27,250	1,073	25,000	0,984	22,000	0,866	2,0	1,5	21,3	30309 F	TCFB045
		100,000	3,937	27,250	1,073	25,000	0,984	18,000	0,709	2,0	1,5	31,0	31309 F	T7FB045
		100,000	3,937	38,250	1,506	36,000	1,417	30,000	1,181	2,0	1,5	30,0	32309 BF	T5FD045
100,000	3,937	38,250	1,506	36,000	1,417	30,000	1,181	2,0	1,5	24,7	32309 F	T5FD045		
50,000	1,969	80,000	3,150	20,000	0,787	20,000	0,787	15,500	0,610	1,0	1,0	17,9	32010 XF	T3CC050
		80,000	3,150	20,000	0,787	20,000	0,787	15,500	0,610	3,8	1,0	17,8	32010 XR	---
		80,000	3,150	24,000	0,945	24,000	0,945	19,000	0,748	1,0	1,0	17,0	33010 F	T2CE050
		85,000	3,346	26,000	1,024	26,000	1,024	20,000	0,787	1,5	1,5	20,0	33110 F	T3CE050
		90,000	3,543	21,750	0,856	20,000	0,787	17,000	0,669	1,5	1,5	19,6	30210 F	T3DB050
		90,000	3,543	24,750	0,974	23,000	0,906	19,000	0,748	1,5	1,5	21,1	32210 F	T3DC050

### Assembly / Montaje

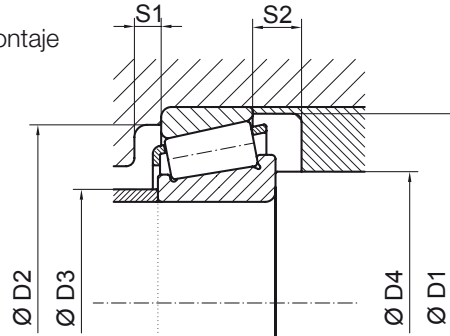


WEIGHT / PESO		ASSEMBLY / MONTAJE								LOAD / CARGA (kN)		LOAD FACTORS / FACTORES DE CARGA			SPEED / VELOCIDAD (rpm)		REFERENCES / REFERENCIAS
										DYNAMIC / DINÁMICA	STATIC / ESTÁTICA	DYNAMICS / DINÁMICOS	STATICS / ESTÁTICOS	OIL / ACEITE	GREASE / GRASA		
kg	lb	D1min	D2min	D2max	D3max	D4min	S1	S2	C	Co	e	Y	Yo	na	ng		
0,33	0,73	65,0	60,5	63,0	46,0	44,0	2,5	4,0	65,8	92,6	0,28	2,12	1,17	7300	5400	33008 F	
0,51	1,12	71,0	64,5	69,0	47,5	45,3	4,0	5,5	89,2	115,5	0,36	1,68	0,93	6800	5000	33108 F	
0,41	0,90	74,0	69,0	72,5	49,0	47,5	3,0	3,5	71,7	80,7	0,37	1,60	0,88	6500	4800	30208 F	
0,53	1,17	75,0	68,0	72,5	48,0	47,5	3,0	5,5	84,6	99,7	0,37	1,60	0,88	6500	4800	32208 F	
0,72	1,58	76,0	66,5	72,5	47,0	47,5	5,0	7,0	113,3	146,0	0,35	1,67	0,92	6500	4800	33208 F	
0,72	1,58	82,0	76,0	80,5	52,5	49,5	3,0	5,0	99,1	110,9	0,34	1,74	0,95	6000	4400	30308 F	
0,72	1,58	86,0	70,0	84,0	50,5	47,0	3,0	8,0	91,2	103,7	0,83	0,73	0,40	5400	4000	31308 F	
0,95	2,09	84,0	67,0	84,0	49,0	47,0	3,0	9,0	116,6	149,7	0,55	1,10	0,60	5800	4300	32308 C	
1,00	2,20	82,0	72,5	80,5	50,0	49,5	3,0	8,0	128,6	156,0	0,34	1,74	0,95	6000	4400	32308 F	
1,03	2,26	85,0	67,0	84,0	50,0	47,0	4,0	8,0	116,6	149,5	0,55	1,10	0,60	5800	4300	32308 BF	
0,34	0,75	72,0	66,5	70,0	51,0	49,0	4,0	4,5	67,0	93,9	0,39	1,52	0,84	6400	4700	32009 XF	
0,42	0,92	71,0	66,5	70,0	51,0	49,0	4,0	5,0	75,8	109,0	0,29	2,04	1,12	6500	4800	33009 F	
0,56	1,23	77,0	69,0	74,0	52,0	51,0	4,0	5,5	95,0	128,6	0,38	1,56	0,86	6200	4600	33109 F	
0,46	1,01	80,0	73,5	77,5	54,0	52,5	3,0	4,5	77,3	91,2	0,40	1,48	0,81	5900	4400	30209 F	
0,58	1,28	80,0	73,0	77,5	53,5	52,5	3,0	5,5	91,2	112,7	0,40	1,48	0,81	5900	4400	32209 F	
0,82	1,80	81,0	71,5	79,0	52,0	51,0	5,0	7,0	121,8	161,3	0,39	1,55	0,86	6000	4400	33209 F	
0,56	1,23	85,5	77,5	82,5	58,0	51,0	3,0	5,5	93,4	116,3	0,42	1,43	0,78	5700	4200	32210/45	
0,97	2,13	92,0	85,0	90,5	58,5	54,5	3,0	5,0	122,9	139,9	0,34	1,74	0,95	5400	4000	30309 F	
0,95	2,09	95,0	78,0	94,0	56,0	52,0	4,0	9,0	103,9	118,0	0,82	0,72	0,40	4800	3600	31309 F	
1,45	3,19	94,0	75,0	94,0	55,0	52,0	5,0	8,0	146,7	183,8	0,55	1,10	0,60	5200	3900	32309 BF	
1,35	2,97	93,0	81,5	90,5	57,0	54,5	3,0	8,0	155,3	190,9	0,34	1,74	0,95	5400	4000	32309 F	
0,37	0,81	77,0	71,0	74,0	56,5	56,0	4,0	4,5	64,0	90,9	0,42	1,41	0,78	5900	4400	32010 XF	
0,36	0,79	77,0	71,0	74,0	56,0	54,0	4,0	4,5	64,0	90,9	0,42	1,41	0,78	5900	4400	32010 XR	
0,46	1,01	76,0	71,0	75,0	56,0	54,0	4,0	5,0	79,3	120,9	0,32	1,89	1,04	6000	4400	33010 F	
0,60	1,32	82,0	73,5	78,0	57,5	57,0	4,0	6,0	94,0	134,5	0,41	1,46	0,80	5700	4200	33110 F	
0,53	1,17	85,0	78,5	82,5	58,0	57,5	3,0	4,5	84,2	101,7	0,42	1,43	0,79	5500	4100	30210 F	
0,61	1,34	85,0	77,5	82,5	57,5	57,5	3,0	5,5	93,4	116,3	0,42	1,43	0,78	5500	4100	32210 F	

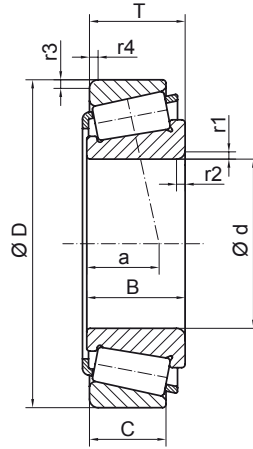
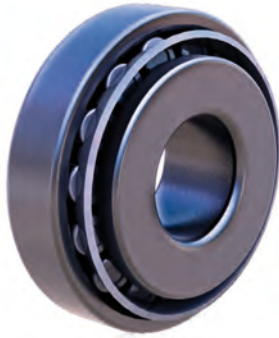


DIMENSIONS / DIMENSIONES													REFERENCES REFERENCIAS	ISO REF REF ISO
d		D		T		B		C		r1/r2 min	r3/r4 min	a		
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch					
<b>50,000</b>	<b>1,969</b>	90,000	3,543	32,000	1,260	32,000	1,260	24,500	0,965	1,5	1,5	23,5	<b>33210 F</b>	T3DE050
		110,000	4,331	29,250	1,152	27,000	1,063	23,000	0,906	2,5	2,0	23,1	<b>30310 F</b>	T2FB050
		110,000	4,331	29,250	1,152	27,000	1,063	19,000	0,748	2,5	2,0	34,9	<b>31310 F</b>	T7FB050
		110,000	4,331	42,250	1,663	40,000	1,575	33,000	1,299	2,5	2,0	27,9	<b>32310 F</b>	T5FD050
<b>55,000</b>	<b>2,165</b>	80,000	3,150	17,000	0,669	17,000	0,669	14,000	0,551	1,0	1,0	14,5	<b>32911 F</b>	T2BC055
		90,000	3,543	23,000	0,906	23,000	0,906	17,500	0,689	1,5	1,5	19,5	<b>32011 XF</b>	T3CC055
		90,000	3,543	27,000	1,063	27,000	1,063	21,000	0,827	1,5	1,5	19,3	<b>33011 F</b>	T2CE055
		95,000	3,740	30,000	1,181	30,000	1,181	23,000	0,906	1,5	1,5	22,4	<b>33111 F</b>	T3CE055
		100,000	3,937	22,750	0,896	21,000	0,827	18,000	0,709	2,0	1,5	20,7	<b>30211 F</b>	T3DB055
		100,000	3,937	26,750	1,053	25,000	0,984	21,000	0,827	2,0	1,5	22,7	<b>32211 F</b>	T3DC055
		100,000	3,937	35,000	1,378	35,000	1,378	27,000	1,063	2,0	1,5	25,0	<b>33211 F</b>	T3DE055
		110,000	4,331	42,250	1,663	40,000	1,575	33,000	1,299	2,5	2,0	27,9	<b>32310/55</b>	---
		120,000	4,724	31,500	1,240	29,000	1,142	25,000	0,984	2,5	2,0	24,0	<b>30311 F</b>	T2FB055
		120,000	4,724	31,500	1,240	29,000	1,142	21,000	0,827	2,5	2,0	37,0	<b>31311 F</b>	T7FB055
		120,000	4,724	45,500	1,791	43,000	1,693	35,000	1,378	2,5	2,0	29,9	<b>32311 F</b>	T5FD055
		<b>57,500</b>	<b>2,264</b>	90,000	3,543	23,000	0,906	23,000	0,906	17,500	0,689	1,5	1,5	19,5
<b>60,000</b>	<b>2,362</b>	95,000	3,740	23,000	0,906	23,000	0,906	17,500	0,689	1,5	1,5	20,8	<b>32012 XF</b>	T4CC060
		95,000	3,740	27,000	1,063	27,000	1,063	21,000	0,827	1,5	1,5	20,0	<b>33012 F</b>	T2CE060
		100,000	3,937	30,000	1,181	30,000	1,181	23,000	0,906	1,5	1,5	23,3	<b>33112 F</b>	T3CE060
		110,000	4,331	23,750	0,935	22,000	0,866	19,000	0,748	2,0	1,5	22,0	<b>30212 F</b>	T3EB060
		110,000	4,331	29,750	1,171	28,000	1,102	24,000	0,945	2,0	1,5	24,5	<b>32212 F</b>	T3EC060
		110,000	4,331	38,000	1,496	38,000	1,496	29,000	1,142	2,0	1,5	27,3	<b>33212 F</b>	T3EE060
		130,000	5,118	33,500	1,319	31,000	1,220	26,000	1,024	3,0	2,5	26,3	<b>30312 F</b>	T2FB060
		130,000	5,118	33,500	1,319	31,000	1,220	22,000	0,866	3,0	2,5	39,0	<b>31312 F</b>	T7FB060
		130,000	5,118	48,500	1,909	46,000	1,811	37,000	1,457	3,0	2,5	38,5	<b>32312 BF</b>	T5FD060
		130,000	5,118	48,500	1,909	46,000	1,811	37,000	1,457	3,0	2,5	31,8	<b>32312 F</b>	T5FD060
<b>65,000</b>	<b>2,559</b>	100,000	3,937	23,000	0,906	23,000	0,906	17,500	0,689	1,5	1,5	22,3	<b>32013 XF</b>	T4CC065

### Assembly / Montaje

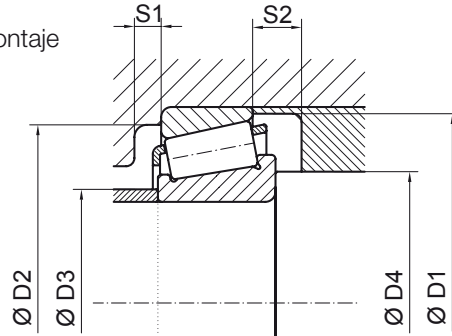


WEIGHT / PESO		ASSEMBLY / MONTAJE								LOAD / CARGA (kN)		LOAD FACTORS / FACTORES DE CARGA			SPEED / VELOCIDAD (rpm)		REFERENCES / REFERENCIAS
										DYNAMIC / DINÁMICA	STATIC / ESTÁTICA	DYNAMICS / DINÁMICOS	STATICS / ESTÁTICOS	OIL / ACEITE	GREASE / GRASA		
kg	lb	D1min	D2min	D2max	D3max	D4min	S1	S2	C	Co	e	Y	Yo	na	ng		
0,83	1,83	87,0	76,0	82,5	56,5	57,5	5,0	7,5	125,3	174,7	0,41	1,45	0,79	5500	4100	33210 F	
1,25	2,75	102,0	94,0	99,0	65,5	61,0	3,0	6,0	142,7	163,3	0,34	1,74	0,95	4900	3600	30310 F	
1,20	2,64	104,0	86,0	99,0	62,0	61,0	4,0	10,0	125,5	145,0	0,82	0,72	0,40	4400	3300	31310 F	
1,80	3,96	102,0	89,5	99,0	62,0	61,0	3,0	9,0	188,7	235,7	0,34	1,74	0,95	4900	3600	32310 F	
0,28	0,61	76,0	72,5	75,5	61,0	59,0	3,0	3,0	49,5	82,6	0,31	1,94	1,07	5800	4300	32911 F	
0,55	1,21	86,0	79,5	82,5	63,5	62,5	4,0	5,5	90,3	131,8	0,41	1,48	0,81	5300	3900	32011 XF	
0,67	1,47	86,0	80,0	82,0	63,5	62,0	5,0	6,0	102,0	156,8	0,31	1,92	1,06	5400	4000	33011 F	
0,88	1,94	91,0	82,0	94,3	62,4	60,5	5,0	7,0	120,8	171,0	0,37	1,60	0,88	5200	3900	33111 F	
0,69	1,51	94,0	87,5	90,5	64,0	64,5	4,0	4,5	103,9	125,1	0,40	1,48	0,81	5000	3700	30211 F	
0,83	1,83	95,0	86,0	90,5	63,0	64,5	4,0	5,5	119,4	149,6	0,40	1,48	0,81	5000	3700	32211 F	
1,20	2,64	96,0	84,5	91,0	62,5	63,5	6,0	8,0	150,9	207,3	0,40	1,50	0,83	5000	3700	33211 F	
1,63	3,59	102,5	89,5	99,0	62,0	65,0	3,0	9,0	188,7	235,7	0,34	1,74	0,95	4700	3500	32310/55	
1,55	3,41	111,0	102,5	112,0	71,0	64,0	4,0	6,5	163,0	187,4	0,34	1,74	0,95	4500	3300	30311 F	
1,55	3,41	113,0	93,0	112,0	68,0	64,0	4,0	10,5	137,2	157,2	0,82	0,72	0,40	4000	3000	31311 F	
2,30	5,06	111,0	97,5	112,5	69,0	63,5	4,0	10,5	224,0	285,4	0,34	1,74	0,96	4500	3300	32311 F	
0,51	1,13	87,0	79,5	82,5	63,5	65,0	4,0	5,5	224,0	285,4	0,34	1,74	0,96	5200	3900	32011 X 57,5/32011 XF	
0,59	1,30	91,0	84,0	87,5	67,0	67,5	4,0	5,5	90,2	131,5	0,43	1,39	0,77	5000	3700	32012 XF	
0,71	1,56	90,0	83,5	89,0	67,0	66,0	5,0	6,0	109,9	168,9	0,33	1,82	1,01	5000	3700	33012 F	
0,94	2,07	96,0	86,5	94,0	67,5	65,5	5,0	7,0	128,0	188,4	0,40	1,51	0,83	4800	3600	33112 F	
0,87	1,91	103,0	95,0	100,5	70,0	69,5	4,0	4,5	113,8	136,1	0,40	1,48	0,81	4500	3300	30212 F	
1,15	2,53	104,0	93,5	100,5	68,5	69,5	4,0	5,5	141,9	181,0	0,40	1,48	0,81	4500	3300	32212 F	
1,60	3,52	105,0	92,0	101,5	68,5	68,5	6,0	9,0	182,8	258,9	0,40	1,48	0,82	4500	3300	33212 F	
1,95	4,29	120,0	111,0	121,0	78,0	70,0	4,0	7,5	191,7	223,6	0,34	1,74	0,95	4100	3000	30312 F	
1,90	4,18	123,0	101,5	121,0	73,0	70,0	5,0	11,5	168,0	197,8	0,83	0,73	0,40	3700	2700	31312 F	
3,05	6,71	122,0	97,5	121,0	71,0	70,0	6,0	11,5	242,0	340,5	0,55	1,10	0,60	3900	2900	32312 BF	
2,85	6,27	120,0	106,0	121,0	74,7	72,3	4,0	11,5	254,2	324,2	0,34	1,74	0,96	4100	3000	32312 F	
0,63	1,39	97,0	89,0	94,0	72,5	70,5	4,0	5,5	88,0	135,8	0,46	1,31	0,72	4600	3400	32013 XF	

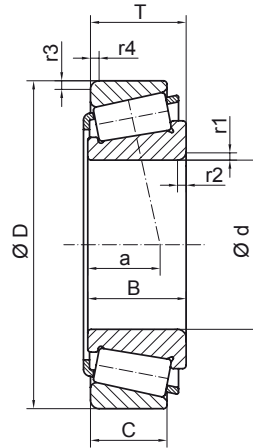
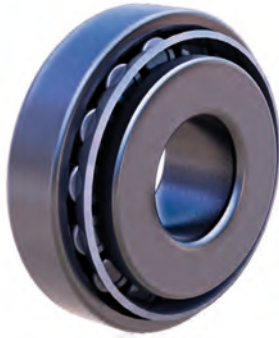


DIMENSIONS / DIMENSIONES													REFERENCES REFERENCIAS	ISO REF REF ISO
d		D		T		B		C		r1/r2 min	r3/r4 min	a		
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch					
<b>65,000</b>	<b>2,559</b>	100,000	3,937	27,000	1,063	27,000	1,063	21,000	0,827	1,5	1,5	21,1	<b>33013 F</b>	T2CE065
		110,000	4,331	34,000	1,339	34,000	1,339	26,500	1,043	1,5	1,5	25,9	<b>33113 F</b>	T3DE065
		120,000	4,724	24,750	0,974	23,000	0,906	20,000	0,787	2,0	1,5	23,6	<b>30213 F</b>	T3EB065
		120,000	4,724	32,750	1,289	31,000	1,220	27,000	1,063	2,0	1,5	27,1	<b>32213 F</b>	T3EC065
		120,000	4,724	41,000	1,614	41,000	1,614	32,000	1,260	2,0	1,5	29,6	<b>33213 F</b>	T3EE065
		140,000	5,512	36,000	1,417	33,000	1,299	28,000	1,102	3,0	2,5	28,0	<b>30313 F</b>	T2GB065
		140,000	5,512	36,000	1,417	33,000	1,299	23,000	0,906	3,0	2,5	43,9	<b>31313 F</b>	T7GB065
		140,000	5,512	51,000	2,008	48,000	1,890	39,000	1,535	3,0	2,5	42,0	<b>32313 BF</b>	T5GD065
		140,000	5,512	51,000	2,008	48,000	1,890	39,000	1,535	3,0	2,5	34,3	<b>32313 F</b>	T5GD065
<b>70,000</b>	<b>2,756</b>	110,000	4,331	25,000	0,984	25,000	0,984	19,000	0,748	1,5	1,5	23,7	<b>32014 XF</b>	T4CC070
		110,000	4,331	31,000	1,220	31,000	1,220	25,500	1,004	1,5	1,5	23,0	<b>33014 F</b>	T2CE070
		120,000	4,724	37,000	1,457	37,000	1,457	29,000	1,142	2,0	1,5	27,7	<b>33114 F</b>	T3DE070
		125,000	4,921	26,250	1,033	24,000	0,945	21,000	0,827	2,0	1,5	25,6	<b>30214 F</b>	T3EB070
		125,000	4,921	33,250	1,309	31,000	1,220	27,000	1,063	2,0	1,5	28,9	<b>32214 F</b>	T3EC070
		125,000	4,921	41,000	1,614	41,000	1,614	32,000	1,260	2,0	1,5	31,8	<b>33214 F</b>	T3EE070
		150,000	5,906	38,000	1,496	35,000	1,378	30,000	1,181	3,0	2,5	29,9	<b>30314 F</b>	T2GB070
		150,000	5,906	38,000	1,496	35,000	1,378	25,000	0,984	3,0	2,5	45,0	<b>31314 F</b>	T7GB070
		150,000	5,906	54,000	2,126	51,000	2,008	42,000	1,654	3,0	2,5	44,0	<b>32314 BF</b>	T5GD070
150,000	5,906	54,000	2,126	51,000	2,008	42,000	1,654	3,0	2,5	36,5	<b>32314 F</b>	T5GD070		
<b>75,000</b>	<b>2,953</b>	115,000	4,528	25,000	0,984	25,000	0,984	19,000	0,748	1,5	1,5	25,1	<b>32015 XF</b>	T4CC075
		115,000	4,528	31,000	1,220	31,000	1,220	25,500	1,004	1,5	1,5	23,3	<b>33015 F</b>	T2CE075
		125,000	4,921	37,000	1,457	37,000	1,457	29,000	1,142	2,0	1,5	28,9	<b>33115 F</b>	T3DE075
		130,000	5,118	27,250	1,073	25,000	0,984	22,000	0,866	2,0	1,5	27,2	<b>30215 F</b>	T4DB075
		130,000	5,118	33,250	1,309	31,000	1,220	27,000	1,063	2,0	1,5	29,8	<b>32215 F</b>	T4DC075
		130,000	5,118	41,000	1,614	41,000	1,614	31,000	1,220	2,0	1,5	32,6	<b>33215 F</b>	T3EE075
		130,000	5,118	47,250	1,860	45,000	1,772	27,000	1,063	ESP	1,5	29,8	<b>XUA 32215/Y32215</b>	---
		160,000	6,299	40,000	1,575	37,000	1,457	31,000	1,220	3,0	2,5	31,0	<b>30315 F</b>	T2GB075

### Assembly / Montaje

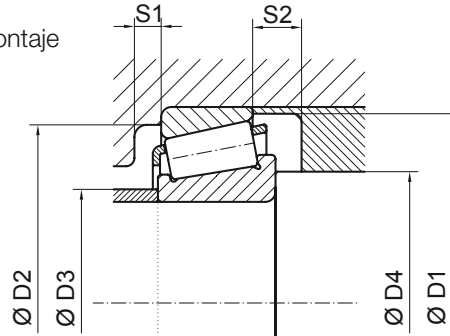


WEIGHT / PESO		ASSEMBLY / MONTAJE								LOAD / CARGA (kN)		LOAD FACTORS / FACTORES DE CARGA			SPEED / VELOCIDAD (rpm)		REFERENCES / REFERENCIAS
										DYNAMIC / DINÁMICA	STATIC / ESTÁTICA	DYNAMICS / DINÁMICOS	STATICS / ESTÁTICOS	OIL / ACEITE	GREASE / GRASA	C	Co
kg	lb	D1min	D2min	D2max	D3max	D4min	S1	S2									
0,77	1,69	96,0	88,5	93,0	72,0	72,0	5,0	6,0	108,5	177,2	0,35	1,72	0,95	4700	3500		<b>33013 F</b>
1,32	2,90	106,0	95,0	104,0	75,0	70,3	6,0	7,5	150,7	232,2	0,39	1,55	0,85	4400	3300		<b>33113 F</b>
1,10	2,43	113,0	105,0	110,5	78,0	74,5	4,0	4,5	133,3	160,4	0,40	1,48	0,81	4200	3100		<b>30213 F</b>
1,50	3,30	115,0	102,5	110,5	76,0	74,5	4,0	5,5	169,8	219,5	0,40	1,48	0,81	4200	3100		<b>32213 F</b>
1,91	4,20	115,0	101,0	110,5	74,5	74,5	7,0	9,0	211,4	293,8	0,39	1,53	0,84	4200	3100		<b>33213 F</b>
2,30	5,06	130,0	120,0	131,0	83,0	75,0	4,0	8,0	219,9	259,1	0,34	1,74	0,95	3800	2800		<b>30313 F</b>
2,35	5,17	132,0	109,5	126,5	79,0	77,5	5,0	13,0	193,1	229,3	0,82	0,72	0,40	3400	2500		<b>31313 F</b>
3,72	8,17	133,0	115,0	131,0	77,0	75,0	6,0	12,0	274,2	386,6	0,55	1,10	0,60	3900	2900		<b>32313 BF</b>
3,45	7,59	130,0	115,0	131,0	80,0	75,0	4,0	12,0	287,2	368,0	0,35	1,74	0,96	3800	2800		<b>32313 F</b>
0,84	1,85	105,0	97,0	102,5	78,0	77,5	5,0	6,0	113,5	172,1	0,43	1,38	0,76	4300	3200		<b>32014 XF</b>
1,12	2,46	105,0	98,0	104,0	78,0	76,0	5,0	5,5	145,6	228,8	0,28	2,10	1,16	4400	3300		<b>33014 F</b>
1,70	3,74	115,0	103,0	114,3	79,3	76,8	5,0	8,0	187,4	277,7	0,38	1,58	0,87	4100	3000		<b>33114 F</b>
1,22	2,69	118,0	109,0	114,5	81,5	79,5	4,0	5,0	145,6	181,5	0,42	1,42	0,78	3900	2900		<b>30214 F</b>
1,60	3,52	119,0	107,0	114,5	80,0	79,5	4,0	6,0	177,4	234,4	0,42	1,43	0,78	3900	2900		<b>32214 F</b>
2,17	4,77	120,0	105,5	116,5	79,5	78,5	7,0	9,0	218,2	311,5	0,41	1,47	0,81	3900	2900		<b>33214 F</b>
2,90	6,38	140,0	128,5	140,5	90,5	80,0	4,0	8,0	244,4	294,6	0,35	1,74	0,96	3500	2600		<b>30314 F</b>
2,95	6,49	141,0	116,5	141,0	84,0	80,0	5,0	13,0	212,3	252,4	0,83	0,73	0,40	3200	2400		<b>31314 F</b>
4,51	9,92	143,0	113,5	139,0	83,0	81,0	6,0	12,0	310,8	441,4	0,55	1,10	0,60	3400	2500		<b>32314 BF</b>
4,30	9,46	140,0	123,0	141,0	86,0	80,0	4,0	12,0	323,1	417,3	0,35	1,74	0,96	3500	2600		<b>32314 F</b>
0,90	1,98	110,0	101,5	107,5	82,5	82,5	5,0	6,0	118,5	185,7	0,46	1,30	0,72	4000	3000		<b>32015 XF</b>
1,18	2,60	110,0	102,5	108,0	84,0	82,0	5,0	5,5	149,2	252,4	0,30	2,01	1,11	4100	3000		<b>33015 F</b>
1,75	3,85	120,0	107,5	116,0	84,0	82,5	6,0	8,0	191,9	291,6	0,39	1,51	0,83	3800	2800		<b>33115 F</b>
1,35	2,97	124,0	113,5	119,5	86,0	84,5	4,0	5,0	153,3	195,3	0,43	1,38	0,76	3700	2700		<b>30215 F</b>
1,70	3,74	124,0	112,0	119,5	85,0	84,5	4,0	6,0	190,4	258,7	0,43	1,38	0,76	3700	2700		<b>32215 F</b>
2,27	4,99	125,0	110,0	124,0	83,0	82,0	7,0	10,0	218,2	313,8	0,43	1,40	0,77	3700	2700		<b>33215 F</b>
1,89	4,16	125,5	112,5	121,0	86,0	82,5	4,0	20,0	185,9	250,7	0,43	1,38	0,76	3700	2700		<b>XUA 32215/Y32215</b>
3,45	7,59	149,0	137,5	151,0	95,0	85,0	4,0	9,0	275,1	328,1	0,34	1,74	0,95	3300	2400		<b>30315 F</b>

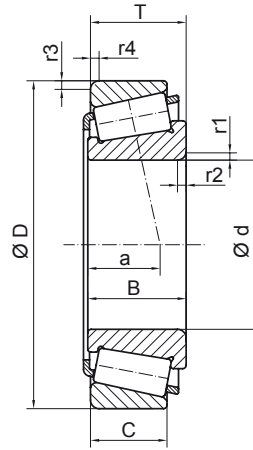


DIMENSIONS / DIMENSIONES													REFERENCES REFERENCIAS	ISO REF REF ISO
d		D		T		B		C		r1/r2 min	r3/r4 min	a		
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch					
<b>75,000</b>	<b>2,953</b>	160,000	6,299	40,000	1,575	37,000	1,457	26,000	1,024	3,0	2,5	48,0	<b>31315 F</b>	T7GB075
		160,000	6,299	58,000	2,283	55,000	2,165	45,000	1,772	3,0	2,5	39,0	<b>32315 F</b>	T5GD075
<b>80,000</b>	<b>3,150</b>	125,000	4,921	29,000	1,142	29,000	1,142	22,000	0,866	1,5	1,5	26,9	<b>32016 XF</b>	T3CC080
		125,000	4,921	36,000	1,417	36,000	1,417	29,500	1,161	1,5	1,5	26,0	<b>33016 F</b>	TCCE080
		130,000	5,118	37,000	1,457	37,000	1,457	29,000	1,142	2,0	1,5	30,9	<b>33116 F</b>	T3DE080
		140,000	5,512	28,250	1,112	26,000	1,024	22,000	0,866	2,5	2,0	28,0	<b>30216 F</b>	T3EB080
		140,000	5,512	35,250	1,388	33,000	1,299	28,000	1,102	2,5	2,0	30,6	<b>32216 F</b>	T3EC080
		140,000	5,512	46,000	1,811	46,000	1,811	35,000	1,378	2,5	2,0	34,9	<b>33216 F</b>	T3EE080
		170,000	6,693	42,500	1,673	39,000	1,535	33,000	1,299	3,0	2,5	34,0	<b>30316 F</b>	T2GB080
		170,000	6,693	61,500	2,421	58,000	2,283	48,000	1,890	3,0	2,5	42,0	<b>32316 F</b>	T5GD080
<b>85,000</b>	<b>3,346</b>	130,000	5,118	29,000	1,142	29,000	1,142	22,000	0,866	1,5	1,5	28,0	<b>32017 XF</b>	T4CC085
		130,000	5,118	36,000	1,417	36,000	1,417	29,500	1,161	1,5	1,5	26,7	<b>33017 F</b>	T2CE085
		140,000	5,512	41,000	1,614	41,000	1,614	32,000	1,260	2,5	2,0	32,9	<b>33117 F</b>	T3DE085
		150,000	5,906	30,500	1,201	28,000	1,102	24,000	0,945	2,5	2,0	29,9	<b>30217 F</b>	T3EB085
		150,000	5,906	38,500	1,516	36,000	1,417	30,000	1,181	2,5	2,0	33,2	<b>32217 F</b>	T3EC085
		150,000	5,906	49,000	1,929	49,000	1,929	37,000	1,457	2,5	2,0	37,0	<b>33217 F</b>	T3EE085
		180,000	7,087	63,500	2,500	60,000	2,362	49,000	1,929	4,0	3,0	43,0	<b>32317 F</b>	T5GD085
<b>90,000</b>	<b>3,543</b>	140,000	5,512	32,000	1,260	32,000	1,260	24,000	0,945	2,0	1,5	30,0	<b>32018 XF</b>	T3CC090
		140,000	5,512	39,000	1,535	39,000	1,535	32,500	1,280	2,0	1,5	28,0	<b>33018 F</b>	T2CE090
		150,000	5,906	45,000	1,772	45,000	1,772	35,000	1,378	2,5	2,0	34,8	<b>33118 F</b>	T3DE090
		160,000	6,299	32,500	1,280	30,000	1,181	26,000	1,024	2,5	2,0	31,0	<b>30218 F</b>	T3FB090
		160,000	6,299	42,500	1,673	40,000	1,575	34,000	1,339	2,5	2,0	36,0	<b>32218 F</b>	T3FC090
		160,000	6,299	55,000	2,165	55,000	2,165	42,000	1,654	2,5	2,0	41,0	<b>33218 F</b>	T3FE090
		190,000	7,480	46,500	1,831	43,000	1,693	30,000	1,181	4,0	3,0	56,0	<b>31318 F</b>	T7GB090
		190,000	7,480	61,500	2,421	58,000	2,283	48,000	1,890	3,0	2,5	42,0	<b>32318 F</b>	T5GD090
<b>95,000</b>	<b>3,740</b>	145,000	5,709	32,000	1,260	32,000	1,260	24,000	0,945	2,0	1,5	31,1	<b>32019 XF</b>	T4CC095
		145,000	5,709	39,000	1,535	39,000	1,535	32,500	1,280	2,0	1,5	28,3	<b>33019 F</b>	T2CE095
		160,000	6,299	49,000	1,929	49,000	1,929	38,000	1,496	2,5	2,0	37,0	<b>33119 F</b>	T3EE095

### Assembly / Montaje

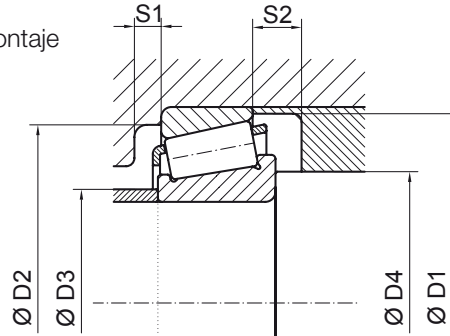


WEIGHT / PESO		ASSEMBLY / MONTAJE							LOAD / CARGA (kN)		LOAD FACTORS / FACTORES DE CARGA			SPEED / VELOCIDAD (rpm)		REFERENCES / REFERENCIAS
									DYNAMIC / DINÁMICA	STATIC / ESTÁTICA	DYNAMICS / DINÁMICOS	STATICS / ESTÁTICOS	OIL / ACEITE	GREASE / GRASA		
kg	lb	D1min	D2min	D2max	D3max	D4min	S1	S2	C	Co	e	Y	Yo	na	ng	
3,50	7,70	151,0	125,5	148,5	91,5	86,3	6,0	14,0	241,3	290,3	0,82	0,73	0,40	3000	2200	31315 F
5,20	11,44	149,0	131,0	151,0	91,0	85,0	4,0	13,0	363,4	488,1	0,35	1,74	0,96	3300	2400	32315 F
1,30	2,86	120,0	110,5	117,5	89,5	87,5	6,0	6,5	151,8	240,8	0,42	1,41	0,78	3700	2700	32016 XF
1,65	3,63	119,0	111,0	119,0	90,0	86,0	6,0	6,5	187,9	316,0	0,28	2,15	1,19	3800	2800	33016 F
1,82	4,00	126,0	112,5	119,5	89,5	89,5	6,0	8,0	203,1	325,8	0,41	1,44	0,79	3600	2700	33116 F
1,60	3,52	132,0	122,5	132,0	91,0	89,0	4,0	6,0	172,6	215,7	0,42	1,42	0,78	3500	2600	30216 F
2,05	4,51	134,0	120,5	128,0	91,0	91,0	4,0	7,0	208,2	275,4	0,42	1,43	0,78	3500	2600	32216 F
2,86	6,29	135,0	118,0	128,0	89,5	91,0	7,0	11,0	271,8	406,1	0,42	1,41	0,77	3500	2600	33216 F
4,34	9,55	159,0	146,5	161,0	102,0	90,0	4,0	9,5	310,6	375,8	0,35	1,74	0,96	3100	2300	30316 F
6,15	13,53	159,0	139,5	161,0	89,0	90,0	4,0	13,5	408,2	544,8	0,34	1,74	0,95	3100	2300	32316 F
1,35	2,97	125,0	115,0	124,0	94,0	90,5	6,0	7,0	155,2	248,7	0,44	1,36	0,75	3500	2600	32017 XF
1,75	3,85	125,0	116,0	124,0	94,0	90,5	6,0	6,5	194,6	332,9	0,29	2,06	1,13	3600	2700	33017 F
2,50	5,50	135,0	120,5	132,0	94,5	97,5	7,0	9,0	236,5	371,3	0,41	1,48	0,81	3400	2500	33117 F
2,05	4,51	141,0	130,0	142,0	98,0	93,5	5,0	6,5	199,1	254,5	0,42	1,43	0,79	3200	2400	30217 F
2,60	5,72	142,0	128,0	138,0	96,5	96,0	5,0	8,5	238,7	320,0	0,42	1,43	0,79	3200	2400	32217 F
3,70	8,14	144,0	126,0	142,0	95,0	94,0	7,0	12,0	319,4	479,4	0,42	1,43	0,79	3200	2400	33217 F
6,85	15,07	167,0	147,5	169,0	103,0	98,0	5,0	14,5	429,1	582,2	0,34	1,74	0,95	2900	2100	32317 F
1,75	3,85	134,0	123,0	129,5	100,0	99,5	6,0	8,0	187,1	302,4	0,42	1,41	0,78	3300	2400	32018 XF
2,25	4,95	135,0	125,5	134,0	100,0	97,0	7,0	6,5	240,2	397,7	0,27	2,23	1,23	3400	2500	33018 F
3,05	6,71	144,0	128,5	138,0	100,0	101,0	7,0	10,0	272,8	427,6	0,39	1,51	0,83	3200	2400	33118 F
2,55	5,61	150,0	138,0	152,0	103,0	99,0	5,0	6,5	222,1	284,9	0,42	1,42	0,78	3000	2200	30218 F
3,35	7,37	152,0	136,0	152,0	102,0	99,0	5,0	8,5	278,3	380,4	0,42	1,43	0,78	3000	2200	32218 F
4,76	10,47	154,0	133,0	152,0	100,0	99,0	8,0	13,0	373,4	572,0	0,42	1,42	0,78	3000	2200	33218 F
5,50	12,10	179,0	148,5	177,0	110,0	103,0	5,0	16,5	308,3	372,2	0,83	0,73	0,40	2500	1900	31318 F
1,80	3,96	140,0	128,0	134,5	105,0	104,5	6,0	8,0	184,7	303,0	0,44	1,35	0,74	3200	2400	32019 XF
2,35	5,17	139,0	129,5	136,7	104,0	103,3	7,0	6,5	226,9	374,0	0,28	2,16	1,19	3200	2400	33019 F
3,90	8,58	154,0	136,5	152,0	105,0	104,0	8,0	11,0	331,2	512,1	0,39	1,53	0,85	3000	2200	33119 F



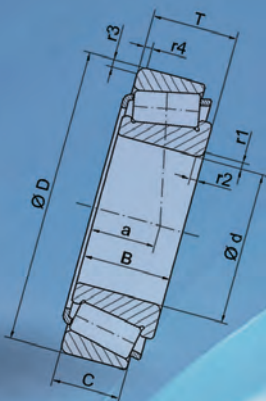
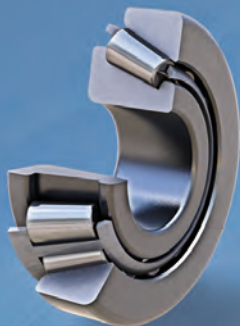
DIMENSIONS / DIMENSIONES													REFERENCES REFERENCIAS	ISO REF REF ISO
d		D		T		B		C		r1/r2 min	r3/r4 min	a		
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch					
<b>95,000</b>	<b>3,740</b>	170,000	6,693	34,500	1,358	32,000	1,260	27,000	1,063	3,0	2,5	33,0	<b>30219 F</b>	T3FB095
		170,000	6,693	45,500	1,791	43,000	1,693	37,000	1,457	3,0	2,5	38,6	<b>32219 F</b>	T3FC095
<b>100,000</b>	<b>3,937</b>	150,000	5,906	32,000	1,260	32,000	1,260	24,000	0,945	2,0	1,5	32,5	<b>32020 XF</b>	T4CC100
		150,000	5,906	39,000	1,535	39,000	1,535	32,500	1,280	2,0	1,5	29,0	<b>33020 F</b>	T2CE100
		165,000	6,496	52,000	2,047	52,000	2,047	40,000	1,575	2,5	2,0	40,0	<b>33120 F</b>	T3EE100
		180,000	7,087	37,000	1,457	34,000	1,339	29,000	1,142	3,0	2,5	35,9	<b>30220 F</b>	T3FB100
		180,000	7,087	49,000	1,929	46,000	1,811	39,000	1,535	3,0	2,5	41,0	<b>32220 F</b>	T3FC100
		180,000	7,087	49,000	1,929	46,000	1,811	39,000	1,535	8,0	2,5	41,0	<b>32220 FR</b>	---
		180,000	7,087	63,000	2,480	63,000	2,480	48,000	1,890	3,0	2,5	45,5	<b>33220 F</b>	T3FE100
<b>105,000</b>	<b>4,134</b>	160,000	6,299	35,000	1,378	35,000	1,378	26,000	1,024	2,5	1,0	34,0	<b>32021 XF</b>	T4DC105
		160,000	6,299	43,000	1,693	43,000	1,693	34,000	1,339	2,5	1,0	30,6	<b>33021 F</b>	T2DE105
		160,000	6,299	43,000	1,693	43,000	1,693	34,000	1,339	ESP	1,0	30,6	<b>33021 F.0266488</b>	---
		190,000	7,480	39,000	1,535	36,000	1,417	30,000	1,181	3,0	2,5	37,0	<b>30221 F</b>	T3FB105
		190,000	7,480	53,000	2,087	50,000	1,969	43,000	1,693	3,0	2,5	44,0	<b>32221 F</b>	T3FC105
<b>110,000</b>	<b>4,331</b>	170,000	6,693	38,000	1,496	38,000	1,496	29,000	1,142	2,5	2,0	36,5	<b>32022 XF</b>	T4DC110
		170,000	6,693	47,000	1,850	47,000	1,850	37,000	1,457	2,5	2,0	33,9	<b>33022 F</b>	T2DE110
		200,000	7,874	41,000	1,614	38,000	1,496	32,000	1,260	3,0	2,5	40,5	<b>30222 F</b>	T3FB110
		200,000	7,874	56,000	2,205	53,000	2,087	46,000	1,811	3,0	2,5	46,0	<b>32222 F</b>	T3FC110
<b>120,000</b>	<b>4,724</b>	180,000	7,087	38,000	1,496	38,000	1,496	29,000	1,142	2,5	2,0	39,0	<b>32024 XF</b>	T4DC120
		180,000	7,087	48,000	1,890	48,000	1,890	38,000	1,496	2,5	2,0	36,0	<b>33024 F</b>	T2DE120

Assembly / Montaje



WEIGHT / PESO		ASSEMBLY / MONTAJE								LOAD / CARGA (kN)		LOAD FACTORS / FACTORES DE CARGA			SPEED / VELOCIDAD (rpm)		REFERENCES / REFERENCIAS
										DYNAMIC / DINÁMICA	STATIC / ESTÁTICA	DYNAMICS / DINÁMICOS	STATICS / ESTÁTICOS	OIL / ACEITE	GREASE / GRASA		
kg	lb	D1min	D2min	D2max	D3max	D4min	S1	S2	C	Co	e	Y	Yo	na	ng		
3,00	6,60	159,0	146,5	161,0	110,0	105,0	5,0	7,5	257,8	337,6	0,42	1,43	0,79	2900	2100	30219 F	
4,05	8,91	161,0	143,5	156,5	108,5	107,5	5,0	8,5	312,5	432,2	0,42	1,43	0,78	2900	2100	32219 F	
1,90	4,18	144,0	132,5	144,0	109,5	107,0	6,0	8,0	188,3	314,1	0,46	1,31	0,72	3000	2200	32020 XF	
2,44	5,37	143,0	133,5	144,0	108,0	107,0	7,0	6,5	242,8	413,7	0,29	2,09	1,15	3100	2300	33020 F	
4,30	9,46	160,0	140,5	157,0	111,0	109,0	8,0	12,0	353,5	566,6	0,41	1,47	0,81	2900	2100	33120 F	
3,65	8,03	168,0	154,5	171,0	117,0	110,0	5,0	8,0	279,1	366,1	0,42	1,42	0,78	2700	2000	30220 F	
4,90	10,78	171,0	151,5	171,0	114,0	110,0	5,0	10,0	386,0	556,1	0,42	1,43	0,78	2700	2000	32220 F	
4,90	10,78	171,0	151,5	171,0	114,0	110,0	5,0	10,0	349,4	487,7	0,42	1,43	0,78	2700	2000	32220 FR	
6,73	14,80	173,0	149,0	171,0	113,5	110,0	10,0	15,0	412,4	645,6	0,40	1,48	0,82	2700	2000	33220 F	
2,40	5,28	154,0	141,0	152,0	116,0	114,0	6,0	9,0	215,6	373,9	0,44	1,35	0,74	2900	2100	32021 XF	
3,10	6,82	153,0	142,5	153,0	115,5	113,0	7,0	9,0	277,2	474,0	0,28	2,12	1,17	2900	2100	33021 F	
3,10	6,82	153,0	142,5	153,0	115,5	125,0	7,0	9,0	277,2	474,0	0,28	2,12	1,17	2900	2100	33021 F.0266488	
4,25	9,35	177,0	163,0	181,0	122,0	115,0	6,0	9,0	293,1	392,6	0,42	1,42	0,78	2600	1900	30221 F	
5,90	12,97	180,0	158,5	181,0	120,0	115,0	6,0	10,0	387,3	555,5	0,43	1,43	0,79	2600	1900	32221 F	
3,05	6,71	163,0	149,5	162,5	122,5	118,5	7,0	9,0	255,2	423,8	0,43	1,39	0,77	2700	2000	32022 XF	
3,85	8,47	161,0	149,5	162,5	123,0	119,0	7,0	10,0	313,8	549,1	0,29	2,09	1,15	2800	2100	33022 F	
5,10	11,22	187,0	171,5	189,0	129,0	120,0	6,0	9,0	331,8	448,6	0,42	1,42	0,78	2400	1800	30222 F	
7,05	15,51	190,0	167,0	189,0	126,0	120,0	6,0	10,0	429,1	624,9	0,43	1,43	0,79	2400	1800	32222 F	
3,25	7,15	173,0	158,5	172,0	131,0	129,0	7,0	9,0	271,7	464,5	0,46	1,31	0,72	2500	1900	32024 XF	
4,20	9,24	171,0	158,0	172,0	132,0	129,0	6,0	10,0	314,0	587,5	0,30	2,01	1,11	2600	1900	33024 F	





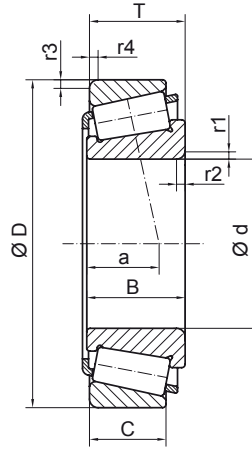
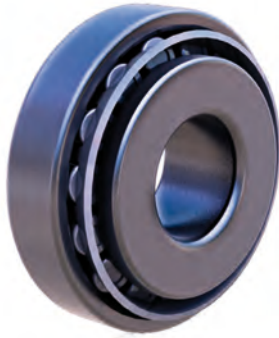
## 1.2 Inch series Serie pulgadas

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**Bearing Tables**  
**Tablas de Rodamientos**

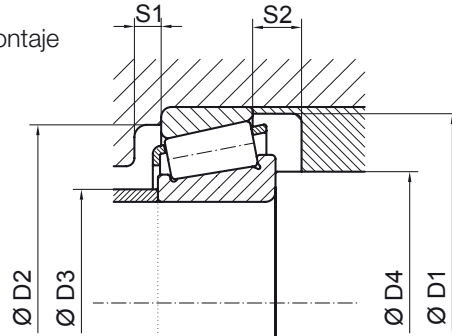
**102**

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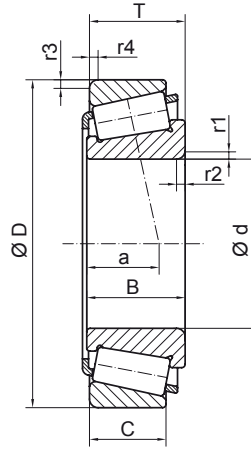
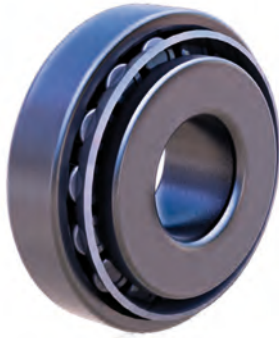


