

30208

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	40 mm
Contact angle	14.036 °
Outside diameter	80 mm
Width, inner ring	18 mm
Width, outer ring	16 mm
Width, total	19.75 mm

Performance

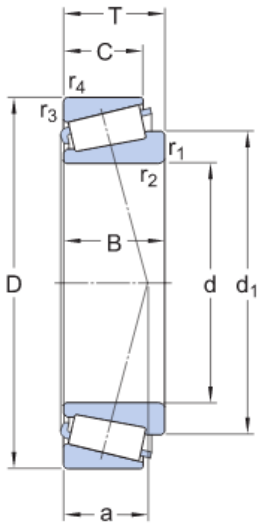
Basic dynamic load rating	75.8 kN
Basic static load rating	68 kN
Limiting speed	8 500 r/min
Reference speed	7 000 r/min
SKF performance class	SKF Explorer

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

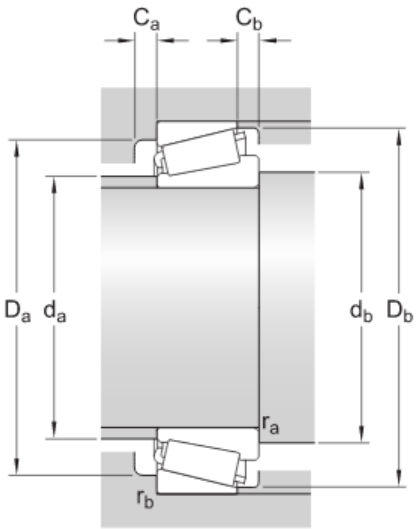
Technical Specification

SKF performance class	SKF Explorer
Dimension series	3DB



Dimensions

d	40 mm	Bore diameter
D	80 mm	Outside diameter
T	19.75 mm	Total width
d_1	≈ 57.55 mm	Shoulder diameter of inner ring
B	18 mm	Width of inner ring
C	16 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	16.05 mm	Distance side face to pressure point



Abutment dimensions

d_a	max. 49 mm	Diameter of shaft abutment
d_b	min. 48.5 mm	Diameter of shaft abutment
D_a	min. 69 mm	Diameter of housing abutment
D_a	max. 72.5 mm	Diameter of housing abutment
D_b	min. 74 mm	Diameter of housing abutment
C_a	min. 3 mm	Minimum width of space required in housing on large side face
C_b	min. 3.5 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	75.8 kN
Basic static load rating	C_0	68 kN
Fatigue load limit	P_u	7.65 kN
Reference speed		7 000 r/min
Limiting speed		8 500 r/min
Limiting value	e	0.37
Axial load factor	Y	1.6
Axial load factor	Y_0	0.9

Mass

Mass	0.42 kg

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