

Factory-Verified Replacement

MERYDOM 091.20.1246.991.21.1503

Certified for interchange with Rothe Erde 091.20.1246.991.21.1503. 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

091.20.1246.991.21.1503

REFERENCE

Rothe Erde 091.20.1246.991.21.1503

SERIES

09 Series

STRUCTURE

Esferas de contato de quatro pontos de duas carreiras

OVERALL OD

1,408 mm

OVERALL ID

1,133 mm

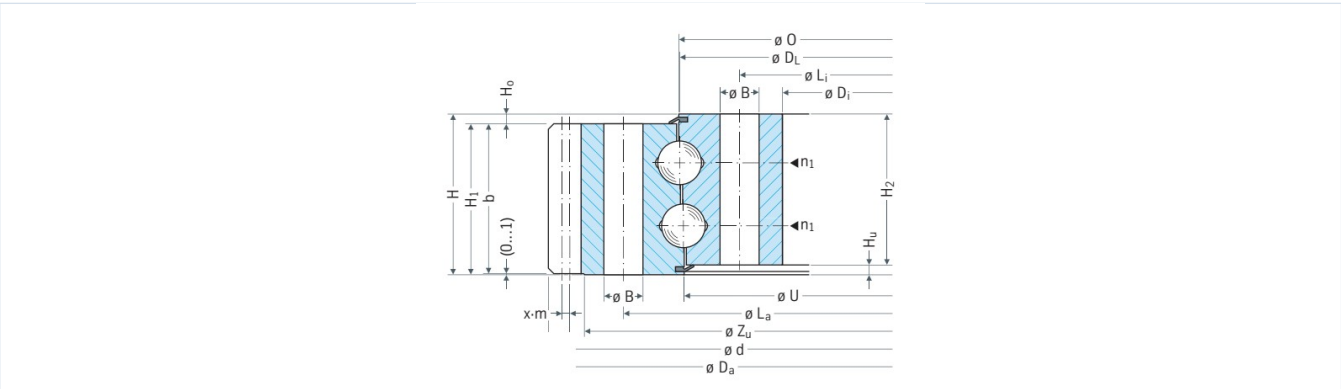
OVERALL HEIGHT

92 mm

GEAR

Engrenagem externa

Published Technical Drawing



page-085-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	091.20.1246.991.21.1503
Certified interchangeable with	Rothe Erde 091.20.1246.991.21.1503
Verification status	Level 3 - MERYDOM Engineering Verified
Reviewed by	MERYDOM Engineering Department
Public record UID	WRNBOKCFGUPBECISGY4RF2NE74
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	09 Series
Reference model	091.20.1246.991.21.1503
Bearing structure	Esferas de contato de quatro pontos de duas carreiras
Gear arrangement	Engrenagem externa
DIMENSION	
Raceway diameter (DL)	1.246 mm
Overall outside diameter (Da)	1.408 mm
Overall inside diameter (Di)	1.133 mm

Complete Product Data

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DIMENSION (CONTINUED)	
Overall height (H)	92 mm
Catalog diameter O (O)	1.252 mm
Catalog diameter U (U)	1.245 mm
Ring height H1 (H1)	83 mm
Ring height H2 (H2)	83 mm
Lower ring offset Hu (Hu)	9 mm
Upper ring offset Ho (Ho)	9 mm
Assembly weight (Weight)	288 kg
MOUNTING	
Outer ring bolt circle (La)	1.315 mm
Inner ring bolt circle (Li)	1.182 mm
Common mounting-hole count (n)	64
Common mounting-hole diameter (B)	22 mm
Metric bolt nominal size (M)	20 mm
GEAR	
Gear pitch diameter (d)	1.380 mm
Gear module (m)	10 mm
Gear tooth count (z)	138
Profile shift product x m (x*m)	5 mm
Tip-height modification product k m (k*m)	-1 mm

Complete Product Data

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GEAR (CONTINUED)	
Minimum gear face width (bmin)	82 mm
Root-neck diameter Zu (Zu)	1.359 mm
PERFORMANCE	
Permitted circumferential force, normal (X1)	79,23 kN
Permitted circumferential force, maximum (X2)	158,45 kN
MISCELLANEOUS	
Grease nipple count (n1)	4
PERFORMANCE RATINGS	
Catalog Reference X1	79,23 kN Not simultaneous with other listed dynamic ratings
Catalog Reference X2	158,45 kN Not simultaneous with other listed dynamic ratings
MOUNTING INTERFACES	
Outer ring mounting	64 holes - M 20
Inner ring mounting	64 holes - B 22
GEAR INTERFACE	
Pitch system	module
Module reference	10 mm
Number of teeth	138
SOURCE TRACEABILITY	
Source document code	ROTHE_ERDE_CATALOG_2023
Source file	Rothe Erde.pdf
PDF page	85

Complete Product Data

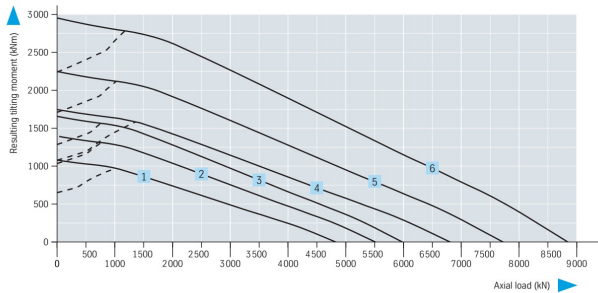
All values below are generated from the current public verified replacement record. Source values are retained and metric references are shown where available.

SOURCE TRACEABILITY (CONTINUED)	
Printed page	164-165
Source language	EN
Original unit system	Metric
PUBLISHED TECHNICAL MEDIA	
Load Curve Chart	page-085-load-curves.png SHA-256: 2b1b0d8ae4078a22b2a5ff76e80a7122f25582a8b88aa2cd304dba3871de1a42
Outline Drawing	page-085-outline.png SHA-256: eea1f2eaa62033b789c37ca7859ed6fe94a01141be3360d250c15dfec38bd1c0

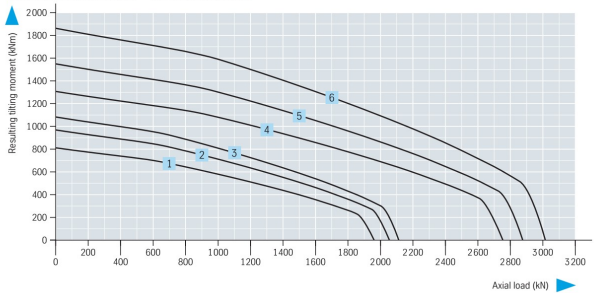
Published Load / Performance Chart

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.

Static boundary load curves



Utilization period curves – 30 000 revolutions



page-085-load-curves.png | SHA-256: 2b1b0d8ae4078a22b2a5ff76e80a7122f25582a8b88aa2cd304dba3871de1a42

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 WRNBOKCFGUPBECISGY4RF2NE74	SOURCE DOCUMENT ROTHE_ERDE_CATALOG_2023
SOURCE FILE Rothe Erde.pdf	SOURCE LOCATION PDF page 85 Printed page 164-165
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/pt/produtos/rolamentos-de-giro-de-substituicao/rothe-erde/091-20-1246-991-21-1503/>

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