DIMENSIONS / DIMENSIONES													REFERENCES REFERENCIAS	ISO REF REF ISO
d		D		T		B		C		r1/r2 min	r3/r4 min	a		
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch					
<b>15,875</b>	<b>0,625</b>	42,862	1,688	14,288	0,563	14,288	0,563	9,525	0,375	1,6	1,6	13,0	<b>11590/11520</b>	
<b>15,987</b>	<b>0,629</b>	46,975	1,849	21,000	0,827	21,000	0,827	16,000	0,630	1,0	2,0	6,0	<b>HM 81649/HM 81610</b>	
<b>16,993</b>	<b>0,669</b>	47,000	1,850	14,382	0,566	14,381	0,566	11,112	0,438	1,5	1,3	10,3	<b>05066/05185</b>	
<b>17,462</b>	<b>0,688</b>	39,878	1,570	13,843	0,545	14,605	0,575	10,668	0,420	1,3	1,3	8,5	<b>LM 11749/LM 11710</b>	
<b>19,050</b>	<b>0,750</b>	39,992	1,575	12,014	0,473	11,153	0,439	9,525	0,375	1,0	1,3	10,5	<b>A 6075/A 6157</b>	
		44,450	1,750	12,700	0,500	11,908	0,469	9,525	0,375	1,5	1,5	11,0	<b>4 A/6</b>	
		45,237	1,781	15,494	0,610	16,637	0,655	12,065	0,475	1,2	1,2	9,9	<b>LM 11949 RS/LM 11910</b>	
		45,237	1,781	15,494	0,610	16,637	0,655	12,065	0,475	1,2	1,2	9,9	<b>LM 11949/LM 11910</b>	
		49,225	1,938	18,034	0,710	19,050	0,750	14,288	0,563	1,3	1,3	11,0	<b>09067/09195</b>	
		49,225	1,938	19,845	0,781	21,539	0,848	14,288	0,563	1,5	1,3	11,0	<b>09074/09195</b>	
		49,225	1,938	21,209	0,835	19,050	0,750	17,463	0,688	1,3	1,5	13,9	<b>09067/09196</b>	
		49,225	1,938	23,020	0,906	21,539	0,848	17,463	0,688	1,5	1,5	13,9	<b>09074/09196</b>	
		49,225	1,938	23,020	0,906	21,539	0,848	17,462	0,688	1,5	3,5	14,0	<b>09074/09194</b>	
		53,975	2,125	22,225	0,875	21,839	0,860	15,875	0,625	1,5	2,3	16,5	<b>21075/21212</b>	
<b>20,625</b>	<b>0,812</b>	49,225	1,938	19,845	0,781	21,539	0,848	14,288	0,563	1,5	1,3	11,0	<b>09081/09195</b>	
		49,225	1,938	23,020	0,906	21,539	0,848	17,463	0,688	1,5	1,5	13,9	<b>09081/09196</b>	
<b>21,430</b>	<b>0,844</b>	50,005	1,969	17,026	0,670	17,788	0,700	13,470	0,530	1,3	1,3	10,6	<b>M 12649 F/M 12610 F</b>	
		50,005	1,969	17,526	0,690	18,288	0,720	13,970	0,550	1,3	1,3	10,6	<b>M 12649/M 12610</b>	
<b>21,986</b>	<b>0,866</b>	45,237	1,781	15,494	0,610	16,637	0,655	12,065	0,475	1,3	1,3	10,2	<b>LM 12749/LM 12710</b>	
		45,974	1,810	15,494	0,610	16,637	0,655	12,065	0,475	1,3	1,3	10,2	<b>LM 12749/LM 12711</b>	
<b>22,225</b>	<b>0,875</b>	50,800	2,000	15,011	0,591	14,260	0,561	12,700	0,500	1,3	1,5	12,1	<b>07087/07210 X</b>	
		50,800	2,000	15,011	0,591	14,260	0,561	12,700	0,500	1,5	1,5	12,1	<b>07087 X/07210 X</b>	
		51,994	2,047	15,011	0,591	14,260	0,561	12,700	0,500	1,3	1,3	12,1	<b>07087/07204</b>	
		51,994	2,047	15,011	0,591	14,260	0,561	12,700	0,500	1,5	1,3	12,1	<b>07087 X/07204</b>	
		52,388	2,063	19,368	0,763	20,168	0,794	14,288	0,563	1,5	1,5	11,7	<b>1380/1328</b>	
		52,388	2,063	19,368	0,763	20,168	0,794	14,288	0,563	1,5	1,5	11,7	<b>1380/1328</b>	
<b>23,812</b>	<b>0,938</b>	56,896	2,240	19,368	0,763	19,837	0,781	15,875	0,625	0,8	1,5	12,5	<b>1779/1729 X</b>	
<b>25,000</b>	<b>0,984</b>	51,994	2,047	15,011	0,591	14,260	0,561	12,700	0,500	1,5	1,3	12,1	<b>07097/07204</b>	

### Assembly / Montaje

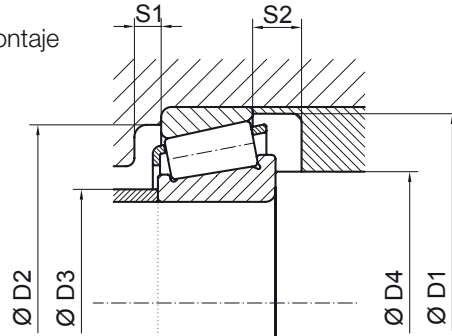


WEIGHT / PESO		ASSEMBLY / MONTAJE								LOAD / CARGA (kN)		LOAD FACTORS / FACTORES DE CARGA			SPEED / VELOCIDAD (rpm)		REFERENCES / REFERENCIAS
										DYNAMIC / DINÁMICA	STATIC / ESTÁTICA	DYNAMICS / DINÁMICOS	STATICS / ESTÁTICOS	OIL / ACEITE	GREASE / GRASA		
kg	lb	D1min	D2min	D2max	D3max	D4min	S1	S2	C	Co	e	Y	Yo	na	ng		
0,10	0,22	38,5	32,5	37,0	23,5	20,5	2,0	4,5	21,9	22,8	0,70	0,85	0,47	12300	9100	11590/11520	
0,19	0,42	43,5	35,5	40,0	22,0	20,0	2,0	5,0	37,8	39,5	0,55	1,10	0,60	11900	8800	HM 81649/HM 81610	
0,12	0,26	42,0	39,5	42,0	21,0	22,5	2,0	3,0	23,5	26,7	0,36	1,68	0,92	12200	9000	05066/05185	
0,08	0,18	36,5	35,5	35,0	23,5	22,0	2,0	3,0	24,8	25,1	0,29	2,10	1,20	13700	10200	LM 11749/LM 11710	
0,07	0,15	36,5	33,0	35,0	23,0	23,0	2,0	2,0	12,4	13,7	0,53	1,14	0,63	12800	9500	A 6075/A 6157	
0,10	0,21	41,0	37,5	39,0	25,5	24,5	2,0	3,0	22,2	23,4	0,48	1,25	0,69	12000	8900	4 A/6	
0,13	0,29	41,0	39,0	40,5	25,5	20,5	2,0	3,0	32,3	33,2	0,30	1,99	1,09	12200	9000	LM 11949 RS/LM 11910	
0,12	0,27	41,0	39,0	40,5	26,0	23,5	2,5	3,0	32,2	33,2	0,30	1,99	1,09	12200	9000	LM 11949/LM 11910	
0,17	0,37	44,0	41,5	44,0	26,5	24,0	3,0	3,5	40,6	40,9	0,26	2,25	1,24	11500	8500	09067/09195	
0,18	0,39	44,0	41,5	44,0	26,5	24,5	3,0	5,5	40,6	40,9	0,26	2,25	1,24	11500	8500	09074/09195	
0,19	0,42	44,0	40,5	43,5	26,5	24,0	3,0	3,5	40,6	40,9	0,26	2,25	1,24	11500	8500	09067/09196	
0,20	0,44	44,0	40,5	43,5	26,5	24,5	3,0	5,5	40,6	40,9	0,26	2,25	1,24	11500	8500	09074/09196	
0,20	0,44	44,0	40,5	37,5	26,5	24,5	3,0	5,5	40,6	40,9	0,26	2,25	1,24	11500	8500	09074/09194	
0,25	0,54	50,5	40,5	46,0	26,5	24,5	2,5	6,0	47,1	47,0	0,59	1,01	0,56	10200	7600	21075/21212	
0,17	0,38	44,0	41,5	44,0	26,5	26,0	3,0	5,5	40,6	40,9	0,26	2,25	1,24	11300	8400	09081/09195	
0,19	0,42	44,0	40,5	43,5	26,5	26,0	3,0	5,5	40,6	40,9	0,26	2,25	1,24	11300	8400	09081/09196	
0,15	0,33	46,0	44,0	45,0	28,0	26,5	2,5	3,5	42,4	44,6	0,27	2,15	1,18	11000	8200	M 12649 F/M 12610 F	
0,17	0,37	45,5	43,0	45,0	28,5	26,0	2,5	3,5	42,4	44,7	0,27	2,15	1,18	11000	8200	M 12649/M 12610	
0,12	0,26	42,5	40,0	40,0	28,5	26,5	2,5	3,0	32,1	37,2	0,33	1,80	0,99	11700	8600	LM 12749/LM 12710	
0,12	0,27	42,5	40,0	41,0	28,5	26,5	2,5	3,0	32,1	37,2	0,33	1,80	0,99	11500	8500	LM 12749/LM 12711	
0,14	0,31	47,5	43,5	44,5	32,0	27,0	2,5	2,0	29,5	32,2	0,33	1,49	0,82	10600	7800	07087/07210 X	
0,14	0,31	47,5	43,5	44,5	32,0	27,5	2,5	2,0	29,5	32,2	0,33	1,49	0,82	10600	7800	07087 X/07210 X	
0,15	0,33	47,5	43,5	46,8	32,0	27,0	2,5	2,0	29,5	32,2	0,33	1,49	0,82	10400	7700	07087/07204	
0,15	0,33	47,5	43,5	46,8	32,0	27,0	2,5	2,0	29,5	32,2	0,33	1,49	0,82	10400	7700	07087 X/07204	
0,20	0,44	48,0	45,5	46,5	29,5	27,5	3,0	5,0	45,8	48,8	0,29	2,05	1,13	10500	7800	1380/1328	
0,25	0,55	50,5	47,0	51,0	32,0	27,0	3,0	3,0	44,2	47,5	0,31	1,95	1,07	9700	7200	1779/1729 X	
0,15	0,32	47,5	43,5	46,8	32,0	30,5	3,0	2,0	29,5	32,2	0,33	1,49	0,82	10000	7400	07097/07204	

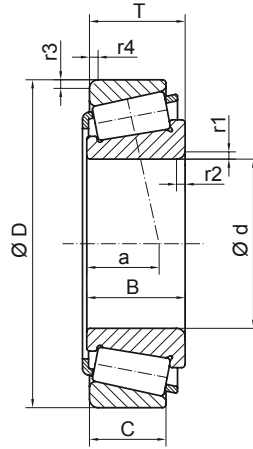
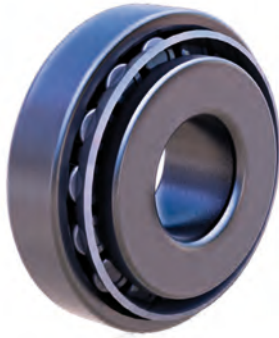


DIMENSIONS / DIMENSIONES													REFERENCES REFERENCIAS	ISO REF REF ISO
d		D		T		B		C		r1/r2 min	r3/r4 min	a		
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch					
<b>25,400</b>	<b>1,000</b>	50,005	1,969	13,495	0,531	14,260	0,561	9,525	0,375	1,5	1,0	10,7	<b>07100 S/07196</b>	
		50,292	1,980	14,224	0,560	14,732	0,580	10,668	0,420	1,3	1,3	10,9	<b>L 44643 RS/L 44610</b>	
		50,292	1,980	14,224	0,560	14,732	0,580	10,668	0,420	1,3	1,3	10,9	<b>L 44643/L 44610</b>	
		50,800	2,000	15,011	0,591	14,260	0,561	12,700	0,500	1,5	1,5	12,1	<b>07100 S/07210 X</b>	
		51,994	2,047	15,011	0,591	14,260	0,561	12,700	0,500	1,0	1,3	12,1	<b>07100/07204</b>	
		56,896	2,240	19,368	0,763	19,837	0,781	15,875	0,625	0,8	1,3	12,5	<b>1780/1729</b>	
		57,150	2,250	17,462	0,688	17,462	0,688	13,495	0,531	1,3	1,5	12,5	<b>15578/15520</b>	
		57,150	2,250	19,431	0,765	19,431	0,765	14,732	0,580	1,5	1,5	16,3	<b>M 84548/M 84510</b>	
		58,738	2,313	19,050	0,750	19,355	0,762	15,080	0,594	1,3	1,3	14,2	<b>1986/1932</b>	
		59,530	2,344	23,368	0,920	23,114	0,910	18,288	0,720	0,8	1,5	18,2	<b>M 84249/M 84210</b>	
		60,325	2,375	19,845	0,781	19,355	0,762	15,875	0,625	1,3	1,3	14,2	<b>1986/1931</b>	
		62,000	2,441	19,050	0,750	20,638	0,813	14,288	0,563	0,8	1,3	13,3	<b>15101/15245</b>	
		62,000	2,441	19,050	0,750	20,638	0,813	14,288	0,563	3,5	1,3	13,3	<b>15100/15245</b>	
		63,500	2,500	20,638	0,813	20,638	0,813	15,875	0,625	0,8	1,3	14,8	<b>15101/15250</b>	
63,500	2,500	20,638	0,813	20,638	0,813	15,875	0,625	0,8	1,5	14,8	<b>15101/15250 X</b>			
63,500	2,500	20,638	0,813	20,638	0,813	15,875	0,625	3,5	1,3	14,8	<b>15100/15250</b>			
63,500	2,500	20,638	0,813	20,638	0,813	15,875	0,625	3,5	1,5	14,8	<b>15100/15250 X</b>			
<b>25,987</b>	<b>1,023</b>	51,986	2,047	15,011	0,591	14,732	0,580	12,700	0,500	3,5	2,0	10,9	<b>L 44645/L 44613</b>	
		57,150	2,250	17,462	0,688	17,462	0,688	13,495	0,531	3,5	1,5	12,5	<b>15579 X/15520</b>	
<b>26,162</b>	<b>1,030</b>	61,912	2,438	19,050	0,750	19,939	0,785	14,288	0,563	0,8	2,0	13,2	<b>15103 S/15243</b>	
		62,000	2,441	19,050	0,750	19,939	0,785	14,288	0,563	0,8	1,3	13,2	<b>15103 S/15245</b>	
<b>26,988</b>	<b>1,063</b>	50,292	1,980	14,224	0,560	14,732	0,580	10,668	0,420	3,5	1,3	10,9	<b>L 44649/L 44610</b>	
		57,150	2,250	17,462	0,688	17,462	0,688	13,495	0,531	3,5	1,5	12,5	<b>15580/15520</b>	
		62,000	2,441	19,050	0,750	20,638	0,813	14,288	0,563	0,8	1,3	13,3	<b>15106/15245</b>	
		63,500	2,500	20,638	0,813	20,638	0,813	15,875	0,625	0,8	1,3	14,8	<b>15106/15250</b>	
		63,500	2,500	20,638	0,813	20,638	0,813	15,875	0,625	0,8	1,5	14,8	<b>15106/15250 X</b>	
<b>27,988</b>	<b>1,102</b>	57,150	2,250	17,462	0,688	17,462	0,688	13,495	0,531	3,5	1,5	12,5	<b>J 15585/15520</b>	

### Assembly / Montaje

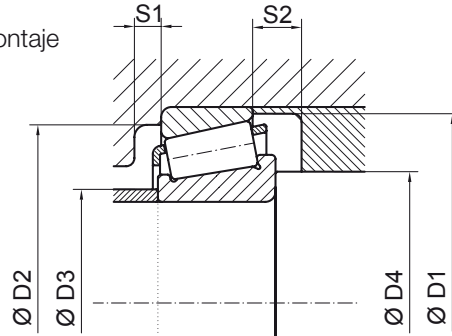


WEIGHT / PESO		ASSEMBLY / MONTAJE						LOAD / CARGA (kN)		LOAD FACTORS / FACTORES DE CARGA				SPEED / VELOCIDAD (rpm)		REFERENCES / REFERENCIAS
								DYNAMIC / DINÁMICA	STATIC / ESTÁTICA	DYNAMICS / DINÁMICOS	STATICS / ESTÁTICOS	OIL / ACEITE	GREASE / GRASA	na	ng	
kg	lb	D1min	D2min	D2max	D3max	D4min	S1	S2	C	Co	e	Y	Yo	na	ng	
0,12	0,27	47,0	44,5	47,8	32,0	32,0	2,5	3,5	30,8	36,1	0,37	1,60	0,88	10200	7600	<b>07100 S/07196</b>
0,13	0,29	47,0	45,0	45,0	32,5	30,0	2,5	3,5	30,8	36,1	0,37	1,60	0,88	10300	7600	<b>L 44643 RS/L 44610</b>
0,12	0,27	47,0	45,0	45,0	33,0	30,0	2,5	3,5	30,8	36,1	0,37	1,60	0,88	10300	7600	<b>L 44643/L 44610</b>
0,13	0,29	47,5	43,5	44,5	32,0	30,5	2,5	2,0	29,5	32,2	0,33	1,49	0,82	10100	7500	<b>07100 S/07210 X</b>
0,14	0,31	47,5	43,5	46,8	32,0	29,0	2,5	2,0	29,5	32,2	0,40	1,49	0,82	10000	7400	<b>07100/07204</b>
0,24	0,53	50,5	47,0	52,0	32,0	28,5	2,5	3,0	44,2	47,5	0,31	1,95	1,07	9700	7200	<b>1780/1729</b>
0,22	0,48	53,0	49,5	51,5	35,5	30,0	2,5	3,5	45,3	52,9	0,34	1,73	0,95	9400	7000	<b>15578/15520</b>
0,23	0,51	53,5	46,0	51,5	33,5	30,5	2,5	4,5	46,1	53,8	0,54	1,10	0,60	9100	6700	<b>M 84548/M 84510</b>
0,25	0,55	54,0	50,0	53,5	35,0	30,0	2,5	3,5	45,5	50,0	0,33	1,81	1,00	9300	6900	<b>1986/1932</b>
0,34	0,75	56,0	45,5	54,0	32,5	28,5	2,5	5,0	53,6	62,4	0,55	1,10	0,60	8900	6500	<b>M 84249/M 84210</b>
0,27	0,59	54,0	50,0	55,0	35,0	30,0	2,5	3,5	45,5	50,1	0,33	1,81	1,00	9100	6800	<b>1986/1931</b>
0,29	0,64	58,0	54,0	57,0	39,0	28,5	3,0	4,5	47,5	54,3	0,35	1,71	0,94	8900	6600	<b>15101/15245</b>
0,29	0,64	58,0	54,0	57,0	39,0	36,5	3,0	4,5	47,5	54,3	0,35	1,71	0,94	8900	6600	<b>15100/15245</b>
0,32	0,71	58,0	53,5	58,5	39,0	28,5	3,0	4,5	47,5	54,3	0,35	1,71	0,94	8800	6500	<b>15101/15250</b>
0,32	0,71	58,0	53,5	57,5	39,0	28,5	3,0	4,5	47,5	54,3	0,35	1,71	0,94	8800	6500	<b>15101/15250 X</b>
0,32	0,71	58,0	53,5	58,5	39,0	36,5	3,0	4,5	47,5	54,3	0,35	1,71	0,94	8800	6500	<b>15100/15250</b>
0,32	0,71	58,0	53,5	57,5	39,0	36,5	3,0	4,5	47,5	54,3	0,35	1,71	0,94	8800	6500	<b>15100/15250 X</b>
0,15	0,32	48,0	45,0	45,0	31,0	37,5	2,5	2,0	30,8	36,1	0,37	1,60	0,88	10000	7400	<b>L 44645/L 44613</b>
0,21	0,46	53,0	49,5	51,5	35,5	37,5	3,0	3,5	45,3	52,9	0,34	1,73	0,95	9400	6900	<b>15579 X/15520</b>
0,29	0,64	58,0	54,0	54,5	38,5	29,5	3,0	4,5	47,5	54,3	0,35	1,71	0,94	8800	6600	<b>15103 S/15243</b>
0,29	0,64	58,0	54,0	57,0	38,5	29,5	3,0	4,5	47,5	54,3	0,35	1,71	0,94	8800	6500	<b>15103 S/15245</b>
0,12	0,26	47,0	45,0	45,0	33,0	38,5	3,0	3,5	30,8	36,1	0,37	1,60	0,88	10000	7400	<b>L 44649/L 44610</b>
0,21	0,46	53,0	49,5	51,5	35,5	38,5	3,0	3,5	45,3	52,9	0,34	1,73	0,95	9300	6900	<b>15580/15520</b>
0,28	0,62	58,0	54,0	57,0	39,0	30,0	3,0	4,5	47,5	54,3	0,35	1,71	0,94	8800	6500	<b>15106/15245</b>
0,31	0,69	58,0	53,5	58,5	39,0	30,0	3,0	4,5	47,5	54,3	0,35	1,71	0,94	8600	6400	<b>15106/15250</b>
0,31	0,69	58,0	53,5	57,5	39,0	30,0	3,0	4,5	47,5	54,3	0,35	1,71	0,94	8600	6400	<b>15106/15250 X</b>
0,20	0,44	53,0	49,5	51,5	35,5	39,5	3,0	3,5	45,3	52,9	0,34	1,73	0,95	9200	6800	<b>J 15585/15520</b>

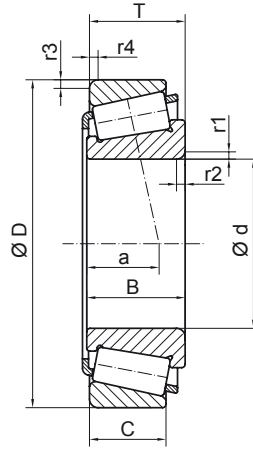
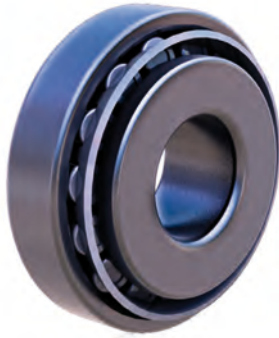


DIMENSIONS / DIMENSIONES													REFERENCES REFERENCIAS	ISO REF REF ISO
d		D		T		B		C		r1/r2 min	r3/r4 min	a		
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch					
<b>28,575</b>	<b>1,125</b>	57,150	2,250	19,845	0,781	19,355	0,762	15,875	0,625	0,8	1,5	14,2	<b>1985/1922</b>	
		57,150	2,250	19,845	0,781	19,355	0,762	15,875	0,625	3,5	1,5	14,2	<b>1988/1922</b>	
		58,738	2,313	19,050	0,750	19,355	0,762	15,080	0,594	0,8	1,3	14,2	<b>1985/1932</b>	
		60,325	2,375	19,845	0,781	19,355	0,762	15,875	0,625	0,8	1,3	14,2	<b>1985/1931</b>	
		60,325	2,375	19,845	0,781	19,355	0,762	15,875	0,625	3,5	1,3	14,2	<b>1988/1931</b>	
		62,000	2,441	19,050	0,750	20,638	0,813	14,288	0,563	3,5	1,3	13,3	<b>15112/15245</b>	
		63,500	2,500	20,638	0,813	20,638	0,813	15,875	0,625	3,5	1,3	14,8	<b>15112/15250</b>	
		63,500	2,500	20,638	0,813	20,638	0,813	15,875	0,625	3,5	1,5	14,8	<b>15112/15250 X</b>	
		64,292	2,531	21,433	0,844	21,433	0,844	16,670	0,656	1,5	1,5	18,2	<b>M 86647/M 86610</b>	
		66,421	2,615	23,812	0,938	25,433	1,001	19,050	0,750	1,3	1,3	14,4	<b>2689/2631</b>	
68,262	2,688	22,225	0,875	22,225	0,875	17,462	0,688	0,8	1,5	17,1	<b>02474/02420</b>			
72,626	2,859	24,608	0,969	24,257	0,955	17,462	0,688	4,8	1,5	20,7	<b>41125/41286</b>			
73,025	2,875	22,225	0,875	22,225	0,875	17,463	0,688	0,8	3,3	18,4	<b>02872/02820</b>			
<b>29,000</b>	<b>1,142</b>	50,292	1,980	14,224	0,560	14,732	0,580	10,668	0,420	3,5	1,3	10,9	<b>L 45449/L 45410</b>	
<b>29,987</b>	<b>1,181</b>	62,000	2,441	19,050	0,750	20,638	0,813	14,288	0,563	1,3	1,3	13,3	<b>15117/15245</b>	
<b>30,000</b>	<b>1,181</b>	69,012	2,717	19,845	0,781	19,202	0,756	15,875	0,625	0,8	3,3	15,9	<b>14118/14274</b>	
		72,000	2,835	29,370	1,156	27,783	1,094	23,020	0,906	1,3	3,3	23,4	<b>JHM 88540/JHM 88513</b>	
		72,085	2,838	22,385	0,881	19,202	0,756	18,415	0,725	0,8	2,3	18,4	<b>14118/14283</b>	
<b>30,162</b>	<b>1,188</b>	64,292	2,531	21,433	0,844	21,433	0,844	16,670	0,656	1,5	1,5	18,2	<b>M 86649/M 86610</b>	
		68,262	2,688	22,225	0,875	22,225	0,875	17,462	0,688	2,3	1,5	19,2	<b>M 88043/M 88010</b>	
		68,262	2,688	22,225	0,875	22,225	0,875	17,463	0,688	2,3	2,3	19,2	<b>M 88043/M 88011</b>	
<b>30,213</b>	<b>1,190</b>	62,000	2,441	19,050	0,750	20,638	0,813	14,288	0,563	3,5	1,3	13,3	<b>15118/15245</b>	
		63,500	2,500	20,638	0,813	20,638	0,813	15,875	0,625	0,8	1,5	14,8	<b>15120/15250 X</b>	
		63,500	2,500	20,638	0,813	20,638	0,813	15,875	0,625	3,5	1,3	14,8	<b>15118/15250</b>	
		63,500	2,500	20,638	0,813	20,638	0,813	15,875	0,625	3,5	1,5	14,8	<b>15118/15250 X</b>	
<b>30,226</b>	<b>1,190</b>	69,012	2,717	19,845	0,781	19,583	0,771	15,875	0,625	0,8	1,3	15,9	<b>14116/14276</b>	
<b>31,750</b>	<b>1,250</b>	58,877	2,318	15,875	0,625	16,764	0,660	11,811	0,465	ESP	1,3	13,0	<b>LM 67048/LM 67010 BA</b>	

### Assembly / Montaje

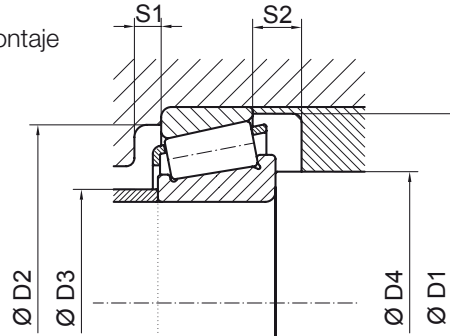


WEIGHT / PESO		ASSEMBLY / MONTAJE						LOAD / CARGA (kN)		LOAD FACTORS / FACTORES DE CARGA			SPEED / VELOCIDAD (rpm)		REFERENCES / REFERENCIAS	
								DYNAMIC / DINÁMICA	STATIC / ESTÁTICA	DYNAMICS / DINÁMICOS	STATICS / ESTÁTICOS	OIL / ACEITE	GREASE / GRASA			
kg	lb	D1min	D2min	D2max	D3max	D4min	S1	S2	C	Co	e	Y	Yo	na	ng	
0,21	0,46	54,0	49,5	51,5	35,0	32,0	2,5	3,5	45,5	50,1	0,33	1,81	1,00	9100	6800	1985/1922
0,21	0,47	54,0	49,5	51,5	35,5	40,0	2,5	3,5	45,5	50,1	0,33	1,81	1,00	9100	6800	1988/1922
0,23	0,50	54,0	50,0	53,5	35,0	32,0	2,5	3,5	45,5	50,1	0,33	1,81	1,00	8900	6600	1985/1932
0,26	0,57	54,0	50,0	55,0	35,5	32,0	2,5	3,5	45,5	50,0	0,33	1,81	1,00	8800	6500	1985/1931
0,24	0,53	54,0	50,0	55,0	35,5	40,0	2,5	3,5	45,5	50,1	0,33	1,81	1,00	8800	6500	1988/1931
0,27	0,60	58,0	54,0	57,0	39,0	40,0	2,5	4,5	47,5	54,3	0,35	1,71	0,94	8600	6400	15112/15245
0,30	0,66	58,0	53,5	58,5	39,0	40,0	3,0	4,5	47,5	54,3	0,35	1,71	0,94	8500	6300	15112/15250
0,30	0,66	58,0	53,5	57,5	39,0	40,0	3,0	4,5	47,5	54,3	0,35	1,71	0,94	8500	6300	15112/15250 X
0,34	0,75	60,0	51,0	58,5	38,0	34,0	3,0	4,5	56,7	72,2	0,54	1,10	0,60	8100	6000	M 86647/M 86610
0,41	0,90	58,5	55,0	61,5	36,5	33,5	3,5	4,5	70,6	79,9	0,25	2,36	1,30	8300	6200	2689/2631
0,40	0,88	62,5	55,5	62,5	39,5	30,5	3,0	4,5	62,9	74,8	0,42	1,44	0,78	8000	5900	02474/02420
0,46	1,02	67,5	56,5	67,0	37,0	44,0	2,5	7,0	66,2	65,9	0,60	1,00	0,55	7300	5400	41125/41286
0,47	1,03	67,5	60,0	62,0	44,5	32,0	2,5	4,5	59,5	71,1	0,45	1,32	0,72	7500	5600	02872/02820
0,11	0,24	47,5	45,0	45,0	34,5	40,5	3,0	3,5	29,7	38,2	0,37	1,62	0,89	9800	7300	L 45449/L 45410
0,26	0,57	58,0	54,0	57,0	38,5	34,5	3,0	4,5	47,5	54,3	0,35	1,71	0,94	8500	6300	15117/15245
0,36	0,79	63,0	57,5	58,0	43,0	33,0	3,5	3,5	51,7	62,2	0,38	1,57	0,86	7800	5800	14118/14274
0,61	1,34	69,0	55,0	61,0	42,0	34,5	3,5	6,0	78,9	107,1	0,55	1,10	0,60	7400	5500	JHM 88540/JHM 88513
0,44	0,96	63,0	56,0	64,0	43,0	33,0	3,5	3,5	56,1	69,6	0,38	1,57	0,86	7600	5600	14118/14283
0,33	0,72	60,0	51,0	58,5	38,0	35,5	3,5	4,5	56,7	72,2	0,54	1,10	0,60	8000	5900	M 86649/M 86610
0,40	0,87	64,5	54,5	62,5	41,0	38,0	3,5	4,5	60,0	76,9	0,54	1,10	0,60	7600	5700	M 88043/M 88010
0,40	0,88	64,5	54,5	60,0	41,0	38,0	3,5	4,5	60,0	76,9	0,54	1,10	0,60	7600	5700	M 88043/M 88011
0,26	0,57	58,0	54,0	57,0	39,0	41,5	3,5	4,5	47,5	54,3	0,35	1,71	0,94	8400	6300	15118/15245
0,29	0,63	58,0	53,5	57,5	38,5	33,5	3,5	4,5	47,5	54,3	0,35	1,71	0,94	8300	6200	15120/15250 X
0,29	0,64	58,0	53,5	58,5	39,0	41,5	3,5	4,5	47,5	54,3	0,35	1,71	0,94	8300	6200	15118/15250
0,29	0,64	58,0	53,5	57,5	39,0	41,5	3,5	4,5	47,5	54,3	0,35	1,71	0,94	8300	6200	15118/15250 X
0,35	0,77	63,0	57,5	64,0	43,0	33,5	3,5	3,5	51,6	62,2	0,38	1,57	0,86	7800	5800	14116/14276
0,19	0,41	55,0	51,5	54,0	38,5	45,0	3,5	4,0	39,3	47,5	0,41	1,45	0,80	8500	6300	LM 67048/LM 67010 BA

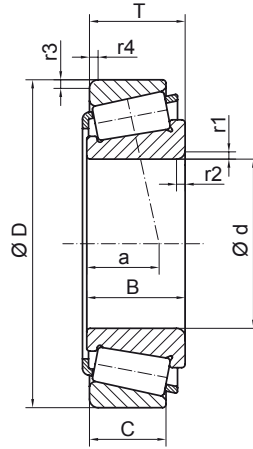
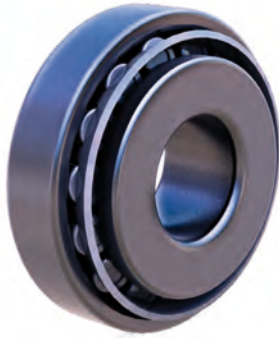


DIMENSIONS / DIMENSIONES													REFERENCES REFERENCIAS	ISO REF REF ISO
d		D		T		B		C		r1/r2 min	r3/r4 min	a		
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch					
<b>31,750</b>	<b>1,250</b>	59,131	2,328	15,875	0,625	16,764	0,660	11,811	0,465	0,6	1,3	13,0	<b>LM 67049 AX/LM 67010 X</b>	
		59,131	2,328	15,875	0,625	16,764	0,660	11,811	0,465	ESP	1,3	13,0	<b>LM 67048/LM 67010</b>	
		59,131	2,328	15,875	0,625	16,764	0,660	11,811	0,465	ESP	1,3	13,0	<b>LM 67048 RS/LM 67010</b>	
		59,131	2,328	17,780	0,700	16,764	0,660	13,716	0,540	1,5	1,3	14,8	<b>LM 67049/LM 67011</b>	
		61,986	2,440	15,875	0,625	16,764	0,660	11,811	0,465	0,8	1,3	13,0	<b>LM 67049 A/LM 67014</b>	
		61,986	2,440	15,875	0,625	16,764	0,660	11,811	0,465	ESP	1,3	13,0	<b>LM 67048/LM 67014</b>	
		61,986	2,440	15,875	0,625	16,764	0,660	11,811	0,465	ESP	1,3	13,0	<b>LM 67048/LM 67014 X</b>	
		62,000	2,441	18,161	0,715	19,050	0,750	14,288	0,563	ESP	1,3	13,3	<b>15123/15245</b>	
		62,000	2,441	19,050	0,750	20,638	0,813	14,288	0,563	0,8	1,3	13,3	<b>15126/15245</b>	
		62,000	2,441	19,050	0,750	20,638	0,813	14,288	0,563	3,5	1,3	13,3	<b>15125/15245</b>	
		62,000	2,441	19,749	0,778	19,050	0,750	15,875	0,625	ESP	1,3	13,3	<b>15123/15244</b>	
		63,500	2,500	19,749	0,778	19,050	0,750	15,875	0,625	ESP	1,5	14,8	<b>15123/15250 X</b>	
		63,500	2,500	20,638	0,813	20,638	0,813	15,875	0,625	0,8	1,3	14,8	<b>15126/15250</b>	
		63,500	2,500	20,638	0,813	20,638	0,813	15,875	0,625	0,8	1,5	14,8	<b>15126/15250 X</b>	
		66,421	2,615	25,400	1,000	25,357	0,998	20,638	0,813	0,8	3,3	16,8	<b>2580/2520</b>	
		68,262	2,688	22,225	0,875	22,225	0,875	17,462	0,688	1,5	1,5	19,2	<b>M 88046/M 88010</b>	
		68,262	2,688	22,225	0,875	22,225	0,875	17,462	0,688	3,5	1,5	17,1	<b>02475/02420</b>	
		69,012	2,717	19,845	0,781	19,583	0,771	15,875	0,625	3,5	1,3	15,9	<b>14125 A/14276</b>	
		69,012	2,717	19,845	0,781	19,583	0,771	15,875	0,625	3,5	3,3	15,9	<b>14125 A/14274</b>	
		69,012	2,717	26,983	1,062	26,721	1,052	15,875	0,625	4,3	1,3	15,9	<b>14123 AA/14276</b>	
		69,012	2,717	26,983	1,062	26,721	1,052	15,875	0,625	4,3	3,3	15,9	<b>14123 AA/14274</b>	
		69,850	2,750	23,812	0,938	25,357	0,998	19,050	0,750	0,8	1,3	16,8	<b>2580/2523</b>	
		72,085	2,838	22,385	0,881	19,583	0,771	18,415	0,725	3,5	2,3	18,4	<b>14125 A/14283</b>	
		73,025	2,875	29,370	1,156	27,783	1,094	23,020	0,906	1,3	3,3	23,3	<b>HM 88542/HM 88510</b>	
<b>32,000</b>	<b>1,260</b>	53,000	2,087	14,500	0,571	15,000	0,591	11,500	0,453	6,0	1,3	10,5	<b>JL 26749 F/JL 26710</b>	
<b>33,338</b>	<b>1,313</b>	66,675	2,625	20,638	0,813	20,638	0,813	15,875	0,625	3,5	1,6	15,1	<b>1680/1620</b>	
		68,262	2,688	22,225	0,875	22,225	0,875	17,462	0,688	0,8	1,5	19,2	<b>M 88048/M 88010</b>	

### Assembly / Montaje

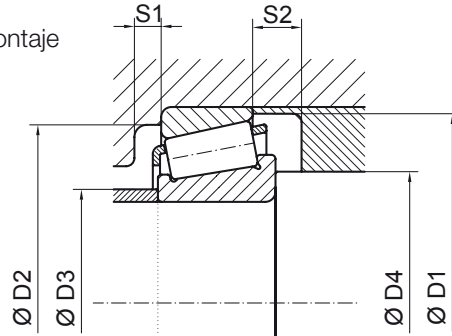


WEIGHT / PESO		ASSEMBLY / MONTAJE								LOAD / CARGA (kN)		LOAD FACTORS / FACTORES DE CARGA			SPEED / VELOCIDAD (rpm)		REFERENCES / REFERENCIAS
										DYNAMIC / DINÁMICA	STATIC / ESTÁTICA	DYNAMICS / DINÁMICOS	STATICS / ESTÁTICOS	OIL / ACEITE	GREASE / GRASA		
kg	lb	D1min	D2min	D2max	D3max	D4min	S1	S2	C	Co	e	Y	Yo	na	ng		
0,18	0,40	55,0	51,5	56,5	38,5	32,5	3,5	4,0	39,3	47,5	0,41	1,45	0,80	8800	6500	LM 67049 AX/LM 67010 X	
0,18	0,40	55,0	51,5	54,0	38,5	45,0	3,5	4,0	39,3	47,5	0,41	1,45	0,80	8500	6300	LM 67048/LM 67010	
0,19	0,41	55,0	51,5	54,0	38,5	45,0	3,5	4,0	39,3	47,5	0,41	1,45	0,80	8500	6300	LM 67048 RS/LM 67010	
0,19	0,42	55,0	51,5	54,0	39,0	37,0	3,5	4,0	39,3	47,5	0,41	1,45	0,80	8800	6500	LM 67049/LM 67011	
0,21	0,46	55,0	51,5	57,0	39,0	35,0	3,5	4,0	39,3	47,5	0,41	1,45	0,80	8200	6100	LM 67049 A/LM 67014	
0,21	0,46	55,0	51,5	57,0	38,5	45,0	3,5	4,0	39,3	47,5	0,41	1,45	0,80	8200	6100	LM 67048/LM 67014	
0,20	0,44	55,0	51,5	60,5	38,5	45,0	3,5	4,0	39,3	47,5	0,41	1,45	0,80	8200	6100	LM 67048/LM 67014 X	
0,24	0,53	58,0	54,0	57,0	39,0	44,5	3,0	3,5	47,5	54,3	0,35	1,71	0,94	8300	6200	15123/15245	
0,25	0,54	58,0	54,0	57,0	39,0	35,0	3,0	4,5	47,5	54,3	0,35	1,71	0,94	8300	6200	15126/15245	
0,24	0,53	58,0	54,0	57,0	39,0	43,0	3,0	4,5	47,5	54,2	0,35	1,71	0,94	8300	6200	15125/15245	
0,15	0,34	58,0	53,5	57,0	39,0	44,5	3,0	3,5	47,5	54,3	0,35	1,71	0,94	8300	6200	15123/15244	
0,27	0,59	58,0	53,5	57,5	39,0	44,5	3,5	3,5	47,5	54,3	0,35	1,71	0,94	8200	6100	15123/15250 X	
0,28	0,62	58,0	53,5	58,5	39,0	35,0	3,5	4,5	47,5	54,3	0,35	1,71	0,94	8200	6100	15126/15250	
0,28	0,61	58,0	53,5	57,5	39,0	35,0	3,5	4,5	47,5	54,3	0,35	1,71	0,94	8200	6100	15126/15250 X	
0,40	0,87	63,0	58,0	55,5	41,0	35,0	4,5	4,5	77,1	91,9	0,27	2,19	1,20	8000	5900	2580/2520	
0,39	0,85	64,5	54,5	62,5	41,5	37,0	3,5	4,5	60,0	76,9	0,54	1,10	0,60	7500	5600	M 88046/M 88010	
0,40	0,88	62,5	62,5	55,5	39,5	43,0	3,5	4,5	62,9	74,8	0,42	1,44	0,78	7700	5700	02475/02420	
0,35	0,77	63,0	57,5	64,0	43,0	43,0	3,5	3,5	51,7	62,2	0,38	1,57	0,86	7700	5700	14125 A/14276	
0,35	0,77	63,0	57,5	58,0	43,0	43,0	3,5	3,5	51,7	62,2	0,38	1,57	0,86	7700	5700	14125 A/14274	
0,39	0,86	63,0	57,5	64,0	43,5	45,5	3,5	11,0	51,6	62,3	0,38	1,57	0,86	7700	5700	14123 AA/14276	
0,40	0,87	63,0	57,5	58,0	43,5	45,5	3,5	11,0	51,6	62,3	0,38	1,57	0,86	7700	5700	14123 AA/14274	
0,44	0,96	63,0	59,0	64,5	41,0	35,0	3,5	4,5	77,1	91,9	0,27	2,19	1,20	7700	5700	2580/2523	
0,43	0,94	63,0	56,0	64,0	43,0	43,0	3,5	3,5	51,7	62,2	0,38	1,57	0,86	7500	5500	14125 A/14283	
0,63	1,38	69,0	55,0	62,0	42,0	36,5	3,5	6,0	78,8	107,1	0,55	1,10	0,60	7200	5300	HM 88542/HM 88510	
0,12	0,26	50,0	48,0	48,0	41,0	44,0	3,5	3,0	30,9	42,1	0,33	1,80	0,99	9200	6800	JL 26749 F/JL 26710	
0,31	0,67	61,5	56,0	60,5	42,0	44,5	3,5	4,5	49,7	58,5	0,37	1,61	0,89	7800	5800	1680/1620	
0,37	0,82	64,5	54,5	62,5	41,5	36,5	3,5	4,5	60,0	76,9	0,54	1,10	0,60	7400	5500	M 88048/M 88010	

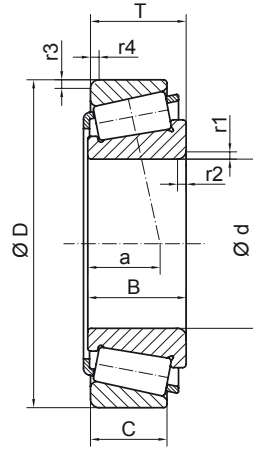


DIMENSIONS / DIMENSIONES													REFERENCES REFERENCIAS	ISO REF REF ISO
d		D		T		B		C		r1/r2 min	r3/r4 min	a		
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch					
<b>33,338</b>	<b>1,313</b>	68,262	2,688	22,225	0,875	22,225	0,875	17,463	0,688	0,8	2,3	19,2	<b>M 88048/M 88011</b>	
		69,012	2,717	19,845	0,781	19,583	0,771	15,875	0,625	0,8	1,3	15,9	<b>14131/14276</b>	
		69,012	2,717	19,845	0,781	19,583	0,771	15,875	0,625	0,8	3,3	15,9	<b>14131/14274</b>	
		69,012	2,717	19,845	0,781	19,583	0,771	15,875	0,625	3,5	1,3	15,9	<b>14130/14276</b>	
		69,012	2,717	19,845	0,781	19,583	0,771	15,875	0,625	3,5	3,3	15,9	<b>14130/14274</b>	
		69,850	2,750	23,812	0,938	25,357	0,998	19,050	0,750	3,5	1,3	16,8	<b>2585/2523</b>	
		73,025	2,875	29,370	1,156	27,783	1,094	23,020	0,906	0,8	3,3	23,3	<b>HM 88547/HM 88510</b>	
		76,200	3,000	29,370	1,156	28,575	1,125	23,020	0,906	0,8	3,3	23,8	<b>HM 89443/HM 89410</b>	
		79,375	3,125	29,370	1,156	29,771	1,172	23,812	0,938	3,5	3,3	20,8	<b>3477/3420</b>	
<b>34,925</b>	<b>1,375</b>	65,088	2,563	18,034	0,710	18,288	0,720	13,970	0,550	ESP	1,3	14,2	<b>LM 48548 RS/LM 48510</b>	
		65,088	2,563	18,034	0,710	18,288	0,720	13,970	0,550	ESP	1,3	14,2	<b>LM 48548/LM 48510</b>	
		68,262	2,688	18,034	0,710	18,288	0,720	13,970	0,550	ESP	1,2	14,2	<b>LM 48548/LM 48514 XP</b>	
		68,262	2,688	20,638	0,813	20,638	0,813	15,875	0,625	3,5	2,3	14,8	<b>14585/14525</b>	
		69,012	2,717	19,845	0,781	19,583	0,771	15,875	0,625	0,5	1,3	15,9	<b>14137 AS/14276</b>	
		69,012	2,717	19,845	0,781	19,583	0,771	15,875	0,625	1,5	1,3	15,9	<b>14137 A/14276</b>	
		69,012	2,717	19,845	0,781	19,583	0,771	15,875	0,625	1,5	3,3	15,9	<b>14137 A/14274</b>	
		69,012	2,717	19,845	0,781	19,583	0,771	15,875	0,625	3,5	1,3	15,9	<b>14138 A/14276</b>	
		69,012	2,717	19,845	0,781	19,583	0,771	15,875	0,625	3,5	3,3	15,9	<b>14138 A/14274</b>	
		69,012	2,717	26,983	1,062	26,721	1,052	15,875	0,625	0,8	1,3	15,9	<b>14136 A/14276</b>	
		72,085	2,838	22,385	0,881	19,583	0,771	18,415	0,725	3,5	2,3	18,4	<b>14138 A/14283</b>	
		72,233	2,844	25,400	1,000	25,400	1,000	19,842	0,781	2,3	2,3	20,2	<b>HM 88649/HM 88610</b>	
		73,025	2,875	23,812	0,938	24,608	0,969	19,050	0,750	1,5	0,8	15,5	<b>25877/25821</b>	
		73,025	2,875	23,812	0,938	24,608	0,969	19,050	0,750	1,5	2,3	15,5	<b>25877/25820</b>	
		73,025	2,875	23,812	0,938	24,608	0,969	19,050	0,750	3,5	2,3	15,5	<b>25878/25820</b>	
73,025	2,875	23,812	0,938	25,654	1,010	19,050	0,750	3,5	0,8	15,8	<b>2796/2735 X</b>			
73,025	2,875	26,988	1,063	26,975	1,062	22,225	0,875	3,5	1,5	19,0	<b>23690/23620</b>			
76,200	3,000	23,813	0,938	25,654	1,010	19,050	0,750	0,8	3,3	15,8	<b>2793/2720</b>			

