



Image may differ from product. See specification for details.

23936 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	7.0866 in
Outside diameter	9.8425 in
Width	2.0472 in

Performance

Basic dynamic load rating	116 676 lbf
Basic static load rating	186 591 lbf
Reference speed	2 600 r/min
Limiting speed	2 800 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	59.3 lb CO ₂ e
Indicative carbon footprint for remanufactured product	20.8 lb CO ₂ e

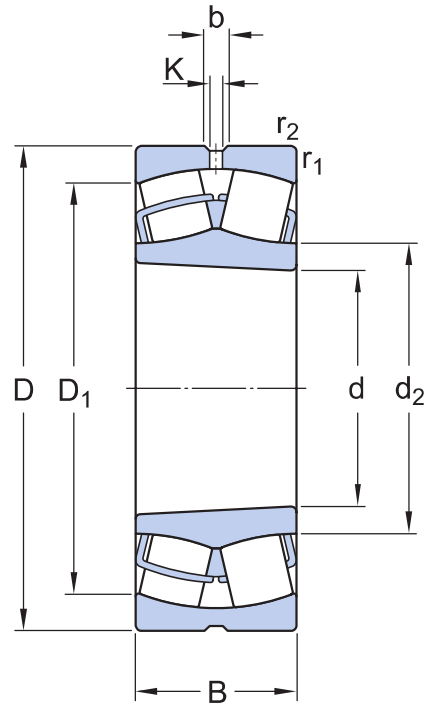
Logistics

Product net weight	16.5 lb
eClass code	23-05-09-11
UNSPSC code	31171510

Technical specification

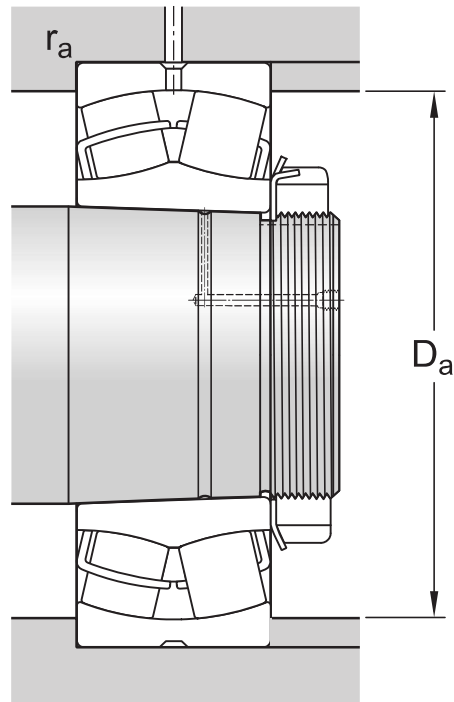
Bore type

Tapered 1:12



Dimensions

d	7.0866 in	Bore diameter
$t_{\Delta dmp}$	0 – 40 μm	Deviation limits of mid-range bore diameter
$t_{\Delta SL}$	0 – 40 μm	Deviation limits of tapered slope
D	9.8425 in	Outside diameter
$t_{\Delta Dmp}$	-30 – 0 μm	Deviation limits of mid-range outside diameter
B	2.0472 in	Width
$t_{\Delta Bs}$	-80 – 0 μm	Deviation limits of ring width
d_2	≈ 7.8346 in	Shoulder diameter of inner ring
D_1	≈ 9.0945 in	Shoulder/recess diameter of outer ring
b	0.2362 in	Width of lubrication groove
K	0.1181 in	Diameter of lubrication hole
$r_{1,2}$	min. 0.0787 in	Chamfer dimension
	Normal	ISO tolerance class for dimensions



Abutment dimensions

D_a	max. 9.4882 in	Diameter of housing abutment
r_a	max. 0.0787 in	Radius of fillet

Calculation data

SKF performance class		SKF Explorer
Basic dynamic load rating	C	116 676 lbf
Basic static load rating	C_0	186 591 lbf
Fatigue load limit	P_u	17 198 lbf
Reference speed		2 600 r/min
Limiting speed		2 800 r/min
Limiting value	e	0.18
Calculation factor	Y_1	3.8
Calculation factor	Y_2	5.6
Calculation factor	Y_0	3.6

Tolerances of run-out

Range of section height at inner ring of assembled bearing	t_{Kia}	8 μm
Maximum run-out of inner ring side face to the bore	t_{Sd}	10 μm
Range of section height at outer ring of assembled bearing	t_{Kea}	15 μm
Perpendicularity of outer ring outside surface	t_{SD}	5.5 μm
ISO tolerance class for geometrical tolerances		P5

Radial internal clearance

Minimum initial clearance	0.0055 in
Maximum initial clearance	0.0079 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

Adapter sleeve with KM lock nut and MB lock washer, metric dimensions

[H 3936](#)

More Information

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



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