

Factory-Verified Replacement

MERYDOM 231.20.0500.013

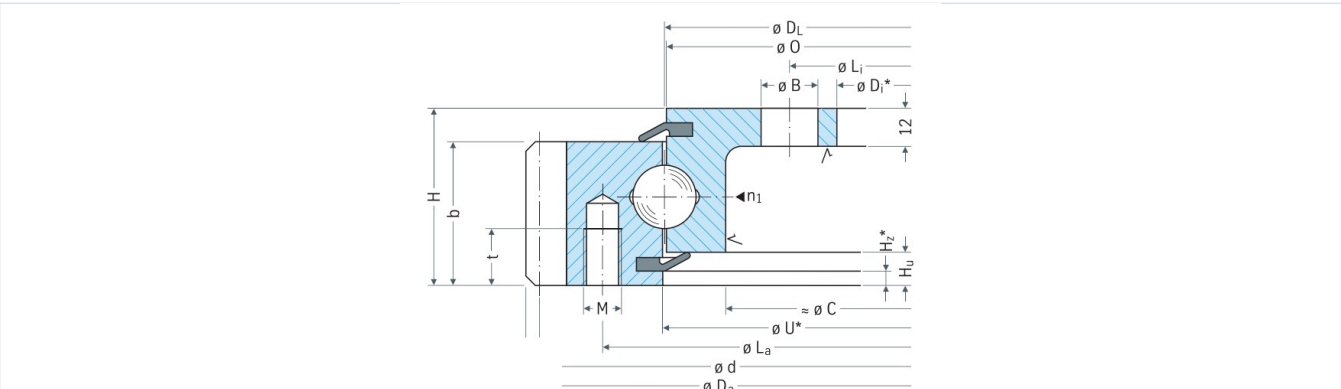
Certified for interchange with Rothe Erde 231.20.0500.013. This document consolidates the public product record, complete published specifications, technical media, source traceability and engineering confirmation notes.

LEVEL 3 - MERYDOM ENGINEERING VERIFIED

Reviewed by MERYDOM Engineering Department. Final application approval must confirm loads, duty cycle, mounting rigidity, bolt capacity, lubrication and operating conditions.

MERYDOM MODEL	REFERENCE
231.20.0500.013	Rothe Erde 231.20.0500.013
SERIES	STRUCTURE
23 Series	Profile bearing
OVERALL OD	OVERALL ID
640.8 mm	434 mm
OVERALL HEIGHT	GEAR
56 mm	External gear

Published Technical Drawing



page-045-outline.png

Complete Product Data

All values below are generated from the current public verified replacement record. Source values are retained and metric references are shown where available.

MERYDOM CERTIFIED PRODUCT	
Product brand	MERYDOM
MERYDOM model	231.20.0500.013
Certified interchangeable with	Rothe Erde 231.20.0500.013
Verification status	Level 3 - MERYDOM Engineering Verified
Reviewed by	MERYDOM Engineering Department
Public record UID	KXAJVREGCBV4VNC6YMRZ2WBTEH
MATERIALS	
Configurable ring material options	42CrMo / 50Mn
Seal material	NBR - Nitrile rubber
Configurable spacer material options	Engineering nylon / Brass
IDENTIFICATION	
Reference brand	Rothe Erde
Reference series	23 Series
Reference model	231.20.0500.013
Bearing structure	Profile bearing
Gear arrangement	External gear
DIMENSION	
Raceway diameter (DL)	544 mm
Overall outside diameter (Da)	640.8 mm
Overall inside diameter (Di)	434 mm

Complete Product Data

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DIMENSION (CONTINUED)	
Overall height (H)	56 mm
Catalog diameter O (O)	542.5 mm
Catalog diameter U (U)	545.5 mm
Catalog diameter C (C)	505 mm
Lower ring offset Hu (Hu)	10.5 mm
Assembly weight (Weight)	39.5 kg
Axial bearing play (Y_axial)	0,5 mm
Radial bearing play (Y_radial)	0,5 mm
MOUNTING	
Outer ring bolt circle (La)	585 mm
Outer ring mounting-hole count (na)	14
Metric bolt nominal size (M)	12 mm
Thread depth (t)	20 mm
Inner ring bolt circle (Li)	462 mm
Inner ring mounting-hole count (ni)	14
Inner ring mounting-hole diameter (B_inner)	18 mm
GEAR	
Gear pitch diameter (d)	630 mm
Gear module (m)	6 mm
Gear tooth count (z)	105

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GEAR (CONTINUED)	
Tip-height modification product k m (k*m)	-0.6 mm
Minimum gear face width (bmin)	45.5 mm
PERFORMANCE	
Permitted circumferential force, normal (X1)	14.2 kN
Permitted circumferential force, maximum (X2)	28.4 kN
MISCELLANEOUS	
Grease nipple count (n1)	4
PERFORMANCE RATINGS	
Catalog Reference X1	14.2 kN Not simultaneous with other listed dynamic ratings
Catalog Reference X2	28.4 kN Not simultaneous with other listed dynamic ratings
MOUNTING INTERFACES	
Outer ring mounting	14 holes - M 12
Inner ring mounting	14 holes - B_inner 18
GEAR INTERFACE	
Pitch system	module
Module reference	6 mm
Number of teeth	105
SOURCE TRACEABILITY	
Source document code	ROTHE_ERDE_CATALOG_2023
Source file	Rothe Erde.pdf
PDF page	45