### Assembly / Montaje

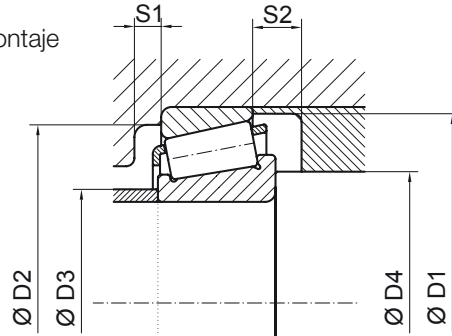


WEIGHT / PESO		ASSEMBLY / MONTAJE								LOAD / CARGA (kN)		LOAD FACTORS / FACTORES DE CARGA			SPEED / VELOCIDAD (rpm)		REFERENCES / REFERENCIAS
										DYNAMIC / DINÁMICA	STATIC / ESTÁTICA	DYNAMICS / DINÁMICOS	STATICS / ESTÁTICOS	OIL / ACEITE	GREASE / GRASA		
kg	lb	D1min	D2min	D2max	D3max	D4min	S1	S2	C	Co	e	Y	Yo	na	ng		
0,38	0,83	64,5	54,5	60,0	41,5	36,5	3,5	4,5	60,0	76,9	0,54	1,10	0,60	7400	5500	<b>M 88048/M 88011</b>	
0,34	0,75	63,0	57,5	64,0	43,0	36,5	3,5	3,5	51,7	62,2	0,38	1,57	0,86	7600	5600	<b>14131/14276</b>	
0,34	0,74	63,0	57,5	58,0	43,0	36,5	3,5	3,5	51,7	62,2	0,38	1,57	0,86	7600	5600	<b>14131/14274</b>	
0,34	0,74	63,0	57,5	64,0	43,0	44,5	3,5	3,5	51,7	62,2	0,38	1,57	0,86	7600	5600	<b>14130/14276</b>	
0,34	0,74	63,0	57,5	58,0	43,0	44,5	3,5	3,5	51,7	62,2	0,38	1,57	0,86	7600	5600	<b>14130/14274</b>	
0,42	0,93	63,0	59,0	64,5	40,5	44,5	4,5	4,5	77,0	91,8	0,27	2,19	1,20	7700	5700	<b>2585/2523</b>	
0,61	1,34	72,0	55,0	62,0	42,0	36,5	3,5	6,0	78,8	107,1	0,55	1,10	0,60	7100	5200	<b>HM 88547/HM 88510</b>	
0,66	1,46	72,0	58,0	65,0	44,5	36,5	3,5	6,0	83,8	114,3	0,54	1,10	0,60	6900	5100	<b>HM 89443/HM 89410</b>	
0,46	1,02	73,0	64,5	68,2	46,0	44,5	3,5	5,5	94,7	114,8	0,36	1,64	0,90	6900	5100	<b>3477/3420</b>	
0,26	0,57	61,0	56,5	60,0	42,0	47,5	3,5	4,0	52,1	64,0	0,37	1,59	0,87	7800	5700	<b>LM 48548 RS/LM 48510</b>	
0,25	0,55	61,0	56,5	60,0	42,0	47,5	3,5	4,0	52,1	64,0	0,37	1,59	0,87	7800	5700	<b>LM 48548/LM 48510</b>	
0,28	0,62	61,0	57,0	63,5	42,0	47,5	3,5	4,0	52,1	64,0	0,37	1,59	0,87	7500	5600	<b>LM 48548/LM 48514 XP</b>	
0,32	0,70	62,3	57,7	60,1	42,6	46,0	3,5	4,5	54,6	66,4	0,35	1,70	0,93	7500	5600	<b>14585/14525</b>	
0,33	0,72	63,0	57,5	64,0	43,0	37,0	3,5	3,5	51,7	62,2	0,38	1,57	0,86	7500	5500	<b>14137 AS/14276</b>	
0,33	0,72	63,0	57,5	64,0	43,0	40,0	3,5	3,5	51,7	62,2	0,38	1,57	0,86	7500	5500	<b>14137 A/14276</b>	
0,32	0,71	63,0	57,5	58,0	43,0	40,0	3,5	3,5	51,7	62,2	0,38	1,57	0,86	7500	5500	<b>14137 A/14274</b>	
0,32	0,71	63,0	57,5	64,0	43,0	46,0	3,5	3,5	51,7	62,2	0,38	1,57	0,86	7500	5500	<b>14138 A/14276</b>	
0,32	0,71	63,0	57,5	58,0	43,0	46,0	3,5	3,5	51,7	62,2	0,38	1,57	0,86	7500	5500	<b>14138 A/14274</b>	
0,36	0,78	63,0	57,5	64,0	43,5	38,0	3,5	11,0	51,7	62,2	0,38	1,57	0,86	7500	5500	<b>14136 A/14276</b>	
0,40	0,88	63,0	56,0	64,0	43,0	46,0	3,5	3,5	51,7	62,2	0,38	1,57	0,86	7200	5400	<b>14138 A/14283</b>	
0,48	1,05	68,0	57,0	64,0	43,0	42,5	3,5	5,5	70,5	92,2	0,54	1,10	0,60	7000	5200	<b>HM 88649/HM 88610</b>	
0,46	1,01	67,0	62,5	69,5	44,5	40,0	4,0	4,5	79,9	96,7	0,29	2,06	1,13	7300	5400	<b>25877/25821</b>	
0,46	1,01	67,0	62,5	65,0	44,5	40,0	4,0	4,5	79,9	96,7	0,29	2,06	1,13	7300	5400	<b>25877/25820</b>	
0,46	1,02	67,0	62,5	65,0	44,5	46,0	4,0	4,5	79,9	96,7	0,29	2,06	1,13	7300	5400	<b>25878/25820</b>	
0,47	1,04	69,5	64,5	69,5	46,5	46,0	4,0	4,5	83,0	105,1	0,30	1,97	1,08	7300	5400	<b>2796/2735 X</b>	
0,51	1,12	67,5	59,5	67,5	42,5	46,0	3,5	4,5	81,8	99,1	0,37	1,62	0,89	7200	5300	<b>23690/23620</b>	
0,54	1,18	69,5	64,5	65,0	46,5	38,0	4,0	4,5	83,0	105,1	0,30	1,97	1,08	7100	5200	<b>2793/2720</b>	

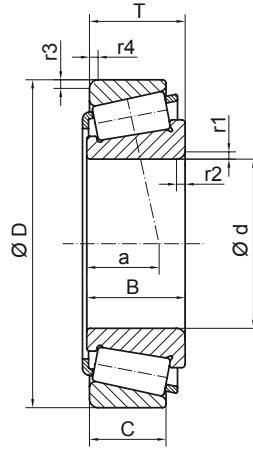
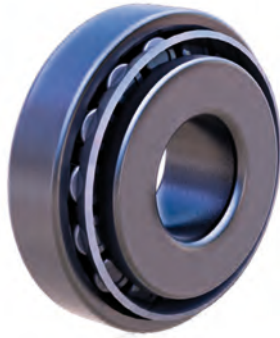


DIMENSIONS / DIMENSIONES													REFERENCES REFERENCIAS	ISO REF REF ISO
d		D		T		B		C		r1/r2 min	r3/r4 min	a		
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch					
<b>34,925</b>	<b>1,375</b>	76,200	3,000	29,370	1,156	28,575	1,125	23,020	0,906	3,5	3,3	23,8	<b>HM 89446/HM 89410</b>	
		76,200	3,000	29,370	1,156	28,575	1,125	23,813	0,938	1,5	3,3	20,7	<b>31594/31520</b>	
		76,200	3,000	29,370	1,156	28,575	1,125	23,813	0,938	3,5	3,3	20,7	<b>31593/31520</b>	
		79,375	3,125	29,370	1,156	29,771	1,172	23,812	0,938	3,5	3,3	20,5	<b>3478/3420</b>	
		80,035	3,151	21,433	0,844	20,940	0,824	15,875	0,625	1,5	1,5	16,6	<b>28137/28317</b>	
<b>34,987</b>	<b>1,377</b>	59,131	2,328	15,875	0,625	16,764	0,660	11,938	0,470	1,1	1,3	13,3	<b>L 68149 R/L 68110</b>	
		59,131	2,328	15,875	0,625	16,764	0,660	11,938	0,470	ESP	1,3	13,3	<b>L 68149/L 68110</b>	
		59,975	2,361	15,875	0,625	16,764	0,660	11,938	0,470	ESP	1,3	13,3	<b>L 68149/L 68111</b>	
		61,975	2,440	16,700	0,658	17,000	0,669	13,600	0,535	ESP	1,5	14,5	<b>LM 78349/LM 78310 A</b>	
		65,088	2,563	15,875	0,625	16,764	0,660	11,938	0,470	ESP	1,3	13,3	<b>L 68149/L 68116</b>	
<b>35,000</b>	<b>1,378</b>	60,000	2,362	15,875	0,625	18,460	0,727	11,938	0,470	2,0	1,3	13,3	<b>JL 68145/JL 68111 Z</b>	
<b>35,717</b>	<b>1,406</b>	72,233	2,844	25,400	1,000	25,400	1,000	19,842	0,781	3,5	2,3	20,2	<b>HM 88648/HM 88610</b>	
<b>36,487</b>	<b>1,437</b>	73,025	2,875	23,812	0,938	24,608	0,969	19,050	0,750	1,5	0,8	15,5	<b>25880/25821</b>	
		73,025	2,875	23,812	0,938	24,608	0,969	19,050	0,750	1,5	2,3	15,5	<b>25880/25820</b>	
		76,200	3,000	23,812	0,938	25,654	1,010	19,050	0,750	1,5	0,8	15,8	<b>2780/2729</b>	
		76,200	3,000	23,812	0,938	25,654	1,010	19,050	0,750	1,5	3,3	15,8	<b>2780/2720</b>	
<b>36,512</b>	<b>1,438</b>	76,200	3,000	29,370	1,156	28,575	1,125	23,020	0,906	0,8	3,3	23,8	<b>HM 89448/HM 89410</b>	
		76,200	3,000	29,370	1,156	28,575	1,125	23,020	0,906	3,5	3,3	23,8	<b>HM 89449/HM 89410</b>	
		85,725	3,375	30,162	1,188	30,162	1,188	23,812	0,938	0,8	3,3	22,2	<b>3878/3820</b>	
<b>38,000</b>	<b>1,496</b>	63,000	2,480	17,000	0,669	17,000	0,669	13,500	0,532	ESP	1,5	14,7	<b>JL 69349/JL 69310</b>	
		63,000	2,480	17,000	0,669	19,000	0,748	13,500	0,532	ESP	1,3	14,7	<b>JL 69345/JL 69310 Z</b>	
		63,000	2,480	17,000	0,669	19,000	0,748	13,500	0,532	ESP	1,5	14,7	<b>JL 69345/JL 69310</b>	
<b>38,100</b>	<b>1,500</b>	65,088	2,563	12,700	0,500	11,908	0,469	9,525	0,375	1,5	0,8	11,9	<b>13889/13836</b>	
		65,088	2,563	18,034	0,710	18,288	0,720	13,970	0,550	2,3	1,3	13,6	<b>LM 29749/LM 29710</b>	
		65,088	2,563	18,034	0,710	18,288	0,720	13,970	0,550	ESP	1,3	13,6	<b>LM 29748/LM 29710</b>	
		65,088	2,563	18,034	0,710	18,288	0,720	15,748	0,620	ESP	1,3	13,6	<b>LM 29748/LM 29711</b>	
		65,088	2,563	19,812	0,780	18,288	0,720	15,748	0,620	2,3	1,3	15,4	<b>LM 29749/LM 29711</b>	

### Assembly / Montaje

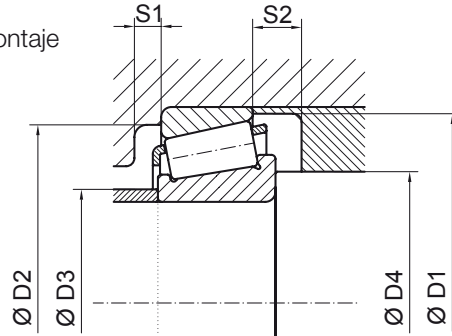


WEIGHT / PESO		ASSEMBLY / MONTAJE								LOAD / CARGA (kN)		LOAD FACTORS / FACTORES DE CARGA			SPEED / VELOCIDAD (rpm)		REFERENCES / REFERENCIAS
										DYNAMIC / DINÁMICA	STATIC / ESTÁTICA	DYNAMICS / DINÁMICOS	STATICS / ESTÁTICOS	OIL / ACEITE	GREASE / GRASA		
kg	lb	D1min	D2min	D2max	D3max	D4min	S1	S2	C	Co	e	Y	Yo	na	ng		
0,64	1,40	72,0	58,0	65,0	44,5	46,0	3,5	6,0	83,8	114,3	0,54	1,10	0,60	6800	5000	HM 89446/HM 89410	
0,62	1,36	71,5	61,5	65,0	45,0	40,0	3,5	5,5	90,4	110,7	0,40	1,49	0,82	7000	5200	31594/31520	
0,62	1,36	71,5	61,5	65,0	45,0	46,0	3,5	5,5	90,4	110,7	0,40	1,49	0,82	7000	5200	31593/31520	
0,70	1,54	73,0	64,5	68,2	46,0	46,0	3,5	5,5	94,6	114,8	0,36	1,64	0,90	6800	5000	3478/3420	
0,49	1,09	70,5	65,0	74,5	48,0	40,0	3,5	5,5	62,1	71,7	0,40	1,49	0,82	6700	5000	28137/28317	
0,17	0,38	56,2	52,3	54,0	41,0	39,0	3,5	3,5	38,7	51,6	0,42	1,44	0,79	8200	6100	L 68149 R/L 68110	
0,17	0,38	56,2	52,3	54,0	40,8	47,0	3,5	3,5	38,7	51,6	0,42	1,44	0,79	8200	6100	L 68149/L 68110	
0,18	0,39	56,2	52,3	55,0	40,8	47,0	3,5	3,5	38,7	51,6	0,42	1,44	0,79	8100	6000	L 68149/L 68111	
0,21	0,45	59,0	54,0	60,5	35,0	48,0	3,5	3,0	43,6	57,6	0,44	1,35	0,74	7900	5900	LM 78349/LM 78310 A	
0,21	0,47	56,0	52,5	60,0	40,8	47,0	3,5	3,5	38,7	51,6	0,42	1,44	0,79	7700	5700	L 68149/L 68116	
0,19	0,41	56,2	52,3	55,0	40,8	42,0	3,5	3,5	38,7	51,6	0,42	1,44	0,79	8100	6000	JL 68145/JL 68111 Z	
0,48	1,06	68,0	57,0	64,0	43,0	47,0	3,5	5,5	70,5	92,2	0,54	1,10	0,60	7000	5200	HM 88648/HM 88610	
0,44	0,97	67,0	62,5	69,5	44,5	42,0	4,0	4,5	79,9	96,7	0,29	2,06	1,13	7200	5300	25880/25821	
0,44	0,97	67,0	62,5	65,0	44,5	42,0	4,0	4,5	79,9	96,7	0,29	2,06	1,13	7200	5300	25880/25820	
0,52	1,13	69,5	64,5	72,5	46,5	42,0	4,0	4,5	83,0	105,1	0,30	1,97	1,08	7000	5200	2780/2729	
0,51	1,11	69,5	64,5	65,0	46,5	42,0	4,0	4,5	83,0	105,1	0,30	1,97	1,08	7000	5200	2780/2720	
0,64	1,41	72,0	58,0	65,0	44,5	39,5	3,5	6,0	83,8	114,3	0,54	1,10	0,60	6700	4900	HM 89448/HM 89410	
0,62	1,36	72,0	58,0	65,0	44,5	48,0	3,5	6,0	83,8	114,3	0,54	1,10	0,60	6700	4900	HM 89449/HM 89410	
0,85	1,87	80,5	70,5	74,5	50,5	39,5	3,5	6,0	111,7	141,1	0,40	1,49	0,82	6300	4700	3878/3820	
0,21	0,46	60,0	55,5	57,5	43,5	50,5	3,5	3,5	42,3	57,2	0,42	1,44	0,79	7600	5700	JL 69349/JL 69310	
0,22	0,48	60,0	55,5	58,0	43,5	49,5	3,5	3,5	42,3	57,2	0,42	1,44	0,79	7600	5700	JL 69345/JL 69310 Z	
0,20	0,44	60,0	55,5	57,5	43,5	49,5	3,5	3,5	42,3	57,2	0,42	1,44	0,79	7600	5700	JL 69345/JL 69310	
0,16	0,35	60,0	58,5	61,5	47,0	43,5	3,5	3,0	27,6	36,2	0,35	1,73	0,95	7600	5600	13889/13836	
0,23	0,50	61,0	58,0	60,0	45,0	46,0	3,5	4,0	47,1	62,2	0,33	1,80	0,99	7600	5600	LM 29749/LM 29710	
0,23	0,50	61,0	58,0	60,0	45,0	50,5	3,5	4,0	47,1	62,2	0,33	1,80	0,99	7600	5600	LM 29748/LM 29710	
0,23	0,50	61,0	57,0	60,0	45,0	50,5	3,5	2,0	47,1	62,1	0,33	1,80	0,99	7600	5600	LM 29748/LM 29711	
0,25	0,54	61,0	57,0	60,0	45,0	46,0	3,5	4,0	47,1	62,2	0,33	1,80	0,99	7600	5600	LM 29749/LM 29711	

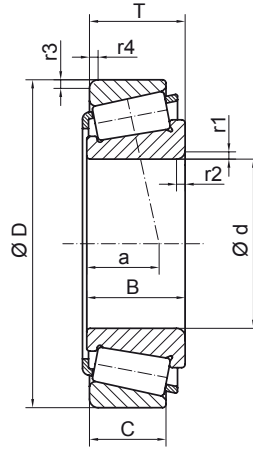
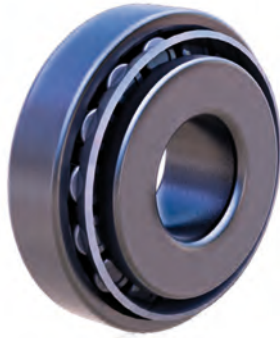


DIMENSIONS / DIMENSIONES													REFERENCES REFERENCIAS	ISO REF REF ISO
d		D		T		B		C		r1/r2 min	r3/r4 min	a		
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch					
<b>38,100</b>	<b>1,500</b>	68,262	2,688	15,875	0,625	16,520	0,650	11,908	0,469	1,5	1,5	18,6	<b>19150/19268</b>	
		69,012	2,717	19,050	0,750	19,050	0,750	15,083	0,594	2,0	0,8	15,9	<b>13687/13620</b>	
		69,012	2,717	19,050	0,750	19,050	0,750	15,083	0,594	2,0	2,3	15,9	<b>13687/13621</b>	
		69,012	2,717	19,050	0,750	19,050	0,750	15,083	0,594	3,5	2,3	15,9	<b>13685/13621</b>	
		69,012	2,717	26,195	1,031	26,195	1,031	15,083	0,594	1,5	0,8	15,9	<b>13686/13620</b>	
		72,238	2,844	20,638	0,813	20,638	0,813	15,875	0,625	3,5	1,3	16,6	<b>16150/16284</b>	
		76,200	3,000	23,812	0,938	25,654	1,010	19,050	0,750	3,5	0,8	15,8	<b>2788/2729</b>	
		76,200	3,000	23,812	0,938	25,654	1,010	19,050	0,750	3,5	3,3	15,8	<b>2788/2720</b>	
		79,375	3,125	29,370	1,156	29,771	1,172	23,812	0,938	3,5	3,3	20,8	<b>3490/3420</b>	
		80,167	3,156	29,370	1,156	30,391	1,197	23,812	0,938	3,5	3,3	18,3	<b>3381/3320</b>	
82,550	3,250	29,370	1,156	28,575	1,125	23,020	0,906	0,8	3,3	24,6	<b>HM 801346/HM 801310</b>			
82,550	3,250	29,370	1,156	28,575	1,125	23,020	0,906	2,3	3,3	24,6	<b>HM 801346 X/HM 801310</b>			
88,500	3,484	26,988	1,063	29,083	1,145	22,225	0,875	3,5	1,5	17,3	<b>418/414</b>			
<b>39,688</b>	<b>1,563</b>	76,200	3,000	23,812	0,938	25,654	1,010	19,050	0,750	3,5	0,8	15,8	<b>2789/2729</b>	
		76,200	3,000	23,812	0,938	25,654	1,010	19,050	0,750	3,5	3,3	15,8	<b>2789/2720</b>	
		79,975	3,149	29,370	1,156	30,391	1,197	23,812	0,938	0,8	3,3	18,3	<b>3386/3325</b>	
		80,167	3,156	29,370	1,156	30,391	1,197	23,812	0,938	0,8	3,3	18,3	<b>3386/3320</b>	
		80,167	3,156	29,370	1,156	30,391	1,197	23,812	0,938	3,5	3,3	18,3	<b>3382/3320</b>	
		90,488	3,563	39,688	1,563	40,386	1,590	33,338	1,313	1,5	3,3	24,4	<b>4367 X/4335</b>	
<b>39,987</b>	<b>1,574</b>	90,975	3,582	32,000	1,260	32,000	1,260	26,500	1,043	1,0	3,5	22,1	<b>HM 204043/HM 204010</b>	
<b>40,000</b>	<b>1,575</b>	73,025	2,875	30,162	1,188	30,162	1,188	17,463	0,688	0,8	3,3	22,2	<b>3879/3820</b>	
		80,000	3,150	21,000	0,827	22,403	0,882	17,826	0,702	3,5	1,3	14,6	<b>344/332</b>	
		85,000	3,347	33,000	1,299	32,500	1,280	28,000	1,102	2,5	2,0	22,6	<b>JF 4049/JF 4010</b>	T2EE040
<b>40,987</b>	<b>1,614</b>	67,975	2,676	17,500	0,689	18,000	0,709	13,500	0,532	ESP	1,5	13,8	<b>LM 300849/LM 300811</b>	
<b>41,275</b>	<b>1,625</b>	73,025	2,875	16,667	0,656	17,462	0,688	12,700	0,500	3,5	1,5	13,9	<b>18590/18520</b>	
		73,431	2,891	19,558	0,770	19,812	0,780	14,732	0,580	3,5	0,8	16,2	<b>LM 501349/LM 501310</b>	
		73,431	2,891	21,430	0,844	19,812	0,780	16,604	0,654	3,5	0,8	18,1	<b>LM 501349/LM 501314</b>	

### Assembly / Montaje

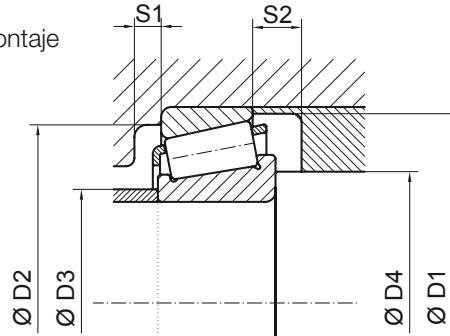


WEIGHT / PESO		ASSEMBLY / MONTAJE								LOAD / CARGA (kN)		LOAD FACTORS / FACTORES DE CARGA			SPEED / VELOCIDAD (rpm)		REFERENCES / REFERENCIAS
										DYNAMIC / DINÁMICA	STATIC / ESTÁTICA	DYNAMICS / DINÁMICOS	STATICS / ESTÁTICOS	OIL / ACEITE	GREASE / GRASA		
kg	lb	D1min	D2min	D2max	D3max	D4min	S1	S2	C	Co	e	Y	Yo	na	ng		
0,23	0,51	64,5	60,5	62,5	46,0	43,5	4,0	3,5	50,9	62,1	0,44	1,35	0,74	7200	5300	19150/19268	
0,29	0,63	65,0	60,0	65,5	45,5	45,0	4,0	3,5	53,6	67,9	0,40	1,49	0,82	7200	5300	13687/13620	
0,29	0,63	65,0	59,5	61,0	45,5	45,0	4,0	3,5	53,6	67,9	0,40	1,49	0,82	7200	5300	13687/13621	
0,29	0,63	65,0	59,5	61,0	46,0	49,5	4,0	3,5	53,6	67,9	0,40	1,49	0,82	7200	5300	13685/13621	
0,35	0,77	65,0	60,0	65,5	45,4	43,5	4,0	11,0	53,6	67,9	0,40	1,49	0,82	7200	5300	13686/13620	
0,35	0,77	66,0	60,5	71,0	45,0	41,5	3,5	4,5	53,8	65,5	0,40	1,49	0,82	7000	5200	16150/16284	
0,50	1,10	69,5	64,5	72,5	46,5	49,5	4,0	4,5	83,0	105,1	0,30	1,97	1,08	6900	5100	2788/2729	
0,50	1,09	69,5	64,5	65,0	46,5	49,5	4,0	4,5	83,0	105,1	0,30	1,97	1,08	6900	5100	2788/2720	
0,65	1,43	73,0	64,5	68,2	46,0	49,5	3,5	5,5	94,7	114,9	0,36	1,64	0,90	6600	4900	3490/3420	
0,67	1,48	75,0	68,5	69,0	47,9	49,5	4,0	5,5	104,9	125,1	0,27	2,20	1,21	6700	4900	3381/3320	
0,75	1,65	78,0	64,0	71,5	45,5	41,5	3,5	6,0	97,3	133,5	0,54	1,10	0,60	6200	4600	HM 801346/HM 801310	
0,75	1,65	78,0	64,0	71,5	45,5	46,0	3,5	6,0	97,3	133,5	0,54	1,10	0,60	6200	4600	HM 801346 X/HM 801310	
0,82	1,80	78,5	73,0	82,5	49,5	49,5	5,5	4,5	111,6	129,6	0,26	2,27	1,25	6200	4600	418/414	
0,48	1,05	69,5	64,5	72,5	46,5	51,0	4,0	4,5	83,0	105,1	0,30	1,97	1,08	6800	5000	2789/2729	
0,48	1,05	69,5	64,5	65,0	46,5	51,0	4,0	4,5	83,0	105,1	0,30	1,97	1,08	6800	5000	2789/2720	
0,64	1,41	75,0	69,5	69,0	47,9	43,0	4,0	5,5	104,9	125,2	0,27	2,20	1,21	6600	4900	3386/3325	
0,65	1,43	75,0	68,5	69,0	47,9	43,0	4,0	5,5	104,9	125,1	0,27	2,20	1,21	6600	4900	3386/3320	
0,65	1,44	75,0	68,5	69,0	48,5	51,0	4,0	5,5	104,9	125,1	0,27	2,20	1,21	6600	4900	3382/3320	
1,27	2,78	84,0	74,0	79,5	52,0	44,0	3,5	6,0	146,9	190,4	0,28	2,11	1,16	6000	4500	4367 X/4335	
0,57	1,25	86,0	77,0	79,0	55,5	44,0	4,0	5,5	74,7	83,3	0,27	2,20	1,21	6000	4400	HM 204043/HM 204010	
0,81	1,77	67,5	60,0	62,0	51,0	43,0	4,0	12,5	111,7	141,0	0,40	1,49	0,82	6300	4700	3879/3820	
0,57	1,25	75,0	71,5	75,0	51,0	51,5	4,5	3,0	74,7	83,3	0,27	2,20	1,21	6600	4900	344/332	
0,86	1,89	80,0	70,5	77,5	49,5	48,5	4,0	5,0	123,4	152,7	0,34	1,74	0,96	6200	4600	JF 4049/JF 4010	
0,24	0,53	64,0	60,5	62,0	47,0	53,0	4,0	4,0	48,3	65,4	0,35	1,72	0,94	7200	5300	LM 300849/LM 300811	
0,28	0,61	68,5	65,5	67,5	49,5	52,5	4,0	3,5	52,0	64,3	0,35	1,71	0,94	6800	5000	18590/18520	
0,33	0,72	69,5	64,5	69,5	48,5	52,5	4,0	4,5	60,4	75,4	0,40	1,50	0,82	6700	5000	LM 501349/LM 501310	
0,35	0,76	69,5	63,5	69,5	48,5	52,5	4,0	4,5	60,4	75,4	0,40	1,50	0,82	6700	5000	LM 501349/LM 501314	

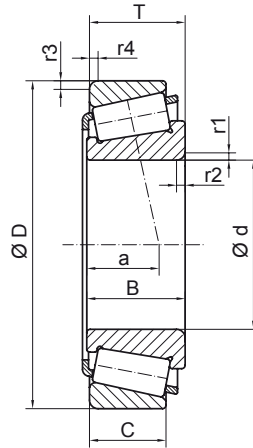


DIMENSIONS / DIMENSIONES													REFERENCES REFERENCIAS	ISO REF REF ISO
d		D		T		B		C		r1/r2 min	r3/r4 min	a		
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch					
<b>41,275</b>	<b>1,625</b>	76,200	3,000	18,009	0,709	17,384	0,684	14,288	0,563	0,8	1,5	17,1	<b>11163/11300</b>	
		76,200	3,000	18,009	0,709	17,384	0,684	14,288	0,563	1,5	1,5	17,1	<b>11162/11300</b>	
76,200	3,000	22,225	0,875	23,020	0,906	17,463	0,688	17,463	0,688	0,8	0,8	17,4	<b>24781/24720</b>	
76,200	3,000	22,225	0,875	23,020	0,906	17,463	0,688	17,463	0,688	3,5	0,8	17,4	<b>24780/24720</b>	
76,200	3,000	25,400	1,000	23,020	0,906	20,638	0,813	20,638	0,813	0,8	2,3	20,6	<b>24781/24721</b>	
76,200	3,000	25,400	1,000	23,020	0,906	20,638	0,813	20,638	0,813	3,5	2,3	20,6	<b>24780/24721</b>	
79,375	3,125	23,812	0,938	25,400	1,000	19,050	0,750	19,050	0,750	1,5	0,8	16,4	<b>26882 T/26822</b>	
79,375	3,125	23,812	0,938	25,400	1,000	19,050	0,750	19,050	0,750	3,5	0,8	16,4	<b>26882/26822</b>	
80,000	3,150	21,000	0,827	22,403	0,882	17,826	0,702	17,826	0,702	0,8	1,3	14,6	<b>336/332</b>	
80,167	3,156	25,400	1,000	25,400	1,000	20,638	0,813	20,638	0,813	3,5	3,3	18,0	<b>26882/26820</b>	
80,167	3,156	29,370	1,156	30,391	1,197	23,812	0,938	23,812	0,938	0,8	3,3	18,3	<b>3384/3320</b>	
82,550	3,250	26,543	1,045	25,654	1,010	20,193	0,795	20,193	0,795	3,5	3,3	23,3	<b>M 802048/M 802011</b>	
84,138	3,313	30,162	1,188	30,866	1,215	23,812	0,938	23,812	0,938	3,5	3,3	19,8	<b>3577/3520</b>	
85,725	3,375	30,162	1,188	30,162	1,188	23,812	0,938	23,812	0,938	3,5	3,3	22,2	<b>3877/3820</b>	
87,312	3,438	30,162	1,188	30,866	1,215	23,812	0,938	23,812	0,938	1,5	3,3	19,9	<b>3585/3525</b>	
87,312	3,438	30,162	1,188	30,866	1,215	23,812	0,938	23,812	0,938	3,5	3,3	19,9	<b>3577/3525</b>	
88,500	3,484	25,400	1,000	23,698	0,933	17,462	0,688	17,462	0,688	2,3	1,5	28,0	<b>44162/44348</b>	
88,500	3,484	26,988	1,063	29,083	1,145	22,225	0,875	22,225	0,875	3,5	1,5	17,3	<b>419/414</b>	
88,900	3,500	30,163	1,188	29,370	1,156	23,020	0,906	23,020	0,906	0,8	3,3	25,5	<b>HM 803145/HM 803110</b>	
88,900	3,500	30,162	1,188	29,370	1,156	23,020	0,906	23,020	0,906	3,5	3,3	25,5	<b>HM 803146/HM 803110</b>	
90,488	3,563	39,688	1,563	40,386	1,590	33,338	1,313	33,338	1,313	3,5	3,3	25,6	<b>4388/4335</b>	
93,662	3,688	31,750	1,250	31,750	1,250	25,400	1,000	25,400	1,000	3,5	3,3	22,4	<b>49162/49368</b>	
95,250	3,750	30,162	1,188	29,370	1,156	23,020	0,906	23,020	0,906	3,5	3,3	25,9	<b>HM 804840/HM804810</b>	
95,250	3,750	30,958	1,219	28,575	1,125	22,225	0,875	22,225	0,875	3,5	0,8	31,4	<b>HM 903245/HM 903210</b>	
104,775	4,125	36,512	1,438	36,512	1,438	28,575	1,125	28,575	1,125	1,5	3,3	26,4	<b>59162/59412</b>	
<b>42,070</b>	<b>1,656</b>	90,488	3,563	39,688	1,563	40,386	1,590	33,338	1,313	3,5	3,3	25,6	<b>4395/4335</b>	
<b>42,862</b>	<b>1,688</b>	82,931	3,265	23,812	0,938	25,400	1,000	19,050	0,750	2,3	0,8	17,4	<b>25578/25520</b>	

### Assembly / Montaje

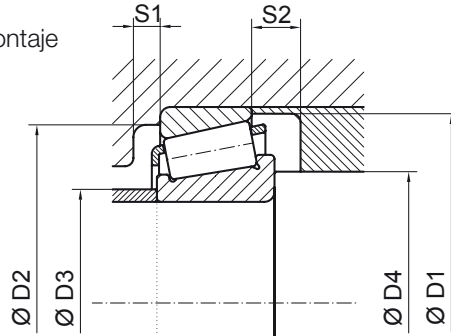


WEIGHT / PESO		ASSEMBLY / MONTAJE								LOAD / CARGA (kN)		LOAD FACTORS / FACTORES DE CARGA			SPEED / VELOCIDAD (rpm)		REFERENCES / REFERENCIAS
										DYNAMIC / DINÁMICA	STATIC / ESTÁTICA	DYNAMICS / DINÁMICOS	STATICS / ESTÁTICOS	OIL / ACEITE	GREASE / GRASA		
kg	lb	D1min	D2min	D2max	D3max	D4min	S1	S2	C	Co	e	Y	Yo	na	ng		
0,33	0,73	71,0	64,5	70,5	50,0	44,5	4,0	3,5	50,3	62,5	0,48	1,23	0,67	6500	4800	11163/11300	
0,33	0,72	71,0	64,5	70,5	50,0	46,5	4,0	3,5	50,3	62,5	0,48	1,23	0,67	6500	4800	11162/11300	
0,42	0,92	71,5	65,5	72,5	49,0	44,5	4,0	4,5	71,0	88,9	0,39	1,52	0,84	6600	4900	24781/24720	
0,42	0,92	71,5	65,5	72,5	49,0	52,5	4,0	4,5	71,0	88,9	0,39	1,52	0,84	6600	4900	24780/24720	
0,46	1,01	71,5	63,5	68,0	49,0	44,5	4,0	4,5	71,0	88,9	0,39	1,52	0,84	6600	4900	24781/24721	
0,46	1,01	71,5	63,5	68,0	49,0	52,5	4,0	4,5	71,0	88,9	0,39	1,52	0,84	6600	4900	24780/24721	
0,52	1,15	73,6	68,0	75,0	50,0	46,5	4,5	4,5	83,9	107,4	0,32	1,88	1,03	6500	4800	26882 T/26822	
0,51	1,13	73,6	68,0	75,0	50,0	52,5	4,5	4,5	83,9	107,4	0,32	1,88	1,03	6500	4800	26882/26822	
0,45	0,99	75,0	71,5	75,0	50,5	44,5	5,5	3,0	74,6	83,2	0,27	2,20	1,21	6500	4800	336/332	
0,55	1,21	73,5	67,0	69,0	50,0	52,5	4,0	4,5	83,9	107,4	0,32	1,88	1,03	6400	4800	26882/26820	
0,63	1,38	75,0	68,5	69,0	48,0	44,5	5,5	5,5	104,9	125,1	0,27	2,20	1,21	6500	4800	3384/3320	
0,63	1,39	78,0	66,5	71,5	49,0	52,5	4,0	6,0	90,7	121,2	0,55	1,10	0,60	6100	4500	M 802048/M 802011	
0,74	1,62	79,5	73,0	73,0	53,0	52,5	4,5	6,0	102,3	128,3	0,31	1,96	1,08	6200	4600	3577/3520	
0,78	1,72	80,5	70,5	74,5	50,5	52,5	4,0	6,0	111,7	141,1	0,40	1,49	0,82	6100	4500	3877/3820	
0,81	1,79	79,5	73,0	76,5	53,0	46,5	4,5	6,0	102,3	128,3	0,31	1,96	1,08	6100	4500	3585/3525	
0,81	1,79	79,5	73,0	76,5	53,0	52,5	4,5	6,0	102,3	128,3	0,31	1,96	1,08	6100	4500	3577/3525	
0,66	1,45	84,0	69,0	83,0	51,0	49,0	4,0	7,5	81,9	92,7	0,78	0,77	0,42	5500	4100	44162/44348	
0,82	1,80	78,5	73,0	82,5	49,5	52,5	5,5	4,5	111,6	129,6	0,26	2,27	1,25	6100	4500	419/414	
0,91	2,00	84,0	70,0	78,0	54,5	44,5	4,0	7,0	103,5	139,7	0,54	1,10	0,60	5800	4300	HM 803145/HM 803110	
0,88	1,93	84,0	70,0	78,0	54,0	52,5	4,0	7,0	103,5	139,7	0,54	1,10	0,60	5800	4300	HM 803146/HM 803110	
1,18	2,60	84,0	74,0	79,5	52,5	45,0	4,5	6,0	141,3	186,9	0,28	2,11	1,16	6000	4400	4388/4335	
1,02	2,24	86,5	77,0	82,5	55,0	52,5	4,0	6,0	123,0	149,6	0,36	1,66	0,92	5800	4300	49162/49368	
1,06	2,33	90,0	76,0	84,0	58,0	52,5	4,0	7,0	112,7	152,0	0,55	1,10	0,60	5500	4100	HM 804840/HM804810	
1,00	2,20	90,5	71,0	91,5	54,5	52,5	4,0	8,5	107,5	131,6	0,74	0,81	0,44	5300	3900	HM 903245/HM 903210	
1,60	3,52	99,0	87,0	93,5	62,5	46,5	4,0	7,5	155,8	196,1	0,40	1,49	0,82	5300	3900	59162/59412	
1,23	2,71	84,0	74,0	79,5	52,5	53,5	4,5	6,0	153,4	200,9	0,28	2,11	1,16	5900	4400	4395/4335	
0,57	1,25	77,0	71,0	79,0	53,0	50,5	4,0	4,5	83,3	108,1	0,33	1,79	0,98	6200	4600	25578/25520	

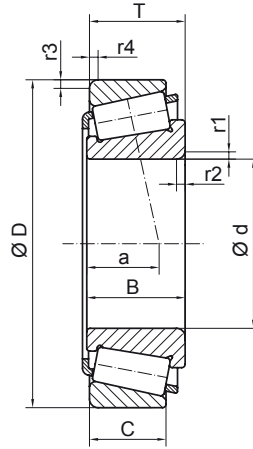


DIMENSIONS / DIMENSIONES													REFERENCES REFERENCIAS	ISO REF REF ISO
d		D		T		B		C		r1/r2 min	r3/r4 min	a		
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch					
<b>42,862</b>	<b>1,688</b>	82,931	3,265	23,812	0,938	25,400	1,000	19,050	0,750	3,5	0,8	17,4	<b>25576/25520</b>	
		82,931	3,265	26,988	1,063	25,400	1,000	22,225	0,875	2,3	2,3	20,4	<b>25578/25523</b>	
		83,058	3,270	23,812	0,938	25,400	1,000	19,050	0,750	2,3	3,2	17,4	<b>25578/25521</b>	
		83,058	3,270	23,876	0,940	25,400	1,000	19,114	0,753	2,3	2,0	17,2	<b>25578/25522</b>	
<b>42,875</b>	<b>1,688</b>	76,200	3,000	25,400	1,000	25,400	1,000	20,638	0,813	3,5	1,5	18,0	<b>26884/26823</b>	
		82,931	3,265	23,812	0,938	25,400	1,000	19,050	0,750	3,5	0,8	17,4	<b>25577/25520</b>	
		82,931	3,265	26,988	1,063	25,400	1,000	22,225	0,875	3,5	2,3	20,4	<b>25577/25523</b>	
		83,058	3,270	23,812	0,938	25,400	1,000	19,050	0,750	3,5	3,2	17,4	<b>25577/25521</b>	
		83,058	3,270	23,876	0,940	25,400	1,000	19,114	0,753	3,5	2,0	17,2	<b>25577/25522</b>	
<b>44,450</b>	<b>1,750</b>	82,931	3,265	23,813	0,938	25,400	1,000	19,050	0,750	0,5	0,8	17,4	<b>25581/25520</b>	
		82,931	3,265	23,812	0,938	25,400	1,000	19,050	0,750	3,5	0,8	17,4	<b>25580/25520</b>	
		82,931	3,265	26,988	1,063	25,400	1,000	22,225	0,875	3,5	2,3	20,4	<b>25580/25523</b>	
		83,058	3,270	23,812	0,938	25,400	1,000	19,050	0,750	3,5	3,2	17,4	<b>25580/25521</b>	
		83,058	3,270	23,876	0,940	25,400	1,000	19,114	0,753	3,5	2,0	17,2	<b>25580/25522</b>	
		84,138	3,313	30,162	1,188	30,866	1,215	23,812	0,938	3,5	3,3	19,9	<b>3578/3520</b>	
		85,000	3,347	20,638	0,813	21,692	0,854	17,463	0,688	2,3	1,5	15,9	<b>355/354 X</b>	
		85,000	3,347	20,638	0,813	21,692	0,854	17,463	0,688	3,5	1,5	15,9	<b>355 X/354 X</b>	
		87,312	3,438	30,162	1,188	30,866	1,215	23,812	0,938	3,5	3,3	19,9	<b>3578/3525</b>	
		88,900	3,500	30,162	1,188	29,370	1,156	23,020	0,906	3,5	3,3	25,5	<b>HM 803149/HM 803110</b>	
		90,119	3,548	23,000	0,906	21,692	0,854	21,808	0,859	3,5	2,3	18,2	<b>355 X/352</b>	
		92,075	3,625	30,162	1,188	29,370	1,156	23,020	0,906	3,5	3,3	25,5	<b>HM 803149/HM 803112</b>	
		93,264	3,672	30,162	1,188	30,302	1,193	23,812	0,938	3,5	3,3	22,1	<b>3782/3720</b>	
		93,662	3,688	31,750	1,250	31,750	1,250	25,400	1,000	3,5	3,3	22,3	<b>49175/49368</b>	
		95,250	3,750	27,783	1,094	28,575	1,125	22,225	0,875	0,8	0,8	20,0	<b>33885/33822</b>	
95,250	3,750	30,162	1,188	29,370	1,156	23,020	0,906	3,5	3,3	25,8	<b>HM 804843/HM 804810</b>			
95,250	3,750	30,958	1,219	28,301	1,114	20,638	0,813	1,2	0,8	30,6	<b>53176/53375</b>			
95,250	3,750	30,958	1,219	28,301	1,114	20,638	0,813	2,0	2,3	30,6	<b>53178/53377</b>			

### Assembly / Montaje

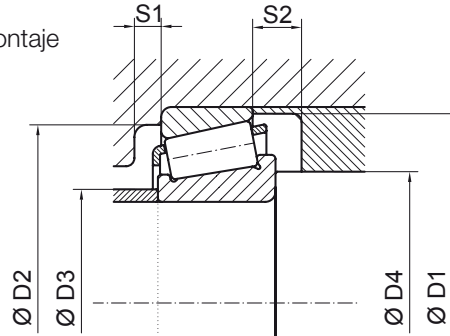


WEIGHT / PESO		ASSEMBLY / MONTAJE							LOAD / CARGA (kN)		LOAD FACTORS / FACTORES DE CARGA			SPEED / VELOCIDAD (rpm)		REFERENCES / REFERENCIAS
									DYNAMIC / DINÁMICA	STATIC / ESTÁTICA	DYNAMICS / DINÁMICOS	STATICS / ESTÁTICOS	OIL / ACEITE	GREASE / GRASA		
kg	lb	D1min	D2min	D2max	D3max	D4min	S1	S2	C	Co	e	Y	Yo	na	ng	
0,57	1,25	77,0	71,0	79,0	53,0	54,0	4,0	4,5	83,3	108,1	0,33	1,79	0,98	6200	4600	25576/25520
0,61	1,35	77,0	69,5	75,0	53,0	50,5	4,0	4,5	83,3	108,1	0,33	1,79	0,98	6200	4600	25578/25523
0,57	1,25	77,0	71,0	72,0	53,0	50,5	4,0	4,5	83,3	108,1	0,33	1,79	0,98	6200	4600	25578/25521
0,57	1,26	77,0	71,0	76,0	53,0	50,5	4,0	4,5	83,3	108,1	0,33	1,79	0,98	6200	4600	25578/25522
0,46	1,01	73,5	67,5	70,5	49,8	54,0	4,0	4,5	83,9	107,4	0,32	1,88	1,03	6400	4800	26884/26823
0,57	1,25	77,0	71,0	79,0	53,0	54,0	4,0	4,5	83,3	108,1	0,33	1,79	0,98	6200	4600	25577/25520
0,61	1,35	77,0	69,5	75,0	53,0	54,0	4,0	4,5	83,3	108,1	0,33	1,79	0,98	6200	4600	25577/25523
0,57	1,25	77,0	71,0	72,0	53,0	54,0	4,0	4,5	83,3	108,1	0,33	1,79	0,98	6200	4600	25577/25521
0,57	1,26	77,0	71,0	76,0	53,0	54,0	4,0	4,5	83,3	108,1	0,33	1,79	0,98	6200	4600	25577/25522
0,55	1,21	77,0	71,0	79,0	53,0	47,0	4,0	4,5	83,3	108,1	0,33	1,79	0,98	6100	4500	25581/25520
0,55	1,20	77,0	71,0	79,0	53,0	56,0	4,0	4,5	83,3	108,1	0,33	1,79	0,98	6100	4500	25580/25520
0,59	1,30	77,0	69,5	75,0	53,0	56,0	4,0	4,5	83,3	108,1	0,33	1,79	0,98	6100	4500	25580/25523
0,55	1,21	77,0	71,0	72,0	53,0	56,0	4,0	4,5	83,3	108,1	0,33	1,79	0,98	6100	4500	25580/25521
0,55	1,21	77,0	71,0	76,0	53,0	56,0	4,0	4,5	83,3	108,1	0,33	1,79	0,98	6100	4500	25580/25522
0,68	1,50	79,5	73,0	73,0	53,0	56,0	4,5	6,0	102,3	128,3	0,31	1,96	1,08	6100	4500	3578/3520
0,50	1,10	80,0	75,5	79,5	55,0	47,0	4,5	3,0	85,0	101,0	0,30	1,96	1,07	6100	4500	355/354 X
0,51	1,12	80,0	75,5	79,5	54,5	56,0	4,5	3,0	85,0	101,0	0,30	1,96	1,07	6100	4500	355 X/354 X
0,76	1,67	79,5	73,0	76,5	53,0	56,0	4,5	6,0	102,3	128,3	0,31	1,96	1,08	5900	4400	3578/3525
0,86	1,89	84,0	70,0	78,0	54,0	56,0	4,0	7,0	103,5	139,7	0,54	1,10	0,60	5600	4200	HM 803149/HM 803110
0,67	1,47	81,0	74,5	82,0	54,5	56,0	4,0	1,0	85,0	101,0	0,30	1,96	1,07	5800	4300	355 X/352
0,95	2,09	84,0	70,0	81,0	54,0	56,0	4,5	7,0	103,5	139,7	0,54	1,10	0,60	5500	4100	HM 803149/HM 803112
0,94	2,07	88,0	80,0	82,0	60,5	56,0	4,5	6,0	110,4	146,6	0,33	1,77	0,97	5700	4200	3782/3720
1,02	2,24	86,5	77,0	82,5	55,5	56,0	4,5	6,0	122,9	149,7	0,36	1,66	0,92	5600	4200	49175/49368
0,94	2,07	90,0	83,0	91,5	61,5	47,5	4,5	5,5	116,9	153,7	0,33	1,82	1,00	5600	4100	33885/33822
1,02	2,24	90,0	76,0	84,0	58,0	56,0	4,5	7,0	112,8	151,9	0,55	1,10	0,60	5400	4000	HM 804843/HM 804810
0,90	1,98	89,5	72,0	91,5	53,5	49,0	4,5	10,0	97,0	108,3	0,74	0,81	0,44	5100	3800	53176/53375
0,89	1,96	89,5	72,0	87,0	53,5	51,5	4,5	10,0	97,0	108,3	0,74	0,81	0,44	5100	3800	53178/53377

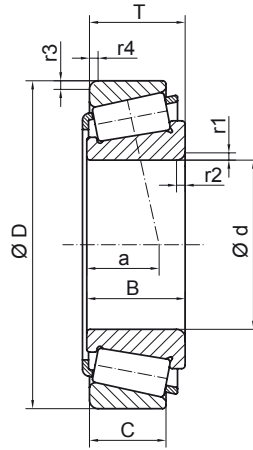


DIMENSIONS / DIMENSIONES													REFERENCES REFERENCIAS	ISO REF REF ISO
d		D		T		B		C		r1/r2 min	r3/r4 min	a		
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch					
<b>44,450</b>	<b>1,750</b>	95,250	3,750	30,958	1,219	28,301	1,114	20,638	0,813	3,5	0,8	30,6	<b>53177/53375</b>	
		95,250	3,750	30,958	1,219	28,575	1,125	22,225	0,875	3,5	0,8	31,4	<b>HM 903249/HM 903210</b>	
		101,600	4,000	34,925	1,375	36,068	1,420	26,988	1,063	3,5	3,3	22,1	<b>527/522</b>	
		104,775	4,125	36,512	1,438	36,512	1,438	28,575	1,125	3,5	3,3	28,8	<b>HM 807040/HM 807010</b>	
		107,950	4,250	36,512	1,438	36,957	1,455	28,575	1,125	3,5	3,3	24,3	<b>535/532 X</b>	
		111,125	4,375	30,162	1,188	26,909	1,059	20,638	0,813	3,5	3,3	37,1	<b>55175 C/55437</b>	
<b>44,983</b>	<b>1,770</b>	83,058	3,270	23,813	0,938	25,400	1,000	19,050	0,750	1,5	3,2	17,4	<b>25584/25521</b>	
		93,264	3,672	30,162	1,188	30,302	1,193	23,812	0,938	3,5	3,3	22,1	<b>3776/3720</b>	
		99,995	3,937	25,400	1,000	25,400	1,000	20,638	0,813	1,5	0,5	20,6	<b>25584/25547 RB</b>	
		101,600	4,000	34,925	1,375	36,068	1,420	26,988	1,063	4,3	3,3	22,1	<b>527 S/522</b>	
<b>44,987</b>	<b>1,771</b>	82,931	3,265	23,812	0,938	25,400	1,000	19,050	0,750	3,5	0,8	17,4	<b>25584 A/25520</b>	
		104,986	4,133	32,512	1,280	31,750	1,250	23,368	0,920	2,5	2,5	34,0	<b>HM 905843/HM 905810</b>	
<b>45,000</b>	<b>1,772</b>	95,000	3,740	29,000	1,142	26,500	1,043	20,000	0,787	2,5	2,5	33,0	<b>JW 4549/JW 4510</b>	T7FC045
		95,000	3,740	36,000	1,417	35,000	1,378	30,000	1,181	2,5	2,5	23,6	<b>JF 4549/JF 4510</b>	T2ED045
<b>45,230</b>	<b>1,780</b>	79,985	3,149	19,842	0,781	20,638	0,813	15,080	0,594	2,0	1,3	16,1	<b>17887/17831</b>	
<b>45,237</b>	<b>1,781</b>	79,975	3,149	30,162	1,188	30,886	1,216	23,812	0,938	3,5	3,3	19,9	<b>3586/3525</b>	
<b>45,242</b>	<b>1,782</b>	73,431	2,891	19,558	0,770	19,812	0,780	15,748	0,620	3,5	0,8	14,9	<b>LM 102949/LM 102910</b>	
		73,431	2,891	21,430	0,844	19,812	0,780	17,620	0,694	3,5	0,8	16,5	<b>LM 102949/LM 102911</b>	
		77,788	3,063	19,842	0,781	19,842	0,781	15,080	0,594	3,5	0,8	17,3	<b>LM 603049/LM 603011</b>	
		77,788	3,063	21,430	0,844	19,842	0,781	16,667	0,656	3,5	0,8	17,3	<b>LM 603049/LM 603012</b>	
		79,975	3,149	19,842	0,781	19,842	0,781	15,080	0,594	3,5	0,8	17,3	<b>LM 603049/LM 603014</b>	
<b>45,618</b>	<b>1,796</b>	82,931	3,265	23,812	0,938	25,400	1,000	19,050	0,750	3,5	0,8	17,4	<b>25590/25520</b>	
		82,931	3,265	26,988	1,063	25,400	1,000	22,225	0,875	3,5	2,3	20,4	<b>25590/25523</b>	
		83,058	3,270	23,812	0,938	25,400	1,000	19,050	0,750	3,5	3,2	17,4	<b>25590/25521</b>	
		83,058	3,270	23,876	0,940	25,400	1,000	19,114	0,753	3,5	2,0	17,2	<b>25590/25522</b>	
<b>45,987</b>	<b>1,811</b>	74,976	2,952	18,000	0,709	18,000	0,709	14,000	0,551	2,3	1,5	15,8	<b>LM 503349/LM 503310</b>	
		74,976	2,952	18,000	0,709	18,000	0,709	14,000	0,551	ESP	1,5	15,8	<b>LM 503349 A/LM 503310</b>	

