



Image may differ from product. See specification for details.

23144 CCK/W33

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	8.6614 in
Outside diameter	14.5669 in
Width	4.7244 in

Performance

Basic dynamic load rating	424 439 lbf
Basic static load rating	618 225 lbf
Reference speed	1 300 r/min
Limiting speed	1 700 r/min
SKF performance class	SKF Explorer

Properties

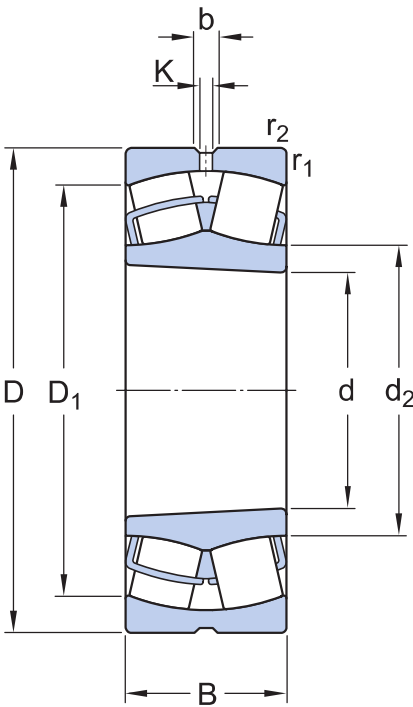
Number of rows	2
Locating feature, bearing outer ring	Without
Bore type	Tapered 1:12
Cage	Sheet metal
Radial internal clearance	CN
Tolerance class for dimensions	Normal
Tolerance class for run-out	P5
Sealing	Without
Lubricant	None
Relubrication feature	With
Candidate for remanufacturing	Yes
Indicative carbon footprint for new product	402 lb CO ₂ e
Indicative carbon footprint for remanufactured product	141 lb CO ₂ e

Logistics

Product net weight	112 lb
eClass code	23-05-09-11
UNSPSC code	31171510

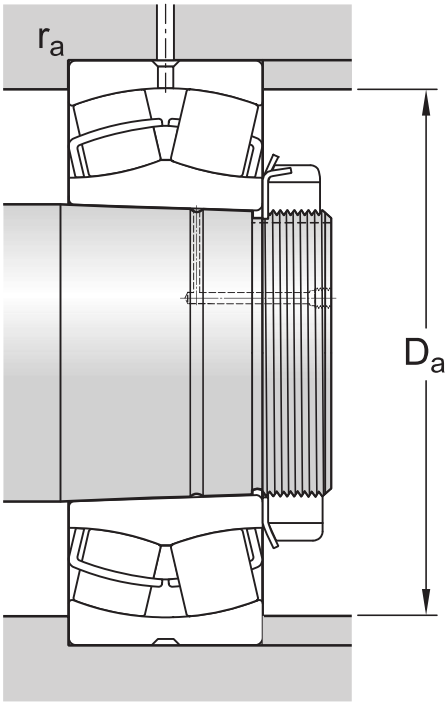
Technical specification

Bore type	Tapered 1:12
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Dimensions

d	8.6614 in	Bore diameter
t _{Δdmp}	0 – 46 μm	Deviation limits of mid-range bore diameter
t _{ΔSL}	0 – 46 μm	Deviation limits of tapered slope
D	14.5669 in	Outside diameter
t _{ΔDmp}	-40 – 0 μm	Deviation limits of mid-range outside diameter
B	4.7244 in	Width
t _{ΔBs}	-80 – 0 μm	Deviation limits of ring width
d ₂	≈ 10.0394 in	Shoulder diameter of inner ring
D ₁	≈ 12.5984 in	Shoulder/recess diameter of outer ring
b	0.6575 in	Width of lubrication groove
K	0.3543 in	Diameter of lubrication hole
r _{1,2}	min. 0.1575 in	Chamfer dimension
Normal		ISO tolerance class for dimensions



Abutment dimensions

D_a	max. 13.8976 in	Diameter of housing abutment
r_a	max. 0.1181 in	Radius of fillet

Calculation data

SKF performance class		SKF Explorer
Basic dynamic load rating	C	424 439 lbf
Basic static load rating	C_0	618 225 lbf
Fatigue load limit	P_u	52 156 lbf
Reference speed		1 300 r/min
Limiting speed		1 700 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}	10 μm
Maximum run-out of inner ring side face to the bore	t _{Sd}	11 μm
Range of section height at outer ring of assembled bearing	t _{Kea}	20 μm
Perpendicularity of outer ring outside surface	t _{SD}	6.5 μm
ISO tolerance class for geometrical tolerances		P5

Radial internal clearance

Minimum initial clearance	0.0071 in
Maximum initial clearance	0.0098 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

Compatible products

Recommended product

Withdrawal sleeve, for oil injection, ISO standards	AOH 3144
Adapter sleeve for oil injection mounting with HM .. T lock nut and MB lock washer, metric dimensions	OH 3144 H
Adapter sleeve for oil injection mounting with HM lock nut and MS locking clip, metric dimensions	OH 3144 HTL

More Information

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