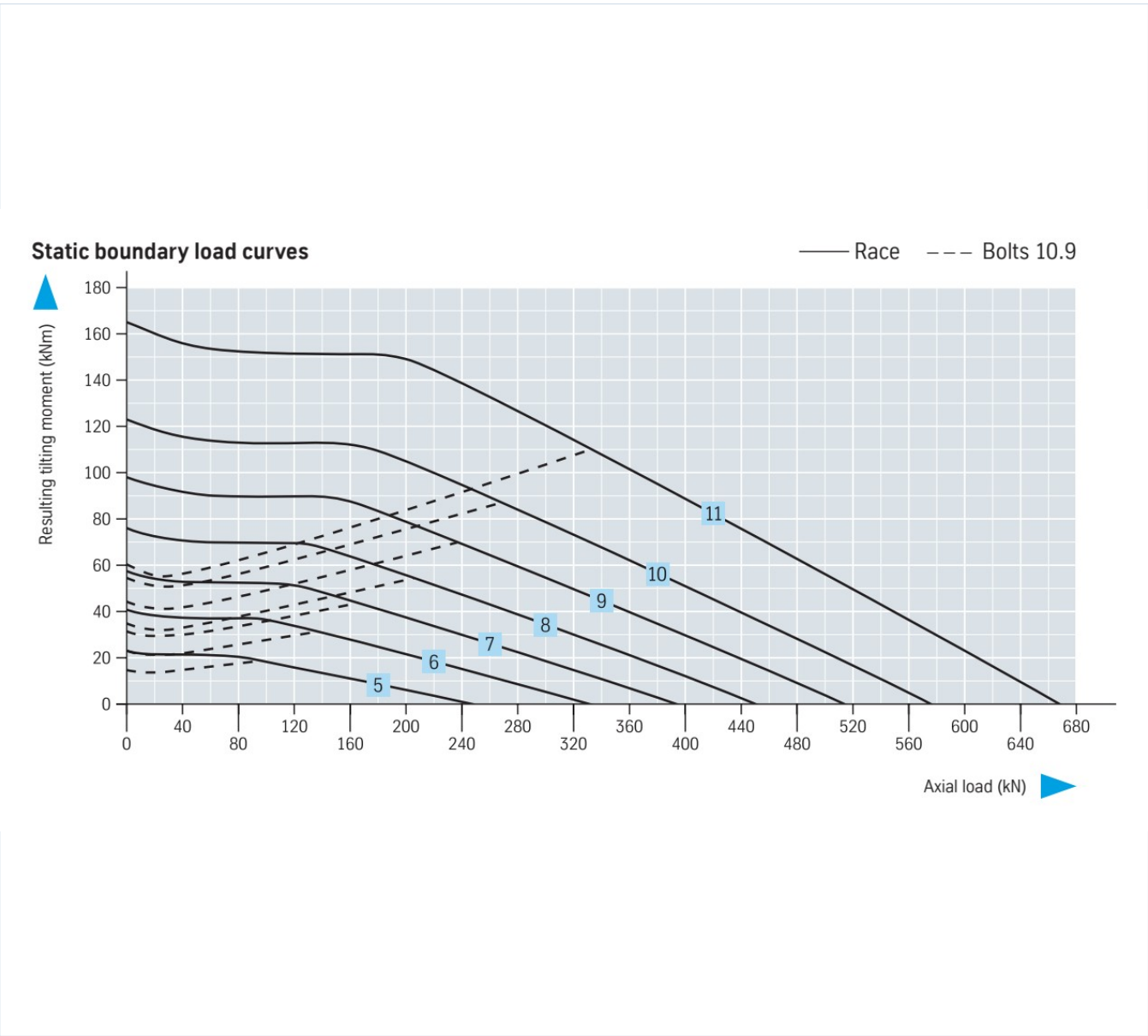
Complete Product Data

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SOURCE TRACEABILITY (CONTINUED)	
Printed page	84-85
Source language	EN
Original unit system	Metric
PUBLISHED TECHNICAL MEDIA	
Load Curve Chart	page-045-load-curves.png SHA-256: b90375ff4be3f35bd9c49c812ba8a4ce75c64d89f4fa1c5b46cf41d5549b285
Outline Drawing	page-045-outline.png SHA-256: fbd93ed806b4d49c3817668ffb04c0ce34e3e71fc94fb96ed7f9276bbc4330c7

Published Load / Performance Chart

Use the published chart as a preliminary selection aid only. The model legend, curve family and source document must be reviewed together with the operating load case.



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Engineering note: final approval must also consider mounting rigidity, bolt capacity, duty cycle, lubrication, temperature, environment and installation conditions.

Source and Verification Traceability

PUBLIC RECORD UID KXAJVREGCBV4VNC6YMRZ2WBTEH	SOURCE DOCUMENT ROTHE_ERDE_CATALOG_2023
SOURCE FILE Rothe Erde.pdf	SOURCE LOCATION PDF page 45 Printed page 84-85
VERIFICATION Level 3 - MERYDOM Engineering Verified	REVIEWED BY MERYDOM Engineering Department

Engineering Confirmation Boundary

- 1

Confirm the exact model designation and all installation-envelope dimensions.
- 2

Confirm mounting-hole quantity, bolt circle, hole specification, bolt grade and preload.
- 3

Confirm gear arrangement, pitch system, tooth count, backlash and mating-pinion data.
- 4

Confirm axial, radial and moment loads, load combinations, duty cycle and required life.
- 5

Confirm support flatness and stiffness, lubrication, sealing, temperature and environment.
- 6

Final drawing revision, manufacturing tolerances and documentation package are confirmed with the quotation.

Request Price, Delivery and Final Engineering Confirmation

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Product page: <https://rotnex.com/products/slewing-bearing-replacements/rothe-erde/231-20-0500-013/>

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