### Assembly / Montaje

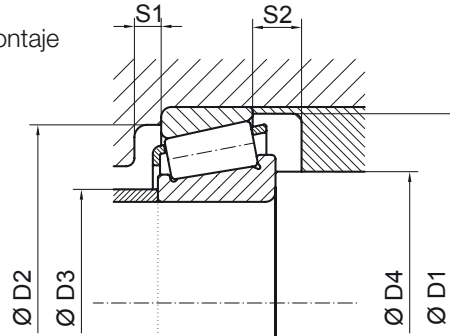


WEIGHT / PESO		ASSEMBLY / MONTAJE								LOAD / CARGA (kN)		LOAD FACTORS / FACTORES DE CARGA			SPEED / VELOCIDAD (rpm)		REFERENCES / REFERENCIAS
										DYNAMIC / DINÁMICA	STATIC / ESTÁTICA	DYNAMICS / DINÁMICOS	STATICS / ESTÁTICOS	OIL / ACEITE	GREASE / GRASA	REFERENCES / REFERENCIAS	
kg	lb	D1min	D2min	D2max	D3max	D4min	S1	S2	C	Co	e	Y	Yo	na	ng		
0,89	1,96	89,5	72,0	91,5	54,0	56,0	4,5	10,0	97,0	108,2	0,74	0,81	0,44	5100	3800	53177/53375	
0,95	2,10	90,5	71,0	91,5	54,5	56,0	4,5	8,5	107,5	131,6	0,74	0,81	0,44	5100	3800	HM 903249/HM 903210	
1,34	2,94	94,0	86,5	90,5	61,0	56,0	5,5	7,5	149,1	184,0	0,28	2,10	1,15	5400	4000	527/522	
1,58	3,47	99,5	84,5	93,6	60,0	56,0	4,5	7,5	153,2	212,0	0,49	1,23	0,68	5100	3800	HM 807040/HM 807010	
1,66	3,65	98,0	89,0	97,0	64,5	56,0	5,5	7,5	156,0	197,7	0,29	2,02	1,11	5100	3800	535/532 X	
1,46	3,21	103,5	82,0	100,0	65,0	56,0	4,5	9,5	120,9	163,2	0,88	0,68	0,37	4400	3300	55175 C/55437	
0,56	1,22	77,0	71,0	72,0	53,0	50,5	4,5	4,5	83,3	108,1	0,33	1,79	0,98	6100	4500	25584/25521	
0,93	2,05	88,0	80,0	82,0	60,5	56,5	4,5	6,0	110,4	146,6	0,33	1,77	0,97	5600	4200	3776/3720	
1,04	2,28	76,5	70,5	97,5	53,0	50,5	4,5	4,5	83,3	108,1	0,33	1,79	0,98	5400	4000	25584/25547 RB	
1,33	2,92	94,0	86,5	90,5	61,0	58,5	5,5	7,5	149,1	184,0	0,28	2,10	1,15	5400	4000	527 S/522	
0,54	1,18	77,0	71,0	79,0	53,0	56,5	4,5	4,5	83,3	108,1	0,33	1,79	0,98	6100	4500	25584 A/25520	
1,36	3,00	99,5	78,0	96,0	61,0	53,5	4,5	9,0	122,4	166,6	0,78	0,76	0,42	4700	3500	HM 905843/HM 905810	
0,90	1,97	91,0	71,0	86,5	51,0	53,5	4,5	9,0	94,6	116,7	0,87	0,69	0,38	4900	3700	JW 4549/JW 4510	
1,20	2,64	89,5	79,5	86,0	54,0	53,5	4,5	6,0	160,9	203,8	0,32	1,86	1,02	5600	4100	JF 4549/JF 4510	
0,40	0,88	74,5	70,0	75,0	53,0	52,0	4,5	4,5	66,2	84,9	0,36	1,64	0,90	6200	4600	17887/17831	
0,76	1,66	80,0	73,0	76,0	53,0	56,5	4,0	6,0	102,3	128,3	0,31	1,96	1,08	5900	4400	3586/3525	
0,30	0,66	70,0	66,0	69,0	52,0	56,5	4,5	3,5	57,4	80,8	0,30	1,96	1,07	6600	4900	LM 102949/LM 102910	
0,32	0,70	70,0	65,5	70,0	52,0	56,5	4,5	3,5	57,3	80,8	0,30	1,96	1,07	6600	4900	LM 102949/LM 102911	
0,36	0,79	74,0	68,0	74,0	53,0	56,5	4,5	4,5	61,9	79,7	0,42	1,40	0,77	6300	4600	LM 603049/LM 603011	
0,38	0,83	74,0	67,0	74,0	53,0	56,5	4,5	4,5	61,9	79,7	0,42	1,40	0,77	6300	4600	LM 603049/LM 603012	
0,39	0,86	74,0	68,0	76,5	53,0	56,5	4,5	4,5	61,9	79,7	0,42	1,40	0,77	6100	4600	LM 603049/LM 603014	
0,53	1,16	77,0	71,0	79,0	53,0	57,0	4,5	4,5	83,3	108,1	0,33	1,79	0,98	6100	4500	25590/25520	
0,58	1,27	77,0	69,5	75,0	53,0	57,0	4,5	4,5	83,3	108,1	0,33	1,79	0,98	6100	4500	25590/25523	
0,53	1,17	77,0	71,0	72,0	53,0	57,0	4,5	4,5	83,3	108,1	0,33	1,79	0,98	6100	4500	25590/25521	
0,53	1,17	77,0	71,0	76,0	53,0	57,0	4,5	4,5	83,3	108,1	0,33	1,79	0,98	6100	4500	25590/25522	
0,30	0,65	71,5	67,0	69,0	53,5	53,5	4,5	4,0	57,5	81,3	0,40	1,49	0,82	6400	4700	LM 503349/LM 503310	
0,30	0,65	71,5	67,0	69,0	53,5	59,0	4,5	4,0	57,5	81,3	0,40	1,49	0,82	6400	4700	LM 503349 A/LM 503310	

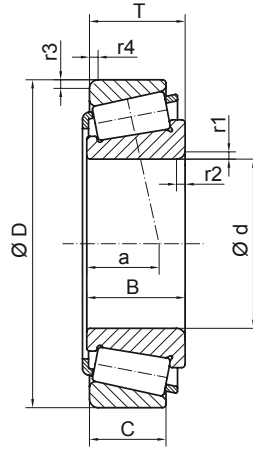
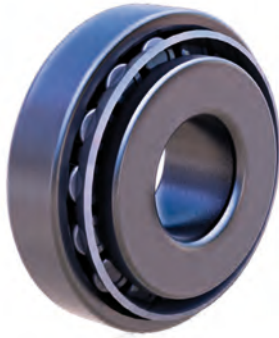


DIMENSIONS / DIMENSIONES													REFERENCES REFERENCIAS	ISO REF REF ISO
d		D		T		B		C		r1/r2 min	r3/r4 min	a		
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch					
<b>46,038</b>	<b>1,813</b>	79,375	3,125	17,462	0,688	17,462	0,688	13,495	0,531	2,8	1,5	15,5	<b>18690/18620</b>	
		85,000	3,347	20,638	0,813	21,692	0,854	17,463	0,688	2,3	1,5	15,9	<b>359 S/354 X</b>	
		85,000	3,347	20,638	0,813	21,692	0,854	17,463	0,688	3,5	1,5	15,9	<b>359 A/354 X</b>	
<b>47,625</b>	<b>1,875</b>	88,900	3,500	20,638	0,813	22,225	0,875	16,513	0,650	2,3	1,3	16,5	<b>369 S/362 A</b>	
		88,900	3,500	20,638	0,813	22,225	0,875	16,513	0,650	3,5	1,3	16,5	<b>369 A/362 A</b>	
		88,900	3,500	25,400	1,000	25,400	1,000	19,050	0,750	0,8	3,3	23,6	<b>M 804048/M 804010</b>	
		88,900	3,500	25,400	1,000	25,400	1,000	19,050	0,750	3,5	3,3	23,5	<b>M 804049/M 804010</b>	
		90,000	3,543	20,000	0,787	22,225	0,875	15,875	0,625	2,3	2,0	15,9	<b>369 S/362</b>	
		90,000	3,543	20,000	0,787	22,225	0,875	20,000	0,787	2,3	0,8	15,9	<b>369 S/363</b>	
		90,000	3,543	20,000	0,787	22,225	0,875	20,000	0,787	3,5	0,8	15,9	<b>369 A/363</b>	
		93,264	3,672	30,162	1,188	30,302	1,193	23,812	0,938	3,5	3,3	22,1	<b>3779/3720</b>	
		93,264	3,672	30,162	1,188	30,302	1,193	23,812	0,938	6,4	3,3	22,1	<b>3778/3720</b>	
		95,250	3,750	30,162	1,188	29,370	1,156	23,020	0,906	3,5	3,3	25,9	<b>HM 804846/HM 804810</b>	
		96,838	3,813	21,000	0,827	21,946	0,864	15,875	0,625	0,8	0,8	17,6	<b>386 A/382 A</b>	
		101,600	4,000	34,925	1,375	36,068	1,420	26,988	1,063	3,5	3,3	22,1	<b>528/522</b>	
107,950	4,250	36,512	1,438	36,957	1,455	28,575	1,125	3,5	3,3	24,3	<b>536/532 X</b>			
111,125	4,375	30,162	1,188	26,909	1,059	20,638	0,813	3,5	3,3	37,0	<b>55187 C/55437</b>			
123,825	4,875	36,512	1,438	32,791	1,291	25,400	1,000	3,5	3,3	38,2	<b>72187/72487</b>			
<b>49,212</b>	<b>1,938</b>	103,188	4,063	43,658	1,719	44,475	1,751	36,512	1,438	3,5	3,3	27,4	<b>5395/5335</b>	
		104,775	4,125	36,512	1,438	36,512	1,438	28,575	1,125	3,5	3,3	28,8	<b>HM 807044/HM 807010</b>	
<b>49,987</b>	<b>1,968</b>	89,980	3,543	24,750	0,974	25,400	1,000	19,987	0,787	2,3	2,3	19,9	<b>28579/28520</b>	
<b>50,000</b>	<b>1,969</b>	82,000	3,228	21,500	0,847	21,500	0,847	17,000	0,669	3,0	0,5	16,3	<b>JLM 104948/JLM 104910</b>	T2CC050
		82,000	3,228	21,500	0,847	23,993	0,945	17,000	0,669	3,5	0,5	15,9	<b>JLM 104946/JLM 104910</b>	
		82,000	3,228	21,500	0,847	27,700	1,091	17,000	0,669	3,0	0,5	16,3	<b>JLM 104945/JLM 104910</b>	
		82,550	3,250	21,500	0,847	21,500	0,847	16,510	0,650	3,0	1,3	16,3	<b>JLM 104948/LM 104911</b>	
		84,000	3,307	22,000	0,866	22,000	0,866	17,500	0,689	3,5	1,5	19,7	<b>JLM 704649/JLM 704610</b>	T4CC050
		90,000	3,543	28,000	1,102	28,000	1,102	23,000	0,906	3,0	2,5	20,6	<b>JM 205149/JM 205110</b>	T2DD050

### Assembly / Montaje

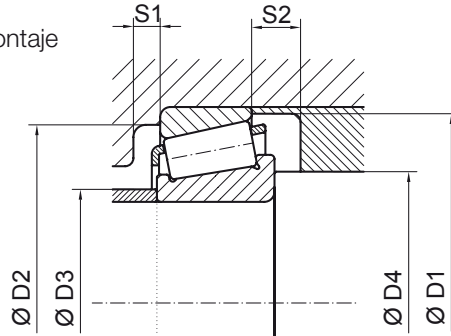


WEIGHT / PESO		ASSEMBLY / MONTAJE							LOAD / CARGA (kN)		LOAD FACTORS / FACTORES DE CARGA			SPEED / VELOCIDAD (rpm)		REFERENCES / REFERENCIAS	
									DYNAMIC / DINÁMICA	STATIC / ESTÁTICA	DYNAMICS / DINÁMICOS	STATICS / ESTÁTICOS	OIL / ACEITE	GREASE / GRASA			
kg	lb	D1min	D2min	D2max	D3max	D4min	S1	S2	C	Co	e	Y	Yo	na	ng		
0,33	0,72	73,5	69,5	73,5	54,0	55,0	4,5	3,5	51,4	64,7	0,37	1,60	0,88	6200	4600	<b>18690/18620</b>	
0,49	1,08	80,0	75,5	79,5	54,5	53,5	5,5	3,0	85,0	101,0	0,30	1,96	1,07	6000	4400	<b>359 S/354 X</b>	
0,49	1,08	80,0	75,5	79,5	54,5	57,5	5,5	3,0	85,0	101,0	0,30	1,96	1,07	6000	4400	<b>359 A/354 X</b>	
0,53	1,17	83,5	79,0	84,0	57,5	55,5	5,5	4,0	81,0	96,1	0,32	1,87	1,03	5700	4200	<b>369 S/362 A</b>	
0,53	1,17	83,5	79,0	84,0	57,5	59,0	5,0	4,0	81,0	96,1	0,32	1,87	1,03	5700	4200	<b>369 A/362 A</b>	
0,65	1,42	85,0	74,0	78,0	55,5	51,0	5,0	6,0	89,7	112,8	0,55	1,10	0,60	5500	4100	<b>M 804048/M 804010</b>	
0,66	1,45	85,0	74,0	78,0	55,5	59,0	5,0	6,0	89,5	111,5	0,55	1,10	0,60	5500	4100	<b>M 804049/M 804010</b>	
0,53	1,17	85,0	79,5	83,0	57,5	55,5	5,0	4,0	81,0	96,1	0,32	1,87	1,03	5700	4200	<b>369 S/362</b>	
0,57	1,25	85,0	79,5	86,5	57,5	55,5	5,5	4,0	81,0	96,1	0,32	1,87	1,03	5700	4200	<b>369 S/363</b>	
0,57	1,25	85,0	79,5	86,5	57,5	59,0	5,5	4,0	81,0	96,1	0,32	1,87	1,03	5700	4200	<b>369 A/363</b>	
0,90	1,97	88,0	80,0	82,0	60,5	59,0	5,0	6,0	110,4	146,6	0,33	1,77	0,97	5500	4100	<b>3779/3720</b>	
0,89	1,95	88,0	80,0	82,0	60,5	67,5	5,0	6,0	110,4	146,6	0,33	1,77	0,97	5500	4100	<b>3778/3720</b>	
0,96	2,11	90,0	76,0	84,0	58,0	59,0	5,0	7,0	112,8	151,9	0,55	1,10	0,60	5400	4000	<b>HM 804846/HM 804810</b>	
0,72	1,59	91,5	86,5	93,0	66,0	51,0	5,5	5,0	86,9	108,8	0,35	1,69	0,93	5400	4000	<b>386 A/382 A</b>	
1,27	2,80	94,0	86,5	90,5	61,0	59,0	6,0	7,5	149,1	184,0	0,28	2,10	1,15	5300	3900	<b>528/522</b>	
1,57	3,45	98,0	89,0	97,0	64,5	59,0	5,0	7,5	156,0	197,7	0,29	2,02	1,11	5000	3700	<b>536/532 X</b>	
1,39	3,05	103,5	82,0	100,0	65,5	59,0	5,0	9,5	120,9	163,2	0,88	0,68	0,37	4300	3200	<b>55187 C/55437</b>	
2,00	4,40	114,5	92,0	112,5	67,0	59,0	5,0	11,0	157,3	179,1	0,73	0,81	0,44	4200	3100	<b>72187/72487</b>	
1,75	3,84	96,0	84,5	92,0	60,5	60,5	5,0	7,0	182,2	246,2	0,30	2,02	1,11	5100	3800	<b>5395/5335</b>	
1,48	3,25	99,5	84,5	93,6	60,0	60,5	5,0	7,5	153,2	212,0	0,49	1,23	0,68	4900	3700	<b>HM 807044/HM 807010</b>	
0,65	1,43	86,0	79,0	82,0	61,5	57,5	5,0	4,5	91,9	127,8	0,37	1,59	0,87	5500	4100	<b>28579/28520</b>	
0,41	0,90	78,0	74,0	79,0	57,0	60,0	5,5	4,5	76,4	103,7	0,30	1,97	1,08	5900	4400	<b>JLM 104948/JLM 104910</b>	
0,43	0,94	78,0	74,0	79,0	57,5	61,5	5,5	4,5	75,6	102,5	0,31	1,97	1,08	5900	4400	<b>JLM 104946/JLM 104910</b>	
0,44	0,97	78,0	74,0	79,0	57,0	60,0	5,5	4,5	76,4	103,7	0,30	1,97	1,08	5900	4400	<b>JLM 104945/JLM 104910</b>	
0,42	0,92	78,0	74,0	77,5	57,0	60,0	5,5	4,5	76,4	103,7	0,30	1,97	1,08	5900	4400	<b>JLM 104948/LM 104911</b>	
0,46	1,01	80,0	73,0	78,5	57,0	61,5	5,0	4,5	74,8	102,0	0,44	1,37	0,75	5700	4200	<b>JLM 704649/JLM 704610</b>	
0,72	1,58	85,6	78,5	79,5	57,5	59,0	5,0	5,0	110,6	146,0	0,33	1,82	1,00	5600	4100	<b>JM 205149/JM 205110</b>	

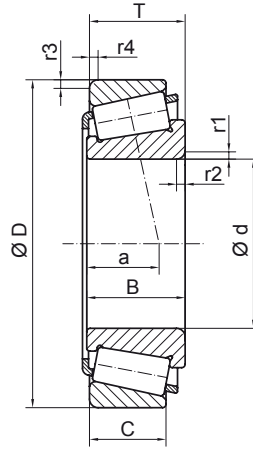


DIMENSIONS / DIMENSIONES													REFERENCES REFERENCIAS	ISO REF REF ISO
d		D		T		B		C		r1/r2 min	r3/r4 min	a		
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch					
<b>50,000</b>	<b>1,969</b>	90,000	3,543	28,000	1,102	28,000	1,102	23,000	0,906	5,0	2,5	20,6	<b>JM 205149 A/JM 205110</b>	
		100,000	3,937	36,000	1,417	35,000	1,378	30,000	1,181	2,5	2,5	24,5	<b>JF 5049/JF 5010</b>	T2ED050
		105,000	4,134	32,000	1,260	29,000	1,142	22,000	0,866	3,0	3,0	36,0	<b>JW 5049/JW 5010</b>	T7FC050
		105,000	4,134	37,000	1,457	36,000	1,417	29,000	1,142	3,0	2,5	29,5	<b>JHM 807045/JHM 807012</b>	T4FD050
<b>50,800</b>	<b>2,000</b>	82,000	3,228	21,976	0,865	22,225	0,875	17,000	0,669	3,5	0,5	16,2	<b>LM 104949/JLM 104910</b>	
		82,550	3,250	21,590	0,850	22,225	0,875	16,510	0,650	3,5	1,3	15,9	<b>LM 104949/LM 104911</b>	
		82,550	3,250	21,976	0,865	22,225	0,875	18,542	0,730	3,5	0,8	16,2	<b>LM 104949/LM 104911 A</b>	
		82,931	3,265	21,590	0,850	22,225	0,875	16,510	0,650	3,5	1,3	15,9	<b>LM 104949/LM 104912</b>	
		85,000	3,347	17,462	0,688	17,462	0,688	13,495	0,531	3,5	1,5	16,8	<b>18790/18720</b>	
		88,900	3,500	20,638	0,813	22,225	0,875	16,513	0,650	1,5	1,3	16,5	<b>368/362 A</b>	
		88,900	3,500	20,638	0,813	22,225	0,875	16,513	0,650	3,5	1,3	16,5	<b>368 A/362 A</b>	
		89,980	3,543	24,750	0,974	25,400	1,000	19,987	0,787	3,5	2,3	19,9	<b>28580/28520</b>	
		90,000	3,543	25,000	0,984	22,225	0,875	20,000	0,787	3,5	2,0	20,6	<b>368 A/362 X</b>	
		92,075	3,625	24,608	0,969	25,400	1,000	19,845	0,781	3,5	0,8	19,8	<b>28580/28521</b>	
		93,264	3,672	30,162	1,188	30,302	1,193	23,812	0,938	3,5	3,3	22,1	<b>3780/3720</b>	
		93,264	3,672	30,162	1,188	30,302	1,193	23,812	0,938	6,4	3,3	22,1	<b>3784/3720</b>	
		93,662	3,688	30,162	1,188	30,302	1,193	23,812	0,938	3,5	3,3	22,1	<b>3780/3727</b>	
		93,662	3,688	30,162	1,188	30,302	1,193	23,812	0,938	6,4	3,3	22,1	<b>3784/3727</b>	
		95,250	3,750	27,783	1,094	28,575	1,125	22,225	0,875	3,5	0,8	20,0	<b>33889/33822</b>	
		95,250	3,750	27,783	1,094	28,575	1,125	22,225	0,875	3,5	2,3	20,0	<b>33889/33821</b>	
		96,838	3,813	21,000	0,827	21,946	0,864	15,875	0,625	2,3	0,8	17,6	<b>385 A/382 A</b>	
		98,425	3,875	21,000	0,827	21,946	0,864	17,825	0,702	2,3	0,8	17,6	<b>385 A/382</b>	
		99,995	3,937	24,607	0,969	25,400	1,000	19,845	0,781	3,5	0,5	19,8	<b>28580/28527 RB</b>	
		100,000	3,937	34,925	1,375	36,068	1,420	26,988	1,063	0,8	0,6	22,1	<b>529/520 X1</b>	
101,600	4,000	31,750	1,250	31,750	1,250	25,400	1,000	3,5	3,3	24,4	<b>49585/49520</b>			
101,600	4,000	34,925	1,375	36,068	1,420	26,988	1,063	0,8	3,3	22,1	<b>529/522</b>			
101,600	4,000	34,925	1,375	36,068	1,420	26,988	1,063	3,5	3,3	22,1	<b>529 X/522</b>			

### Assembly / Montaje

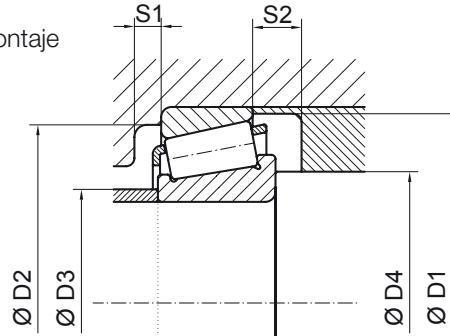


WEIGHT / PESO		ASSEMBLY / MONTAJE								LOAD / CARGA (kN)		LOAD FACTORS / FACTORES DE CARGA			SPEED / VELOCIDAD (rpm)		REFERENCES / REFERENCIAS
										DYNAMIC / DINÁMICA	STATIC / ESTÁTICA	DYNAMICS / DINÁMICOS	STATICS / ESTÁTICOS	OIL / ACEITE	GREASE / GRASA		
kg	lb	D1min	D2min	D2max	D3max	D4min	S1	S2	C	Co	e	Y	Yo	na	ng		
0,71	1,56	85,6	78,5	79,5	58,0	66,0	5,0	5,0	110,6	145,9	0,33	1,82	1,00	5600	4100	JM 205149 A/JM 205110	
1,29	2,84	94,5	83,5	91,0	58,5	58,5	5,0	6,0	167,8	219,0	0,34	1,75	0,96	5200	3900	JF 5049/JF 5010	
1,21	2,66	100,5	78,0	95,0	59,0	60,0	5,0	10,0	122,6	157,5	0,87	0,69	0,38	4500	3300	JW 5049/JW 5010	
1,53	3,36	99,5	84,0	96,3	60,0	60,0	5,0	8,0	153,2	212,0	0,49	1,23	0,68	4900	3600	JHM 807045/JHM 807012	
0,41	0,89	78,5	74,5	79,5	57,0	62,0	5,5	4,5	76,4	103,7	0,30	1,97	1,08	5900	4400	LM 104949/JLM 104910	
0,41	0,90	78,0	74,0	77,5	57,0	62,0	5,5	5,0	76,4	103,7	0,30	1,97	1,08	5900	4400	LM 104949/LM 104911	
0,44	0,97	78,0	73,5	79,0	57,0	62,0	5,5	3,0	75,6	102,5	0,31	1,97	1,08	5900	4400	LM 104949/LM 104911 A	
0,42	0,92	78,0	74,0	77,5	57,0	62,0	5,5	5,0	76,4	103,7	0,30	1,97	1,08	5900	4300	LM 104949/LM 104912	
0,36	0,80	79,0	74,5	79,0	59,5	62,0	5,0	3,5	54,3	71,6	0,40	1,48	0,81	5700	4200	18790/18720	
0,50	1,10	83,5	79,0	84,0	58,0	56,0	5,0	4,0	81,0	96,1	0,32	1,87	1,03	5600	4100	368/362 A	
0,49	1,08	83,5	79,0	84,0	57,5	62,0	5,5	4,0	81,0	96,1	0,32	1,87	1,03	5600	4100	368 A/362 A	
0,64	1,41	86,0	79,0	82,0	61,5	62,0	5,0	4,5	91,9	127,8	0,37	1,59	0,87	5500	4100	28580/28520	
0,57	1,25	83,0	77,0	83,0	57,5	62,0	4,0	5,0	81,0	96,1	0,32	1,87	1,03	5600	4100	368 A/362 X	
0,68	1,50	86,0	79,0	88,5	61,5	62,0	4,5	4,5	91,9	127,8	0,37	1,59	0,87	5400	4000	28580/28521	
0,83	1,82	88,0	80,0	82,0	60,5	62,0	4,5	6,0	110,4	146,6	0,33	1,77	0,97	5400	4000	3780/3720	
0,83	1,82	88,0	80,0	82,0	60,5	71,0	4,5	6,0	110,4	146,6	0,33	1,77	0,97	5400	4000	3784/3720	
0,84	1,85	88,0	80,0	82,5	60,5	62,0	4,5	6,0	110,4	146,6	0,33	1,77	0,97	5400	4000	3780/3727	
0,84	1,85	88,0	80,0	82,5	60,5	71,0	4,5	6,0	110,4	146,6	0,33	1,77	0,97	5400	4000	3784/3727	
0,83	1,83	90,0	83,0	91,5	61,5	62,0	4,5	5,5	116,9	153,7	0,33	1,82	1,00	5300	4000	33889/33822	
0,84	1,85	90,0	83,0	87,0	61,5	62,0	4,5	5,5	116,9	153,7	0,33	1,82	0,93	5300	4000	33889/33821	
0,66	1,45	91,5	86,5	93,0	66,0	58,5	5,5	5,0	86,9	108,8	0,35	1,69	0,93	5300	3900	385 A/382 A	
0,71	1,55	92,5	86,5	95,0	66,0	58,5	6,0	3,0	86,9	108,8	0,35	1,69	0,93	5200	3900	385 A/382	
0,88	1,93	86,0	79,0	97,5	61,5	62,0	4,5	4,5	91,8	127,8	0,37	1,59	0,87	5400	4000	28580/28527 RB	
1,15	2,54	94,0	86,5	97,0	61,0	54,0	5,5	7,5	149,0	184,0	0,28	2,10	1,15	5200	3900	529/520 X1	
1,10	2,42	96,0	85,0	90,5	63,5	62,0	5,5	6,0	121,9	152,2	0,40	1,49	0,82	5100	3800	49585/49520	
1,20	2,64	94,0	86,5	90,5	61,0	54,0	6,0	7,5	149,1	184,0	0,28	2,10	1,15	5200	3800	529/522	
1,20	2,64	94,0	86,5	90,5	61,0	62,0	6,0	7,5	149,1	184,0	0,28	2,10	1,15	5200	3800	529 X/522	

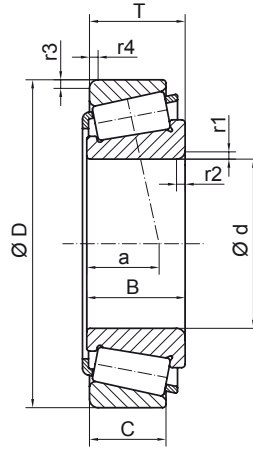


DIMENSIONS / DIMENSIONES													REFERENCES REFERENCIAS	ISO REF REF ISO
d		D		T		B		C		r1/r2 min	r3/r4 min	a		
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch					
<b>50,800</b>	<b>2,000</b>	104,775	4,125	30,162	1,188	29,317	1,154	24,605	0,969	0,8	3,3	24,1	455/453 X	
		104,775	4,125	30,162	1,188	30,958	1,219	23,812	0,938	0,8	0,8	22,2	45285 A/45221	
		104,775	4,125	30,162	1,188	30,958	1,219	23,812	0,938	6,4	3,3	22,1	45284/45220	
		104,775	4,125	36,512	1,438	36,512	1,438	28,575	1,125	3,5	3,3	29,1	HM 807046/HM 807010	
		107,950	4,250	36,512	1,438	36,957	1,455	28,575	1,125	3,5	3,3	24,3	537/532 X	
		111,125	4,375	30,162	1,188	26,909	1,059	20,638	0,813	3,5	3,3	37,0	55200 C/55437	
		111,125	4,375	38,100	1,500	36,957	1,455	33,338	1,313	3,5	3,3	26,0	537/532	
		123,825	4,875	36,512	1,438	32,791	1,291	25,400	1,000	3,5	3,3	38,0	72200 C/72487	
<b>51,592</b>	<b>2,031</b>	88,900	3,500	20,638	0,813	22,225	0,875	16,513	0,650	2,0	1,3	16,5	368 S/362 A	
		90,000	3,543	20,000	0,787	22,225	0,875	15,875	0,625	2,0	2,0	15,9	368 S/362	
<b>52,388</b>	<b>2,063</b>	92,075	3,625	24,608	0,969	25,400	1,000	19,845	0,781	3,5	0,8	19,8	28584/28521	
		93,264	3,672	30,162	1,188	30,302	1,193	23,812	0,938	2,3	3,3	22,1	3767/3720	
		95,250	3,750	27,783	1,094	28,575	1,125	22,225	0,875	3,5	2,3	20,0	33891/33821	
		111,125	4,375	30,162	1,188	26,909	1,059	20,638	0,813	3,5	3,3	37,1	55206 C/55437	
<b>53,975</b>	<b>2,125</b>	88,900	3,500	19,050	0,750	19,050	0,750	13,492	0,531	2,3	2,0	20,7	LM 806649/LM 806610	
		95,250	3,750	27,783	1,094	28,575	1,125	22,225	0,875	1,5	0,8	20,0	33895/33822	
		95,250	3,750	27,783	1,094	28,575	1,125	22,225	0,875	1,5	2,3	20,0	33895/33821	
		96,838	3,813	21,000	0,827	21,946	0,864	15,875	0,625	0,8	0,8	17,6	389 A/382 A	
		98,425	3,875	21,000	0,827	21,946	0,864	17,825	0,702	1,5	0,8	17,6	389 AS/382	
		100,000	3,937	21,000	0,827	21,946	0,864	17,825	0,702	0,8	2,0	17,6	389 A/383 A	
		104,775	4,125	36,512	1,438	36,512	1,438	28,575	1,125	3,5	3,3	28,8	HM 807049/HM 807010	
		107,950	4,250	36,512	1,438	36,957	1,455	28,575	1,125	3,5	3,3	24,3	539/532 X	
		111,125	4,375	38,100	1,500	36,957	1,455	30,162	1,188	3,5	3,3	26,0	539/532 A	
		123,825	4,875	36,512	1,438	32,791	1,291	25,400	1,000	3,5	3,3	38,2	72212/72487	
127,000	5,000	50,800	2,000	52,388	2,063	41,275	1,625	3,5	3,3	31,3	6280/6220			
<b>54,487</b>	<b>2,145</b>	104,775	4,125	36,512	1,438	36,512	1,438	28,575	1,125	3,5	3,3	28,8	HM 807048/HM 807010	
<b>54,988</b>	<b>2,165</b>	111,125	4,375	38,100	1,500	36,957	1,455	33,338	1,313	0,8	3,3	26,0	538/532	

### Assembly / Montaje

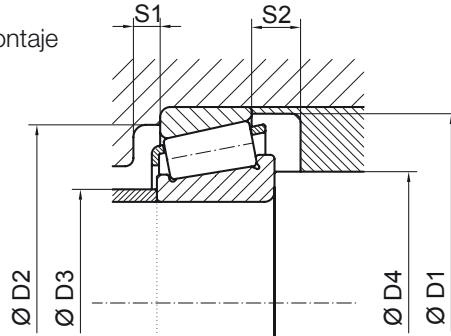


WEIGHT / PESO		ASSEMBLY / MONTAJE							LOAD / CARGA (kN)		LOAD FACTORS / FACTORES DE CARGA			SPEED / VELOCIDAD (rpm)		REFERENCES / REFERENCIAS
									DYNAMIC / DINÁMICA	STATIC / ESTÁTICA	DYNAMICS / DINÁMICOS	STATICS / ESTÁTICOS	OIL / ACEITE	GREASE / GRASA		
kg	lb	D1min	D2min	D2max	D3max	D4min	S1	S2	C	Co	e	Y	Yo	na	ng	
1,15	2,53	98,5	90,0	93,5	68,0	54,0	3,5	5,5	124,3	160,6	0,33	1,79	0,98	5000	3700	455/453 X
1,21	2,67	98,5	90,5	101,0	67,5	54,0	4,5	6,0	139,4	182,3	0,33	1,80	0,99	5000	3700	45285 A/45221
1,21	2,66	98,5	91,0	93,5	67,5	71,0	4,5	6,0	139,4	182,5	0,33	1,80	0,99	5000	3700	45284/45220
1,47	3,24	99,5	84,5	93,6	60,0	62,0	4,5	7,5	153,2	212,0	0,49	1,23	0,68	4900	3600	HM 807046/HM 807010
1,50	3,29	98,0	89,0	97,0	64,5	62,0	5,0	7,5	156,1	197,8	0,29	2,02	1,11	4900	3700	537/532 X
1,36	2,98	103,5	82,0	100,0	65,0	62,0	4,5	9,5	120,9	163,2	0,88	0,68	0,37	4300	3200	55200 C/55437
1,73	3,81	99,0	88,5	100,0	64,5	62,0	5,0	4,5	156,1	197,8	0,29	2,02	1,11	4800	3600	537/532
2,14	4,71	114,5	92,0	112,5	68,0	62,0	4,5	11,0	171,1	203,1	0,74	0,81	0,45	4100	3000	72200 C/72487
0,45	0,99	83,5	79,0	84,0	58,0	58,5	4,5	4,0	81,0	96,1	0,32	1,87	1,03	5600	4100	368 S/362 A
0,45	0,99	83,5	79,5	83,0	68,0	58,5	4,5	4,0	81,0	96,1	0,32	1,87	1,03	5500	4100	368 S/362
0,63	1,39	86,0	79,0	88,5	61,5	63,5	4,5	4,5	91,8	127,8	0,37	1,59	0,87	5400	4000	28584/28521
0,80	1,76	88,0	80,0	82,0	60,5	60,0	4,5	6,0	110,4	146,6	0,33	1,77	0,97	5400	4000	3767/3720
0,81	1,77	90,0	83,0	87,0	61,5	63,5	4,5	5,5	116,9	153,8	0,33	1,82	1,00	5300	3900	33891/33821
0,86	1,89	103,5	82,0	100,0	65,0	63,5	3,0	9,5	120,9	163,2	0,88	0,68	0,37	4200	3100	55200 C/55437
0,43	0,94	84,5	77,5	81,5	61,0	61,5	4,5	5,5	65,7	89,2	0,55	1,10	0,60	5300	3900	LM 806649/LM 806610
0,78	1,71	90,0	83,0	91,5	61,5	59,5	4,5	5,5	116,9	153,7	0,33	1,82	1,00	5200	3900	33895/33822
0,78	1,71	90,0	83,0	87,0	61,5	59,5	4,5	5,5	116,9	153,7	0,33	1,82	1,00	5200	3900	33895/33821
0,62	1,35	91,5	86,5	93,0	66,0	57,0	4,5	5,0	86,9	108,8	0,35	1,69	0,93	5200	3800	389 A/382 A
0,68	1,50	92,5	86,5	95,0	66,0	59,5	4,5	3,0	86,9	108,8	0,35	1,69	0,93	5100	3800	389 AS/382
0,69	1,52	92,5	86,5	92,5	66,0	57,0	5,5	3,0	86,9	108,8	0,35	1,69	0,93	5100	3700	389 A/383 A
1,40	3,07	99,5	84,5	93,6	64,0	65,5	5,0	7,5	153,3	212,0	0,49	1,23	0,68	4800	3600	HM 807049/HM 807010
1,43	3,15	98,0	89,0	97,0	64,5	65,5	5,5	7,5	156,0	197,7	0,29	2,02	1,11	4800	3600	539/532 X
1,62	3,55	98,0	89,0	100,0	64,5	65,5	5,5	7,5	156,1	197,8	0,30	2,03	1,11	4800	3500	539/532 A
1,87	4,11	114,5	92,0	112,5	67,0	65,5	5,0	11,0	157,3	179,1	0,73	0,81	0,44	4000	3000	72212/72487
3,23	7,10	115,0	101,5	116,0	71,5	65,5	5,5	9,5	268,9	347,7	0,30	2,01	1,11	4300	3200	6280/6220
1,36	2,99	99,5	84,5	93,6	60,0	66,0	5,0	7,5	153,2	212,0	0,49	1,23	0,68	4800	3500	HM 807048/HM 807010
1,64	3,61	100,0	88,5	100,0	65,0	58,0	5,5	4,5	156,1	197,8	0,29	2,02	1,11	4700	3500	538/532

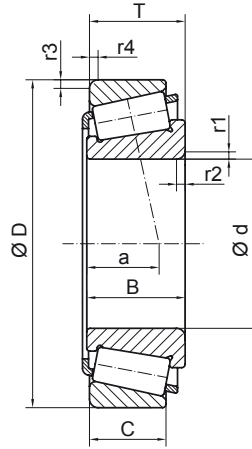
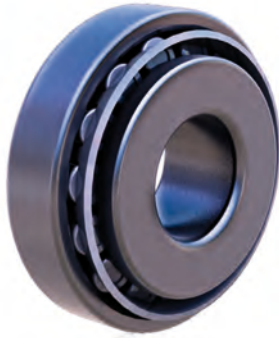


DIMENSIONS / DIMENSIONES													REFERENCES REFERENCIAS	ISO REF REF ISO	
d		D		T		B		C		r1/r2 min	r3/r4 min	a			
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch						
<b>55,000</b>	<b>2,165</b>	90,000	3,543	23,000	0,906	23,000	0,906	18,500	0,728	1,5	0,5	20,3	<b>JLM 506849/JLM 506810</b>	T3CB055	
		90,000	3,543	25,000	0,984	23,000	0,906	20,500	0,807	3,5	0,5	22,3	<b>JLM 506849 A/JLM 506811</b>		
		95,000	3,740	29,000	1,142	29,000	1,142	23,500	0,925	1,5	2,5	21,3	<b>JM 207049/JM 207010</b>		T2DD055
		95,000	3,740	29,000	1,142	29,000	1,142	23,500	0,925	6,0	2,5	21,3	<b>JM 207049 A/JM 207010</b>		T2DD055A
		96,838	3,813	21,000	0,827	21,946	0,864	15,875	0,625	2,3	0,8	17,6	<b>385/382 A</b>		
		98,425	3,875	21,000	0,827	21,946	0,864	17,825	0,702	2,3	0,8	17,6	<b>385/382</b>		
115,000	4,528	34,000	1,339	31,000	1,221	23,500	0,925	3,0	3,0	40,0	<b>JW 5549/JW5510</b>	T7FC055			
<b>55,562</b>	<b>2,188</b>	122,238	4,813	43,658	1,719	43,764	1,723	36,513	1,438	1,2	3,3	30,5	<b>5566/5535</b>		
		127,000	5,000	36,512	1,438	36,512	1,438	26,988	1,063	3,5	1,5	32,3	<b>HM 813840/HM813811</b>		
<b>57,150</b>	<b>2,250</b>	96,838	3,813	21,000	0,827	21,946	0,864	15,875	0,625	2,3	0,8	17,6	<b>387/382 A</b>		
		96,838	3,813	21,000	0,827	21,946	0,864	15,875	0,625	3,5	0,8	17,6	<b>387 A/382 A</b>		
		96,838	3,813	21,000	0,827	21,946	0,864	15,875	0,625	5,0	0,8	17,6	<b>387 AS/382 A</b>		
		96,838	3,813	24,608	0,969	24,608	0,969	19,446	0,766	3,5	0,8	21,1	<b>28682/28621</b>		
		96,838	3,813	25,400	1,000	21,946	0,864	20,275	0,798	0,8	2,3	22,0	<b>387 S/382 S</b>		
		96,838	3,813	25,400	1,000	21,946	0,864	20,275	0,798	2,3	2,3	22,0	<b>387/382 S</b>		
		96,838	3,813	25,400	1,000	21,946	0,864	20,275	0,798	3,5	2,3	22,0	<b>387 A/382 S</b>		
		96,838	3,813	25,400	1,000	21,946	0,864	20,275	0,798	5,0	2,3	22,0	<b>387 AS/382 S</b>		
		97,630	3,844	24,608	0,969	24,608	0,969	19,446	0,766	3,5	0,8	21,1	<b>28682/28622</b>		
		98,425	3,875	21,000	0,827	21,946	0,864	17,825	0,702	0,8	0,8	17,6	<b>387 S/382</b>		
		98,425	3,875	21,000	0,827	21,946	0,864	17,825	0,702	2,3	0,8	17,6	<b>387/382</b>		
		98,425	3,875	21,000	0,827	21,946	0,864	17,825	0,702	3,5	0,8	17,6	<b>387 A/382</b>		
		100,000	3,937	21,000	0,827	21,946	0,864	17,825	0,702	0,8	2,0	17,5	<b>387 S/383 A</b>		
		100,000	3,937	21,000	0,827	21,946	0,864	17,825	0,702	3,5	2,0	17,6	<b>387 A/383 A</b>		
		104,775	4,125	30,162	1,188	29,317	1,154	24,605	0,969	2,3	3,3	24,1	<b>462/453 X</b>		
104,775	4,125	30,162	1,188	29,317	1,154	24,605	0,969	2,3	3,3	24,1	<b>462 A/453 X</b>				
104,775	4,125	30,162	1,188	29,317	1,154	24,605	0,969	3,5	3,3	24,1	<b>469/453 X</b>				
107,950	4,250	27,783	1,094	29,317	1,154	22,225	0,875	3,5	0,8	20,7	<b>469/453 A</b>				

### Assembly / Montaje

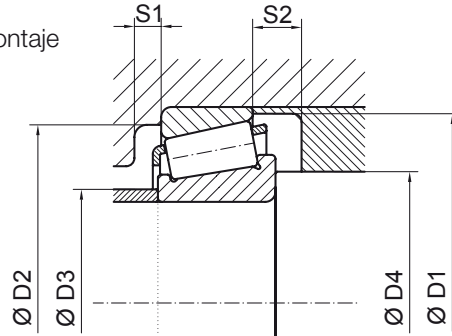


WEIGHT / PESO		ASSEMBLY / MONTAJE								LOAD / CARGA (kN)		LOAD FACTORS / FACTORES DE CARGA			SPEED / VELOCIDAD (rpm)		REFERENCES / REFERENCIAS
										DYNAMIC / DINÁMICA	STATIC / ESTÁTICA	DYNAMICS / DINÁMICOS	STATICS / ESTÁTICOS	OIL / ACEITE	GREASE / GRASA	REFERENCES / REFERENCIAS	
kg	lb	D1min	D2min	D2max	D3max	D4min	S1	S2	C	Co	e	Y	Yo	na	ng		
0,53	1,17	86,0	79,0	87,0	62,5	60,5	5,5	4,5	84,5	119,2	0,40	1,49	0,82	5300	3900	JLM 506849/JLM 506810	
0,58	1,28	86,0	78,0	87,5	62,5	66,5	5,5	4,5	84,5	119,2		1,49	0,82	5600	3900	JLM 506849 A/JLM 506811	
0,81	1,78	90,5	83,0	86,5	63,0	60,5	5,5	5,5	118,1	161,4	0,33	1,79	0,99	5200	3900	JM 207049/JM 207010	
0,81	1,78	90,5	83,0	86,5	63,0	74,0	5,5	5,5	118,1	161,4	0,33	1,79	0,99	5200	3900	JM 207049 A/JM 207010	
0,60	1,32	91,5	86,5	93,0	66,0	62,5	5,5	5,0	86,9	108,8	0,35	1,69	0,93	5100	3800	385/382 A	
0,65	1,42	92,5	86,5	95,0	66,0	62,5	6,0	3,0	86,9	108,8	0,35	1,69	0,93	5100	3800	385/382	
1,56	3,42	109,5	85,0	105,0	64,0	65,0	5,5	10,5	137,6	178,1	0,87	0,69	0,38	4100	3000	JW 5549/JW5510	
2,56	5,63	116,0	101,0	111,0	77,5	60,0	5,5	7,0	218,8	331,4	0,35	1,67	0,92	4400	3200	5566/5535	
2,29	5,04	121,0	105,0	121,0	82,0	67,0	5,5	9,5	178,2	251,3	0,50	1,20	0,66	4200	3100	HM 813840/HM813811	
0,57	1,25	91,5	86,5	93,0	66,0	65,0	5,5	5,0	86,9	108,8	0,35	1,69	0,93	5100	3700	387/382 A	
0,57	1,25	91,5	86,5	93,0	66,0	68,5	5,5	5,0	86,9	108,8	0,35	1,69	0,93	5100	3700	387 A/382 A	
0,57	1,25	91,5	86,5	93,0	66,0	73,0	5,5	5,0	86,9	108,8	0,35	1,69	0,93	5100	3700	387 AS/382 A	
0,70	1,54	91,0	83,5	93,0	67,0	68,5	5,5	5,0	97,1	140,8	0,40	1,49	0,82	5000	3700	28682/28621	
0,64	1,40	91,5	84,5	88,5	66,0	60,5	6,0	5,0	86,9	108,8	0,35	1,69	0,93	5100	3700	387 S/382 S	
0,64	1,40	91,5	84,5	88,5	66,0	65,0	6,0	5,0	86,9	108,8	0,35	1,69	0,93	5100	3700	387/382 S	
0,64	1,40	91,5	84,5	88,5	66,0	68,5	6,0	5,0	86,9	108,8	0,35	1,69	0,93	5100	3700	387 A/382 S	
0,64	1,40	91,5	84,5	88,5	66,0	73,0	6,0	5,0	86,9	108,8	0,35	1,69	0,93	5100	3700	387 AS/382 S	
0,72	1,58	91,0	83,5	94,0	67,0	68,5	6,0	5,0	97,1	140,8	0,40	1,49	0,82	5000	3700	28682/28622	
0,61	1,35	92,5	86,5	95,0	66,0	60,5	6,0	3,0	86,9	108,8	0,35	1,69	0,93	5000	3700	387 S/382	
0,61	1,35	92,5	86,5	95,0	66,0	65,0	6,0	3,0	86,9	108,8	0,35	1,69	0,93	5000	3700	387/382	
0,61	1,35	92,5	86,5	95,0	66,0	68,5	6,0	3,0	86,9	108,8	0,35	1,69	0,93	5000	3700	387 A/382	
0,67	1,48	92,5	86,5	92,5	66,0	60,5	5,5	3,0	86,9	109,0	0,35	1,69	0,93	5000	3700	387 S/383 A	
0,66	1,45	92,5	86,5	92,5	66,0	68,5	5,0	3,0	86,9	108,8	0,35	1,69	0,93	5000	3700	387 A/383 A	
1,03	2,26	98,5	90,0	93,5	68,0	65,0	3,5	5,5	124,3	160,5	0,33	1,79	0,98	4800	3600	462/453 X	
1,03	2,26	98,5	90,0	93,5	68,0	65,0	3,5	5,5	124,3	160,5	0,33	1,79	0,98	4800	3600	462 A/453 X	
0,97	2,13	98,5	90,0	93,5	68,0	68,5	3,5	5,5	124,3	160,5	0,33	1,79	0,98	4800	3600	469/453 X	
1,02	2,24	98,5	91,0	104,5	68,0	68,5	5,5	5,5	124,3	160,5	0,33	1,79	0,98	4700	3500	469/453 A	

