

32304

Single row tapered roller bearing

Single row tapered roller bearings are designed to accommodate combined radial and axial loads and provide low friction during operation. The inner ring, with rollers and cage, can be mounted separately from the outer ring. These separable and interchangeable components facilitate mounting, dismounting and maintenance. By mounting one single row tapered roller bearing against another and applying a preload, a rigid bearing application can be achieved.

- High radial and axial load carrying capacity
- Accommodate axial loads in one direction
- Low friction and long service life
- Separable and interchangeable components

Overview

Dimensions

Bore diameter	20 mm
Contact angle	11.31 °
Outside diameter	52 mm
Width, inner ring	21 mm
Width, outer ring	18 mm
Width, total	22.25 mm

Performance

Basic dynamic load rating	54.3 kN
Basic static load rating	45.5 kN
Limiting speed	14 000 r/min
Reference speed	11 000 r/min
SKF performance class	SKF Explorer

Properties

Arrangement of contact angle (double-row bearing)	Not applicable
Bearing part	Complete bearing
Bore type	Cylindrical
Cage	Sheet metal
Coating	Without
Locating feature, bearing outer ring	None
Lubricant	None
Matched arrangement	No
Number of rows	1
Relubrication feature	Without
Sealing	Without
Sealing type	Not applicable

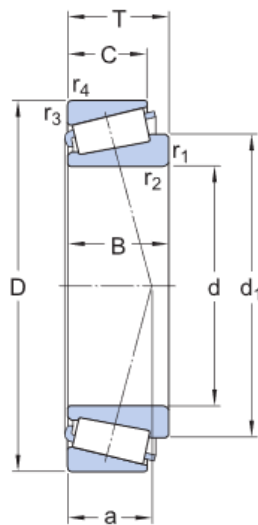
Technical Specification

SKF performance class

SKF Explorer

Dimension series

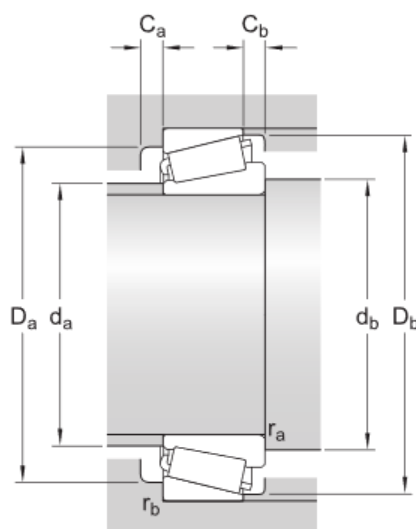
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Dimensions

d	20 mm	Bore diameter
D	52 mm	Outside diameter
T	22.25 mm	Total width
d ₁	≈ 34.6 mm	Shoulder diameter of inner ring
B	21 mm	Width of inner ring
C	18 mm	Width of outer ring
r _{1,2}	min. 1.5 mm	Chamfer dimension of inner ring
r _{3,4}	min. 1.5 mm	Chamfer dimension of outer ring
a	13.618 mm	Distance side face to pressure point

Abutment dimensions



d _a	max. 27 mm	Diameter of shaft abutment
d _t	min. 27.5 mm	Diameter of shaft abutment
D _i	min. 43 mm	Diameter of housing abutment
D _e	max. 45.5 mm	Diameter of housing abutment
D _j	min. 47 mm	Diameter of housing abutment
C _e	min. 3 mm	Minimum width of space required in housing on large side face
C _t	min. 4 mm	Minimum width of space required in housing on small side face
r _a	max. 1.5 mm	Radius of shaft fillet

r_b max. 1.5
mm

Radius of housing fillet

Calculation data

Basic dynamic load rating	C	54.3 kN
Basic static load rating	C_0	45.5 kN
Fatigue load limit	P_u	5 kN
Reference speed		11 000 r/min
Limiting speed		14 000 r/min
Limiting value	e	0.3
Axial load factor	Y	2
Axial load factor	Y_0	1.1

Mass

Mass		0.23 kg
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