



Image may differ from product. See specification for details.

## 22356 CC/W33

### Spherical roller bearing with 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	11.0236 in
Outside diameter	22.8346 in
Width	6.8898 in

### Performance

Basic dynamic load rating	934 756 lbf
Basic static load rating	1 169 007 lbf
Reference speed	800 r/min
Limiting speed	1 100 r/min
SKF performance class	SKF Explorer

### Properties

Number of rows	2
Locating feature, bearing outer ring	Without
Bore type	Cylindrical
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
Candidate for remanufacturing	Yes
Indicative carbon footprint for new product	1 743 lb CO <sub>2e</sub>
Indicative carbon footprint for remanufactured product	610 lb CO <sub>2e</sub>

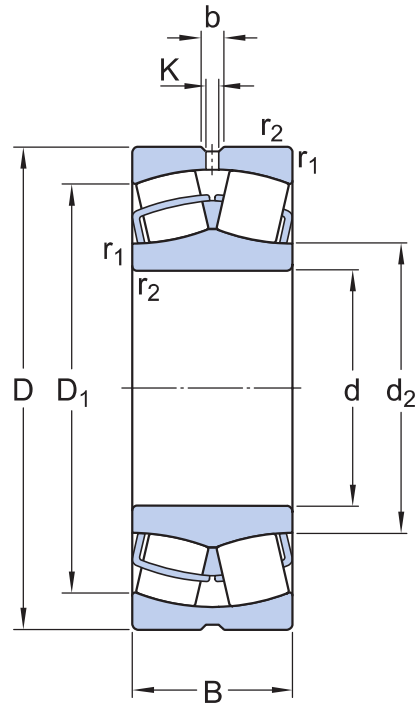
### Logistics

Product net weight	484 lb
eClass code	23-05-09-11
UNSPSC code	31171510

## Technical specification

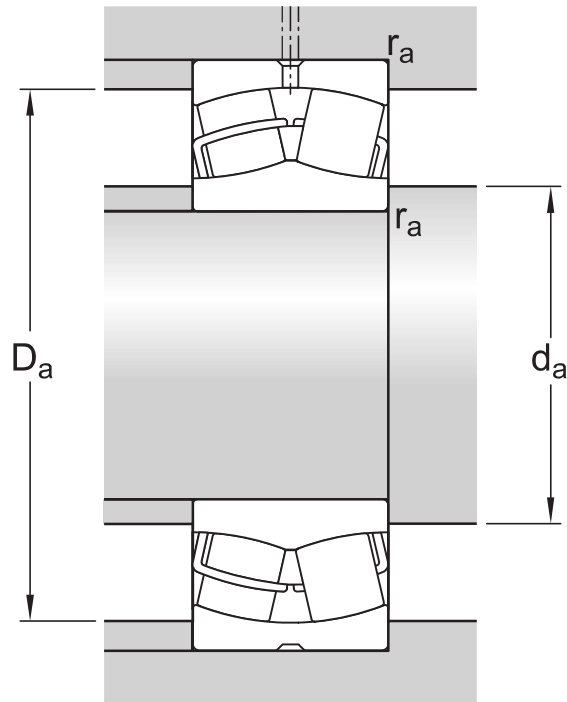
Bore type

Cylindrical



## Dimensions

d	11.0236 in	Bore diameter
$t_{\Delta dmp}$	-35 – 0 $\mu\text{m}$	Deviation limits of mid-range bore diameter
D	22.8346 in	Outside diameter
$t_{\Delta Dmp}$	-50 – 0 $\mu\text{m}$	Deviation limits of mid-range outside diameter
B	6.8898 in	Width
$t_{\Delta Bs}$	-100 – 0 $\mu\text{m}$	Deviation limits of ring width
$d_2$	$\approx 13.937$ in	Shoulder diameter of inner ring
$D_1$	$\approx 19.3701$ in	Shoulder/recess diameter of outer ring
b	0.878 in	Width of lubrication groove
K	0.4724 in	Diameter of lubrication hole
$r_{1,2}$	min. 0.2362 in	Chamfer dimension
	Normal	ISO tolerance class for dimensions



## Abutment dimensions

$d_a$	min. 12.0472 in	Diameter of shaft abutment
$D_a$	max. 21.811 in	Diameter of housing abutment
$r_a$	max. 0.1969 in	Radius of fillet

## Calculation data

SKF performance class		SKF Explorer
Basic dynamic load rating	C	934 756 lbf
Basic static load rating	$C_0$	1 169 007 lbf
Fatigue load limit	$P_u$	82 055 lbf
Reference speed		800 r/min
Limiting speed		1 100 r/min
Limiting value	e	0.3
Calculation factor	$Y_1$	2.3
Calculation factor	$Y_2$	3.4
Calculation factor	$Y_0$	2.2

## Tolerances of run-out

Range of section height at inner ring of assembled bearing	$t_{Kia}$	13 $\mu\text{m}$
Maximum run-out of inner ring side face to the bore	$t_{Sd}$	13 $\mu\text{m}$
Range of section height at outer ring of assembled bearing	$t_{Kea}$	25 $\mu\text{m}$
Perpendicularity of outer ring outside surface	$t_{SD}$	9 $\mu\text{m}$
ISO tolerance class for geometrical tolerances		P5

## Radial internal clearance

Minimum initial clearance	0.0067 in
Maximum initial clearance	0.0102 in

## Tolerances and clearances

### 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



## More Information

Product details	Engineering information	Tools
<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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