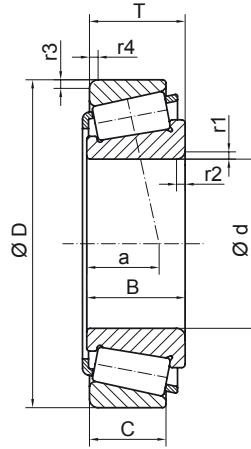
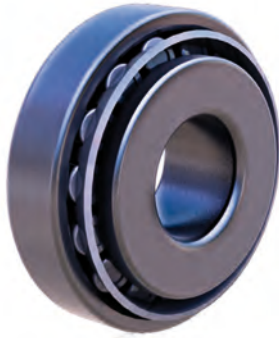


DIMENSIONS / DIMENSIONES													REFERENCES REFERENCIAS	ISO REF REF ISO
d		D		T		B		C		r1/r2 min	r3/r4 min	a		
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch					
<b>57,150</b>	<b>2,250</b>	110,000	4,331	22,000	0,866	21,996	0,866	18,824	0,741	2,3	1,3	21,0	<b>390/394 A</b>	
		112,712	4,438	30,162	1,188	30,048	1,183	23,812	0,938	3,5	3,3	25,4	<b>3979/3920</b>	
		112,712	4,438	30,162	1,188	30,162	1,188	23,812	0,938	3,5	3,3	23,8	<b>39580/39520</b>	
		112,712	4,438	30,162	1,188	30,162	1,188	23,812	0,938	8,0	3,3	23,8	<b>39581/39520</b>	
		119,985	4,724	32,750	1,289	30,162	1,188	26,949	1,061	3,5	0,8	26,0	<b>39580/39528</b>	
		140,030	5,513	36,513	1,438	33,236	1,309	23,520	0,926	3,5	2,3	28,5	<b>78225 C/78551</b>	
<b>57,531</b>	<b>2,265</b>	98,425	3,875	21,000	0,827	21,946	0,864	17,825	0,702	3,5	0,8	17,6	<b>388 A/382</b>	
<b>59,972</b>	<b>2,361</b>	122,238	4,813	33,338	1,313	31,750	1,250	23,813	0,938	0,8	3,3	35,3	<b>66589/66520</b>	
<b>59,987</b>	<b>2,362</b>	130,175	5,125	34,100	1,343	30,924	1,218	23,812	0,938	3,5	3,3	41,4	<b>HM 911244/HM 911210</b>	
		134,983	5,314	33,449	1,317	30,924	1,218	21,948	0,864	3,5	3,5	40,6	<b>HM 911244/HM 911216</b>	
<b>60,000</b>	<b>2,362</b>	95,000	3,740	24,000	0,945	24,000	0,945	19,000	0,748	5,0	2,5	21,4	<b>JLM 508748/JLM 508710</b>	
		115,000	4,528	40,000	1,575	39,000	1,535	33,000	1,299	2,5	2,5	27,5	<b>JF 6049/JF 6010</b>	T2EE060
		120,000	4,724	29,795	1,173	29,007	1,142	24,237	0,954	2,0	2,0	25,9	<b>476/472</b>	
<b>60,325</b>	<b>2,375</b>	100,000	3,937	25,400	1,000	25,400	1,000	19,845	0,781	3,5	3,3	22,7	<b>28985/28921</b>	
		101,600	4,000	25,400	1,000	25,400	1,000	19,845	0,781	3,5	3,3	22,8	<b>28985/28920</b>	
		112,712	4,438	30,162	1,188	30,048	1,183	23,812	0,938	3,5	3,3	25,4	<b>3980/3920</b>	
		122,238	4,813	38,100	1,500	38,354	1,510	29,718	1,170	8,0	3,3	27,2	<b>HM 212044/HM 212011</b>	
		127,000	5,000	36,512	1,438	36,512	1,438	26,988	1,063	3,5	1,5	32,3	<b>HM 813841/HM 813811</b>	
		127,000	5,000	36,512	1,438	36,512	1,438	26,988	1,063	3,5	3,3	32,3	<b>HM 813841/HM 813810</b>	
		127,000	5,000	44,450	1,750	44,450	1,750	34,925	1,375	3,5	3,3	34,9	<b>65237/65500</b>	
		130,175	5,125	36,512	1,438	33,338	1,313	23,812	0,938	5,0	3,3	41,4	<b>HM 911245/HM 911210</b>	
		136,525	5,375	46,038	1,813	46,038	1,813	36,512	1,438	3,0	3,3	37,3	<b>H 715332/H 715311</b>	
		<b>61,912</b>	<b>2,438</b>	110,000	4,331	22,000	0,866	21,996	0,866	18,824	0,741	0,8	1,3	21,1
127,000	5,000			36,512	1,438	36,512	1,438	26,988	1,063	3,5	3,3	32,3	<b>HM 813843/HM 813810</b>	
136,525	5,375			46,038	1,813	46,038	1,813	36,512	1,438	3,5	3,3	37,3	<b>H 715334/H 715311</b>	
146,050	5,750			41,275	1,625	39,687	1,563	25,400	1,000	3,5	3,3	45,1	<b>H 913842/H 913810</b>	
146,050	5,750			41,275	1,625	39,687	1,563	25,400	1,000	7,0	3,3	45,1	<b>H 913843/H 913810</b>	

### Assembly / Montaje

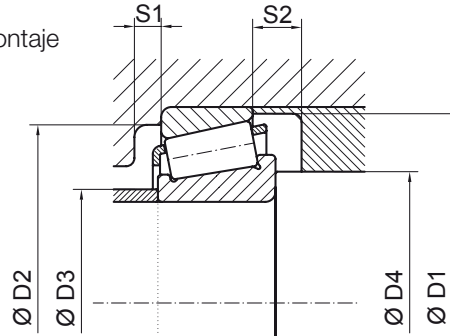


WEIGHT / PESO		ASSEMBLY / MONTAJE								LOAD / CARGA (kN)		LOAD FACTORS / FACTORES DE CARGA			SPEED / VELOCIDAD (rpm)		REFERENCES / REFERENCIAS
										DYNAMIC / DINÁMICA	STATIC / ESTÁTICA	DYNAMICS / DINÁMICOS	STATICS / ESTÁTICOS	OIL / ACEITE	GREASE / GRASA		
kg	lb	D1min	D2min	D2max	D3max	D4min	S1	S2	C	Co	e	Y	Yo	na	ng		
0,93	2,04	105,0	97,5	105,0	76,5	65,0	5,0	3,0	94,7	127,7	0,40	1,49	0,82	4600	3400	390/394 A	
1,36	2,99	105,0	95,0	101,5	76,0	68,5	5,5	6,0	127,5	185,8	0,40	1,49	0,82	4500	3400	3979/3920	
1,36	2,99	107,5	99,0	101,5	76,5	68,5	5,5	6,0	153,8	217,9	0,34	1,76	0,97	4600	3400	39580/39520	
1,36	2,99	107,5	99,0	101,5	76,5	82,0	5,5	6,0	153,8	217,9	0,34	1,76	0,97	4600	3400	39581/39520	
1,69	3,72	107,0	98,0	116,0	76,5	68,5	5,5	5,5	153,8	217,9	0,34	1,76	0,97	4400	3300	39580/39528	
2,68	5,90	128,9	104,9	132,0	79,0	68,5	5,5	12,5	186,7	235,5	0,87	0,69	0,38	3500	2600	78225 C/78551	
0,62	1,36	92,5	86,5	95,0	66,5	69,0	5,5	3,0	86,9	108,8	0,35	1,69	0,93	5000	3700	388 A/382	
1,60	3,52	116,5	98,5	111,0	74,0	63,0	5,5	9,5	146,5	180,0	0,66	0,90	0,49	4000	3000	66589/66520	
1,98	4,35	124,0	101,0	119,0	75,0	71,5	5,5	10,0	170,0	205,0	0,82	0,73	0,40	3700	2700	HM 911244/HM 911210	
2,10	4,61	123,0	102,0	123,0	75,0	71,5	5,5	11,5	170,0	205,0	0,82	0,73	0,40	3600	2700	HM 911244/HM 911216	
0,60	1,32	91,0	83,5	86,5	67,0	76,0	5,5	5,0	89,3	130,8	0,40	1,49	0,82	5000	3700	JLM 508748/JLM 508710	
1,84	4,04	109,0	97,0	106,5	70,0	68,5	6,0	7,0	211,9	286,7	0,33	1,80	0,99	4500	3300	JF 6049/JF 6010	
1,51	3,32	112,5	103,0	112,5	81,0	67,0	5,5	5,5	131,8	181,2	0,38	1,56	0,85	4300	3200	476/472	
0,74	1,63	94,5	87,5	90,5	71,0	71,5	5,5	5,5	99,0	147,4	0,43	1,41	0,78	4800	3600	28985/28921	
0,79	1,74	96,0	87,5	90,5	71,0	71,5	5,5	5,5	99,0	147,4	0,43	1,41	0,78	4800	3500	28985/28920	
1,29	2,84	105,0	95,0	101,5	75,5	71,5	5,5	6,0	127,4	185,9	0,40	1,49	0,82	4500	3300	3980/3920	
2,02	4,44	115,0	104,5	111,0	76,5	68,5	5,5	8,0	204,3	268,4	0,34	1,78	0,97	4300	3200	HM 212044/HM 212011	
2,19	4,81	121,0	105,0	121,0	82,0	71,5	5,5	9,5	178,1	251,2	0,50	1,20	0,66	4000	3000	HM 813841/HM 813811	
2,19	4,81	120,5	105,0	116,0	82,5	71,5	5,5	9,5	178,1	251,2	0,50	1,20	0,66	4000	3000	HM 813841/HM 813810	
2,50	5,50	118,5	98,5	116,0	72,0	71,5	5,5	9,5	221,0	287,1	0,48	1,23	0,67	4100	3000	65237/65500	
2,02	4,44	124,0	101,0	119,0	75,5	76,0	5,5	12,5	170,0	205,0	0,82	0,73	0,40	3700	2700	HM 911245/HM 911210	
3,51	7,72	132,0	112,0	125,5	89,5	71,5	5,5	9,5	239,4	382,9	0,47	1,27	0,70	3900	2900	H 715332/H 715311	
0,84	1,85	105,0	97,5	105,0	76,5	65,0	5,0	3,0	94,8	127,7	0,40	1,49	0,82	4500	3300	392/394 A	
2,13	4,69	120,5	105,0	116,0	82,0	73,0	5,5	9,5	178,2	251,3	0,50	1,20	0,66	4000	3000	HM 813843/HM 813810	
2,50	5,50	132,0	112,0	125,5	89,0	73,0	5,0	9,5	239,4	382,9	0,47	1,27	0,70	3800	2800	H 715334/H 715311	
3,09	6,79	138,5	115,0	135,0	83,5	73,0	5,0	15,5	232,4	282,0	0,78	0,76	0,42	3400	2500	H 913842/H 913810	
3,09	6,79	138,5	115,0	135,0	83,5	83,0	5,5	15,5	232,4	282,0	0,78	0,76	0,42	3400	2500	H 913843/H 913810	

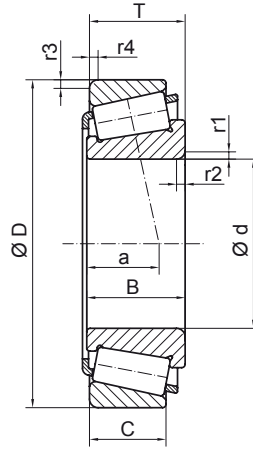


DIMENSIONS / DIMENSIONES													REFERENCES REFERENCIAS	ISO REF REF ISO
d		D		T		B		C		r1/r2 min	r3/r4 min	a		
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch					
<b>62,000</b>	<b>2,441</b>	122,238	4,813	43,658	1,719	43,764	1,723	36,513	1,438	1,3	3,3	30,5	<b>5566-62/5535</b>	
<b>63,485</b>	<b>2,499</b>	94,975	3,739	17,000	0,669	15,500	0,610	12,000	0,472	1,0	1,0	28,5	<b>L 910349/L 910310</b>	
<b>63,500</b>	<b>2,500</b>	104,775	4,125	21,433	0,844	22,000	0,866	15,875	0,625	2,0	2,0	19,6	<b>39250/39412</b>	
		107,950	4,250	25,400	1,000	25,400	1,000	19,050	0,750	1,5	0,8	24,6	<b>29586/29522</b>	
		107,950	4,250	25,400	1,000	25,400	1,000	19,050	0,750	1,5	3,3	24,6	<b>29586/29520</b>	
		107,950	4,250	25,400	1,000	25,400	1,000	19,050	0,750	3,5	3,3	24,6	<b>29585/29520</b>	
		110,000	4,331	22,000	0,866	21,996	0,866	18,824	0,741	3,5	1,3	21,1	<b>395/394 A</b>	
		110,000	4,331	30,162	1,188	30,048	1,183	23,812	0,938	3,5	3,3	25,4	<b>3982/3927 X</b>	
		112,712	4,438	30,162	1,188	30,048	1,183	23,812	0,938	3,5	3,3	25,4	<b>3982/3920</b>	
		112,712	4,438	30,162	1,188	30,162	1,188	23,812	0,938	3,5	3,3	23,8	<b>39585/39520</b>	
		122,238	4,813	38,100	1,500	38,354	1,510	29,718	1,170	7,0	3,3	27,2	<b>HM 212047/HM 212011</b>	
		123,825	4,875	38,100	1,500	36,678	1,444	30,162	1,188	3,5	3,3	28,5	<b>559/552 A</b>	
		127,000	5,000	36,512	1,438	36,512	1,438	26,988	1,063	3,5	3,3	32,3	<b>HM 813842/HM 813810</b>	
		136,525	5,375	46,038	1,813	46,038	1,813	36,512	1,438	3,5	3,3	37,3	<b>H 715336/H 715311</b>	
<b>65,000</b>	<b>2,559</b>	105,000	4,134	24,000	0,945	23,000	0,906	18,500	0,728	3,0	1,0	23,3	<b>JLM 710949 C/JLM 710910</b>	T4CD065
		110,000	4,331	28,000	1,102	28,000	1,102	22,500	0,886	3,0	2,5	24,7	<b>JM 511946/JM 511910</b>	T3DC065
		110,000	4,331	28,000	1,102	30,000	1,181	22,500	0,886	3,0	2,5	24,7	<b>JM 511945/JM 511910</b>	
		110,000	4,331	31,000	1,221	31,000	1,221	25,000	0,984	2,0	2,0	23,0	<b>JD 6549/JD 6510</b>	T2DD065
		120,000	4,724	39,000	1,535	38,500	1,516	32,000	1,260	3,0	2,5	28,5	<b>JH 211749/JH 211710</b>	T2ED065
<b>65,088</b>	<b>2,563</b>	135,755	5,345	53,975	2,125	56,007	2,205	44,450	1,750	3,5	3,3	34,5	<b>6379/6320</b>	
		136,525	5,375	46,038	1,813	46,038	1,813	36,512	1,438	3,5	3,3	37,3	<b>H 715340/H 715311</b>	
<b>65,987</b>	<b>2,598</b>	123,975	4,881	41,500	1,634	41,500	1,634	34,000	1,339	7,0	3,5	29,2	<b>H 212749/H 212710</b>	
<b>66,675</b>	<b>2,625</b>	107,950	4,250	25,400	1,000	25,400	1,000	19,050	0,750	3,5	0,8	24,6	<b>29590/29522</b>	
		107,950	4,250	25,400	1,000	25,400	1,000	19,050	0,750	3,5	3,3	24,6	<b>29590/29520</b>	
		110,000	4,331	22,000	0,866	21,996	0,866	18,824	0,741	0,8	1,3	21,1	<b>395 A/394 A</b>	
		110,000	4,331	22,000	0,866	21,996	0,866	18,824	0,741	3,5	1,3	21,1	<b>395 S/394 A</b>	
		110,000	4,331	30,162	1,188	30,048	1,183	23,812	0,938	5,6	3,3	25,4	<b>3994/3927 X</b>	

Assembly / Montaje

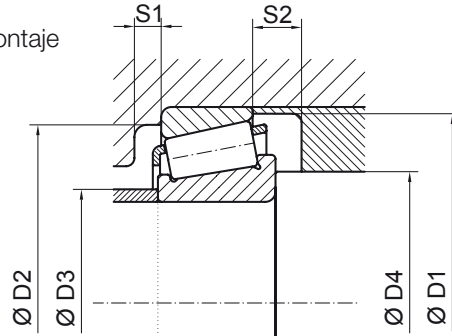


WEIGHT / PESO		ASSEMBLY / MONTAJE								LOAD / CARGA (kN)		LOAD FACTORS / FACTORES DE CARGA			SPEED / VELOCIDAD (rpm)		REFERENCES / REFERENCIAS
										DYNAMIC / DINÁMICA	STATIC / ESTÁTICA	DYNAMICS / DINÁMICOS	STATICS / ESTÁTICOS	OIL / ACEITE	GREASE / GRASA		
kg	lb	D1min	D2min	D2max	D3max	D4min	S1	S2	C	Co	e	Y	Yo	na	ng		
2,34	5,14	116,0	101,0	111,0	77,5	66,5	5,5	7,0	218,8	331,4	0,35	1,67	0,92	4200	3100	5566-62/5535	
0,36	0,79	92,0	82,0	90,5	70,0	67,5	5,5	5,0	43,1	64,1	0,78	0,77	0,42	4500	3300	L 910349/L 910310	
0,66	1,45	101,0	94,0	94,5	73,5	70,5	5,5	5,5	92,2	121,5	0,39	1,55	0,85	4600	3400	39250/39412	
0,90	1,97	102,5	94,0	97,0	77,0	69,0	5,5	6,0	100,3	154,0	0,46	1,31	0,72	4500	3300	29586/29522	
0,89	1,96	102,5	94,0	97,0	77,0	69,0	5,5	6,0	100,3	154,0	0,46	1,31	0,72	4500	3300	29586/29520	
0,88	1,94	102,5	94,0	97,0	77,0	75,0	5,5	6,0	100,3	154,0	0,46	1,31	0,72	4500	3300	29585/29520	
0,81	1,79	105,0	97,5	105,0	76,5	75,0	5,0	3,0	94,8	127,7	0,40	1,49	0,82	4500	3300	395/394 A	
1,13	2,49	105,0	95,0	99,0	75,5	75,0	6,0	6,0	127,4	185,9	0,40	1,49	0,82	4500	3300	3982/3927 X	
1,22	2,68	105,0	95,0	101,5	75,5	75,0	6,0	6,0	127,4	185,9	0,40	1,49	0,82	4400	3200	3982/3920	
1,22	2,68	107,5	99,0	101,5	76,5	75,0	6,0	6,0	153,8	217,9	0,34	1,76	0,97	4400	3300	39585/39520	
1,93	4,24	115,0	104,5	111,0	76,5	85,5	6,0	8,0	204,3	268,4	0,34	1,78	0,97	4200	3100	HM 212047/HM 212011	
1,97	4,34	113,5	102,5	112,5	78,5	75,0	6,0	7,5	188,6	258,1	0,35	1,73	0,95	4200	3100	559/552 A	
2,10	4,61	120,5	105,0	116,0	82,0	75,0	6,0	9,5	178,1	251,4	0,50	1,20	0,66	4000	2900	HM 813842/HM 813810	
3,40	7,48	132,0	112,0	125,5	89,5	75,0	6,0	9,5	239,4	382,9	0,47	1,27	0,67	3800	2800	H 715336/H 715311	
0,74	1,62	101,0	92,5	101,0	73,0	75,0	6,0	5,5	102,0	139,3	0,45	1,32	0,73	4500	3300	JLM 710949 C/JLM 710910	
1,05	2,31	104,5	95,5	101,5	75,0	75,0	6,0	5,5	142,2	201,4	0,40	1,49	0,82	4400	3300	JM 511946/JM 511910	
1,07	2,35	104,5	95,5	101,5	75,0	75,0	6,0	5,5	142,2	201,4	0,33	1,79	0,82	4400	3300	JM 511945/JM 511910	
1,15	2,53	105,0	97,0	103,0	73,0	72,0	6,0	6,0	148,9	211,5	0,33	1,81	1,00	4500	3300	JD 6549/JD 6510	
1,80	3,96	114,0	102,0	111,0	75,0	74,0	6,0	7,0	198,3	267,6	0,33	1,77	0,97	4200	3100	JH 211749/JH 211710	
3,51	7,72	126,0	109,5	124,5	78,5	76,5	6,0	9,5	280,9	377,0	0,32	1,85	1,01	3900	2900	6379/6320	
3,34	7,35	132,0	112,0	125,5	89,5	76,5	6,0	9,5	239,4	382,9	0,47	1,27	0,67	3800	2800	H 715340/H 715311	
2,09	4,60	118,5	106,0	112,0	78,0	88,0	6,0	7,5	221,3	300,3	0,33	1,80	0,99	4100	3000	H 212749/H 212710	
0,83	1,83	102,5	94,0	97,0	77,0	78,0	6,0	6,0	100,3	154,0	0,46	1,31	0,72	4400	3200	29590/29522	
0,83	1,82	102,5	94,0	97,0	77,0	78,0	6,0	6,0	100,3	154,0	0,46	1,31	0,72	4400	3200	29590/29520	
0,76	1,67	105,0	97,5	105,0	76,5	70,0	6,0	3,0	94,7	127,7	0,40	1,49	0,82	4400	3200	395 A/394 A	
0,76	1,67	105,0	97,5	105,0	76,5	78,0	6,0	3,0	94,7	127,7	0,40	1,49	0,82	4400	3200	395 S/394 A	
1,06	2,32	105,0	95,0	99,0	75,5	83,5	6,5	6,0	127,4	185,9	0,40	1,49	0,82	4400	3200	3994/3927 X	

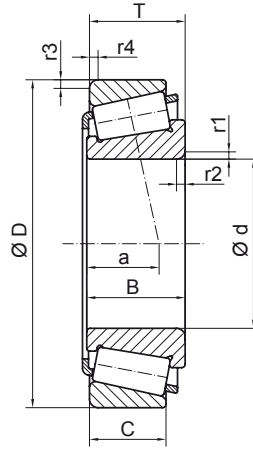
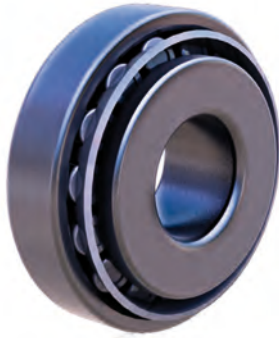


DIMENSIONS / DIMENSIONES													REFERENCES REFERENCIAS	ISO REF REF ISO
d		D		T		B		C		r1/r2 min	r3/r4 min	a		
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch					
<b>66,675</b>	<b>2,625</b>	112,712	4,438	30,162	1,188	30,048	1,183	23,812	0,938	3,5	0,8	25,4	<b>3984/3925</b>	
		112,712	4,438	30,162	1,188	30,048	1,183	23,812	0,938	3,5	3,3	25,4	<b>3984/3920</b>	
		112,712	4,438	30,162	1,188	30,048	1,183	23,812	0,938	5,6	3,3	25,4	<b>3994/3920</b>	
		112,712	4,438	30,162	1,188	30,162	1,188	23,812	0,938	3,5	3,3	23,8	<b>39590/39520</b>	
		117,475	4,625	30,163	1,188	30,163	1,188	23,813	0,938	0,8	0,8	27,7	<b>33262 A/33461</b>	
		117,475	4,625	30,162	1,188	30,163	1,188	23,812	0,938	3,5	3,3	27,6	<b>33262/33462</b>	
		122,238	4,813	38,100	1,500	38,354	1,510	29,718	1,170	3,5	1,5	27,2	<b>HM 212049/HM 212010</b>	
		122,238	4,813	38,100	1,500	38,354	1,510	29,718	1,170	3,5	3,3	27,2	<b>HM 212049/HM 212011</b>	
135,755	5,345	53,975	2,125	56,007	2,205	44,450	1,750	4,3	3,3	34,5	<b>6386/6320</b>			
136,525	5,375	41,275	1,625	41,275	1,625	31,750	1,250	3,5	3,3	30,0	<b>641/632</b>			
136,525	5,375	46,038	1,813	46,038	1,813	36,512	1,438	3,5	3,3	37,3	<b>H 715341/H 715311</b>			
<b>68,262</b>	<b>2,688</b>	110,000	4,331	22,000	0,866	21,996	0,866	18,824	0,741	2,3	1,3	21,1	<b>399 A/394 A</b>	
		110,000	4,331	22,000	0,866	21,996	0,866	18,824	0,741	5,0	1,3	21,1	<b>399 AS/394 A</b>	
		136,525	5,375	46,038	1,813	46,038	1,813	36,512	1,438	3,5	3,3	37,3	<b>H 715343/H 715311</b>	
		161,925	6,375	49,212	1,938	46,038	1,813	31,750	1,250	3,5	3,3	47,7	<b>9278/9220</b>	
<b>69,850</b>	<b>2,750</b>	101,600	4,000	19,050	0,750	19,050	0,750	15,083	0,594	1,5	1,5	21,6	<b>L 713049/L 713010</b>	
		112,712	4,438	25,400	1,000	25,400	1,000	19,050	0,750	1,5	3,3	26,3	<b>29675/29620</b>	
		117,475	4,625	30,162	1,188	30,163	1,188	23,812	0,938	3,5	3,3	27,6	<b>33275/33462</b>	
		120,000	4,724	29,002	1,142	29,007	1,142	23,444	0,923	3,5	3,3	25,1	<b>482/472 A</b>	
		120,000	4,724	29,795	1,173	29,007	1,142	24,237	0,954	3,5	2,0	25,9	<b>482/472</b>	
		120,000	4,724	29,794	1,173	30,163	1,188	23,444	0,923	3,5	0,8	27,3	<b>33275/33472</b>	
		120,000	4,724	32,545	1,281	32,545	1,281	26,195	1,031	3,5	3,3	25,8	<b>47487/47420</b>	
		120,000	4,724	46,751	1,841	45,963	1,810	24,237	0,954	1,0	2,0	25,6	<b>482 E/472</b>	
		123,825	4,875	30,162	1,188	29,007	1,142	24,605	0,969	3,5	3,3	26,3	<b>482/472 X</b>	
		127,000	5,000	36,512	1,438	36,170	1,424	28,575	1,125	3,5	3,3	28,0	<b>566/563</b>	
		136,525	5,375	41,275	1,625	41,275	1,625	31,750	1,250	3,5	3,3	30,0	<b>643/632</b>	
		146,050	5,750	41,275	1,625	39,687	1,563	25,400	1,000	3,5	3,3	45,1	<b>H 913849/H 913810</b>	

### Assembly / Montaje

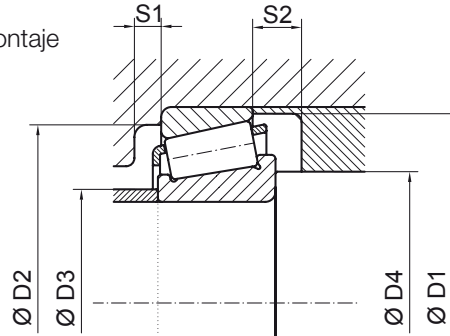


WEIGHT / PESO		ASSEMBLY / MONTAJE							LOAD / CARGA (kN)		LOAD FACTORS / FACTORES DE CARGA			SPEED / VELOCIDAD (rpm)		REFERENCES / REFERENCIAS
kg	lb	D1min	D2min	D2max	D3max	D4min	S1	S2	C	Co	e	Y	Yo	na	ng	
1,14	2,51	105,0	95,0	109,0	75,5	78,0	6,5	6,0	127,4	185,9	0,40	1,49	0,82	4300	3200	3984/3925
1,14	2,51	105,0	95,0	101,5	75,5	78,0	6,0	6,0	127,4	185,9	0,40	1,49	0,82	4300	3200	3984/3920
1,14	2,51	105,0	95,0	101,5	75,5	83,5	6,0	6,0	127,4	185,9	0,40	1,49	0,82	4300	3200	3994/3920
1,14	2,52	107,5	99,0	101,5	76,5	78,0	6,0	6,0	153,8	217,9	0,34	1,76	0,97	4300	3200	39590/39520
1,33	2,93	111,0	100,5	113,5	82,0	70,0	4,0	6,0	126,5	191,1	0,43	1,37	0,75	4200	3100	33262 A/33461
1,31	2,89	111,5	100,5	106,0	81,0	78,0	6,5	6,0	126,5	191,2	0,43	1,37	0,75	4200	3100	33262/33462
1,85	4,07	115,0	105,0	116,5	76,0	78,0	6,5	8,0	204,3	268,4	0,34	1,78	0,97	4100	3100	HM 212049/HM 212010
1,84	4,05	115,0	104,5	111,0	76,0	78,0	6,5	8,0	204,3	268,4	0,34	1,78	0,97	4100	3100	HM 212049/HM 212011
3,57	7,84	126,0	109,5	124,5	78,5	80,5	7,0	9,5	280,9	377,0	0,32	1,85	1,02	3800	2800	6386/6320
2,73	6,00	123,5	111,0	125,5	84,0	78,0	6,5	9,5	210,3	286,1	0,36	1,66	0,91	3800	2800	641/632
3,28	7,22	132,0	112,0	125,5	89,5	78,0	6,5	9,5	239,4	382,9	0,47	1,27	0,67	3700	2800	H 715341/H 715311
0,73	1,60	105,0	97,5	105,0	76,5	76,0	5,0	3,0	94,8	127,7	0,40	1,49	0,82	4300	3200	399 A/394 A
0,73	1,60	105,0	97,5	105,0	76,5	84,0	5,0	3,0	94,8	127,7	0,40	1,49	0,82	4300	3200	399 AS/394 A
2,27	4,99	132,0	112,0	125,5	89,0	79,5	6,5	9,5	239,4	382,9	0,47	1,27	0,70	3700	2700	H 715343/H 715311
4,61	10,14	153,5	126,0	151,0	90,5	79,5	6,5	17,0	279,8	333,2	0,71	0,85	0,47	3100	2300	9278/9220
0,50	1,10	97,0	90,5	96,0	77,0	75,0	6,5	3,5	63,9	111,7	0,46	1,30	0,72	4500	3300	L 713049/L 713010
0,71	1,55	108,5	99,0	101,5	82,0	75,0	6,5	6,0	104,8	166,6	0,48	1,23	0,67	4200	3100	29675/29620
1,23	2,71	111,5	100,5	106,0	81,0	81,0	6,5	6,0	126,5	191,2	0,43	1,37	0,75	4100	3000	33275/33462
1,25	2,74	112,5	103,0	109,0	80,5	81,0	6,0	5,5	131,8	181,3	0,38	1,56	0,85	4100	3000	482/472 A
1,27	2,79	112,5	103,0	112,5	80,5	81,0	6,5	5,5	131,8	181,3	0,38	1,56	0,85	4100	3000	482/472
1,31	2,88	111,5	100,5	116,5	81,0	81,0	6,5	6,0	126,5	191,2	0,43	1,37	0,75	4000	3000	33275/33472
1,46	3,21	113,5	104,0	109,0	82,0	81,0	6,5	6,0	162,1	238,5	0,36	1,67	0,92	4100	3000	47487/47420
1,65	3,63	112,5	103,0	112,5	80,5	73,5	6,0	22,5	146,1	208,2	0,38	1,56	0,85	4100	3000	482 E/472
1,41	3,11	112,5	102,5	112,5	80,5	81,0	6,5	5,5	131,8	181,3	0,38	1,56	0,85	4000	3000	482/472 X
1,87	4,11	119,0	108,0	116,0	83,5	81,0	6,5	7,5	180,0	254,9	0,36	1,65	0,91	3900	2900	566/563
2,62	5,76	123,5	111,0	125,5	84,0	81,0	6,5	9,5	210,3	286,1	0,36	1,66	0,91	3700	2800	643/632
2,85	6,27	138,5	115,0	135,0	83,5	81,0	6,5	15,5	232,4	282,0	0,78	0,76	0,42	3300	2400	H 913849/H 913810

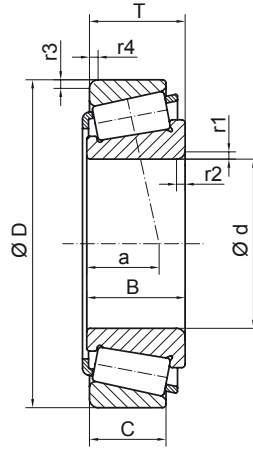
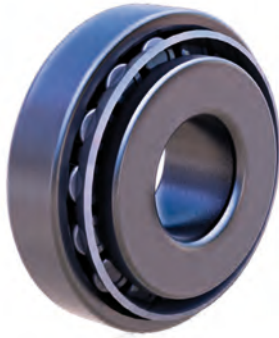


DIMENSIONS / DIMENSIONES													REFERENCES REFERENCIAS	ISO REF REF ISO
d		D		T		B		C		r1/r2 min	r3/r4 min	a		
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch					
<b>70,000</b>	<b>2,756</b>	110,000	4,331	26,000	1,024	25,000	0,984	20,500	0,807	1,0	2,5	20,5	<b>JLM 813049/JLM 813010</b>	T4CD070
		115,000	4,528	29,000	1,142	29,000	1,142	23,000	0,906	3,0	2,5	26,6	<b>JM 612949/JM 612910</b>	T4DC070
		120,000	4,724	29,002	1,142	29,007	1,142	23,444	0,923	2,0	3,3	25,1	<b>484/472 A</b>	T2ED070
		120,000	4,724	29,795	1,173	29,007	1,142	24,237	0,954	2,0	2,0	25,9	<b>484/472</b>	
		130,000	5,118	43,000	1,693	42,000	1,654	35,000	1,378	3,0	2,5	12,8	<b>JF 7049/JF 7010</b>	T2ED070
		130,000	5,118	43,000	1,693	42,000	1,654	35,000	1,378	7,0	2,5	12,8	<b>JF 7049 A/JF 7010</b>	T2ED070A
		140,000	5,512	39,000	1,535	35,500	1,398	27,000	1,063	3,0	3,0	47,0	<b>JW 7049/JW 7010</b>	T7FC070
<b>71,438</b>	<b>2,813</b>	117,475	4,625	30,162	1,188	30,163	1,188	23,812	0,938	3,5	3,3	27,6	<b>33281/33462</b>	
		120,000	4,724	29,794	1,173	30,163	1,188	23,444	0,923	3,5	0,8	27,3	<b>33281/33472</b>	
		120,000	4,724	32,545	1,281	32,545	1,281	26,195	1,031	3,5	3,3	25,8	<b>47490/47420</b>	
		127,000	5,000	36,512	1,438	36,512	1,438	26,988	1,063	3,5	1,5	32,3	<b>HM 813849/HM 813811</b>	
		127,000	5,000	36,512	1,438	36,512	1,438	26,988	1,063	3,5	3,3	32,3	<b>HM 813849/HM 813810</b>	
		136,525	5,375	41,275	1,625	41,275	1,625	31,750	1,250	6,4	3,3	30,0	<b>645/632</b>	
		136,525	5,375	46,038	1,813	46,038	1,813	36,512	1,438	3,5	3,3	37,3	<b>H 715345/H 715311</b>	
<b>73,025</b>	<b>2,875</b>	112,712	4,438	25,400	1,000	25,400	1,000	19,050	0,750	3,5	3,3	26,3	<b>29685/29620</b>	
		117,475	4,625	30,162	1,188	30,162	1,188	23,812	0,938	3,5	3,3	27,6	<b>33287/33462</b>	
		120,000	4,724	29,794	1,173	30,162	1,188	23,444	0,923	3,5	0,8	27,3	<b>33287/33472</b>	
		125,412	4,938	25,400	1,000	25,400	1,000	19,845	0,781	3,5	1,6	25,8	<b>27680/27620</b>	
		127,000	5,000	36,512	1,438	36,170	1,424	28,575	1,125	3,5	3,3	28,5	<b>567/563</b>	
		127,000	5,000	36,512	1,438	36,170	1,424	28,575	1,125	4,8	3,3	28,0	<b>567 X/563</b>	
		139,992	5,512	36,512	1,438	36,098	1,421	28,575	1,125	3,5	3,3	30,8	<b>576/572</b>	
<b>73,817</b>	<b>2,906</b>	112,712	4,438	25,400	1,000	25,400	1,000	19,050	0,750	1,5	3,3	26,3	<b>29688/29620</b>	
		127,000	5,000	36,512	1,438	36,170	1,424	28,575	1,125	0,8	3,3	28,0	<b>568/563</b>	
<b>75,000</b>	<b>2,953</b>	115,000	4,528	25,000	0,984	25,000	0,984	19,000	0,748	3,0	2,5	25,7	<b>JLM 714149/JLM 714110</b>	T4CC075
		120,000	4,724	31,000	1,221	29,500	1,161	25,000	0,984	3,0	2,5	28,6	<b>JM 714249/JM 714210</b>	T4CD075
		145,000	5,709	51,000	2,008	51,000	2,008	42,000	1,654	3,0	2,5	36,8	<b>JH 415647/JH 415610</b>	T2FE075
<b>75,987</b>	<b>2,992</b>	131,975	5,196	39,000	1,535	39,000	1,535	32,000	1,260	7,0	3,5	29,1	<b>HM 215249/HM 215210</b>	

### Assembly / Montaje

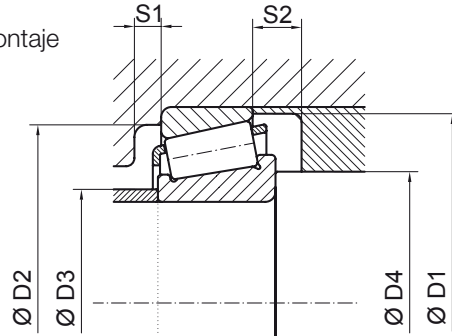


WEIGHT / PESO		ASSEMBLY / MONTAJE								LOAD / CARGA (kN)		LOAD FACTORS / FACTORES DE CARGA			SPEED / VELOCIDAD (rpm)		REFERENCES / REFERENCIAS	
										DYNAMIC / DINÁMICA	STATIC / ESTÁTICA	DYNAMICS / DINÁMICOS	STATICS / ESTÁTICOS	OIL / ACEITE	GREASE / GRASA			
kg	lb	D1min	D2min	D2max	D3max	D4min	S1	S2	C	Co	e	Y	Yo	na	ng			
0,88	1,94	105,5	95,5	101,0	78,0	74,0	6,5	5,5	110,0	172,2	0,49	1,23	0,68	4200	3100	JLM 813049/JLM 813010		
1,09	2,39	110,5	100,0	106,0	78,0	80,0	6,5	6,0	135,9	188,8	0,43	1,39	0,76	4200	3100	JM 612949/JM 612910		
1,25	2,74	112,5	103,0	109,0	80,5	77,0	6,5	5,5	131,8	181,3	0,38	1,56	0,85	4100	3000	484/472 A		
1,26	2,78	112,5	103,0	112,5	80,5	77,0	4,0	5,5	131,8	181,3	0,38	1,56	0,85	4100	3000	484/472		
2,35	5,16	123,0	110,5	121,0	80,5	80,0	6,5	8,0	254,7	359,0	0,33	1,80	0,99	3900	2900	JF 7049/JF 7010		
2,33	5,13	123,0	110,5	121,0	80,5	92,0	6,5	8,0	254,7	359,0	0,33	1,80	0,99	3900	2900	JF 7049 A/JF 7010		
2,60	5,71	133,5	105,5	130,0	82,0	80,0	6,5	12,0	200,6	276,1	0,87	0,69	0,38	3300	2400	JW 7049/JW 7010		
1,19	2,62	111,5	100,5	106,0	81,0	82,5	6,5	6,0	126,5	191,2	0,43	1,37	0,75	4100	3000	33281/33462		
1,27	2,79	111,5	100,5	116,5	81,0	82,5	6,5	6,0	126,5	191,2	0,43	1,37	0,75	4000	3000	33281/33472		
1,41	3,10	113,5	104,0	109,0	82,0	82,5	6,5	6,0	162,1	238,5	0,36	1,67	0,92	4100	3000	47490/47420		
1,85	4,06	121,0	105,0	121,0	82,0	82,5	6,5	9,5	178,1	251,2	0,50	1,20	0,66	3800	2800	HM 813849/HM 813811		
1,85	4,06	120,5	105,0	116,0	82,0	82,5	6,5	9,5	178,2	251,3	0,50	1,20	0,66	3800	2800	HM 813849/HM 813810		
2,53	5,57	123,5	111,0	125,5	84,0	91,5	6,5	9,5	210,3	286,1	0,36	1,66	0,91	3700	2800	645/632		
2,14	4,71	132,0	112,0	125,5	89,0	82,5	6,5	9,5	239,4	382,9	0,47	1,27	0,70	3600	2700	H 715345/H 715311		
0,86	1,89	108,5	99,0	101,5	82,0	84,5	6,5	6,0	104,8	166,6	0,48	1,23	0,67	4100	3000	29685/29620		
1,15	2,53	111,5	100,5	106,0	81,0	84,5	6,5	6,0	126,5	191,2	0,43	1,37	0,75	4000	3000	33287/33462		
1,23	2,70	111,5	100,5	116,5	81,0	84,5	6,5	6,0	126,5	191,2	0,43	1,37	0,75	4000	2900	33287/33472		
1,32	2,89	120,0	112,0	119,5	94,0	84,5	6,5	5,5	115,5	188,7	0,41	1,44	0,79	3900	2900	27680/27620		
1,81	3,97	119,0	108,0	116,0	83,5	84,5	6,5	7,5	179,9	254,7	0,36	1,65	0,91	3900	2900	567/563		
1,77	3,89	119,0	108,0	116,0	83,5	88,0	6,5	7,5	179,9	254,7	0,36	1,65	0,91	3900	2900	567 X/563		
2,33	5,13	131,5	119,0	129,0	95,0	84,5	6,5	7,5	189,5	283,1	0,40	1,48	0,81	3600	2700	576/572		
0,84	1,85	108,5	99,0	101,5	82,0	79,0	6,5	6,0	104,8	166,6	0,48	1,23	0,67	4100	3000	29688/29620		
1,76	3,87	119,0	108,0	116,0	83,5	77,0	6,5	7,5	179,9	254,8	0,36	1,65	0,91	3900	2900	568/563		
0,85	1,88	111,0	102,0	106,0	83,0	84,0	6,5	6,0	108,9	162,0	0,46	1,30	0,72	4000	3000	JLM 714149/JLM 714110		
1,30	2,87	115,5	103,5	111,5	83,5	85,0	6,5	6,0	143,7	218,6	0,44	1,35	0,74	3900	2900	JM 714249/JM 714210		
3,74	8,22	138,5	121,0	136,5	91,0	84,0	6,5	9,0	332,5	467,6	0,36	1,66	0,91	3600	2700	JH 415647/JH 415610		
2,08	4,58	126,0	115,0	120,0	88,0	98,0	6,5	7,0	213,4	306,0	0,33	1,80	0,99	3700	2800	HM 215249/HM 215210		

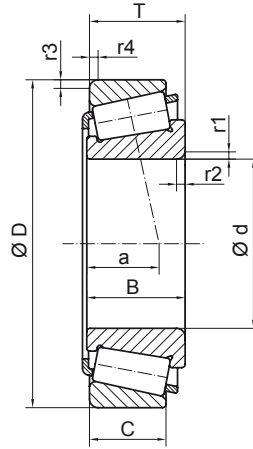
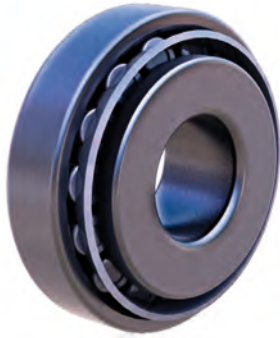


DIMENSIONS / DIMENSIONES													REFERENCES REFERENCIAS	ISO REF REF ISO
d		D		T		B		C		r1/r2 min	r3/r4 min	a		
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch					
<b>76,200</b>	<b>3,000</b>	109,538	4,313	19,050	0,750	19,050	0,750	15,083	0,594	1,5	1,5	23,7	<b>L 814749/L 814710</b>	
		121,442	4,781	24,608	0,969	23,012	0,906	17,463	0,688	2,0	2,0	26,1	<b>34300/34478</b>	
		127,000	5,000	26,988	1,063	23,012	0,906	19,842	0,781	2,0	3,3	28,5	<b>34300/34500</b>	
		127,000	5,000	26,988	1,063	23,012	0,906	19,842	0,781	3,5	3,3	28,5	<b>34301/34500</b>	
		127,000	5,000	30,162	1,188	31,000	1,221	22,225	0,875	6,4	3,3	26,8	<b>42688/42620</b>	
		133,350	5,250	30,162	1,188	29,769	1,172	22,225	0,875	3,5	3,3	29,5	<b>495 A/492 A</b>	
		136,525	5,375	30,162	1,188	29,769	1,172	22,225	0,875	3,5	3,3	29,5	<b>495 A/493</b>	
		139,700	5,500	36,512	1,438	36,098	1,421	28,575	1,125	3,5	3,3	31,4	<b>575/572 X</b>	
		139,982	5,511	35,250	1,388	36,098	1,421	28,575	1,125	3,5	3,3	30,2	<b>575/572 A</b>	
		139,992	5,512	36,512	1,438	36,098	1,421	28,575	1,125	3,5	3,3	31,4	<b>575/572</b>	
146,050	5,750	41,275	1,625	41,275	1,625	31,750	1,250	3,5	3,3	33,2	<b>659/653</b>			
149,225	5,875	53,975	2,125	54,229	2,135	44,450	1,750	3,5	3,3	38,8	<b>6461/6420</b>			
150,089	5,909	44,450	1,750	46,672	1,838	36,512	1,438	3,5	3,3	32,3	<b>748 S/742</b>			
161,925	6,375	49,212	1,938	46,038	1,813	31,750	1,250	3,5	3,3	47,7	<b>9285/9220</b>			
<b>77,788</b>	<b>3,063</b>	121,442	4,781	24,608	0,969	23,012	0,906	17,463	0,688	3,5	2,0	26,1	<b>34306/34478</b>	
<b>80,000</b>	<b>3,150</b>	130,000	5,118	35,000	1,378	34,000	1,339	28,500	1,122	3,0	2,5	29,9	<b>JM 515649/JM 515610</b>	T3DD080
		160,000	6,299	45,000	1,772	41,000	1,614	31,000	1,221	3,0	3,0	54,7	<b>JW 8049/JW 8010</b>	T7FC080
<b>80,962</b>	<b>3,188</b>	136,525	5,375	30,162	1,188	29,769	1,172	22,225	0,875	3,5	3,3	29,5	<b>496/493</b>	
		150,089	5,909	44,450	1,750	46,672	1,838	36,512	1,438	3,5	3,3	32,3	<b>740/742</b>	
<b>82,550</b>	<b>3,250</b>	125,412	4,938	25,400	1,000	25,400	1,000	19,845	0,781	3,5	1,6	25,8	<b>27687/27620</b>	
		133,350	5,250	30,162	1,188	29,769	1,172	22,225	0,875	3,5	3,3	29,5	<b>495/492 A</b>	
		133,350	5,250	33,338	1,313	29,769	1,172	25,400	1,000	3,5	3,3	32,6	<b>495/492</b>	
		133,350	5,250	33,338	1,313	33,338	1,313	26,195	1,031	3,5	3,3	29,5	<b>47686/47620</b>	
		133,350	5,250	39,688	1,563	39,688	1,563	32,545	1,281	3,5	3,3	32,9	<b>HM 516449 C/HM 516410</b>	
		136,525	5,375	30,162	1,188	29,769	1,172	22,225	0,875	3,5	3,3	29,5	<b>495/493</b>	
139,700	5,500	36,512	1,438	36,098	1,421	28,575	1,125	3,5	3,3	31,4	<b>580/572 X</b>			
139,982	5,511	35,250	1,388	36,098	1,421	28,575	1,125	3,5	3,3	30,2	<b>580/572 A</b>			

