



Image may differ from product. See technical specification for details.

## 22209 EK

### Spherical roller bearing with tapered bore and relubrication features

Spherical roller bearings can accommodate heavy loads in both directions. They are self-aligning and accommodate misalignment and shaft deflections, with virtually no increase in friction or temperature. The design includes features to facilitate relubrication. The bearings can be used in a modular system, including housings, sleeves and nuts.

- Accommodate misalignment
- High load carrying capacity
- Relubrication features
- Low friction and long service life
- Increased wear resistance

## Overview

### Dimensions

Bore diameter	45 mm
Outside diameter	85 mm
Width	23 mm

### Performance

Basic dynamic load rating	104 kN
Basic static load rating	100 kN
Reference speed	7 500 r/min
Limiting speed	10 000 r/min
SKF performance class	SKF Explorer

### Properties

Number of rows	2
Locating feature, bearing outer ring	Without
Bore type	Tapered 1:12
Cage	Sheet metal
Radial internal clearance	CN
Tolerance class for dimensions	Normal
Tolerance class for run-out	P5
Sealing	Without
Lubricant	None
Relubrication feature	With

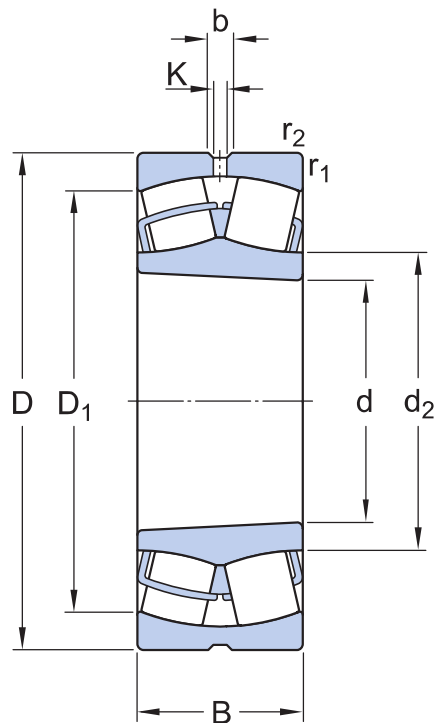
### Logistics

Product net weight	0.552 kg
eClass code	23-05-09-11
UNSPSC code	31171510

## Technical specification

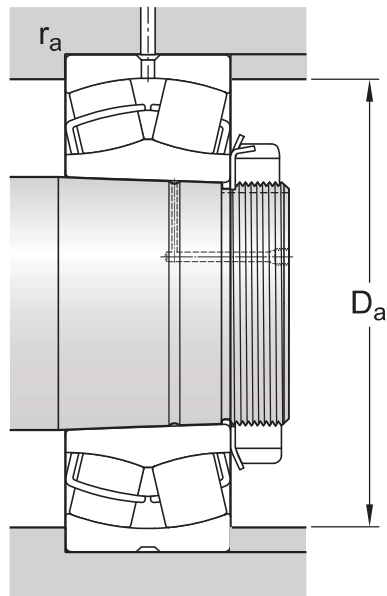
Bore type

Tapered 1:12



## Dimensions

d	45 mm	Bore diameter
D	85 mm	Outside diameter
B	23 mm	Width
d <sub>2</sub>	≈ 54.4 mm	Shoulder diameter of inner ring
D <sub>1</sub>	≈ 74.4 mm	Shoulder/recess diameter of outer ring
b	5.5 mm	Width of lubrication groove
K	3 mm	Diameter of lubrication hole
r <sub>1,2</sub>	min. 1.1 mm	Chamfer dimension



## Abutment dimensions

$D_a$	max. 78 mm	Diameter of housing abutment
$r_a$	max. 1 mm	Radius of fillet

## Calculation data

SKF performance class		SKF Explorer
Basic dynamic load rating	C	104 kN
Basic static load rating	$C_0$	100 kN
Fatigue load limit	$P_u$	10.8 kN
Reference speed		7 500 r/min
Limiting speed		10 000 r/min
Limiting value	e	0.26
Calculation factor	$Y_1$	2.6
Calculation factor	$Y_2$	3.9
Calculation factor	$Y_0$	2.5

## Mounting information

Recommended tightening angle for lock nut	$\alpha$	130 °
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## Tolerance class

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Dimensional tolerances	Normal
Radial run-out	P5

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## Tolerances and clearances

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### GENERAL BEARING SPECIFICATIONS

- **Tolerances:** Normal, P6, P5, tapered bore 1:12, tapered bore 1:30
- **Radial internal clearance:** cylindrical bore, tapered bore

## BEARING INTERFACES




- [Seat tolerances for standard conditions](#)
- [Tolerances and resultant fit](#)

## Compatible products

### Recommended product

Withdrawal sleeve, basic design, ISO standards	<a href="#">AH 309</a>
Adapter sleeve with KM lock nut and MB lock washer, metric dimensions	<a href="#">H 309</a>
Adapter sleeve with KMFE lock nut, metric dimensions	<a href="#">H 309 E</a>
Adapter sleeve with KM lock nut and MB lock washer, metric dimensions with inch bore	<a href="#">HA 309</a>
Adapter sleeve	<a href="#">HA 309 E</a>
Adapter sleeve with KM lock nut and MB lock washer, metric dimensions with inch bore	<a href="#">HE 309</a>
Adapter sleeve	<a href="#">HE 309 E</a>
Adapter sleeve with AN or N lock nut and W lock washer, inch dimensions	<a href="#">SNW 9X1.7/16</a>

## More Information

 <b>Product details</b>	 <b>Engineering information</b>	 <b>Tools</b>
<a href="#">Designs and variants</a>		<a href="#">SimPro Quick</a>
<a href="#">General bearing specifications</a>	<a href="#">Principles of rolling bearing selection</a>	<a href="#">SKF Product select - Select and evaluate bearing</a>
<a href="#">Loads</a>	<a href="#">General bearing knowledge</a>	<a href="#">SKF Product select - Combine housing with bearing</a>
<a href="#">Temperature limits</a>	<a href="#">Bearing selection process</a>	<a href="#">LubeSelect for SKF greases</a>
<a href="#">Permissible speed</a>	<a href="#">Bearing failure and how to prevent it</a>	<a href="#">Drive-up Method Program</a>
<a href="#">Design considerations</a>		<a href="#">Heater selection tool</a>
<a href="#">Mounting</a>		<a href="#">Oil Injection Method Program</a>
<a href="#">Designation system</a>		<a href="#">Tool and Accessory Selector for sleeves and shafts</a>





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