### Assembly / Montaje

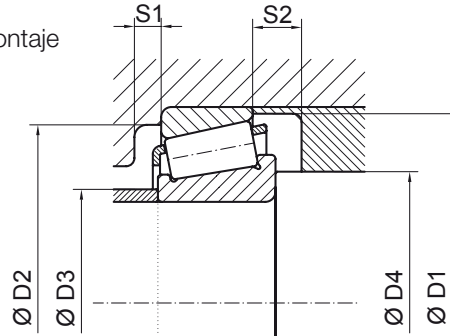


WEIGHT / PESO		ASSEMBLY / MONTAJE						LOAD / CARGA (kN)		LOAD FACTORS / FACTORES DE CARGA			SPEED / VELOCIDAD (rpm)		REFERENCES / REFERENCIAS	
								DYNAMIC / DINÁMICA	STATIC / ESTÁTICA	DYNAMICS / DINÁMICOS	STATICS / ESTÁTICOS	OIL / ACEITE	GREASE / GRASA			
kg	lb	D1min	D2min	D2max	D3max	D4min	S1	S2	C	Co	e	Y	Yo	na	ng	
0,56	1,22	105,0	97,5	104,0	85,0	81,5	7,0	3,5	66,4	117,6	0,50	1,19	0,65	4100	3000	<b>L 814749/L 814710</b>
0,95	2,10	115,0	107,5	114,0	88,0	83,0	7,0	7,0	99,4	140,9	0,45	1,33	0,73	3900	2900	<b>34300/34478</b>
1,16	2,54	114,5	105,5	116,0	88,0	83,0	7,0	7,0	99,4	140,9	0,45	1,33	0,73	3800	2800	<b>34300/34500</b>
1,17	2,57	114,5	105,5	116,0	88,0	87,5	7,0	7,0	99,4	140,9	0,45	1,33	0,73	3800	2800	<b>34301/34500</b>
1,40	3,07	120,5	110,5	116,0	88,5	96,0	7,0	7,5	145,5	212,6	0,42	1,43	0,78	3800	2800	<b>42688/42620</b>
1,67	3,66	128,0	118,0	122,0	96,0	87,5	7,0	7,5	143,7	213,5	0,44	1,35	0,74	3600	2700	<b>495 A/492 A</b>
1,78	3,91	128,0	118,0	125,5	96,0	87,5	7,0	7,5	143,7	213,5	0,44	1,35	0,74	3600	2700	<b>495 A/493</b>
2,31	5,08	131,5	119,0	128,5	94,5	87,5	7,0	7,5	189,6	283,2	0,40	1,48	0,81	3600	2600	<b>575/572 X</b>
2,28	5,02	131,5	119,0	129,0	94,5	87,5	7,0	6,5	189,6	283,2	0,40	1,48	0,81	3500	2600	<b>575/572 A</b>
2,32	5,10	131,5	119,0	129,0	94,5	87,5	7,0	7,5	189,6	283,2	0,40	1,48	0,81	3500	2600	<b>575/572</b>
2,92	6,43	139,0	124,5	134,5	97,0	87,5	7,0	9,5	223,2	321,8	0,41	1,46	0,80	3400	2600	<b>659/653</b>
3,75	8,24	139,0	120,0	138,0	90,0	87,5	7,0	9,5	304,0	433,5	0,36	1,66	0,91	3400	2500	<b>6461/6420</b>
3,54	7,78	142,0	129,0	139,0	96,0	87,5	7,0	7,5	287,4	402,3	0,32	1,84	1,01	3400	2500	<b>748 S/742</b>
4,28	9,42	153,5	126,5	151,0	90,5	87,5	7,0	17,0	279,8	333,2	0,71	0,85	0,47	3000	2200	<b>9285/9220</b>
0,89	1,97	115,0	107,5	114,0	88,0	89,0	7,0	7,0	99,4	140,9	0,45	1,33	0,73	3800	2800	<b>34306/34478</b>
1,70	3,74	124,5	112,8	121,0	89,5	90,0	7,0	6,5	179,4	268,1	0,39	1,54	0,85	3700	2700	<b>JM 515649/JM 515610</b>
4,00	8,80	152,5	119,5	150,0	91,0	90,0	7,0	14,0	237,3	322,6	0,87	0,69	0,38	2900	2100	<b>JW 8049/JW 8010</b>
1,64	3,61	128,0	118,0	125,5	96,0	92,5	7,0	7,5	143,7	213,4	0,44	1,35	0,74	3500	2600	<b>496/493</b>
3,32	7,31	142,0	129,0	139,0	96,0	92,5	7,0	7,5	287,4	402,3	0,32	1,84	1,01	3400	2500	<b>740/742</b>
1,05	2,32	120,0	112,0	119,5	93,5	94,0	7,0	5,5	115,5	188,7	0,41	1,44	0,79	3700	2700	<b>27687/27620</b>
1,48	3,26	128,0	118,0	122,0	96,0	94,0	7,0	7,5	143,7	213,5	0,44	1,35	0,74	3500	2600	<b>495/492 A</b>
1,58	3,47	129,5	117,5	130,0	96,0	94,0	7,0	7,5	143,7	213,5	0,44	1,35	0,74	3500	2600	<b>495/492</b>
1,65	3,63	127,0	116,0	122,0	93,5	94,0	7,0	7,0	163,7	251,7	0,40	1,48	0,81	3600	2600	<b>47686/47620</b>
2,14	4,70	127,0	112,5	122,5	92,5	94,0	7,5	7,0	192,9	331,4	0,40	1,49	0,82	3600	2600	<b>HM 516449 C/HM 516410</b>
1,59	3,51	128,0	118,0	125,5	96,0	94,0	7,0	7,5	143,7	213,5	0,44	1,35	0,74	3500	2600	<b>495/493</b>
2,08	4,58	131,5	119,0	128,5	94,5	94,0	7,5	7,5	189,6	283,2	0,40	1,48	0,81	3400	2600	<b>580/572 X</b>
2,06	4,53	131,5	119,0	129,0	94,5	94,0	7,5	6,5	189,6	283,2	0,40	1,48	0,81	3400	2600	<b>580/572 A</b>

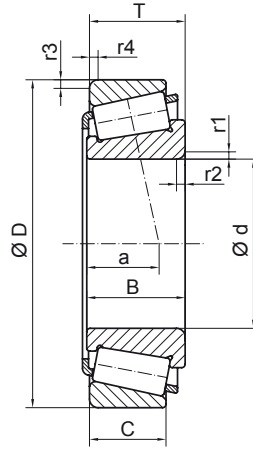
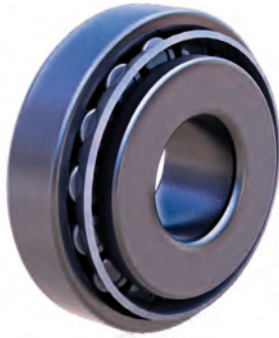


DIMENSIONS / DIMENSIONES													REFERENCES REFERENCIAS	ISO REF REF ISO
d		D		T		B		C		r1/r2 min	r3/r4 min	a		
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch					
<b>82,550</b>	<b>3,250</b>	139,992	5,512	36,512	1,438	36,098	1,421	28,575	1,125	3,5	3,3	31,4	<b>580/572</b>	
		146,050	5,750	41,275	1,625	41,275	1,625	31,750	1,250	3,5	3,3	33,5	<b>663/653</b>	
		150,089	5,909	44,450	1,750	46,672	1,838	36,512	1,438	3,5	3,3	32,3	<b>749 A/742</b>	
		152,400	6,000	41,275	1,625	41,275	1,625	31,750	1,250	3,5	3,3	33,7	<b>663/652</b>	
<b>83,345</b>	<b>3,281</b>	125,412	4,938	25,400	1,000	25,400	1,000	19,845	0,781	3,5	1,6	25,8	<b>27690/27620</b>	
<b>84,138</b>	<b>3,313</b>	133,350	5,250	30,162	1,188	29,769	1,172	22,225	0,875	3,5	3,3	29,5	<b>498/492 A</b>	
		136,525	5,375	30,162	1,188	29,769	1,172	22,225	0,875	3,5	3,3	29,5	<b>498/493</b>	
<b>85,000</b>	<b>3,347</b>	130,000	5,118	30,000	1,181	29,000	1,142	24,000	0,945	3,0	2,5	30,0	<b>JM 716649/JM 716610</b>	
		140,000	5,512	39,000	1,535	38,000	1,496	31,500	1,240	3,0	2,5	33,2	<b>JHM 516849/JHM 516810</b>	T3DD085
<b>85,026</b>	<b>3,348</b>	150,089	5,909	44,450	1,750	46,672	1,838	36,512	1,438	3,5	3,3	32,3	<b>749/742</b>	
		150,089	5,909	44,450	1,750	46,672	1,838	36,512	1,438	5,0	3,3	32,3	<b>749 S/742</b>	
<b>85,725</b>	<b>3,375</b>	133,350	5,250	30,162	1,188	29,769	1,172	22,225	0,875	3,5	3,3	29,5	<b>497/492 A</b>	
		136,525	5,375	30,162	1,188	29,769	1,172	22,225	0,875	3,5	3,3	29,5	<b>497/493</b>	
<b>88,900</b>	<b>3,500</b>	121,442	4,781	15,083	0,594	15,083	0,594	11,112	0,438	1,5	1,5	18,0	<b>LL 217849/LL 217810</b>	
		148,430	5,844	28,575	1,125	28,971	1,141	21,433	0,844	3,0	3,0	31,2	<b>42350/42584</b>	
		152,400	6,000	39,688	1,563	36,322	1,430	30,162	1,188	3,5	3,3	36,8	<b>593/592 A</b>	
		152,400	6,000	39,688	1,563	39,688	1,563	30,162	1,188	6,4	3,3	33,7	<b>HM 518445/HM 518410</b>	
		161,925	6,375	47,625	1,875	48,260	1,900	38,100	1,500	3,5	3,3	34,9	<b>759/752</b>	
		161,925	6,375	53,975	2,125	55,100	2,169	42,862	1,688	3,5	3,3	41,0	<b>6580/6535</b>	
<b>89,974</b>	<b>3,542</b>	146,975	5,786	40,000	1,575	40,000	1,575	32,500	1,280	7,0	3,5	31,2	<b>HM 218248/HM 218210</b>	
<b>89,992</b>	<b>3,543</b>	160,096	6,303	30,124	1,186	30,163	1,188	22,301	0,878	2,3	3,3	30,4	<b>69354/69630</b>	
<b>90,000</b>	<b>3,543</b>	145,000	5,709	35,000	1,378	34,000	1,339	27,000	1,063	3,0	2,5	33,0	<b>JM 718149/JM 718110</b>	T4DC090
		145,000	5,709	35,000	1,378	34,000	1,339	27,000	1,063	6,0	2,5	33,0	<b>JM 718149 A/JM 718110</b>	T4DC090A
<b>92,075</b>	<b>3,625</b>	146,050	5,750	33,338	1,313	34,925	1,375	26,195	1,031	3,5	3,3	32,5	<b>47890/47820</b>	
		148,430	5,844	28,575	1,125	28,971	1,141	21,433	0,844	3,5	3,0	31,3	<b>42362/42584</b>	
		150,000	5,906	35,992	1,417	36,322	1,430	27,000	1,063	3,5	3,0	36,8	<b>598/593 X</b>	
		150,000	5,906	35,992	1,417	36,322	1,430	27,000	1,063	6,4	3,0	33,0	<b>598 A/593 X</b>	

### Assembly / Montaje

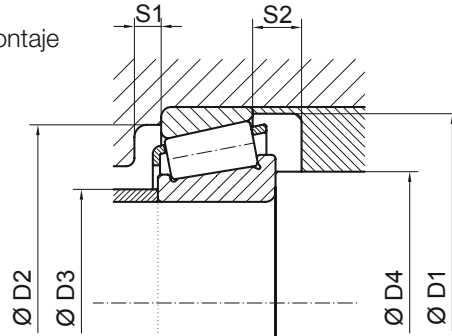


WEIGHT / PESO		ASSEMBLY / MONTAJE							LOAD / CARGA (kN)		LOAD FACTORS / FACTORES DE CARGA			SPEED / VELOCIDAD (rpm)		REFERENCES / REFERENCIAS
									DYNAMIC / DINÁMICA	STATIC / ESTÁTICA	DYNAMICS / DINÁMICOS	STATICS / ESTÁTICOS	OIL / ACEITE	GREASE / GRASA		
kg	lb	D1min	D2min	D2max	D3max	D4min	S1	S2	C	Co	e	Y	Yo	na	ng	
2,10	4,61	131,5	119,0	129,0	94,5	94,0	7,0	7,5	189,6	283,2	0,40	1,48	0,81	3400	2600	<b>580/572</b>
2,77	6,09	139,0	124,5	134,5	97,0	94,0	7,5	9,5	223,2	321,8	0,41	1,47	0,81	3300	2500	<b>663/653</b>
3,28	7,21	142,0	129,0	139,0	96,0	94,0	7,0	7,5	287,4	402,3	0,32	1,84	1,01	3300	2500	<b>749 A/742</b>
3,12	6,86	138,5	124,5	141,5	97,0	94,0	7,5	9,5	223,2	321,7	0,41	1,46	0,80	3300	2400	<b>663/652</b>
1,05	2,32	120,0	112,0	119,5	93,5	94,5	7,0	5,5	115,5	188,7	0,41	1,44	0,79	3700	2700	<b>27690/27620</b>
1,44	3,16	128,0	118,0	122,0	96,0	95,5	7,0	7,5	143,7	213,5	0,44	1,35	0,74	3500	2600	<b>498/492 A</b>
1,55	3,40	128,0	118,0	125,5	96,0	95,5	7,0	7,5	143,7	213,5	0,44	1,35	0,74	3400	2600	<b>498/493</b>
1,34	2,94	125,0	113,5	121,5	93,5	95,0	8,0	6,0	146,1	232,3	0,44	1,35	0,74	3500	2600	<b>JM 716649/JM 716610</b>
2,19	4,81	134,5	120,0	131,0	94,5	94,0	8,0	7,5	213,4	323,8	0,40	1,47	0,81	3400	2500	<b>JHM 516849/JHM 516810</b>
3,13	6,89	142,0	129,0	139,0	96,0	96,5	8,0	7,5	287,4	402,3	0,32	1,84	1,01	3300	2400	<b>749/742</b>
3,13	6,89	142,0	129,0	139,0	96,0	101,0	8,5	7,5	287,4	402,3	0,32	1,84	1,01	3300	2400	<b>749 S/742</b>
1,38	3,04	128,0	118,0	122,0	96,0	97,0	8,8	7,5	143,7	213,5	0,44	1,35	0,74	3500	2600	<b>497/492 A</b>
1,50	3,30	128,0	118,0	125,5	96,0	97,0	8,8	7,5	143,7	213,5	0,44	1,35	0,74	3400	2500	<b>497/493</b>
0,48	1,06	115,5	113,5	115,5	98,0	94,0	8,0	3,5	56,1	87,6	0,33	1,81	1,00	3800	2800	<b>LL 217849/LL 217810</b>
1,88	4,14	141,0	130,0	138,2	107,0	98,5	8,0	7,0	142,8	220,2	0,49	1,22	0,67	3200	2400	<b>42350/42584</b>
2,71	5,96	142,0	127,2	140,5	105,0	100,0	8,0	9,5	198,7	310,6	0,44	1,36	0,75	3200	2300	<b>593/592 A</b>
2,77	6,10	147,0	133,5	141,0	102,0	109,0	7,0	9,5	270,9	391,4	0,40	1,49	0,82	3200	2400	<b>HM 518445/HM 518410</b>
4,05	8,91	148,5	134,0	151,0	102,0	100,0	8,0	9,5	297,5	427,5	0,34	1,76	0,97	3100	2300	<b>759/752</b>
4,71	10,36	141,5	133,0	151,0	103,0	100,0	8,0	11,0	326,5	491,7	0,40	1,50	0,82	3000	2300	<b>6580/6535</b>
2,52	5,53	141,0	130,0	135,0	100,0	112,0	8,0	7,5	245,9	369,3	0,33	1,80	0,99	3300	2400	<b>HM 218248/HM 218210</b>
2,33	5,12	147,5	137,5	149,0	108,0	97,5	8,0	7,5	172,3	233,1	0,42	1,42	0,78	3000	2300	<b>69354/69630</b>
2,12	4,66	139,0	126,0	136,0	99,5	100,0	8,0	8,0	193,6	288,4	0,44	1,35	0,74	3200	2400	<b>JM 718149/JM 718110</b>
2,08	4,58	139,0	126,0	136,0	99,5	109,0	8,0	8,0	193,6	288,4	0,44	1,35	0,74	3200	2400	<b>JM 718149 A/JM 718110</b>
2,04	4,49	140,0	127,0	135,0	103,0	103,5	8,0	7,0	180,5	296,8	0,44	1,34	0,73	3200	2400	<b>47890/47820</b>
1,78	3,92	141,0	130,0	138,2	107,0	103,5	8,0	7,0	142,8	220,2	0,49	1,22	0,67	3100	2300	<b>42362/42584</b>
2,60	5,72	142,3	129,4	140,0	105,0	103,5	8,0	8,5	198,7	310,6	0,44	1,36	0,75	3100	2300	<b>598/593 X</b>
2,27	4,99	142,3	129,4	140,0	105,0	112,0	8,0	8,5	198,7	310,6	0,44	1,36	0,75	3100	2300	<b>598 A/593 X</b>

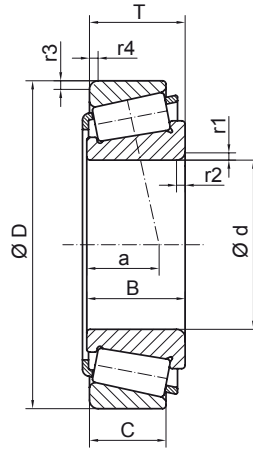
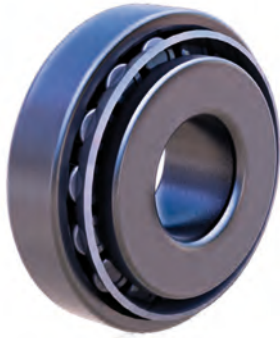


DIMENSIONS / DIMENSIONES													REFERENCES REFERENCIAS	ISO REF REF ISO
d		D		T		B		C		r1/r2 min	r3/r4 min	a		
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch					
<b>92,075</b>	<b>3,625</b>	152,400	6,000	39,688	1,563	36,322	1,430	30,162	1,188	3,5	3,3	36,8	<b>598/592 A</b>	
		152,400	6,000	39,688	1,563	36,322	1,430	30,162	1,188	6,4	3,3	36,8	<b>598 A/592 A</b>	
		168,275	6,625	41,275	1,625	41,275	1,625	30,162	1,188	3,5	3,3	38,5	<b>681/672</b>	
		168,275	6,625	41,275	1,625	41,275	1,625	30,162	1,188	6,4	3,3	38,5	<b>681 A/672</b>	
<b>93,662</b>	<b>3,688</b>	148,430	5,844	28,575	1,125	28,971	1,141	21,433	0,844	3,0	3,0	31,5	<b>42368/42584</b>	
<b>95,000</b>	<b>3,740</b>	135,000	5,315	20,000	0,787	20,000	0,787	14,000	0,551	5,0	2,5	30,8	<b>JL 819349/JL 819310</b>	
		150,000	5,906	35,000	1,378	34,000	1,339	27,000	1,063	3,0	2,5	32,7	<b>JM 719149/JM 719113</b>	T4DC095
		160,000	6,299	46,000	1,811	46,000	1,811	38,000	1,496	3,0	3,0	35,5	<b>JF 9549/JF 9510</b>	T2ED095
<b>95,250</b>	<b>3,750</b>	128,587	5,063	15,875	0,625	15,083	0,594	11,908	0,469	1,5	1,5	20,1	<b>LL 319349/LL 319310</b>	
		130,175	5,125	20,638	0,813	21,432	0,844	16,670	0,656	1,5	1,5	21,9	<b>L 319249/L 319210</b>	
		150,000	5,906	35,992	1,417	36,322	1,430	27,000	1,063	3,5	3,0	36,8	<b>594/593 X</b>	
		150,000	5,906	35,992	1,417	36,322	1,430	27,000	1,063	5,0	3,0	33,0	<b>594 A/593 X</b>	
		152,400	6,000	39,688	1,563	36,322	1,430	30,162	1,188	3,5	3,3	37,0	<b>594/592 A</b>	
		152,400	6,000	39,688	1,563	36,322	1,430	30,162	1,188	5,0	3,3	37,0	<b>594 A/592 A</b>	
		168,275	6,625	41,275	1,625	41,275	1,625	30,162	1,188	3,5	3,3	38,5	<b>683/672</b>	
<b>96,838</b>	<b>3,813</b>	148,430	5,844	28,575	1,125	28,971	1,141	21,433	0,844	3,5	3,0	31,5	<b>42381/42584</b>	
<b>99,975</b>	<b>3,936</b>	156,975	6,180	42,000	1,654	42,000	1,654	34,000	1,339	8,0	3,5	33,4	<b>HM 220149/HM 220110</b>	
<b>100,000</b>	<b>3,937</b>	145,000	5,709	24,000	0,945	22,500	0,886	17,500	0,689	3,0	3,0	29,6	<b>JP 10049/JP 10010</b>	T4CB100
		155,000	6,102	36,000	1,417	35,000	1,378	28,000	1,102	3,0	2,5	36,7	<b>JM 720249/JM 720210</b>	T4DC100
		160,000	6,299	41,000	1,614	40,000	1,575	32,000	1,260	3,0	2,5	38,3	<b>JHM 720249/JHM 720210</b>	T4DD100
		165,000	6,496	47,000	1,850	46,000	1,811	39,000	1,535	3,0	3,0	35,3	<b>JF 10049/JF 10010</b>	T2EE100
<b>101,600</b>	<b>4,000</b>	157,162	6,188	36,512	1,438	36,116	1,422	26,195	1,031	3,5	3,3	36,0	<b>52400/52618</b>	
		168,275	6,625	41,275	1,625	41,275	1,625	30,162	1,188	3,5	3,3	38,3	<b>687/672</b>	
		214,312	8,438	55,562	2,188	52,388	2,063	39,688	1,563	3,5	3,3	60,3	<b>H 924033/H 924010</b>	
<b>107,950</b>	<b>4,250</b>	146,050	5,750	21,433	0,844	21,433	0,844	16,670	0,656	1,5	1,5	26,2	<b>L 521949/L 521910</b>	
		158,750	6,250	23,020	0,906	21,438	0,844	15,875	0,625	3,5	3,3	36,8	<b>37425 T/37625 T</b>	
		158,750	6,250	23,020	0,906	21,438	0,844	15,875	0,625	3,5	3,3	36,8	<b>37425/37625</b>	

### Assembly / Montaje

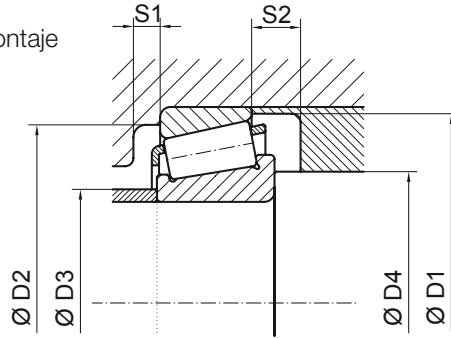


WEIGHT / PESO		ASSEMBLY / MONTAJE								LOAD / CARGA (kN)		LOAD FACTORS / FACTORES DE CARGA			SPEED / VELOCIDAD (rpm)		REFERENCES / REFERENCIAS
										DYNAMIC / DINÁMICA	STATIC / ESTÁTICA	DYNAMICS / DINÁMICOS	STATICS / ESTÁTICOS	OIL / ACEITE	GREASE / GRASA		
kg	lb	D1min	D2min	D2max	D3max	D4min	S1	S2	C	Co	e	Y	Yo	na	ng		
2,55	5,61	142,0	127,2	140,5	105,0	103,5	8,0	9,5	198,7	310,6	0,44	1,36	0,75	3100	2300	598/592 A	
2,54	5,58	142,0	127,2	140,5	105,0	112,0	8,5	9,5	198,7	310,6	0,44	1,36	0,75	3100	2300	598 A/592 A	
3,83	8,43	157,0	141,0	157,0	114,0	103,5	8,5	11,0	240,9	373,5	0,47	1,28	0,70	2900	2100	681/672	
3,80	8,36	157,0	141,0	157,0	114,0	112,5	8,5	11,0	240,9	373,5	0,47	1,28	0,70	2900	2100	681 A/672	
1,77	3,89	141,0	130,0	138,2	107,0	103,5	8,5	7,0	142,8	220,2	0,49	1,22	0,67	3100	2300	42368/42584	
0,83	1,82	128,5	120,5	124,5	105,0	111,0	9,0	6,0	83,2	142,1	0,58	1,03	0,56	3200	2400	JL 819349/JL 819310	
2,17	4,77	142,0	129,0	141,0	105,0	105,0	9,0	8,0	198,8	310,5	0,44	1,36	0,75	3100	2300	JM 719149/JM 719113	
3,76	8,27	152,5	138,0	150,0	106,0	105,0	9,0	8,0	317,2	481,7	0,34	1,77	0,97	3100	2300	JF 9549/JF 9510	
0,53	1,17	123,5	121,0	123,0	103,5	100,5	9,0	3,5	65,9	109,0	0,35	1,71	0,94	3500	2600	LL 319349/LL 319310	
0,79	1,74	123,5	120,5	124,5	105,5	100,5	9,0	3,5	96,3	174,9	0,35	1,72	0,94	3400	2500	L 319249/L 319210	
2,20	4,84	142,3	129,4	140,0	105,0	106,5	9,0	8,5	198,7	310,6	0,44	1,36	0,75	3100	2300	594/593 X	
2,15	4,73	142,3	129,4	140,0	105,0	111,0	9,0	8,5	198,7	310,6	0,44	1,36	0,75	3100	2300	594 A/593 X	
2,49	5,48	142,0	127,2	140,5	105,0	106,5	9,0	9,5	198,7	310,6	0,44	1,36	0,75	3100	2300	594/592 A	
2,42	5,33	142,0	127,2	140,5	105,0	111,0	9,0	9,5	198,7	310,6	0,44	1,36	0,75	3100	2300	594 A/592 A	
3,68	8,10	157,0	141,0	157,0	114,0	106,5	9,0	11,0	240,9	373,5	0,47	1,28	0,70	2900	2100	683/672	
1,66	3,64	141,0	130,0	138,2	107,0	108,0	9,0	7,0	142,8	220,2	0,49	1,22	0,67	3100	2300	42381/42584	
2,84	6,25	151,5	139,5	145,0	109,5	125,0	9,5	8,0	285,1	449,1	0,33	1,80	0,99	3000	2200	HM 220149/HM 220110	
0,90	1,98	140,0	132,0	135,0	110,0	110,0	9,0	6,5	126,3	177,0	0,47	1,27	0,70	3100	2300	JP 10049/JP 10010	
2,31	5,08	149,5	134,0	146,0	110,0	110,0	9,0	8,0	202,0	323,7	0,47	1,27	0,70	2900	2100	JM 720249/JM 720210	
3,00	6,60	154,5	137,0	151,5	110,0	110,0	9,0	9,0	250,9	396,9	0,47	1,28	0,70	2900	2100	JHM 720249/JHM 720210	
3,85	8,46	157,5	144,0	154,5	111,0	110,0	9,5	8,0	335,2	518,3	0,32	1,88	1,04	2900	2200	JF 10049/JF 10010	
2,41	5,30	151,5	138,0	146,0	112,5	113,0	9,0	10,0	207,4	337,2	0,47	1,26	0,69	2900	2200	52400/52618	
3,29	7,23	157,0	141,0	157,0	114,0	113,0	9,0	11,0	240,9	373,5	0,47	1,27	0,70	2800	2100	687/672	
9,07	19,95	203,5	171,0	203,0	131,5	113,0	9,0	15,5	434,8	604,0	0,67	0,89	0,49	2200	1700	H 924033/H 924010	
0,99	2,18	139,0	133,5	140,5	117,0	113,5	9,0	4,5	93,3	180,1	0,39	1,53	0,84	3000	2200	L 521949/L 521910	
1,33	2,93	149,5	139,5	147,5	120,0	119,5	9,0	7,0	114,0	187,4	0,60	0,99	0,54	2700	2000	37425 T/37625 T	
1,33	2,93	149,5	139,5	147,5	120,0	119,5	9,0	7,0	114,1	187,5	0,60	0,99	0,54	2700	2000	37425/37625	



DIMENSIONS / DIMENSIONES													REFERENCES REFERENCIAS	ISO REF REF ISO
d		D		T		B		C		r1/r2 min	r3/r4 min	a		
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch					
<b>107,950</b>	<b>4,250</b>	161,925	6,375	34,925	1,375	34,925	1,375	26,988	1,063	3,5	3,3	38,8	<b>48190/48120</b>	
		165,100	6,500	36,512	1,438	36,512	1,438	26,988	1,063	3,5	3,3	38,5	<b>56425/56650</b>	
<b>109,538</b>	<b>4,313</b>	158,750	6,250	23,020	0,906	21,438	0,844	15,875	0,625	3,5	3,3	36,8	<b>37431/37625</b>	
		158,750	6,250	23,020	0,906	21,438	0,844	15,875	0,625	5,0	3,3	36,8	<b>37431 A/37625</b>	
<b>110,000</b>	<b>4,331</b>	180,000	7,087	47,000	1,850	46,000	1,811	38,000	1,496	3,0	2,5	40,6	<b>JHM 522649/JHM 522610</b>	
<b>114,300</b>	<b>4,500</b>	152,400	6,000	21,432	0,844	21,433	0,844	16,670	0,656	1,5	1,5	27,8	<b>L 623149/L 623110</b>	
		177,800	7,000	41,275	1,625	41,275	1,625	30,162	1,188	3,5	3,3	43,0	<b>64450/64700</b>	
<b>117,475</b>	<b>4,625</b>	180,975	7,125	34,925	1,375	31,750	1,250	25,400	1,000	3,5	3,3	39,6	<b>68462/68712</b>	
<b>120,000</b>	<b>4,724</b>	170,000	6,693	27,000	1,063	25,000	0,984	19,500	0,768	3,0	3,0	35,0	<b>JP 12049/JP 12010</b>	T4CB120
		170,000	6,693	27,000	1,063	25,000	0,984	19,500	0,768	6,0	3,0	35,0	<b>JP 12049 A/JP 12010</b>	T4CB120A
<b>127,000</b>	<b>5,000</b>	165,895	6,531	18,258	0,719	17,462	0,688	13,495	0,531	1,5	1,5	24,3	<b>LL 225749/LL 225710</b>	
		215,900	8,500	47,625	1,875	47,625	1,875	34,925	1,375	3,5	3,3	49,9	<b>74500/74850</b>	
<b>133,350</b>	<b>5,250</b>	190,500	7,500	39,687	1,563	39,688	1,563	33,338	1,313	3,5	3,3	35,6	<b>48385/48320</b>	
		196,850	7,750	46,038	1,813	46,038	1,813	38,100	1,500	8,0	3,3	38,0	<b>67391/67322</b>	
<b>152,400</b>	<b>6,000</b>	203,200	8,000	41,275	1,625	41,275	1,625	34,925	1,375	3,3	3,3	39,5	<b>LM 330448/LM 330410</b>	

Assembly / Montaje



WEIGHT / PESO		ASSEMBLY / MONTAJE								LOAD / CARGA (kN)		LOAD FACTORS / FACTORES DE CARGA			SPEED / VELOCIDAD (rpm)		REFERENCES / REFERENCIAS
										DYNAMIC / DINÁMICA	STATIC / ESTÁTICA	DYNAMICS / DINÁMICOS	STATICS / ESTÁTICOS	OIL / ACEITE	GREASE / GRASA		
kg	lb	D1min	D2min	D2max	D3max	D4min	S1	S2	C	Co	e	Y	Yo	na	ng		
2,33	5,13	155,0	140,0	150,5	119,0	119,5	9,0	7,5	175,0	297,2	0,51	1,19	0,65	2700	2000	<b>48190/48120</b>	
2,62	5,76	158,0	143,0	154,0	119,0	119,5	9,0	9,5	210,6	350,7	0,50	1,21	0,66	2700	2000	<b>56425/56650</b>	
1,31	2,88	149,5	139,5	147,5	120,0	121,0	9,0	7,0	114,1	187,5	0,60	0,99	0,54	2700	2000	<b>37431/37625</b>	
1,31	2,87	149,5	139,5	147,5	120,0	125,5	9,0	7,0	114,1	187,5	0,60	0,99	0,54	2700	2000	<b>37431 A/37625</b>	
4,50	9,90	172,0	154,5	171,5	122,5	120,0	9,0	9,0	326,2	515,6	0,41	1,48	0,81	2600	1900	<b>JHM 522649/JHM 522610</b>	
1,03	2,26	146,0	140,0	146,5	125,0	119,5	9,0	4,5	96,9	193,0	0,41	1,45	0,80	2800	2100	<b>L 623149/L 623110</b>	
3,45	7,59	171,0	153,5	166,5	126,5	125,5	9,0	11,0	251,5	407,1	0,52	1,16	0,64	2500	1900	<b>64450/64700</b>	
2,75	6,04	170,0	156,0	170,0	130,0	129,0	9,0	9,5	189,4	279,7	0,50	1,21	0,66	2500	1800	<b>68462/68712</b>	
1,67	3,67	164,5	155,0	159,5	130,0	130,0	9,0	7,5	161,0	246,7	0,47	1,27	0,70	2600	1900	<b>JP 12049/JP 12010</b>	
1,65	3,63	164,5	155,0	159,5	130,0	139,0	9,0	7,5	161,0	246,7	0,47	1,27	0,70	2600	1900	<b>JP 12049 A/JP 12010</b>	
0,93	2,05	158,5	155,5	160,0	138,0	132,5	9,5	4,5	93,6	166,0	0,33	1,80	0,99	2600	1900	<b>LL 225749/LL 225710</b>	
7,01	15,42	205,5	186,0	205,0	141,0	138,5	9,0	12,5	337,6	573,3	0,49	1,23	0,68	2100	1600	<b>74500/74850</b>	
3,56	7,83	182,5	171,5	179,5	142,0	144,5	9,5	6,0	255,7	514,4	0,32	1,87	1,03	2300	1700	<b>48385/48320</b>	
4,50	9,90	189,5	175,0	186,0	146,5	158,0	9,0	7,5	332,1	596,9	0,34	1,74	0,96	2300	1700	<b>67391/67322</b>	
3,48	7,66	197,5	184,0	192,0	162,5	163,0	9,0	6,0	272,4	563,3	0,35	1,73	0,95	2100	1600	<b>LM 330448/LM 330410</b>	

## Inch series by references / Series pulgadas por referencia

REFERENCIAS REFERENCIAS	DIMENSIONS / DIMENSIONES					
	d		D		T	
	mm	inch	mm	inch	mm	inch
4 A/6	19,050	0,750	44,450	1,750	12,700	0,500
336/332	41,275	1,625	80,000	3,150	21,000	0,827
344/332	40,000	1,575	80,000	3,150	21,000	0,827
355 X/352	44,450	1,750	90,119	3,548	23,000	0,906
355 X/354 X	44,450	1,750	85,000	3,347	20,638	0,813
355/354 X	44,450	1,750	85,000	3,347	20,638	0,813
359 A/354 X	46,038	1,813	85,000	3,347	20,638	0,813
359 S/354 X	46,038	1,813	85,000	3,347	20,638	0,813
368 A/362 A	50,800	2,000	88,900	3,500	20,638	0,813
368 A/362 X	50,800	2,000	90,000	3,543	25,000	0,984
368 S/362	51,592	2,031	90,000	3,543	20,000	0,787
368 S/362 A	51,592	2,031	88,900	3,500	20,638	0,813
368/362 A	50,800	2,000	88,900	3,500	20,638	0,813
369 A/362 A	47,625	1,875	88,900	3,500	20,638	0,813
369 A/363	47,625	1,875	90,000	3,543	20,000	0,787
369 S/362	47,625	1,875	90,000	3,543	20,000	0,787
369 S/362 A	47,625	1,875	88,900	3,500	20,638	0,813
369 S/363	47,625	1,875	90,000	3,543	20,000	0,787
385 A/382	50,800	2,000	98,425	3,875	21,000	0,827
385 A/382 A	50,800	2,000	96,838	3,813	21,000	0,827
385/382	53,975	2,125	98,425	3,875	21,000	0,827
385/382 A	53,975	2,125	96,838	3,813	21,000	0,827
386 A/382 A	47,625	1,875	96,838	3,813	21,000	0,827
387 A/382	57,150	2,250	98,425	3,875	21,000	0,827
387 A/382 A	57,150	2,250	96,838	3,813	21,000	0,827
387 A/382 S	57,150	2,250	96,838	3,813	25,400	1,000
387 A/383 A	57,150	2,250	100,000	3,937	21,000	0,827
387 AS/382 A	57,150	2,250	96,838	3,813	21,000	0,827
387 AS/382 S	57,150	2,250	96,838	3,813	25,400	1,000
387 S/382	57,150	2,250	98,425	3,875	21,000	0,827
387 S/382 S	57,150	2,250	96,838	3,813	25,400	1,000
387 S/383 A	57,150	2,250	100,000	3,937	21,000	0,827
387/382	57,150	2,250	98,425	3,875	21,000	0,827
387/382 A	57,150	2,250	96,838	3,813	21,000	0,827
387/382 S	57,150	2,250	96,838	3,813	25,400	1,000
388 A/382	57,531	2,265	98,425	3,875	21,000	0,827
389 A/382 A	53,975	2,125	96,838	3,813	21,000	0,827
389 A/383 A	53,975	2,125	100,000	3,937	21,000	0,827
389 AS/382	53,975	2,125	98,425	3,875	21,000	0,827
390/394 A	57,150	2,250	110,000	4,331	22,000	0,866
392/394 A	61,912	2,438	110,000	4,331	22,000	0,866

REFERENCIAS REFERENCIAS	DIMENSIONS / DIMENSIONES					
	d		D		T	
	mm	inch	mm	inch	mm	inch
395 A/394 A	66,675	2,625	110,000	4,331	22,000	0,866
395 S/394 A	66,675	2,625	110,000	4,331	22,000	0,866
395/394 A	63,500	2,500	110,000	4,331	22,000	0,866
399 A/394 A	68,262	2,688	110,000	4,331	22,000	0,866
399 AS/394 A	68,262	2,688	110,000	4,331	22,000	0,866
418/414	38,100	1,500	88,500	3,484	26,988	1,063
419/414	41,275	1,625	88,500	3,484	26,988	1,063
455/453 X	50,800	2,000	104,775	4,125	30,162	1,188
462 A/453 X	57,150	2,250	104,775	4,125	30,162	1,188
462/453 X	57,150	2,250	104,775	4,125	30,162	1,188
469/453 A	57,150	2,250	107,950	4,250	27,783	1,094
469/453 X	57,150	2,250	104,775	4,125	30,162	1,188
476/472	60,000	2,362	120,000	4,724	29,795	1,173
482 E/472	69,850	2,750	120,000	4,724	46,751	1,841
482/472	69,850	2,750	120,000	4,724	29,795	1,173
482/472 A	69,850	2,750	120,000	4,724	29,002	1,142
482/472 X	69,850	2,750	123,825	4,875	30,162	1,188
484/472	70,000	2,756	120,000	4,724	29,795	1,173
484/472 A	70,000	2,756	120,000	4,724	29,002	1,142
495 A/492 A	76,200	3,000	133,350	5,250	30,162	1,188
495 A/493	76,200	3,000	136,525	5,375	30,162	1,188
495/492	82,550	3,250	133,350	5,250	33,338	1,313
495/492 A	82,550	3,250	133,350	5,250	30,162	1,188
495/493	82,550	3,250	136,525	5,375	30,162	1,188
496/493	80,962	3,188	136,525	5,375	30,162	1,188
497/492 A	85,725	3,375	133,350	5,250	30,162	1,188
497/493	85,725	3,375	136,525	5,375	30,162	1,188
498/492 A	84,138	3,313	133,350	5,250	30,162	1,188
498/493	84,138	3,313	136,525	5,375	30,162	1,188
527 S/522	44,983	1,771	101,600	4,000	34,925	1,375
527/522	44,450	1,750	101,600	4,000	34,925	1,375
528/522	47,625	1,875	101,600	4,000	34,925	1,375
529 X/522	50,800	2,000	101,600	4,000	34,925	1,375
529/520 X1	50,800	2,000	100,000	3,937	34,925	1,375
529/522	50,800	2,000	101,600	4,000	34,925	1,375
535/532 X	44,450	1,750	107,950	4,250	36,512	1,438
536/532 X	47,625	1,875	107,950	4,250	36,512	1,438
537/532	50,800	2,000	111,125	4,375	38,100	1,500
537/532 X	50,800	2,000	107,950	4,250	36,512	1,438
538/532	54,988	2,165	111,125	4,375	38,100	1,500
539/532 A	53,975	2,125	111,125	4,375	38,100	1,500

REFERENCIAS REFERENCIAS	DIMENSIONS / DIMENSIONES					
	d		D		T	
	mm	inch	mm	inch	mm	inch
<b>539/532 X</b>	53,975	2,125	107,950	4,250	36,512	1,438
<b>559/552 A</b>	63,500	2,500	123,825	4,875	38,100	1,500
<b>566/563</b>	69,850	2,750	127,000	5,000	36,512	1,438
<b>567 X/563</b>	73,025	2,875	127,000	5,000	36,512	1,438
<b>567/563</b>	73,025	2,875	127,000	5,000	36,512	1,438
<b>568/563</b>	73,817	2,906	127,000	5,000	36,512	1,438
<b>575/572</b>	76,200	3,000	139,992	5,512	36,512	1,438
<b>575/572 A</b>	76,200	3,000	139,982	5,511	35,250	1,388
<b>575/572 X</b>	76,200	3,000	139,700	5,500	36,512	1,438
<b>576/572</b>	73,025	2,875	139,992	5,512	36,512	1,438
<b>580/572</b>	82,550	3,250	139,992	5,512	36,512	1,438
<b>580/572 A</b>	82,550	3,250	139,982	5,511	35,250	1,388
<b>580/572 X</b>	82,550	3,250	139,700	5,500	36,512	1,438
<b>593/592 A</b>	88,900	3,500	152,400	6,000	39,688	1,563
<b>594 A/592 A</b>	95,250	3,750	152,400	6,000	39,688	1,563
<b>594 A/593 X</b>	95,250	3,750	150,000	5,906	35,992	1,417
<b>594/592 A</b>	95,250	3,750	152,400	6,000	39,688	1,563
<b>594/593 X</b>	95,250	3,750	150,000	5,906	35,992	1,417
<b>598 A/592 A</b>	92,075	3,625	152,400	6,000	39,688	1,563
<b>598 A/593 X</b>	92,075	3,625	150,000	5,906	35,992	1,417
<b>598/592 A</b>	92,075	3,625	152,400	6,000	39,688	1,563
<b>598/593 X</b>	92,075	3,625	150,000	5,906	35,992	1,417
<b>641/632</b>	66,675	2,625	136,525	5,375	41,275	1,625
<b>643/632</b>	69,850	2,750	136,525	5,375	41,275	1,625
<b>645/632</b>	71,438	2,813	136,525	5,375	41,275	1,625
<b>659/653</b>	76,200	3,000	146,050	5,750	41,275	1,625
<b>663/652</b>	82,550	3,250	152,400	6,000	41,275	1,625
<b>663/653</b>	82,550	3,250	146,050	5,750	41,275	1,625
<b>681 A/672</b>	92,075	3,625	168,275	6,625	41,275	1,625
<b>681/672</b>	92,075	3,625	168,275	6,625	41,275	1,625
<b>683/672</b>	95,250	3,750	168,275	6,625	41,275	1,625
<b>687/672</b>	101,600	4,000	168,275	6,625	41,275	1,625
<b>740/742</b>	80,962	3,188	150,089	5,909	44,450	1,750
<b>748 S/742</b>	76,200	3,000	150,089	5,909	44,450	1,750
<b>749 A/742</b>	82,550	3,250	150,089	5,909	44,450	1,750
<b>749 S/742</b>	85,026	3,348	150,089	5,909	44,450	1,750
<b>749/742</b>	85,026	3,348	150,089	5,909	44,450	1,750
<b>759/752</b>	88,900	3,500	161,925	6,375	47,625	1,875
<b>1380/1328</b>	21,986	0,866	52,388	2,063	19,368	0,763
<b>1680/1620</b>	33,338	1,313	66,675	2,625	20,638	0,813
<b>1779/1729 X</b>	23,812	0,938	56,896	2,240	19,368	0,763

REFERENCIAS REFERENCIAS	DIMENSIONS / DIMENSIONES					
	d		D		T	
	mm	inch	mm	inch	mm	inch
<b>1780/1729</b>	25,400	1,000	56,896	2,240	19,368	0,763
<b>1985/1922</b>	26,988	1,063	57,150	2,250	19,845	0,781
<b>1985/1931</b>	26,988	1,063	60,325	2,375	19,845	0,781
<b>1985/1932</b>	26,988	1,063	58,738	2,313	19,050	0,750
<b>1986/1931</b>	25,400	1,000	60,325	2,375	19,845	0,781
<b>1986/1932</b>	25,400	1,000	58,738	2,313	19,050	0,750
<b>1988/1922</b>	26,988	1,063	57,150	2,250	19,845	0,781
<b>1988/1931</b>	26,988	1,063	60,325	2,375	19,845	0,781
<b>2580/2520</b>	31,750	1,250	66,421	2,615	25,400	1,000
<b>2580/2523</b>	31,750	1,250	69,850	2,750	23,812	0,938
<b>2585/2523</b>	33,338	1,313	69,850	2,750	23,812	0,938
<b>2689/2631</b>	26,988	1,063	66,421	2,615	23,812	0,938
<b>2780/2720</b>	36,487	1,437	76,200	3,000	23,812	0,938
<b>2780/2729</b>	36,487	1,437	76,200	3,000	23,812	0,938
<b>2788/2720</b>	38,100	1,500	76,200	3,000	23,812	0,938
<b>2788/2729</b>	38,100	1,500	76,200	3,000	23,812	0,938
<b>2789/2720</b>	39,688	1,563	76,200	3,000	23,812	0,938
<b>2789/2729</b>	39,688	1,563	76,200	3,000	23,812	0,938
<b>2793/2720</b>	34,925	1,375	76,200	3,000	23,813	0,938
<b>2796/2735 X</b>	34,925	1,375	73,025	2,875	23,812	0,938
<b>3381/3320</b>	38,100	1,500	80,167	3,156	29,370	1,156
<b>3382/3320</b>	39,688	1,563	80,167	3,156	29,370	1,156
<b>3384/3320</b>	41,275	1,625	80,167	3,156	29,370	1,156
<b>3386/3320</b>	39,688	1,563	80,167	3,156	29,370	1,156
<b>3386/3325</b>	39,688	1,563	79,975	3,149	29,370	1,156
<b>3477/3420</b>	33,338	1,313	79,375	3,125	29,370	1,156
<b>3478/3420</b>	34,925	1,375	79,375	3,125	29,370	1,156
<b>3490/3420</b>	38,100	1,500	79,375	3,125	29,370	1,156
<b>3577/3520</b>	41,275	1,625	84,138	3,313	30,162	1,188
<b>3577/3525</b>	41,275	1,625	87,312	3,438	30,162	1,188
<b>3578/3520</b>	44,450	1,750	84,138	3,313	30,162	1,188
<b>3578/3525</b>	44,450	1,750	87,312	3,438	30,162	1,188
<b>3585/3525</b>	41,275	1,625	87,312	3,438	30,162	1,188
<b>3586/3525</b>	45,237	1,781	79,975	3,149	30,162	1,188
<b>3767/3720</b>	52,388	2,063	93,264	3,672	30,162	1,188
<b>3776/3720</b>	44,983	1,771	93,264	3,672	30,162	1,188
<b>3778/3720</b>	47,625	1,875	93,264	3,672	30,162	1,188
<b>3779/3720</b>	47,625	1,875	93,264	3,672	30,162	1,188
<b>3780/3720</b>	50,800	2,000	93,264	3,672	30,162	1,188
<b>3780/3727</b>	50,800	2,000	93,662	3,688	30,162	1,188
<b>3782/3720</b>	44,450	1,750	93,264	3,672	30,162	1,188

REFERENCIAS REFERENCIAS	DIMENSIONS / DIMENSIONES					
	d		D		T	
	mm	inch	mm	inch	mm	inch
3784/3720	50,800	2,000	93,264	3,672	30,162	1,188
3784/3727	50,800	2,000	93,662	3,688	30,162	1,188
3877/3820	41,275	1,625	85,725	3,375	30,162	1,188
3878/3820	36,512	1,438	85,725	3,375	30,162	1,188
3879/3820	40,000	1,575	73,025	2,875	30,162	1,188
3979/3920	57,150	2,250	112,712	4,438	30,162	1,188
3980/3920	60,325	2,375	112,712	4,438	30,162	1,188
3982/3920	63,500	2,500	112,712	4,438	30,162	1,188
3982/3927 X	63,500	2,500	110,000	4,331	30,162	1,188
3984/3920	66,675	2,625	112,712	4,438	30,162	1,188
3984/3925	66,675	2,625	112,712	4,438	30,162	1,188
3994/3920	66,675	2,625	112,712	4,438	30,162	1,188
3994/3927 X	66,675	2,625	110,000	4,331	30,162	1,188
JF 4049/ JF 4010	40,000	1,575	85,000	3,347	33,000	1,299
4367 X/4335	39,688	1,563	90,488	3,563	39,688	1,563
4388/4335	41,275	1,625	90,488	3,563	39,688	1,563
4395/4335	42,070	1,656	90,488	3,563	39,688	1,563
JF 4549/ JF 4510	45,000	1,772	95,000	3,740	36,000	1,417
JW 4549/ JW 4510	45,000	1,772	95,000	3,740	29,000	1,142
JF 5049/ JF 5010	50,000	1,969	100,000	3,937	36,000	1,417
JW 5049/ JW 5010	50,000	1,969	105,000	4,134	32,000	1,260
5395/5335	49,212	1,938	103,188	4,063	43,658	1,719
JW 5549/ JW5510	53,975	2,125	115,000	4,528	34,000	1,339
5566/5535	55,562	2,188	122,238	4,813	43,658	1,719
5566-62/5535	62,000	2,441	122,238	4,813	43,658	1,719
JF 6049/ JF 6010	60,000	2,362	115,000	4,528	40,000	1,575
A 6075/A 6157	19,050	0,750	39,992	1,575	12,014	0,473
JD 6549/ JD 6510	65,000	2,559	110,000	4,331	31,000	1,221
6280/6220	53,975	2,125	127,000	5,000	50,800	2,000
6379/6320	65,088	2,563	135,755	5,345	53,975	2,125
6386/6320	66,675	2,625	135,755	5,345	53,975	2,125
6461/6420	76,200	3,000	149,225	5,875	53,975	2,125
6580/6535	88,900	3,500	161,925	6,375	53,975	2,125
JF 7049/ JF 7010	70,000	2,756	130,000	5,118	43,000	1,693
JF 7049 A/ JF 7010	70,000	2,756	130,000	5,118	43,000	1,693

REFERENCIAS REFERENCIAS	DIMENSIONS / DIMENSIONES					
	d		D		T	
	mm	inch	mm	inch	mm	inch
JW 7049/ JW 7010	70,000	2,756	140,000	5,512	39,000	1,535
JW 8049/ JW 8010	80,000	3,150	160,000	6,299	45,000	1,772
9278/9220	68,262	2,688	161,925	6,375	49,212	1,938
9285/9220	76,200	3,000	161,925	6,375	49,212	1,938
JF 9549/ JF 9510	95,000	3,740	160,000	6,299	46,000	1,811
02474/02420	26,988	1,063	68,262	2,688	22,225	0,875
02475/02420	31,750	1,250	68,262	2,688	22,225	0,875
02872/02820	26,988	1,063	73,025	2,875	22,225	0,875
05066/05185	16,993	0,669	47,000	1,850	14,382	0,566
07087 X/07204	21,986	0,866	51,994	2,047	15,011	0,591
07087 X/07210 X	21,986	0,866	50,800	2,000	15,011	0,591
07087/07204	21,986	0,866	51,994	2,047	15,011	0,591
07087/ 07210 X	21,986	0,866	50,800	2,000	15,011	0,591
07097/07204	25,000	0,984	51,994	2,047	15,011	0,591
07100 S/07196	25,400	1,000	50,005	1,969	13,495	0,531
07100 S/07210 X	25,400	1,000	50,800	2,000	15,011	0,591
07100/07204	25,400	1,000	51,994	2,047	15,011	0,591
09067/09195	19,050	0,750	49,225	1,938	18,034	0,710
09067/09196	19,050	0,750	49,225	1,938	21,209	0,835
09074/09194	19,050	0,750	49,225	1,938	23,020	0,906
09074/09195	19,050	0,750	49,225	1,938	19,845	0,781
09074/09196	19,050	0,750	49,225	1,938	23,020	0,906
09081/09195	20,625	0,812	49,225	1,938	19,845	0,781
09081/09196	20,625	0,812	49,225	1,938	23,020	0,906
JF 10049/ JF 10010	100,000	3,937	165,000	6,496	47,000	1,850
JP 10049/ JP 10010	100,000	3,937	145,000	5,709	24,000	0,945
11162/11300	41,275	1,625	76,200	3,000	18,009	0,709
11163/11300	41,275	1,625	76,200	3,000	18,009	0,709
11590/11520	15,875	0,625	42,862	1,688	14,288	0,563
LM 11749/ LM 11710	17,462	0,688	39,878	1,570	13,843	0,545
LM 11949/ LM 11910	19,050	0,750	45,237	1,781	15,494	0,610
LM 11949 RS/ LM 11910	19,050	0,750	45,237	1,781	15,494	0,610
JP 12049 A/ JP 12010	120,000	4,724	170,000	6,693	27,000	1,063
JP 12049/ JP 12010	120,000	4,724	170,000	6,693	27,000	1,063

REFERENCIAS REFERENCIAS	DIMENSIONS / DIMENSIONES					
	d		D		T	
	mm	inch	mm	inch	mm	inch
M 12649 F/ M 12610 F	21,430	0,844	50,005	1,969	17,026	0,670
M 12649/ M 12610	21,430	0,844	50,005	1,969	17,526	0,690
LM 12749/ LM 12710	21,986	0,866	45,237	1,781	15,494	0,610
LM 12749/ LM 12711	21,986	0,866	45,974	1,810	15,494	0,610
13685/13621	38,100	1,500	69,012	2,717	19,050	0,750
13686/13620	38,100	1,500	69,012	2,717	26,195	1,031
13687/13620	38,100	1,500	69,012	2,717	19,050	0,750
13687/13621	38,100	1,500	69,012	2,717	19,050	0,750
13889/13836	38,100	1,500	65,088	2,563	12,700	0,500
14116/14276	30,226	1,190	69,012	2,717	19,845	0,781
14118/14274	30,000	1,181	69,012	2,717	19,845	0,781
14118/14283	30,000	1,181	72,085	2,838	22,385	0,881
14123 AA/ 14274	31,750	1,250	69,012	2,717	26,983	1,062
14123 AA/ 14276	31,750	1,250	69,012	2,717	26,983	1,062
14125 A/14274	31,750	1,250	69,012	2,717	19,845	0,781
14125 A/14276	31,750	1,250	69,012	2,717	19,845	0,781
14125 A/14283	31,750	1,250	72,085	2,838	22,385	0,881
14130/14274	33,338	1,313	69,012	2,717	19,845	0,781
14130/14276	33,338	1,313	69,012	2,717	19,845	0,781
14131/14274	33,338	1,313	69,012	2,717	19,845	0,781
14131/14276	33,338	1,313	69,012	2,717	19,845	0,781
14136 A/14276	34,925	1,375	69,012	2,717	26,983	1,062
14137 A/14274	34,925	1,375	69,012	2,717	19,845	0,781
14137 A/14276	34,925	1,375	69,012	2,717	19,845	0,781
14137 AS/ 14276	34,925	1,375	69,012	2,717	19,845	0,781
14138 A/14274	34,925	1,375	69,012	2,717	19,845	0,781
14138 A/14276	34,925	1,375	69,012	2,717	19,845	0,781
14138 A/14283	34,925	1,375	72,085	2,838	22,385	0,881
14585/14525	34,925	1,375	68,262	2,688	20,638	0,813
15100/15245	25,400	1,000	62,000	2,441	19,050	0,750
15100/15250	25,400	1,000	63,500	2,500	20,638	0,813
15100/15250 X	25,400	1,000	63,500	2,500	20,638	0,813
15101/15245	25,400	1,000	62,000	2,441	19,050	0,750
15101/15250	25,400	1,000	63,500	2,500	20,638	0,813
15101/15250 X	25,400	1,000	63,500	2,500	20,638	0,813
15103 S/15243	26,162	1,030	61,912	2,438	19,050	0,750
15103 S/15245	26,162	1,030	62,000	2,441	19,050	0,750

REFERENCIAS REFERENCIAS	DIMENSIONS / DIMENSIONES					
	d		D		T	
	mm	inch	mm	inch	mm	inch
15106/15245	26,988	1,063	62,000	2,441	19,050	0,750
15106/15250	26,988	1,063	63,500	2,500	20,638	0,813
15106/15250 X	26,988	1,063	63,500	2,500	20,638	0,813
15112/15245	26,988	1,063	62,000	2,441	19,050	0,750
15112/15250	26,988	1,063	63,500	2,500	20,638	0,813
15112/15250 X	26,988	1,063	63,500	2,500	20,638	0,813
15117/15245	29,987	1,181	62,000	2,441	19,050	0,750
15118/15245	30,213	1,190	62,000	2,441	19,050	0,750
15118/15250	30,213	1,190	63,500	2,500	20,638	0,813
15118/15250 X	30,213	1,190	63,500	2,500	20,638	0,813
15120/15250 X	30,213	1,190	63,500	2,500	20,638	0,813
15123/15244	31,750	1,250	62,000	2,441	19,749	0,778
15123/15245	31,750	1,250	62,000	2,441	18,161	0,715
15123/15250 X	31,750	1,250	63,500	2,500	19,749	0,778
15125/15245	31,750	1,250	62,000	2,441	19,050	0,750
15126/15245	31,750	1,250	62,000	2,441	19,050	0,750
15126/15250	31,750	1,250	63,500	2,500	20,638	0,813
15126/15250 X	31,750	1,250	63,500	2,500	20,638	0,813
J 15585/15520	27,988	1,102	57,150	2,250	17,462	0,688
15578/15520	25,400	1,000	57,150	2,250	17,462	0,688
15579 X/15520	25,987	1,023	57,150	2,250	17,462	0,688
15580/15520	26,988	1,063	57,150	2,250	17,462	0,688
16150/16284	38,100	1,500	72,238	2,844	20,638	0,813
17887/17831	45,230	1,781	79,985	3,149	19,842	0,781
18590/18520	41,275	1,625	73,025	2,875	16,667	0,656
18690/18620	46,038	1,813	79,375	3,125	17,462	0,688
18790/18720	50,800	2,000	85,000	3,347	17,462	0,688
19150/19268	38,100	1,500	68,262	2,688	15,875	0,625
21075/21212	19,050	0,750	53,975	2,125	22,225	0,875
23690/23620	34,925	1,375	73,025	2,875	26,988	1,063
24780/24720	41,275	1,625	76,200	3,000	22,225	0,875
24780/24721	41,275	1,625	76,200	3,000	25,400	1,000
24781/24720	41,275	1,625	76,200	3,000	22,225	0,875
24781/24721	41,275	1,625	76,200	3,000	25,400	1,000
25576/25520	42,862	1,688	82,931	3,265	23,812	0,938
25577/25520	42,875	1,688	82,931	3,265	23,812	0,938
25577/25521	42,875	1,688	83,058	3,270	23,812	0,938
25577/25522	42,875	1,688	83,058	3,270	23,876	0,940
25577/25523	42,875	1,688	82,931	3,265	26,988	1,063
25578/25520	42,862	1,688	82,931	3,265	23,812	0,938
25578/25521	42,862	1,688	83,058	3,270	23,812	0,938

REFERENCIAS REFERENCIAS	DIMENSIONS / DIMENSIONES					
	d		D		T	
	mm	inch	mm	inch	mm	inch
25578/25522	42,862	1,688	83,058	3,270	23,876	0,940
25578/25523	42,862	1,688	82,931	3,265	26,988	1,063
25580/25520	44,450	1,750	82,931	3,265	23,812	0,938
25580/25521	44,450	1,750	83,058	3,270	23,812	0,938
25580/25522	44,450	1,750	83,058	3,270	23,876	0,940
25580/25523	44,450	1,750	82,931	3,265	26,988	1,063
25581/25520	44,450	1,750	82,931	3,265	23,813	0,938
25584 A/25520	44,987	1,771	82,931	3,265	23,812	0,938
25584/25521	44,983	1,771	83,058	3,270	23,813	0,938
25584/ 25547 RB	44,983	1,771	99,995	3,937	25,400	1,000
25590/25520	45,618	1,796	82,931	3,265	23,812	0,938
25590/25521	45,618	1,796	83,058	3,270	23,812	0,938
25590/25522	45,618	1,796	83,058	3,270	23,876	0,940
25590/25523	45,618	1,796	82,931	3,265	26,988	1,063
25877/25820	34,925	1,375	73,025	2,875	23,812	0,938
25877/25821	34,925	1,375	73,025	2,875	23,812	0,938
25878/25820	34,925	1,375	73,025	2,875	23,812	0,938
25880/25820	36,487	1,437	73,025	2,875	23,812	0,938
25880/25821	36,487	1,437	73,025	2,875	23,812	0,938
JL 26749 F/ JL 26710	32,000	1,260	53,000	2,087	14,500	0,571
26882 T/26822	41,275	1,625	79,375	3,125	23,812	0,938
26882/26820	41,275	1,625	80,167	3,156	25,400	1,000
26882/26822	41,275	1,625	79,375	3,125	23,812	0,938
26884/26823	42,875	1,688	76,200	3,000	25,400	1,000
27680/27620	73,025	2,875	125,412	4,938	25,400	1,000
27687/27620	82,550	3,250	125,412	4,938	25,400	1,000
27690/27620	83,345	3,281	125,412	4,938	25,400	1,000
28137/28317	34,925	1,375	80,035	3,151	21,433	0,844
28579/28520	49,987	1,968	89,980	3,543	24,750	0,974
28580/28520	50,800	2,000	89,980	3,543	24,750	0,974
28580/28521	50,800	2,000	92,075	3,625	24,608	0,969
28580/ 28527 RB	50,800	2,000	99,995	3,937	24,607	0,969
28584/28521	52,388	2,063	92,075	3,625	24,608	0,969
28682/28621	57,150	2,250	96,838	3,813	24,608	0,969
28682/28622	57,150	2,250	97,630	3,844	24,608	0,969
28985/28920	60,325	2,375	101,600	4,000	25,400	1,000
28985/28921	60,325	2,375	100,000	3,937	25,400	1,000
29585/29520	63,500	2,500	107,950	4,250	25,400	1,000
29586/29520	63,500	2,500	107,950	4,250	25,400	1,000

REFERENCIAS REFERENCIAS	DIMENSIONS / DIMENSIONES					
	d		D		T	
	mm	inch	mm	inch	mm	inch
29586/29522	63,500	2,500	107,950	4,250	25,400	1,000
29590/29520	66,675	2,625	107,950	4,250	25,400	1,000
29590/29522	66,675	2,625	107,950	4,250	25,400	1,000
29675/29620	69,850	2,750	112,712	4,438	25,400	1,000
29685/29620	73,025	2,875	112,712	4,438	25,400	1,000
29688/29620	73,817	2,906	112,712	4,438	25,400	1,000
LM 29748/ LM 29710	38,100	1,500	65,088	2,563	18,034	0,710
LM 29748/ LM 29711	38,100	1,500	65,088	2,563	18,034	0,710
LM 29749/ LM 29710	38,100	1,500	65,088	2,563	18,034	0,710
LM 29749/ LM 29711	38,100	1,500	65,088	2,563	19,812	0,780
31593/31520	34,925	1,375	76,200	3,000	29,370	1,156
31594/31520	34,925	1,375	76,200	3,000	29,370	1,156
33262 A/33461	66,675	2,625	117,475	4,625	30,163	1,188
33262/33462	66,675	2,625	117,475	4,625	30,162	1,188
33275/33462	69,850	2,750	117,475	4,625	30,162	1,188
33275/33472	69,850	2,750	120,000	4,724	29,794	1,173
33281/33462	71,438	2,813	117,475	4,625	30,162	1,188
33281/33472	71,438	2,813	120,000	4,724	29,794	1,173
33287/33462	73,025	2,875	117,475	4,625	30,162	1,188
33287/33472	73,025	2,875	120,000	4,724	29,794	1,173
33885/33822	44,450	1,750	95,250	3,750	27,783	1,094
33889/33821	50,800	2,000	95,250	3,750	27,783	1,094
33889/33822	50,800	2,000	95,250	3,750	27,783	1,094
33891/33821	52,388	2,063	95,250	3,750	27,783	1,094
33895/33821	53,975	2,125	95,250	3,750	27,783	1,094
33895/33822	53,975	2,125	95,250	3,750	27,783	1,094
34300/34478	76,200	3,000	121,442	4,781	24,608	0,969
34300/34500	76,200	3,000	127,000	5,000	26,988	1,063
34301/34500	76,200	3,000	127,000	5,000	26,988	1,063
34306/34478	77,788	3,063	121,442	4,781	24,608	0,969
37425 T/ 37625 T	107,950	4,250	158,750	6,250	23,020	0,906
37425/37625	107,950	4,250	158,750	6,250	23,020	0,906
37431/37625	109,538	4,313	158,750	6,250	23,020	0,906
37431 A/37625	109,538	4,313	158,750	6,250	23,020	0,906
39250/39412	63,500	2,500	104,775	4,125	21,433	0,844
39580/39520	57,150	2,250	112,712	4,438	30,162	1,188
39580/39528	57,150	2,250	119,985	4,724	32,750	1,289
39581/39520	57,150	2,250	112,712	4,438	30,162	1,188

REFERENCIAS REFERENCIAS	DIMENSIONS / DIMENSIONES					
	d		D		T	
	mm	inch	mm	inch	mm	inch
39585/39520	63,500	2,500	112,712	4,438	30,162	1,188
39590/39520	66,675	2,625	112,712	4,438	30,162	1,188
41125/41286	26,988	1,063	72,626	2,859	24,608	0,969
42350/42584	88,900	3,500	148,430	5,844	28,575	1,125
42362/42584	92,075	3,625	148,430	5,844	28,575	1,125
42368/42584	93,662	3,688	148,430	5,844	28,575	1,125
42381/42584	96,838	3,813	148,430	5,844	28,575	1,125
42688/42620	76,200	3,000	127,000	5,000	30,162	1,188
44162/44348	41,275	1,625	88,500	3,484	25,400	1,000
L 44643/ L 44610	25,400	1,000	50,292	1,980	14,224	0,560
L 44643 RS/ L 44610	25,400	1,000	50,292	1,980	14,224	0,560
L 44645/ L 44613	25,987	1,023	51,986	2,047	15,011	0,591
L 44649/ L 44610	26,988	1,063	50,292	1,980	14,224	0,560
45284/45220	50,800	2,000	104,775	4,125	30,162	1,188
45285 A/45221	50,800	2,000	104,775	4,125	30,162	1,188
L 45449/ L 45410	29,000	1,142	50,292	1,980	14,224	0,560
47487/47420	69,850	2,750	120,000	4,724	32,545	1,281
47490/47420	71,438	2,813	120,000	4,724	32,545	1,281
47686/47620	82,550	3,250	133,350	5,250	33,338	1,313
47890/47820	92,075	3,625	146,050	5,750	33,338	1,313
48190/48120	107,950	4,250	161,925	6,375	34,925	1,375
48385/48320	133,350	5,250	190,500	7,500	39,687	1,563
LM 48548 RS/ LM 48510	34,925	1,375	65,088	2,563	18,034	0,710
LM 48548/ LM 48510	34,925	1,375	65,088	2,563	18,034	0,710
LM 48548/ LM 48514 XP	34,925	1,375	68,262	2,688	18,034	0,710
49162/49368	41,275	1,625	93,662	3,688	31,750	1,250
49175/49368	44,450	1,750	93,662	3,688	31,750	1,250
49585/49520	50,800	2,000	101,600	4,000	31,750	1,250
52400/52618	101,600	4,000	157,162	6,188	36,512	1,438
53176/53375	44,450	1,750	95,250	3,750	30,958	1,219
53177/53375	44,450	1,750	95,250	3,750	30,958	1,219
53178/53377	44,450	1,750	95,250	3,750	30,958	1,219
55175 C/55437	44,450	1,750	111,125	4,375	30,162	1,188
55187 C/55437	47,625	1,875	111,125	4,375	30,162	1,188
55200 C/55437	50,800	2,000	111,125	4,375	30,162	1,188
55206 C/55437	52,388	2,063	111,125	4,375	30,162	1,188

REFERENCIAS REFERENCIAS	DIMENSIONS / DIMENSIONES					
	d		D		T	
	mm	inch	mm	inch	mm	inch
56425/56650	107,950	4,250	165,100	6,500	36,512	1,438
59162/59412	41,275	1,625	104,775	4,125	36,512	1,438
64450/64700	114,300	4,500	177,800	7,000	41,275	1,625
65237/65500	60,325	2,375	127,000	5,000	44,450	1,750
66589/66520	59,972	2,361	122,238	4,813	33,338	1,313
LM 67048/ LM 67010	31,750	1,250	59,131	2,328	15,875	0,625
LM 67048/ LM 67010 BA	31,750	1,250	58,877	2,318	15,875	0,625
LM 67048/ LM 67014	31,750	1,250	61,986	2,440	15,875	0,625
LM 67048/ LM 67014 X	31,750	1,250	61,986	2,440	15,875	0,625
LM 67048 RS/ LM 67010	31,750	1,250	59,131	2,328	15,875	0,625
LM 67049 A/ LM 67014	31,750	1,250	61,986	2,440	15,875	0,625
LM 67049 AX/ LM 67010 X	31,750	1,250	59,131	2,328	15,875	0,625
LM 67049/ LM 67011	31,750	1,250	59,131	2,328	17,780	0,700
67391/67322	133,350	5,250	196,850	7,750	46,038	1,813
JL 68145/ JL 68111 Z	35,000	1,378	60,000	2,362	15,875	0,625
L 68149/L 68110	34,987	1,377	59,131	2,328	15,875	0,625
L 68149 R/ L 68110	34,987	1,377	59,131	2,328	15,875	0,625
L 68149/ L 68111	34,987	1,377	59,975	2,361	15,875	0,625
L 68149/ L 68116	34,987	1,377	65,088	2,563	15,875	0,625
68462/68712	117,475	4,625	180,975	7,125	34,925	1,375
JL 69345/ JL 69310	38,000	1,496	63,000	2,480	17,000	0,669
JL 69345/ JL 69310 Z	38,000	1,496	63,000	2,480	17,000	0,669
JL 69349/ JL 69310	38,000	1,496	63,000	2,480	17,000	0,669
69354/69630	89,992	3,543	160,096	6,303	30,124	1,186
72187/72487	47,625	1,875	123,825	4,875	36,512	1,438
72200 C/72487	50,800	2,000	123,825	4,875	36,512	1,438
72212/72487	53,975	2,125	123,825	4,875	36,512	1,438
74500/74850	127,000	5,000	215,900	8,500	47,625	1,875
78225 C/78551	57,150	2,250	140,030	5,513	36,513	1,438
LM 78349/ LM 78310 A	34,987	1,377	61,975	2,440	16,700	0,658

REFERENCIAS REFERENCIAS	DIMENSIONS / DIMENSIONES					
	d		D		T	
	mm	inch	mm	inch	mm	inch
HM 81649/ HM 81610	15,987	0,629	46,975	1,849	21,000	0,827
M 84249/ M 84210	25,400	1,000	59,530	2,344	23,368	0,920
M 84548/ M 84510	25,400	1,000	57,150	2,250	19,431	0,765
M 86647/ M 86610	26,988	1,063	64,292	2,531	21,433	0,844
M 86649/ M 86610	30,162	1,188	64,292	2,531	21,433	0,844
M 88043/ M 88010	30,162	1,188	68,262	2,688	22,225	0,875
M 88043/ M 88011	30,162	1,188	68,262	2,688	22,225	0,875
M 88046/ M 88010	31,750	1,250	68,262	2,688	22,225	0,875
M 88048/ M 88010	33,338	1,313	68,262	2,688	22,225	0,875
M 88048/ M 88011	33,338	1,313	68,262	2,688	22,225	0,875
JHM 88540/ JHM 88513	30,000	1,181	72,000	2,835	29,370	1,156
HM 88542/ HM 88510	31,750	1,250	73,025	2,875	29,370	1,156
HM 88547/ HM 88510	33,338	1,313	73,025	2,875	29,370	1,156
HM 88648/ HM 88610	35,717	1,406	72,233	2,844	25,400	1,000
HM 88649/ HM 88610	34,925	1,375	72,233	2,844	25,400	1,000
HM 89443/ HM 89410	33,338	1,313	76,200	3,000	29,370	1,156
HM 89446/ HM 89410	34,925	1,375	76,200	3,000	29,370	1,156
HM 89448/ HM 89410	36,512	1,438	76,200	3,000	29,370	1,156
HM 89449/ HM 89410	36,512	1,438	76,200	3,000	29,370	1,156
LM 102949/ LM 102910	45,242	1,781	73,431	2,891	19,558	0,770
LM 102949/ LM 102911	45,242	1,781	73,431	2,891	21,430	0,844
LM 104949/ JLM 104910	50,800	2,000	82,000	3,228	21,976	0,865
LM 104949/ LM 104911	50,800	2,000	82,550	3,250	21,590	0,850
LM 104949/ LM 104911 A	50,800	2,000	82,550	3,250	21,976	0,865
LM 104949/ LM 104912	50,800	2,000	82,931	3,265	21,590	0,850

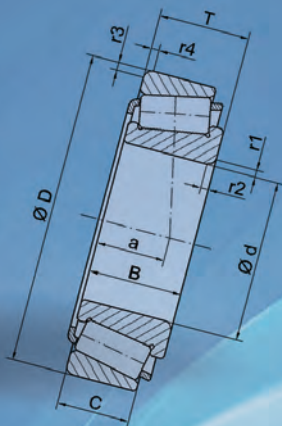
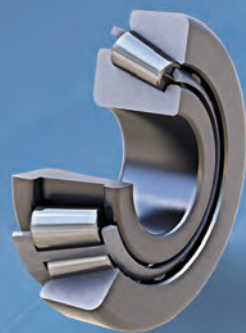
REFERENCIAS REFERENCIAS	DIMENSIONS / DIMENSIONES					
	d		D		T	
	mm	inch	mm	inch	mm	inch
JLM 104945/ JLM 104910	50,000	1,969	82,000	3,228	21,500	0,847
JLM 104946/ JLM 104910	50,000	1,969	82,000	3,228	21,500	0,847
JLM 104948/ JLM 104910	50,000	1,969	82,000	3,228	21,500	0,847
JLM 104948/ LM 104911	50,000	1,969	82,550	3,250	21,500	0,847
HM 204043/ HM 204010	39,987	1,574	90,975	3,582	32,000	1,260
JM 205149 A/ JM 205110	50,000	1,969	90,000	3,543	28,000	1,102
JM 205149/ JM 205110	50,000	1,969	90,000	3,543	28,000	1,102
JM 207049 A/ JM 207010	53,975	2,125	95,000	3,740	29,000	1,142
JM 207049/ JM 207010	53,975	2,125	95,000	3,740	29,000	1,142
JH 211749/ JH 211710	65,000	2,559	120,000	4,724	39,000	1,535
HM 212044/ HM 212011	60,325	2,375	122,238	4,813	38,100	1,500
HM 212047/ HM 212011	63,500	2,500	122,238	4,813	38,100	1,500
HM 212049/ HM 212010	66,675	2,625	122,238	4,813	38,100	1,500
HM 212049/ HM 212011	66,675	2,625	122,238	4,813	38,100	1,500
H 212749/ H 212710	65,987	2,598	123,975	4,881	41,500	1,634
HM 215249/ HM 215210	75,987	2,992	131,975	5,196	39,000	1,535
LL 217849/ LL 217810	88,900	3,500	121,442	4,781	15,083	0,594
HM 218248/ HM 218210	89,974	3,542	146,975	5,786	40,000	1,575
HM 220149/ HM 220110	99,975	3,936	156,975	6,180	42,000	1,654
LL 225749/ LL 225710	127,000	5,000	165,895	6,531	18,258	0,719
LM 300849/ LM 300811	40,987	1,614	67,975	2,676	17,500	0,689
L 319249/ L 319210	95,250	3,750	130,175	5,125	20,638	0,813
LL 319349/ LL 319310	95,250	3,750	128,587	5,063	15,875	0,625
LM 330448/ LM 330410	152,400	6,000	203,200	8,000	41,275	1,625
JH 415647/ JH 415610	75,000	2,953	145,000	5,709	51,000	2,008

REFERENCIAS REFERENCIAS	DIMENSIONS / DIMENSIONES					
	d		D		T	
	mm	inch	mm	inch	mm	inch
LM 501349/ LM 501310	41,275	1,625	73,431	2,891	19,558	0,770
LM 501349/ LM 501314	41,275	1,625	73,431	2,891	21,430	0,844
LM 503349/ LM 503310	45,987	1,811	74,976	2,952	18,000	0,709
LM 503349 A/ LM 503310	45,987	1,811	74,976	2,952	18,000	0,709
JLM 506849 A/ JLM 506811	53,975	2,125	90,000	3,543	25,000	0,984
JLM 506849/ JLM 506810	53,975	2,125	90,000	3,543	23,000	0,906
JLM 508748/ JLM 508710	60,000	2,362	95,000	3,740	24,000	0,945
JM 511945/ JM 511910	65,000	2,559	110,000	4,331	28,000	1,102
JM 511946/ JM 511910	65,000	2,559	110,000	4,331	28,000	1,102
JM 515649/ JM 515610	80,000	3,150	130,000	5,118	35,000	1,378
HM 516449 C/ HM 516410	82,550	3,250	133,350	5,250	39,688	1,563
JHM 516849/ JHM 516810	85,000	3,347	140,000	5,512	39,000	1,535
HM 518445/ HM 518410	88,900	3,500	152,400	6,000	39,688	1,563
L 521949/ L 521910	107,950	4,250	146,050	5,750	21,433	0,844
JHM 522649/ JHM 522610	110,000	4,331	180,000	7,087	47,000	1,850
LM 603049/ LM 603011	45,242	1,781	77,788	3,063	19,842	0,781
LM 603049/ LM 603012	45,242	1,781	77,788	3,063	21,430	0,844
LM 603049/ LM 603014	45,242	1,781	79,975	3,149	19,842	0,781
JM 612949/ JM 612910	70,000	2,756	115,000	4,528	29,000	1,142
L 623149/ L 623110	114,300	4,500	152,400	6,000	21,432	0,844
JLM 704649/ JLM 704610	50,000	1,969	84,000	3,307	22,000	0,866
JLM 710949 C/ JLM 710910	65,000	2,559	105,000	4,134	24,000	0,945
L 713049/ L 713010	69,850	2,750	101,600	4,000	19,050	0,750
JLM 714149/ JLM 714110	75,000	2,953	115,000	4,528	25,000	0,984
JM 714249/ JM 714210	75,000	2,953	120,000	4,724	31,000	1,221

REFERENCIAS REFERENCIAS	DIMENSIONS / DIMENSIONES					
	d		D		T	
	mm	inch	mm	inch	mm	inch
H 715332/ H 715311	60,325	2,375	136,525	5,375	46,038	1,813
H 715334/ H 715311	61,912	2,438	136,525	5,375	46,038	1,813
H 715336/ H 715311	63,500	2,500	136,525	5,375	46,038	1,813
H 715340/ H 715311	65,088	2,563	136,525	5,375	46,038	1,813
H 715341/ H 715311	66,675	2,625	136,525	5,375	46,038	1,813
H 715343/ H 715311	68,262	2,688	136,525	5,375	46,038	1,813
H 715345/ H 715311	71,438	2,813	136,525	5,375	46,038	1,813
JM 716649/ JM 716610	85,000	3,347	130,000	5,118	30,000	1,181
JM 718149 A/ JM 718110	90,000	3,543	145,000	5,709	35,000	1,378
JM 718149/ JM 718110	90,000	3,543	145,000	5,709	35,000	1,378
JM 719149/ JM 719113	95,000	3,740	150,000	5,906	35,000	1,378
JHM 720249/ JHM 720210	100,000	3,937	160,000	6,299	41,000	1,614
JM 720249/ JM 720210	100,000	3,937	155,000	6,102	36,000	1,417
HM 801346/ HM 801310	38,100	1,500	82,550	3,250	29,370	1,156
HM 801346 X/ HM 801310	38,100	1,500	82,550	3,250	29,370	1,156
M 802048/ M 802011	41,275	1,625	82,550	3,250	26,543	1,045
HM 803145/ HM 803110	41,275	1,625	88,900	3,500	30,163	1,188
HM 803146/ HM 803110	41,275	1,625	88,900	3,500	30,162	1,188
HM 803149/ HM 803110	44,450	1,750	88,900	3,500	30,162	1,188
HM 803149/ HM 803112	44,450	1,750	92,075	3,625	30,162	1,188
M 804048/ M 804010	47,625	1,875	88,900	3,500	25,400	1,000
M 804049/ M 804010	47,625	1,875	88,900	3,500	25,400	1,000
HM 804840/ HM804810	41,275	1,625	95,250	3,750	30,162	1,188
HM 804843/ HM 804810	44,450	1,750	95,250	3,750	30,162	1,188
HM 804846/ HM 804810	47,625	1,875	95,250	3,750	30,162	1,188

REFERENCES REFERENCIAS	DIMENSIONS / DIMENSIONES					
	d		D		T	
	mm	inch	mm	inch	mm	inch
LM 806649/ LM 806610	53,975	2,125	88,900	3,500	19,050	0,750
HM 807040/ HM 807010	44,450	1,750	104,775	4,125	36,512	1,438
HM 807044/ HM 807010	49,212	1,938	104,775	4,125	36,512	1,438
JHM 807045/ JHM 807012	50,000	1,969	105,000	4,134	37,000	1,457
HM 807046/ HM 807010	50,800	2,000	104,775	4,125	36,512	1,438
HM 807048/ HM 807010	54,487	2,145	104,775	4,125	36,512	1,438
HM 807049/ HM 807010	53,975	2,125	104,775	4,125	36,512	1,438
JLM 813049/ JLM 813010	70,000	2,756	110,000	4,331	26,000	1,024
HM 813840/ HM813811	55,562	2,188	127,000	5,000	36,512	1,438
HM 813841/ HM 813810	60,325	2,375	127,000	5,000	36,512	1,438
HM 813841/ HM 813811	60,325	2,375	127,000	5,000	36,512	1,438
HM 813842/ HM 813810	63,500	2,500	127,000	5,000	36,512	1,438
HM 813843/ HM 813810	61,912	2,438	127,000	5,000	36,512	1,438
HM 813849/ HM 813810	71,438	2,813	127,000	5,000	36,512	1,438

REFERENCES REFERENCIAS	DIMENSIONS / DIMENSIONES					
	d		D		T	
	mm	inch	mm	inch	mm	inch
HM 813849/ HM 813811	71,438	2,813	127,000	5,000	36,512	1,438
L 814749/ L 814710	76,200	3,000	109,538	4,313	19,050	0,750
JL 819349/ JL 819310	95,000	3,740	135,000	5,315	20,000	0,787
HM 903245/ HM 903210	41,275	1,625	95,250	3,750	30,958	1,219
HM 903249/ HM 903210	44,450	1,750	95,250	3,750	30,958	1,219
HM 905843/ HM 905810	44,987	1,771	104,986	4,133	32,512	1,280
L 910349/ L 910310	63,485	2,499	94,975	3,739	17,000	0,669
HM 911244/ HM 911210	59,987	2,362	130,175	5,125	34,100	1,343
HM 911244/ HM 911216	59,987	2,362	134,983	5,314	33,449	1,317
HM 911245/ HM 911210	60,325	2,375	130,175	5,125	36,512	1,438
H 913842/ H 913810	61,912	2,438	146,050	5,750	41,275	1,625
H 913843/ H 913810	61,912	2,438	146,050	5,750	41,275	1,625
H 913849/ H 913810	69,850	2,750	146,050	5,750	41,275	1,625
H 924033/ H 924010	101,600	4,000	214,312	8,438	55,562	2,188



### 1.3 Special design Serie especial

Fersa is capable of design, developing and manufacturing tapered roller bearings according to any client specifications (dimensions, tolerances, radii...). These are called special series bearings.

Fersa es capaz de diseñar, desarrollar y fabricar rodamientos de rodillos cónicos de acuerdo a cualquier especificación del cliente (dimensiones, tolerancias, radios...). Son los llamados rodamientos de series especiales.

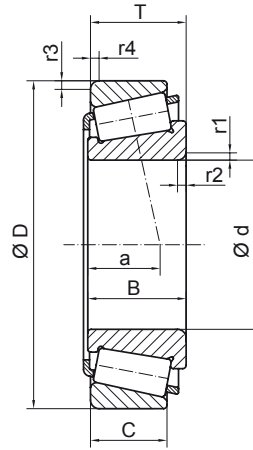
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#### Bearing Tables

#### Tablas de Rodamientos

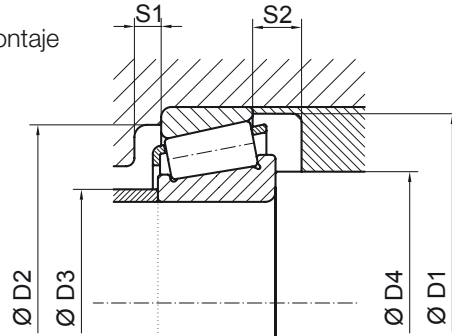
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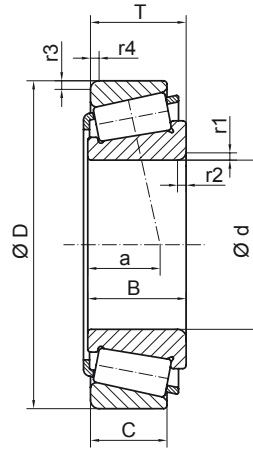
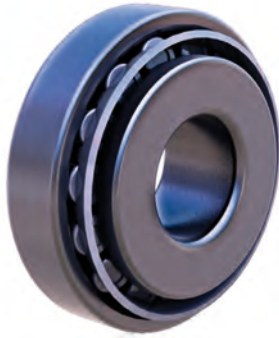


DIMENSIONS / DIMENSIONES													REFERENCES REFERENCIAS
d		D		T		B		C		r1/r2 min	r3/r4 min	a	
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch				
15,000	0,591	42,000	1,654	13,000	0,512	13,500	0,531	10,000	0,394	1,5	1,0	8,0	05-02-4911
22,000	0,866	41,000	1,614	14,500	0,571	14,600	0,575	11,400	0,449	1,0	1,0	10,0	F 15028
		47,000	1,850	20,750	0,817	19,500	0,768	12,000	0,472	ESP	1,5	9,8	F 15089
		47,000	1,850	20,800	0,819	20,750	0,817	11,500	0,453	ESP	1,0	9,2	F 15063
23,000	0,906	52,000	2,047	15,000	0,591	14,260	0,561	12,600	0,496	1,5	1,5	11,5	01-03-4016
25,000	0,984	62,000	2,441	18,250	0,719	17,000	0,669	14,000	0,551	0,5	2,0	16,2	F 15001
26,000	1,024	52,000	2,047	15,000	0,591	14,260	0,561	12,600	0,496	ESP	1,5	11,5	01-28-4016
28,000	1,102	52,000	2,047	15,750	0,620	18,500	0,728	12,000	0,472	3,5	1,5	13,0	F 15056/320-28 XF
		67,000	2,638	20,500	0,807	20,500	0,807	16,000	0,630	0,6	0,6	14,9	F 15023
29,000	1,142	50,292	1,980	14,224	0,560	17,500	0,689	10,668	0,420	2,5	1,3	10,9	F 15029/L 45410
30,000	1,181	72,000	2,835	20,750	0,817	19,000	0,748	14,000	0,551	0,5	2,0	18,4	F 15002
30,162	1,187	68,262	2,687	22,225	0,875	22,225	0,875	17,462	0,687	1,5	1,5	19,2	F 15079
34,925	1,375	73,025	2,875	26,988	1,063	26,975	1,062	20,000	0,787	3,5	1,5	20,2	F 15080
35,000	1,378	60,000	2,362	13,000	0,512	18,500	0,728	13,000	0,512	2,5	1,5	12,0	F 15040
		60,000	2,362	15,875	0,625	18,460	0,727	11,938	0,470	2,0	1,3	13,3	F 15036/JL 68111Z
		80,000	3,150	22,750	0,896	21,000	0,827	18,000	0,709	2,5	2,5	20,6	F 15014
38,100	1,500	65,088	2,563	18,034	0,710	21,139	0,832	13,970	0,550	ESP	1,3	13,6	F 15055/LM 29710
39,688	1,563	80,167	3,156	29,370	1,156	32,891	1,295	23,812	0,937	3,5	3,3	18,2	F 15109
40,000	1,575	72,000	2,835	22,500	0,886	22,000	0,866	17,700	0,697	0,6	0,3	15,5	F 15102
		90,000	3,543	28,750	1,132	39,000	1,535	22,500	0,886	ESP	ESP	26,6	F 15117
40,987	1,614	67,975	2,676	17,500	0,689	18,000	0,709	13,500	0,531	1,5	1,5	13,8	F 15003
42,000	1,654	76,000	2,992	23,812	0,937	27,500	1,083	19,750	0,778	2,0	0,8	16,2	F 15112
50,000	1,969	93,264	3,672	30,162	1,187	30,302	1,193	23,812	0,937	3,5	3,3	22,1	F 15054/3720
50,800	2,000	100,000	3,937	35,000	1,378	35,000	1,378	27,000	1,063	2,5	2,5	25,0	F 15047
57,165	2,251	140,000	5,512	28,250	1,112	26,150	1,030	22,000	0,866	0,8	0,5	28,0	F 15133
60,000	2,362	92,500	3,642	23,000	0,906	23,000	0,906	18,000	0,709	1,5	1,0	19,9	F 15007
		95,000	3,740	27,000	1,063	26,000	1,024	21,000	0,827	1,5	1,5	23,7	F 15088

Assembly / Montaje

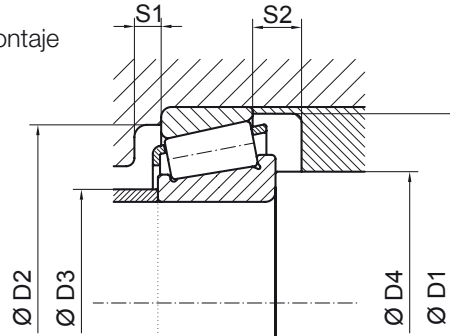


WEIGHT / PESO		ASSEMBLY / MONTAJE						LOAD / CARGA (kN)		LOAD FACTORS / FACTORES DE CARGA			SPEED / VELOCIDAD (rpm)		REFERENCES / REFERENCIAS	
								DYNAMIC / DINÁMICA	STATIC / ESTÁTICA	DYNAMICS / DINÁMICOS	STATICS / ESTÁTICOS	OIL / ACEITE	GREASE / GRASA			
kg	lb	D1min	D2min	D2max	D3max	D4min	S1	S2	C	Co	e	Y	Yo	na	ng	
0,11	0,24	37,0	34,5	38,0	18,0	17,5	2,0	3,0	23,0	23,6	0,40	1,49	0,82	13600	10100	05-02-4911
0,09	0,20	38,5	36,5	40,0	25,0	21,0	3,0	3,0	22,5	25,6	0,30	1,99	1,09	12700	9400	F 15028
0,15	0,33	44,5	41,0	43,0	27,0	17,0	2,5	8,5	32,5	33,8	0,34	1,74	0,95	11300	8400	F 15089
0,15	0,33	44,5	41,0	43,0	29,0	20,0	2,5	9,0	27,1	31,9	0,43	1,39	0,77	11100	8300	F 15063
0,15	0,33	48,0	44,0	46,5	28,0	28,5	2,5	2,4	29,9	31,6	0,40	1,49	0,82	10200	7600	
0,26	0,57	59,0	51,5	55,0	34,5	26,5	2,5	4,0	49,1	50,4	0,54	1,10	0,60	8600	6400	F 15001
0,13	0,29	48,0	44,0	46,5	30,0	26,0	2,5	2,4	30,8	32,5	0,40	1,49	0,82	9800	7300	01-28-4016
0,15	0,32	50,0	45,5	48,0	31,0	32,5	2,5	3,5	34,5	43,6	0,43	1,39	0,76	9600	7100	F 15056/320-28 XF
0,35	0,77	62,5	56,5	64,5	40,0	29,5	2,5	4,5	57,3	66,0	0,40	1,49	0,82	8100	6000	F 15023
0,12	0,26	47,5	45,0	45,0	34,0	37,0	2,5	3,6	29,7	38,2	0,37	1,62	0,89	9800	7300	F 15029/L 45410
0,38	0,83	67,0	59,5	65,0	39,0	31,5	2,5	6,5	66,3	66,8	0,54	1,10	0,60	7400	5500	F 15002
0,41	0,89	64,5	54,5	62,5	41,0	32,5	3,5	4,5	62,5	81,1	0,54	1,10	0,60	7600	5700	F 15079
0,51	1,12	68,5	56,5	67,5	43,0	39,0	3,5	6,5	70,5	92,2	0,54	1,10	0,60	7000	5200	F 15080
0,16	0,35	58,5	56,0	58,5	38,0	32,5	3,5	0,0	28,8	33,1	0,55	1,09	0,60	7900	5900	F 15040
0,19	0,41	56,5	52,5	55,0	40,5	38,0	3,5	3,5	38,7	51,6	0,42	1,44	0,79	8400	6200	F 15036/JL 68111Z
0,45	0,99	75,0	64,5	71,5	45,5	38,5	3,5	4,5	78,2	87,4	0,54	1,10	0,60	6500	4800	F 15014
0,24	0,53	61,5	58,0	60,0	44,5	40,5	3,5	4,0	47,1	62,2	0,33	1,80	0,99	7600	5600	F 15055/LM 29710
0,67	1,47	75,0	69,5	69,0	48,0	44,0	4,0	5,5	104,9	125,2	0,27	2,20	1,21	6600	4900	F 15109
0,48	1,06	69,0	64,0	70,0	46,5	41,5	3,5	4,5	74,8	97,7	0,33	1,80	0,99	7000	5200	F 15102
0,96	2,11	86,0	70,5	84,5	55,0	43,0	4,5	6,0	106,0	155,0	0,61	0,98	0,54	5700	4200	F 15117
0,25	0,54	64,0	60,5	62,5	47,0	4,0	4,5	4,0	48,3	65,4	0,35	1,72	0,94	7200	5300	F 15003
0,48	1,06	72,0	67,5	72,5	49,5	45,0	5,0	4,0	80,9	107,2	0,28	2,15	1,18	6700	4900	F 15112
0,84	1,85	87,5	80,0	82,0	60,5	54,5	4,5	6,0	110,3	146,5	0,33	1,77	0,97	5400	4000	F 15054/3720
1,18	2,60	96,5	85,0	94,5	62,5	54,5	4,5	8,0	150,9	207,3	0,40	1,50	0,83	5100	3800	F 15047
2,10	4,62	132,0	123,0	137,5	91,5	59,0	5,5	6,0	172,6	215,7	0,42	1,42	0,78	3900	2900	F 15133
0,50	1,10	89,5	83,0	88,5	66,0	62,5	5,5	5,0	92,0	140,0	0,38	1,55	0,85	5100	3800	F 15007
0,69	1,52	92,0	83,0	89,5	67,0	62,5	5,5	6,0	85,1	124,1	0,42	1,44	0,79	5000	3700	F 15088



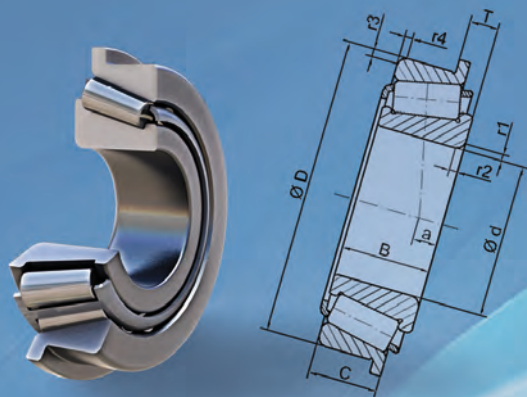
DIMENSIONS / DIMENSIONES													REFERENCES REFERENCIAS
d		D		T		B		C		r1/r2 min	r3/r4 min	a	
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch				
60,000	2,362	130,000	5,118	39,000	1,535	35,500	1,398	25,500	1,004	3,5	3,5	40,2	F 15046
61,913	2,438	110,000	4,331	22,000	0,866	21,996	0,866	18,824	0,741	2,5	1,3	21,1	F 10246/394 A
62,000	2,441	122,238	4,813	43,658	1,719	43,764	1,723	34,500	1,358	1,5	3,3	34,6	F 15008/ F 15009
65,000	2,559	145,000	5,709	36,000	1,417	32,950	1,297	23,000	0,906	3,5	3,5	28,1	F 15082
		145,000	5,709	39,500	1,555	36,450	1,435	26,500	1,043	2,7	2,7	38,5	F 15083
		150,000	5,906	38,000	1,496	35,000	1,378	30,000	1,181	2,0	0,7	29,9	F 15119
66,675	2,625	110,000	4,331	22,000	0,866	21,996	0,866	18,824	0,741	2,5	1,3	21,1	F 10247/394 A
68,263	2,688	115,000	4,528	30,162	1,187	30,163	1,188	23,500	0,925	5,0	2,0	26,8	F 10053
70,000	2,756	120,000	4,724	29,795	1,173	29,007	1,142	24,237	0,954	2,0	2,0	25,9	484/472 + Ring / Casquillo
		130,000	5,118	57,000	2,244	56,000	2,205	35,000	1,378	ESP	2,5	30,0	F 15051 C
		130,000	5,118	57,000	2,244	56,000	2,205	35,000	1,378	10,5	2,5	30,0	F 15051 R
		150,000	5,906	39,800	1,567	40,000	1,575	31,700	1,248	ESP	1,2	31,1	F 15116
		150,000	5,906	41,275	1,625	39,687	1,562	25,400	1,000	2,0	3,3	45,1	F 15114
75,000	2,953	160,000	6,299	58,000	2,283	55,000	2,165	40,000	1,575	3,5	3,5	52,3	F 15071
		180,000	7,087	63,500	2,500	60,000	2,362	45,000	1,772	3,5	3,5	58,2	F 15048
76,200	3,000	110,000	4,331	19,050	0,750	19,050	0,750	15,083	0,594	1,5	1,5	23,7	L 814749/F 15010
85,000	3,346	150,000	5,906	30,500	1,201	28,000	1,102	24,000	0,945	0,4	0,5	30,0	F 15104
88,000	3,465	140,000	5,512	32,000	1,260	32,000	1,260	24,000	0,945	2,5	2,5	30,0	F 15075
89,974	3,542	146,975	5,786	40,000	1,575	40,000	1,575	32,500	1,280	ESP	3,2	31,1	F 15115
105,000	4,134	170,000	6,693	38,000	1,496	38,000	1,496	29,000	1,142	3,0	3,0	36,0	F 15076

Assembly / Montaje



WEIGHT / PESO		ASSEMBLY / MONTAJE								LOAD / CARGA (kN)		LOAD FACTORS / FACTORES DE CARGA			SPEED / VELOCIDAD (rpm)		REFERENCES / REFERENCIAS
										DYNAMIC / DINÁMICA	STATIC / ESTÁTICA	DYNAMICS / DINÁMICOS	STATICS / ESTÁTICOS	OIL / ACEITE	GREASE / GRASA		
kg	lb	D1min	D2min	D2max	D3max	D4min	S1	S2	C	Co	e	Y	Yo	na	ng		
2,24	4,93	124,5	98,5	118,5	72,0	64,5	5,5	13,5	191,8	238,0	0,84	0,71	0,39	3700	2700	F 15046	
0,87	1,90	105,0	97,5	105,0	76,5	65,0	5,5	3,0	101,1	139,3	0,40	1,49	0,82	4500	3300	F 10246/394 A	
2,25	4,95	115,5	95,5	111,5	74,0	64,5	5,5	9,0	212,3	323,4	0,49	1,22	0,67	4100	3100	F 15008/ F 15009	
2,48	5,45	132,5	110,0	133,5	79,5	69,5	5,5	13,0	193,1	229,3	0,82	0,72	0,40	3300	2500	F 15082	
2,73	6,01	137,5	115,0	133,5	79,0	71,5	5,5	13,0	216,8	244,5	0,73	0,82	0,45	3400	2500	F 15083	
3,14	6,91	140,0	129,0	149,5	89,5	63,0	5,5	8,0	244,4	294,6	0,35	1,74	0,96	3600	2700	F 15119	
0,79	1,73	105,0	97,5	105,0	76,5	70,0	6,5	3,0	101,1	139,3	0,40	1,49	0,82	4400	3200	F 10247/394 A	
1,21	2,66	111,0	100,5	108,0	81,5	74,0	6,5	6,5	140,6	218,3	0,43	1,37	0,75	4200	3100	F 10053	
2,19	4,82	112,5	103,0	112,5	80,5	77,0	6,5	5,5	131,8	181,30	0,38	1,56	0,85	4100	3000	484/472 + Ring / Casquillo	
2,69	5,92	123,5	110,5	121,5	80,0	70,0	6,5	22,0	255,0	351,5	0,33	1,80	0,99	3900	2900	F 15051 C	
2,69	5,92	123,5	110,5	121,5	80,0	82,0	6,5	22,0	255,0	351,5	0,33	1,80	0,99	3900	2900	F 15051 R	
3,15	6,93	140,0	128,0	145,0	89,5	77,0	6,5	8,0	247,5	294,4	0,35	1,74	0,96	3500	2600	F 15116	
3,03	6,67	138,5	115,0	139,0	82,0	73,0	6,5	15,5	232,3	281,8	0,78	0,76	0,42	3200	2400	F 15114	
5,33	11,73	156,5	119,5	148,5	89,5	79,5	6,5	18,0	346,1	475,1	0,72	0,83	0,46	3000	2300	F 15071	
7,56	16,63	173,0	132,5	168,5	94,5	79,5	6,5	18,5	432,4	566,4	0,72	0,84	0,46	2800	2100	F 15048	
0,58	1,28	105,0	97,5	104,5	85,0	78,5	7,0	3,5	66,4	117,6	0,50	1,19	0,65	4100	3000	L 814749/F 15010	
2,05	4,51	141,0	130,5	146,5	98,0	87,0	7,0	6,5	199,1	254,5	0,42	1,43	0,79	3200	2400	F 15104	
1,78	3,92	134,0	12,0	134,5	100,0	91,5	8,0	8,0	187,1	302,4	0,42	1,41	0,78	3400	2500	F 15075	
2,48	5,46	140,5	129,0	136,0	100,5	94,0	8,0	7,5	245,9	369,4	0,33	1,80	0,99	3300	2400	F 15115	
3,25	7,15	163,0	150,0	162,5	122,5	109,0	9,0	9,0	251,2	427,3	0,43	1,38	0,76	2800	2000	F 15076	





## 1.4 Flange side bearings Rodamientos cónicos con valona

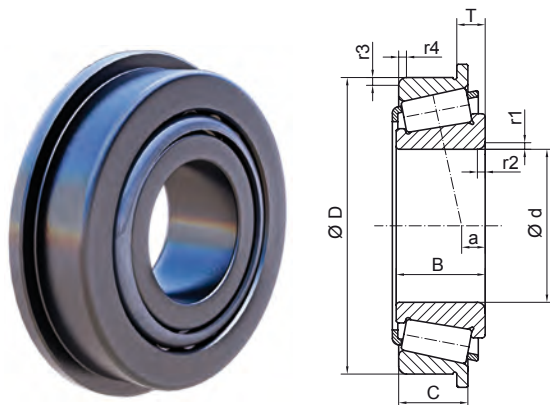
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Bearing Tables

Tablas de Rodamientos

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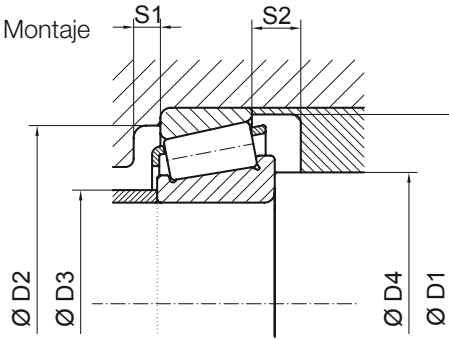
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DIMENSIONS / DIMENSIONES													REFERENCES REFERENCIAS
d		D		T		B		C		r1/r2 min	r3/r4 min	a	
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch				
21,986	0,866	45,000	1,772	15,600	0,614	16,637	0,655	12,065	0,475	1,30	ESP	5,30	F 15108
25,000	0,984	59,000	2,323	18,000	0,709	17,500	0,689	17,000	0,669	1,00	1,50	4,90	F 15090
30,162	1,187	68,262	2,687	22,225	0,875	22,225	0,875	17,463	0,688	2,30	1,50	3,00	M 88043/M 88010B
31,750	1,250	58,877	2,318	15,874	0,625	16,764	0,660	11,811	0,465	ESP	1,30	2,90	LM 67048/LM 67010 BA
		59,131	2,328	20,166	0,794	16,764	0,660	16,891	0,665	ESP	ESP	2,90	LM 67048 / LM 67010 BCE
40,000	1,575	80,000	3,150	19,750	0,778	18,000	0,709	16,000	0,630	2,00	2,00	3,30	30208 BF
		90,000	3,543	25,250	0,994	23,000	0,906	20,000	0,787	2,50	2,50	5,80	30308/30308 B
41,275	1,625	76,200	3,000	18,009	0,709	17,384	0,684	14,288	0,563	0,80	1,50	0,90	11163/11300 B
42,000	1,654	100,000	3,937	38,250	1,506	36,000	1,417	30,000	1,181	1,00	2,50	1,70	F 15026
45,000	1,772	90,000	3,543	32,000	1,260	29,370	1,156	29,000	1,142	4,00	2,50	4,67	JHM 803148/JHM 803113 B
50,000	1,969	90,000	3,543	21,750	0,856	20,000	0,787	17,000	0,669	2,00	2,00	2,20	30210 BF
50,800	2,000	104,775	4,125	36,512	1,437	36,512	1,437	28,575	1,125	3,50	3,50	7,70	HM 807046/HM 807010 BT
60,325	2,375	127,000	5,000	44,450	1,750	44,450	1,750	34,925	1,375	3,50	3,30	9,50	65237/65500 B
65,000	2,559	110,000	4,331	34,000	1,339	34,000	1,339	26,500	1,043	3,00	2,50	8,00	33113 B

DIMENSIONS / DIMENSIONES													REFERENCES REFERENCIAS
d		D		T		B		C		r1/r2 min	r3/r4 min	a	
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch				
77,000	3,031	127,990	5,039	30,600	1,205	25,000	0,984	29,997	1,181	5,0	-	0,5	L 29002/L 33492
		128,064	5,042	37,600	1,480	25,000	0,984	40,894	1,610	5,0	-	0,5	L 29002/L 29001

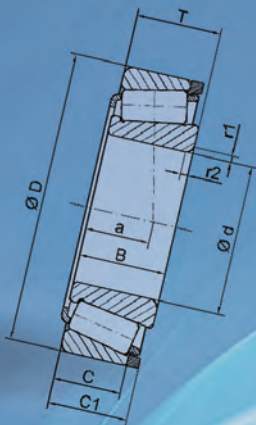
Assembly / Montaje



WEIGHT / PESOS		ASSEMBLY / MONTAJE						LOAD / CARGA (kN)		LOAD FACTORS/ FACTORES DE CARGA			REFERENCES REFERENCIAS
		DA		C1		T1		DYNAMIC / DINÁMICA	STATIC / ESTÁTICA	DYNAMICS / DINÁMICOS	STATICS / ESTÁTICOS		
kg	lb	mm	inch	mm	inch	mm	inch	C	Co	e	Y	Yo	
0,13	0,28	51,500	2,028	3,000	0,118	6,500	0,256	27,8	34,9	0,31	1,96	1,08	F 15108
0,26	0,57	65,830	2,592	3,000	0,118	4,100	0,161	52,9	55,1	0,37	1,62	0,89	F 15090
0,43	0,94	75,949	2,990	3,967	0,156	8,730	0,344	60,0	76,9	0,54	1,10	0,60	M 88043/M 88010B
0,18	0,39	61,600	2,425	2,770	0,109	6,833	0,269	39,3	47,5	0,41	1,45	0,80	LM 67048/LM 67010 BA
0,26	0,56	65,000	2,559	3,100	0,122	6,375	0,251	39,3	47,5	0,41	1,45	0,80	LM 67048 / LM 67010 BCE
0,44	0,96	85,000	3,346	4,000	0,157	7,750	0,305	71,8	80,7	0,37	1,60	0,88	30208 BF
0,75	1,64	96,000	3,780	5,000	0,197	10,250	0,404	99,1	110,5	0,34	1,74	0,95	30308/30308 B
0,35	0,76	80,863	3,184	3,571	0,141	7,292	0,287	54,0	68,7	0,48	1,23	0,67	11163/11300 B
1,43	3,14	106,000	4,173	7,000	0,276	15,250	0,600	140,5	166,9	0,34	1,74	0,95	F 15026
0,96	2,11	98,000	3,858	6,000	0,236	9,000	0,354	103,4	139,6	0,54	1,10	0,60	JHM 803148/JHM 803113 B
0,54	1,19	95,000	3,740	4,000	0,157	8,750	0,344	84,4	101,8	0,42	1,42	0,78	30210 BF
1,50	3,30	116,850	4,600	4,075	0,160	12,000	0,472	153,3	212,1	0,49	1,23	0,68	HM 807046/HM 807010 BT
2,77	6,09	134,041	5,277	7,145	0,281	16,670	0,656	221,5	287,2	0,48	1,23	0,67	65237/65500 B
1,37	3,01	116,000	4,567	5,500	0,217	13,000	0,512	150,5	232,0	0,39	1,54	0,85	33113 B

WEIGHT / PESO		LOAD / CARGA (kN)		LOAD FACTORS/ FACTORES DE CARGA			REFERENCES REFERENCIAS
		DYNAMIC / DINÁMICA	STATIC / ESTÁTICA	DYNAMICS / DINÁMICOS	STATICS / ESTÁTICOS		
kg	lb	C	Co	e	Y	Yo	
3,20	7,04	163,9	211,4	0,43	1,38	0,76	L 29002/L 33492
2,55	5,61	163,9	211,4	0,43	1,38	0,76	L 29002/L 29001





## 1.5 U-Type bearings

### Rodamientos cónicos tipo U

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#### Product Overview

##### Introducción

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Description / Descripción

Design / Diseño

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#### Bearing Tables

##### Tablas de Rodamientos

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## U-Type / Tipo U

### Description

Single row tapered roller bearings are usually mounted in bearing arrangements consisting of two single bearings, thus axial loads are withstood on each side.

U-type bearings constitute an exception, since they are self-contained and unitized assemblies that can manage heavy radial loads and thrust loads in either direction

### Design

The U-type bearings are compact and pre-adjusted units, enabling the following features:

- Taper inner ring with no flange in the back face.
- Taper outer ring.
- Roller grinded in both faces, contacting in inner and outer ring.
- Sheet steel cage.
- Outer washer linked to the outer ring that is fixed axially in the application.
- Multipurpose grease for life lubrication.

This bearing family is broadly used in axle applications for vehicles, as wheel bearings, where the available space becomes a system constraint. However, they are also well suited for transmission and general-use industry applications.

### Descripción

Los rodamientos de rodillos cónicos de una hilera suelen ser disposiciones de rodamientos que tienen dos rodamientos simples, por lo que soportan una carga axial en ambos lados.

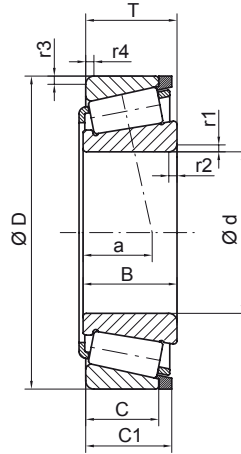
Los rodamientos tipo U son una excepción, ya que se pueden montar de manera individual y pueden soportar grandes cargas radiales y cargas de empuje en ambos sentidos.

### Diseño

Los rodamientos tipo U son compactos y pre-ajustados, y tienen las siguientes características:

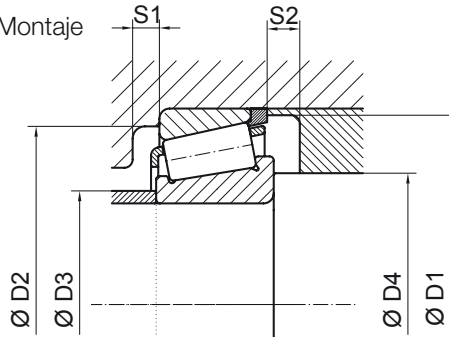
- Aro interior sin pestaña en la cara de atrás.
- Aro exterior.
- Rodillo rectificado en ambas caras, contactando en el aro exterior e interior.
- Jaula de acero.
- Arandela exterior vinculada al aro exterior y fijada axialmente en la aplicación.
- Grasa multifuncional para evitar relubricación.

Esta familia de rodamiento se usa generalmente en aplicaciones de eje para vehículos, como rodamientos de ruedas, cuando el espacio es limitado. Sin embargo, también son indicados para transmisiones y aplicaciones de usos industriales generales.



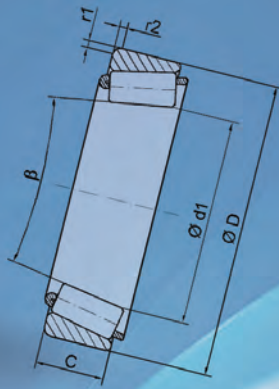
DIMENSIONS / DIMENSIONES												REFERENCES REFERENCIAS		
d		D		T		B		C		C1		r1/r2 min	r3/r4 min	
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch			
<b>34,987</b>	<b>1,377</b>	64,975	2,558	18,100	0,713	20,600	0,811	14,000	0,551	17,000	0,669	2,3	1,3	<b>U 298/U 261 L</b>
<b>39,688</b>	<b>1,563</b>	73,025	2,875	19,395	0,764	22,098	0,870	15,265	0,601	18,500	0,728	2,3	1,3	<b>U 399/U 360 L</b>
		79,967	3,148	19,395	0,764	22,098	0,870	15,265	0,601	20,091	0,791	2,3	1,3	<b>U 399/U 365 L</b>
<b>44,987</b>	<b>1,771</b>	79,975	3,149	24,000	0,945	26,000	1,024	18,000	0,709	22,000	0,866	2,3	1,3	<b>U 497/U 460 L</b>
		79,975	3,149	24,000	0,945	26,000	1,024	18,000	0,709	22,000	0,866	2,3	1,3	<b>U 499/U 460 L</b>

Assembly / Montaje



WEIGHT / PESO		ASSEMBLY / MONTAJE						LOAD / CARGA (kN)		LOAD FACTORS / FACTORES DE CARGA			REFERENCES / REFERENCIAS
								DYNAMIC / DINÁMICA	STATIC / ESTÁTICA	DYNAMICS / DINÁMICOS	STATICS / ESTÁTICOS		
kg	lb	D1min	D2min	D3max	D4min	r max	s1 min	C	Co	e	Y	Yo	
0,257	0,565	60,000	59,500	39,500	40,500	2,3	2,0	49,2	58,2	0,32	1,88	1,04	U 298/U 261 L
0,357	0,785	68,000	67,500	44,500	46,000	2,3	2,0	57,6	72,6	0,32	1,88	1,04	U 399/U 360 L
0,431	0,948	68,000	67,500	44,500	46,000	2,3	2,0	57,6	72,6	0,32	1,88	1,04	U 399/U 365 L
0,478	1,052	74,500	74,500	50,000	52,000	2,3	2,5	76,5	92,0	0,32	1,88	1,04	U 497/U 460 L
0,478	1,052	74,500	74,500	50,000	52,000	2,3	2,5	76,5	92,0	0,32	1,88	1,04	U 499/U 460 L





## 1.6 Steering tapered roller bearings Rodamientos de dirección

### Description

The set are design in according with one cup and one cage with the rollers where the angle of the rollers should respect the angle of the cup.

### Descripción

Este tipo de rodamientos se componen de un aro exterior y un conjunto interior compuesto por una jaula complementada con rodillos. Su aplicación principal son las columnas de dirección.

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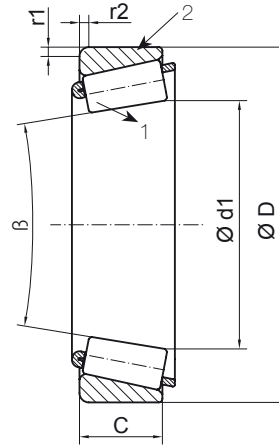
### Bearing Tables

### Tablas de Rodamientos

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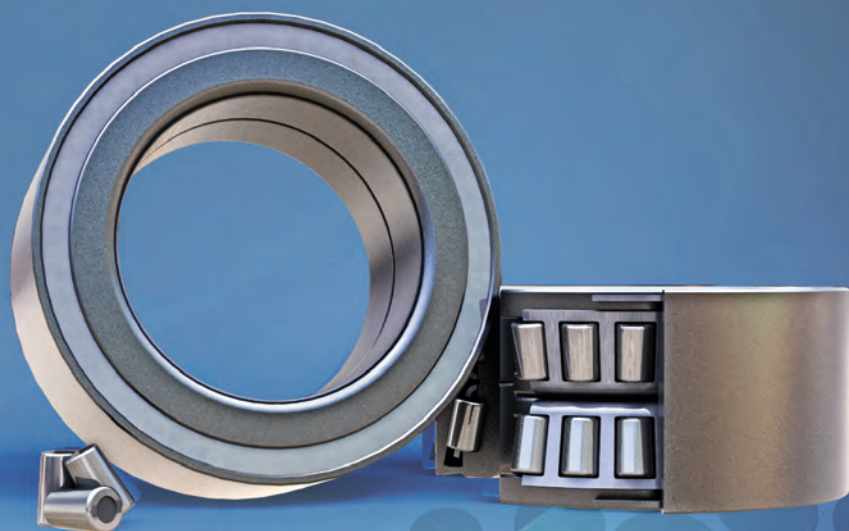
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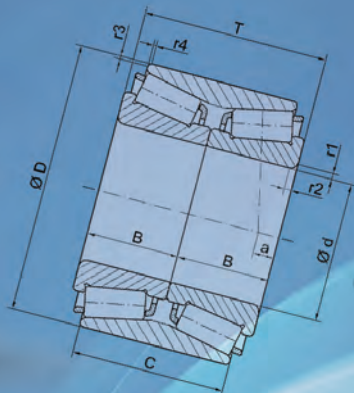




DIMENSIONS / DIMENSIONES								REFERENCES	POSITION	WEIGHT / PESO	
d1		D		C		r1/r2 min	$\beta$	REFERENCIAS	POSICIÓN	kg	lb
mm	inch	mm	inch	mm	inch			REFERENCIAS			
*		44,450	1,750	9,525	0,375	1,5	*	<b>6</b>	2	0,036	0,079
*		49,146	1,935	19,050	0,750	Esp.	*	<b>6 CE</b>	2	0,128	0,282
*		49,225	1,938	11,509	0,453	1,5	*	<b>13 C</b>	2	0,055	0,121
*		57,092	2,248	17,094	0,673	2,0	*	<b>14 XS</b>	2	0,173	0,381
<b>28,313</b>	<b>1,115</b>	*	*	*	*	*	25° 24'	<b>5 BC</b>	1	0,022	0,048
<b>33,297</b>	<b>1,311</b>	*	*	*	*	*	29° 58'	<b>11 BC</b>	1	0,030	0,066
<b>43,655</b>	<b>1,719</b>	*	*	*	*	*	31° 52'	<b>35 BC</b>	1	0,062	0,136

## 02/ Double row tapered roller bearings Rodamientos cónicos de doble hilera





## 02 Double row tapered roller bearings Rodamientos cónicos de doble hilera

### Product Overview

<b>Introducción</b>	<b>176</b>
Description / Descripción	176
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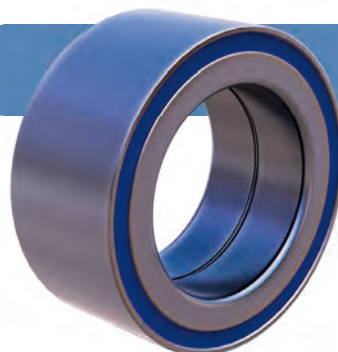
### Bearing Features

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Load rating / Cargas	179

### Bearing Tables

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## Product overview / Introducción



### Description

Double row tapered roller bearings can accommodate high radial loads as well as high axial loads, in both directions. They provide stiff bearing arrangements and are suitable for bearings arrangements where rigid axial guidance is required.

Advantages:

- Universal application.
- High radial and axial load carrying capacity in both direction.
- Space-saving construction.
- Defined clearance.
- Lubricated for life.

Double row tapered roller bearings as well as other Fersa bearings are designed to comply with the highest working standards, since bearing counts on totality of production process that enables us to offer highest quality bearings for European and worldwide automotive market.

### Design

Double row tapered roller bearings are units with robust inner and outer rings, rollers and plastic or steel cages.

They correspond to a pair of single row tapered roller bearing in "O" arrangement, but take up less space.

### Descripción

Los rodamientos de rodillos cónicos de doble hilera pueden soportar grandes cargas radiales y axiales en ambos sentidos. Permiten disposiciones de rodamientos rígidos, y son indicados para disposiciones de rodamientos donde se requiere una guía axial rígida.

Ventajas:

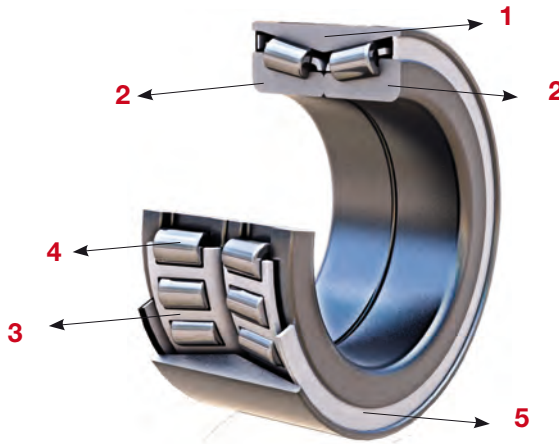
- Aplicaciones universales.
- Alta capacidad de carga radial y axial en ambos sentidos.
- Construcción para ahorrar espacio.
- Lubricados para la vida del rodamiento.

Los rodamientos de rodillos cónicos de doble hilera, así como otros rodamientos de FER-SA Bearings están diseñados para soportar condiciones extremas de trabajo, siendo los rodamientos utilizados por principales fabricantes del mercado del automóvil europeo y mundial.

### Diseño

Los rodamientos de rodillos cónicos de doble hilera son unidades con aros interiores y exteriores robustos, rodillos y jaulas de acero o plástico.

Corresponden a un par de rodamientos de rodillos cónicos de una hilera en disposición "O", pero ocupan menos espacio.



- 1 Outer Ring
- 2 Inner Ring
- 3 Cage
- 4 Roller
- 5 Seal

- 1 Aro exterior
- 2 Aro interior
- 3 Jaula
- 4 Rodillo
- 5 Retén

These bearings have approximately a 25° contact angle and are available in open and sealed designs. Sealed bearings are lubricated for life, are maintenance-free and permit particularly bearings arrangements.

Double row tapered roller bearings units with tapered rollers as rolling elements are adjusted for high axle load and acceleration and they are constructed with lubrication for life and defined preload.

Double row tapered roller bearings from Fersa are special bearings and belong to series F15000.

Estos rodamientos tienen un ángulo de contacto aproximado de 25° y están disponibles con o sin retenes. Los rodamientos con reten están lubricados para toda la vida del rodamiento, no requieren mantenimiento y permiten disposiciones particulares de rodamientos.

Los rodamientos de rodillos cónicos de doble hilera son unidades con rodillos cónicos como elementos de rotación y están ajustados para una carga axial grande y para la aceleración; están fabricados con una lubricación de por vida y para una carga determinada.

Los rodamientos cónicos de doble hilera de Fersa son rodamientos especiales y pertenecen a la serie F15000.

## Bearing features / Características del rodamiento

### Bearing tolerances

Double row tapered roller bearings are produced according to normal tolerances. The values for tolerances correspond to ISO 492:2002.

### Tolerancia del rodamiento

Los rodamientos de rodillos cónicos de doble hilera se fabrican según las tolerancias normales. Los valores corresponden a la Normativa ISO 492:2002.

## Normal tolerances for radial bearings / Tolerancias para rodamientos radiales normales

Bore diameter / Diámetro interior

d		$\Delta_{dmp}$		$V_{Dp}$	$V_{dmp}$	$\Delta Bs$		$K_{ia}$	$\Delta_{ts}$	
over	incl	high	low	max	max	high	low	max	high	low
mm		$\mu m$		$\mu m$	$\mu m$	$\mu m$		$\mu m$	$\mu m$	
10	18	0	-12	12	9	0	-120	15	100	0
18	30	0	-12	12	9	0	-120	18	100	0
30	50	0	-12	12	9	0	-120	20	100	0
50	80	0	-15	15	11	0	-150	25	100	0
80	120	0	-20	20	15	0	-200	30	100	-100
120	180	0	-25	25	19	0	-250	35	150	-150
180	250	0	-30	30	23	0	-300	50	150	-150

Double row tapered roller bearings can also be produced with non-standard tolerances, according to their specific application.

### Misalignment

Inaccuracies in the alignment of bearing locations must be taken into account. Misalignment arises when housing bores are not machined in one set. Angular misalignment of inner ring and outer ring axes are caused by larger shaft deflections and housing deformations.

Tapered roller bearings have a small aligning capability. The cross-shape of the rollers and raceways means the material stressing in rolling contact areas is still so uniform that, with the aligning angle indicated, the nominal life is not affected.

Any other misalignment of the bearing rings will result in a higher noise during operation.

### Internal clearance

Bearing clearance is the measurement by which one bearing ring can be displaced in relation to the other in radial or axial direction from one end position to the other.

Internal clearance for non standard double row tapered roller bearings is normally defined according to application. Depending on the application the internal clearance could be between 30 and 200  $\mu m$ .

Los rodamientos de rodillos cónicos también se pueden fabricar con tolerancias especiales, de acuerdo con la aplicación específica.

### Desalineación

Las imprecisiones de alineación de la posición del rodamiento deben tenerse en cuenta. La desalineación ocurre cuando los calibres de las jaulas no están mecanizados en un conjunto. La desalineación angular de los ejes del aro interior y exterior se debe a desviaciones de ejes mayores y a las deformaciones de las cajas.

Los rodamientos de rodillos cónicos tienen una capacidad de desalineación pequeña. La forma en cruz de los rodillos y de las pistas de rodadura implica que el material tensor en las áreas de rotación de contacto se mantiene tan uniforme, que con el ángulo de alineación indicado, la vida útil del rodamiento no se verá afectada.

Cualquier otra desalineación del rodamiento resultará en un aumento del ruido durante su funcionamiento.

### Juego Interno

El juego del rodamiento es la distancia a través de la cual un rodamiento puede desplazarse en relación al otro en el sentido axial o radial desde la posición en un extremo al otro.

El juego interno para los rodamientos de rodillos cónicos de doble hilera fuera del estándar se define de acuerdo a la aplicación. Dependiendo

Variables as fitting tolerances and mounting torque during assembly are essential to assure that the bearing will reach optimum performance under operation.

Double row tapered roller bearings usually have an axial internal clearance which is appropriate to a specific application. However, bearing components must be mounted in the prescribed order.

## Speed

The maximum operating speed of double row tapered roller bearings may be limited by several criteria. Most frequently, the decisive criteria is the operating temperature, which rises with increasing speed. Other criteria for permissible operating speed may be an unreliable lubricant supply of rolling and sliding contact areas due to strong centrifugal forces or greatly changed rolling kinematics of the rolling elements.

## Cages

Double row tapered roller bearings are fitted with two injection molded snap-type cages of glass fibre reinforced polyamide 66 which are heat-stabilized. They are suitable for operating temperatures of up to 120°C.

They can also be fitted with cages from stamped steel DC03.

## Equivalent dynamic bearing load

$$P = F_r + Y_1 F_a \quad \text{cuando } F_a/F_r \leq e$$

$$P = 0,67 F_r + Y_2 F_a \quad \text{cuando } F_a/F_r > e$$

$P$  = equivalent dynamic bearing load [N]

$F_r$  = radial dynamic bearing load [N]

$F_a$  = axial dynamic bearing load [N]

## Equivalent static bearing load

$$P_0 = F_r + Y_0 F_a$$

$P_0$  = equivalent static bearing load [N]

$F_r$  = radial static bearing load [N]

$F_a$  = axial static bearing load [N]

de la aplicación el juego interno puede estar entre 30 and 200  $\mu\text{m}$ .

Variables como tolerancias de ajuste y torsión de montaje son esenciales para asegurar que el rodamiento funcionará al máximo cuando este operativo.

Los rodamientos de rodillos cónicos suelen tener un juego axial interno adecuado a una aplicación específica. Sin embargo los componentes de los rodamientos deben montarse en el orden prescrito.

## Velocidad

La velocidad máxima operativa de los rodamientos de rodillos cónicos de doble hilera se puede ver limitada por varios criterios. Por regla general el criterio decisivo es la temperatura funcional, que aumenta con la velocidad. Otros criterios de velocidad pueden ser una cantidad de lubricante de rotación y de deslizamiento incierta debido a importantes fuerzas centrífugas o cambios importantes de rotación de viscosidad cinemática de los elementos de rotación.

## Jaulas

Los rodamientos de rodillos cónicos se ajustan con dos jaulas de poliamida 66 reforzada de fibra de vidrio moldeada por inyección, y están estabilizados con calor. Son indicadas para ser utilizados en temperaturas de hasta 120°C.

También pueden ser ajustadas con jaulas de chapa de acero DC03.

## Carga dinámica equivalente de rodamiento

$$P = F_r + Y_1 F_a \quad \text{cuando } F_a/F_r \leq e$$

$$P = 0,67 F_r + Y_2 F_a \quad \text{cuando } F_a/F_r > e$$

$P$  = carga dinámica equivalente de rodamiento [N]

$F_r$  = carga radial dinámica de rodamiento [N]

$F_a$  = carga axial dinámica de rodamiento [N]

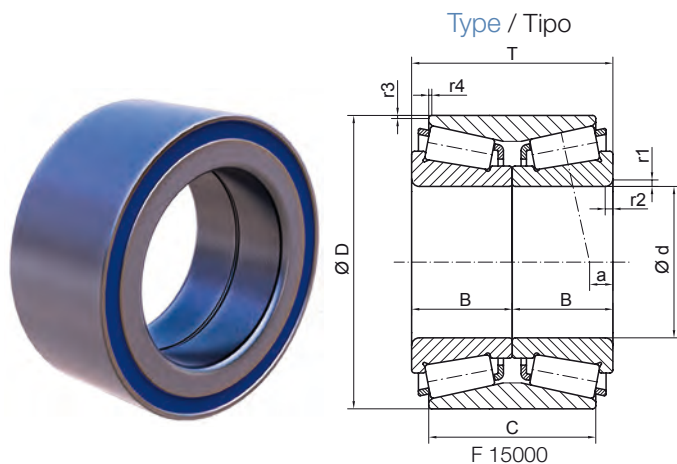
## Carga estática equivalente de rodamiento

$$P_0 = F_r + Y_0 F_a$$

$P_0$  = carga estática equivalente de rodamiento [N]

$F_r$  = carga radial estática de rodamiento [N]

$F_a$  = carga axial estática de rodamiento [N]

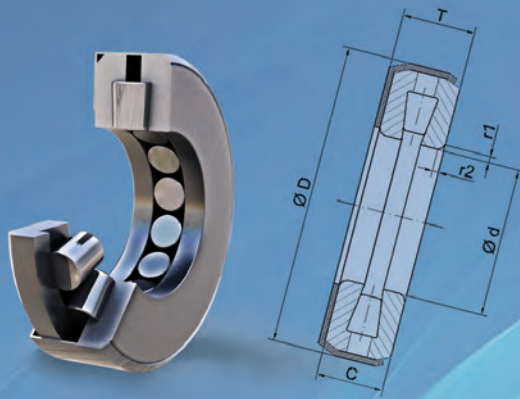


DIMENSIONS / DIMENSIONES											REFERENCES / REFERENCIAS	
d		D		T		B		C		r1 min	r2 min	
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch			
25,000	0,984	52,000	2,047	37,000	1,457	18,500	0,728	37,000	1,457	2,0	0,3	F 15041
		52,000	2,047	37,000	1,457	18,500	0,728	37,000	1,457	2,0	0,3	F 15050
		52,000	2,047	43,000	1,693	18,500	0,728	43,000	1,693	0,6	0,3	F 15042
		55,000	2,165	43,000	1,693	21,500	0,846	43,000	1,693	0,6	0,3	F 15043
27,000	1,063	52,000	2,047	50,000	1,969	25,000	0,984	45,000	1,772	3,2	0,6	F 15151
		53,000	2,087	43,000	1,693	21,500	0,846	43,000	1,693	2,0	0,3	F 15128
29,000	1,142	53,000	2,087	37,000	1,457	18,500	0,728	37,000	1,457	2,5	1,0	F 15067
35,000	1,378	65,000	2,559	35,000	1,378	17,500	0,689	35,000	1,378	1,8	0,3	F 15044
39,000	1,535	68,000	2,677	37,000	1,457	18,500	0,728	37,000	1,457	3,8	0,3	F 15045
40,000	1,575	75,000	2,953	50,000	1,969	25,000	0,984	50,000	1,969	5,0	0,5	F 15129
41,000	1,614	68,000	2,677	40,000	1,575	20,000	0,787	35,000	1,378	3,2	0,8	F 15015
42,000	1,654	80,000	3,150	38,000	1,496	19,000	0,748	38,000	1,496	1,5	0,5	F 15130
49,000	1,929	84,000	3,307	48,000	1,890	24,000	0,945	48,000	1,890	2,8	0,5	F 15068
55,000	2,165	90,000	3,543	52,000	2,047	26,000	1,024	41,000	1,614	1,5	0,5	F 15024
		93,000	3,661	51,000	2,008	23,000	0,906	40,000	1,575	2,0	0,8	F 15062
		100,000	3,937	52,388	2,063	21,946	0,864	42,862	1,687	2,3	0,8	385 / 384 D
70,000	2,756	120,000	4,724	60,000	2,362	29,950	1,179	60,000	2,362	2,0	0,2	F 15030

WEIGHT / PESOS		LOAD / CARGA (kN)		LOAD FACTORS/ FACTORES DE CARGA						REFERENCES
		DYNAMIC / DINÁMICA	STATIC / ESTÁTICA	DYNAMICS / DINÁMICOS			STATICS / ESTÁTICOS			REFERENCIAS
kg	lb	C	Co	e	Xk	Yk	X	Y	Yo	
0,363	0,799	64,9	86,0	0,37	1,00	1,80	0,67	2,68	1,76	<b>F 15041</b>
0,363	0,799	64,9	86,0	0,37	1,00	1,80	0,67	2,68	1,76	<b>F 15050</b>
0,410	0,902	64,9	86,0	0,37	1,00	1,80	0,67	2,68	1,76	<b>F 15042</b>
0,495	1,089	79,6	106,8	0,37	1,00	1,80	0,67	2,68	1,76	<b>F 15043</b>
0,500	1,100	58,6	81,8	0,42	1,00	1,61	0,67	2,44	1,58	<b>F 15151</b>
0,405	0,891	54,5	81,6	0,37	1,00	1,80	0,67	2,68	1,76	<b>F 15128</b>
0,345	0,759	49,0	69,2	0,37	1,00	1,83	0,67	2,72	1,79	<b>F 15067</b>
0,508	1,118	72,2	95,0	0,43	1,00	1,57	0,67	2,33	1,53	<b>F 15044</b>
0,522	1,148	69,1	103,7	0,47	1,00	1,43	0,67	2,13	1,40	<b>F 15045</b>
0,950	2,090	98,5	151,4	0,49	1,00	1,38	0,67	2,06	1,36	<b>F 15129</b>
0,500	1,100	81,7	128,5	0,35	1,00	1,93	0,67	2,88	1,89	<b>F 15015</b>
0,830	1,826	104,2	142,6	0,37	1,00	1,47	0,67	2,19	1,44	<b>F 15130</b>
1,040	2,288	114,5	183,8	0,46	1,00	1,47	0,67	2,19	1,44	<b>F 15068</b>
1,215	2,673	155,2	265,0	0,40	1,00	1,65	0,67	2,46	1,62	<b>F 15024</b>
1,310	2,882	155,0	267,5	0,40	1,00	1,66	0,67	2,47	1,62	<b>F 15062</b>
1,470	3,234	149,0	218,0	0,35	1,00	1,91	0,67	2,84	1,86	<b>385 / 384 D</b>
2,804	6,169	198,8	360,8	0,43	1,00	1,55	0,67	2,31	1,51	<b>F 15030</b>

# 03/ Thrust Tapered Roller Bearings Rodamientos Axiales Cónicos





### 03. Thrust tapered roller bearings

#### Rodamientos axiales de rodillos cónicos

#### Product Overview

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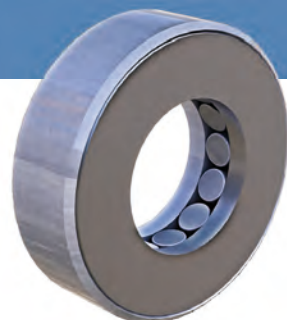
#### Bearing Features

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## Product overview / Introducción



### Description

Tapered roller thrust bearings, also known as T type bearings, enable axially very compact bearing arrangements to be produced, which can withstand very heavy axial loads, these bearings are insensitive to shock and stiff.

Fersa Bearings produces three types of tapered roller thrust bearings:

- Type A class, intended for low speed and thrust loads.
- Type B class, intended for applications where full rotation is not required.
- Type C class, designed for high thrust loads and high speeds.

### Design

In the design of T-type bearings, the extensions of the raceways and rollers converge at a common point at the bearing center, to ensure a true rolling movement.

The Type A bearings has the following features:

- Two thrust-race rings.
- Full complement of rollers, short length and big angle.
- Sheet-steel retainer.
- Retainer holds the components during the handling and assembly in the application.
- Multipurpose grease for life lubrication.

### Descripción

Los rodamientos axiales de rodillos cónicos, también conocidos como Rodamientos tipo T, permiten disposiciones axiales muy compactas, capaces de soportar cargas axiales grandes. Son rodamientos muy rígidos e insensibles al impacto.

Fersa Bearings produce tres tipos de rodamientos axiales de rodillos cónicos:

- Clase tipo A, para una velocidad baja y cargas de empuje.
- Clase tipo B, para aplicaciones donde no se requiere una rotación completa.
- Clase tipo C, diseñados para cargas grandes de empuje y para velocidades altas.

### Diseño

En el diseño del rodamiento tipo T, las extensiones de las pistas y rodillos convergen en un punto común en el centro del rodamiento, para asegurar un movimiento real de rodadura.

El rodamiento tipo A tiene las siguientes características:

- Dos aros con pistas axiales.
- Conjunto de rodillos, de medida corta y ángulo grande.
- Tapa de acero o chapa.
- La tapa mantiene unidos los componentes durante el manejo y el montaje en la aplicación.
- Grasa que evita relubricación multifuncional.



The Type A bearings are well suited for applications with oscillating motion, very low speed and heavily loaded.

The Type B bearings are determined by:

- Two thrust-race rings.
- Set of rollers, short length and small angle.
- Cage.
- Sheet-steel retainer.
- Retainer holds the components during the handling and assembly in the application.
- Multipurpose grease for life lubrication.

The Type B bearings are massively applied on automotive steering pivots and industrial applications where incomplete rotation happens.

The Type C bearings are defined by:

- Two thrust-race rings.
- Set of rollers, longer than both TTC and TTSP types.
- Cage.
- Separable design.
- Multipurpose grease for life lubrication.

The Type C bearings are basically adequate for industrial applications, where high axial loads and heavy shock must be resisted.

Los rodamientos tipo A están indicados para aplicaciones de movimiento oscilante, velocidad muy baja y con mucha carga.

Los rodamientos tipo B tienen las siguientes características:

- Dos aros con pistas axiales.
- Un conjunto de rodillos, de longitud corta y pequeño ángulo.
- Jaula.
- Tapa de acero-chapa.
- La tapa mantiene unido los componentes durante el manejo y el montaje en la aplicación.
- Grasa multifuncional que evita relubricación.

Los rodamientos tipo B se aplican de manera general en aplicaciones de pivote de dirección de automoción y aplicaciones industriales donde se produce una rotación incompleta.

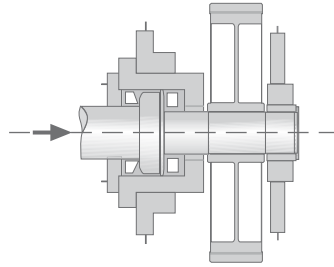
Las características de los rodamientos tipo C son:

- Dos aros con pistas axiales.
- Un conjunto de rodillos, más largos que los tipos A y B.
- Jaula.
- Diseño separable.
- Grasa multifuncional que evita relubricación.

Los rodamientos tipo C son indicados para aplicaciones sobre todo industriales, donde se deben soportar grandes cargas axiales y fuertes impactos.

Examples of those applications are boring mill tables and plastic extruder drive.

Ejemplos de esas aplicaciones son mesas de perforación y extrusoras de plástico.



## Bearing features / Características del rodamiento

### Tolerances

The bore and outside diameter of Fersa tapered roller thrust bearings type A are produced with the following tolerances:

### Tolerancias

Los diámetros interior y exterior de los rodamientos axiales de rodillos cónicos tipo A de Fersa. Se fabrican con las siguientes tolerancias:

### Normal tolerances for thrust bearings / Tolerancias normales para rodamientos axiales

Bore diameter / Diámetro interior

d		$\Delta_{dmp}$	
over	incl	high	low
mm		$\mu\text{m}$	
-	25,400	76	-76
25,400	76,200	102	-102
76,200	-	127	-127

Outer diameter/ Diámetro exterior

d		$\Delta_{dmp}$	
over	incl	high	low
mm		$\mu\text{m}$	
-	127	254	0
127,000	203,200	381	0
203,200	-	508	0

Bearing width /

Anchura de rodamiento

d		$\Delta T_s$	
over	incl	high	low
mm		$\mu\text{m}$	
-	76,200	254	0
76,200	127,000	381	0
127,000	-	508	0

For types B and C tolerances are according to class 2, as follows:

Para tipos B y C las tolerancias son según la clase 2, como se detalla a continuación:

Bore diameter / Diámetro interior

d		$\Delta_{bs}$ Class 2		Class 3	
over	incl	high	low	high	low
mm		$\mu\text{m}$		$\mu\text{m}$	
-	304,800	25	0	13	0
304,800	609,600	51	0	25	0
609,600	914,400	76	0	38	0

Outer diameter/ Diámetro exterior

d		$\Delta_{dmp}$ Class 2		Class 3	
over	incl	high	low	high	low
mm		$\mu\text{m}$		$\mu\text{m}$	
-	304,800	25	0	13	0
304,800	609,600	51	0	25	0
609,600	914,400	76	0	38	0

Bore diameter / Diámetro interior

d		$\Delta T_s$			
		Class 2		Class 3	
over	incl	high	low	high	low
mm		$\mu\text{m}$		$\mu\text{m}$	
-	76,200	381	-381	203	-203
76,200	127,000	381	-381	203	-203
127,000	-	381	-381	203	-203

To achieve satisfactory operation, tapered thrust bearings, must always be subjected to a given minimum load, particularly if they are to operate at high speeds or are subjected to high accelerations or rapid changes in the direction of load.

### Misalignment

No misalignment is allowable with these bearings.

### Cages

Thrust taper roller bearings not featuring full complement of rollers are supplied with:

- Steel pressed window-type cage.

### Equivalent dynamic bearing load

For single direction tapered roller thrust bearings which are subjected to purely axial dynamic loads:

$$P = F_a$$

### Equivalent static bearing load

Thrust roller bearings with  $\alpha=90^\circ$  can support axial loads only. The static equivalent axial load for this type or bearing is given by the equation:

$$P_{0a} = F_a$$

Para lograr un funcionamiento satisfactorio, los rodamientos axiales de rodillos cónicos, deben estar siempre sometidos a una cierta carga mínima, sobre todo si deben de funcionar a velocidades altas, están sometidos a aceleraciones altas o cambios rápidos en el sentido de la carga.

### Desalineación

No se permite la desalineación en estos rodamientos.

### Jaulas

Los rodamientos axiales de rodillos cónicos que lo requieren se suministran con:

- Jaulas estampadas de acero con diseño de ventana.

### Carga dinámica equivalente de rodamiento

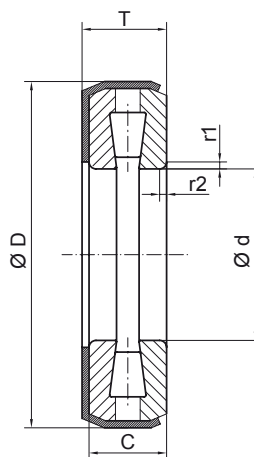
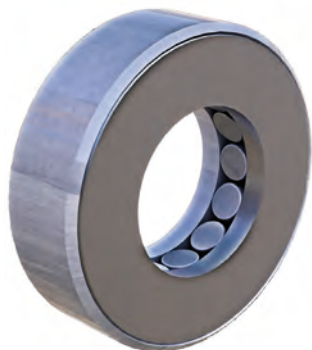
Para rodamientos axiales de rodillo cónico de una dirección que están sometidos a una carga dinámica axial pura:

$$P = F_a$$

### Carga estática equivalente de rodamiento

Los rodamientos axiales de rodillos cónicos con  $\alpha= 90^\circ$  son exclusivamente para carga axial. La carga estática equivalente para este tipo de rodamiento viene dada por la ecuación:

$$P_{0a} = F_a$$



DIMENSIONS / DIMENSIONES

d		D		T		r1 min
mm	inch	mm	inch	mm	inch	
24,054	0,947	48,021	1,891	15,088	0,594	0,8
25,654	1,010	50,800	2,000	15,875	0,625	0,8
28,829	1,135	55,562	2,187	15,875	0,625	0,8
30,416	1,197	55,562	2,187	15,875	0,625	0,8
32,004	1,260	55,562	2,187	15,875	0,625	0,8
35,179	1,385	58,738	2,313	15,875	0,625	0,8
		66,675	2,625	19,446	0,766	0,8
36,754	1,447	66,675	2,625	19,446	0,766	1,5
38,303	1,508	65,883	2,594	19,431	0,765	0,8
38,354	1,510	72,619	2,859	20,638	0,813	0,8
41,529	1,635	72,619	2,859	21,430	0,844	0,8
		72,619	2,859	21,433	0,844	0,8
45,000	1,772	73,000	2,874	20,000	0,787	0,8
46,279	1,822	82,956	3,266	23,812	0,937	0,8
50,800	2,000	109,538	4,313	22,225	0,875	2,0
		109,538	4,313	22,225	0,875	2,0
51,054	2,010	74,612	2,937	15,875	0,625	0,8

REFERENCES REFERENCIAS	TYPE TIPO	WEIGHT / PESOS		LOAD / CARGA (kN)	
				DYNAMIC DINÁMICA	STATIC ESTÁTICA
		kg	lb	C	Co
T 94	B	0,110	0,242	55,0	88,9
T 101	B	0,130	0,286	59,5	99,0
T 113	B	0,145	0,319	63,6	109,6
T 119	B	0,140	0,308	63,2	109,7
T 126	B	0,140	0,308	63,3	109,8
T 139	B	0,145	0,319	67,5	120,2
T 138	A	0,290	0,638	129,7	286,4
T 144	A	0,270	0,594	128,8	285,5
T 149	B	0,240	0,528	80,7	139,4
T 152	A	0,350	0,770	144,3	318,4
T 163	A	0,350	0,770	137,8	308,5
T 151	A	0,365	0,803	144,3	318,4
T 177	A	0,320	0,704	145,8	317,5
T 182	A	0,495	1,089	195,3	441,8
T 200	C	0,965	2,123	196,8	322,0
T 200 A	C	1,050	2,310	280,0	806,0
T 199	B	0,200	0,440	62,2	126,6