

Factory-Verified Replacement

MERYDOM 091.40.2003.991.41.1502

Certified for interchange with Rothe Erde 091.40.2003.991.41.1502. 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

091.40.2003.991.41.1502

SERIES

09 Series

OVERALL OD

2,251.2 mm

OVERALL HEIGHT

148 mm

REFERENCE

Rothe Erde 091.40.2003.991.41.1502

STRUCTURE

Esferas de contato de quatro pontos de duas carreiras

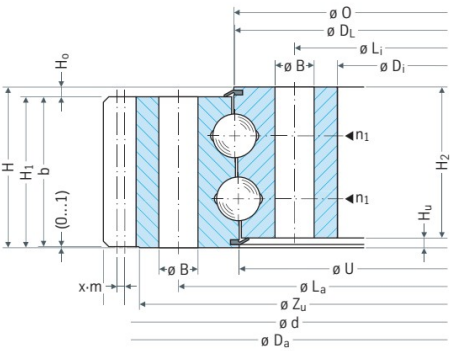
OVERALL ID

1,820 mm

GEAR

Engrenagem externa

Published Technical Drawing



page-091-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	091.40.2003.991.41.1502
Certified interchangeable with	Rothe Erde 091.40.2003.991.41.1502
Verification status	Level 3 - MERYDOM Engineering Verified
Reviewed by	MERYDOM Engineering Department
Public record UID	FVN63KXUUU4Q3ZJUV6HYYI4WYM
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	091.40.2003.991.41.1502
Bearing structure	Esferas de contato de quatro pontos de duas carreiras
Gear arrangement	Engrenagem externa
DIMENSION	
Raceway diameter (DL)	2.003 mm
Overall outside diameter (Da)	2.251,2 mm
Overall inside diameter (Di)	1.820 mm

Complete Product Data

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DIMENSION (CONTINUED)	
Overall height (H)	148 mm
Catalog diameter O (O)	2.011 mm
Catalog diameter U (U)	2.001 mm
Ring height H1 (H1)	139 mm
Ring height H2 (H2)	139 mm
Lower ring offset Hu (Hu)	9 mm
Upper ring offset Ho (Ho)	9 mm
Assembly weight (Weight)	1.220 kg
MOUNTING	
Outer ring bolt circle (La)	2.113 mm
Inner ring bolt circle (Li)	1.899 mm
Common mounting-hole count (n)	60
Common mounting-hole diameter (B)	36 mm
Metric bolt nominal size (M)	33 mm
GEAR	
Gear pitch diameter (d)	2.212 mm
Gear module (m)	14 mm
Gear tooth count (z)	158
Profile shift product x m (x*m)	7 mm
Tip-height modification product k m (k*m)	-1,4 mm

Complete Product Data

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GEAR (CONTINUED)	
Minimum gear face width (bmin)	138 mm
Root-neck diameter Zu (Zu)	2.185 mm
PERFORMANCE	
Permitted circumferential force, normal (X1)	168 kN
Permitted circumferential force, maximum (X2)	336 kN
MISCELLANEOUS	
Grease nipple count (n1)	10
PERFORMANCE RATINGS	
Catalog Reference X1	168 kN Not simultaneous with other listed dynamic ratings
Catalog Reference X2	336 kN Not simultaneous with other listed dynamic ratings
MOUNTING INTERFACES	
Outer ring mounting	60 holes - M 33
Inner ring mounting	60 holes - B 36
GEAR INTERFACE	
Pitch system	module
Module reference	14 mm
Number of teeth	158
SOURCE TRACEABILITY	
Source document code	ROTHE_ERDE_CATALOG_2023
Source file	Rothe Erde.pdf
PDF page	91

Complete Product Data

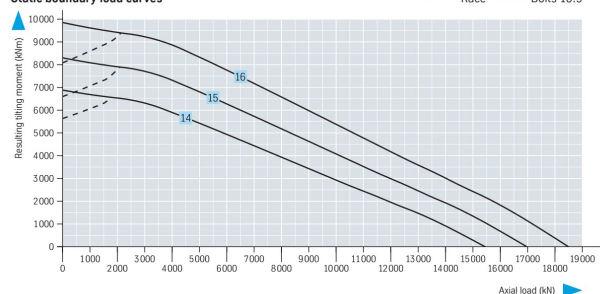
All values below are generated from the current public verified replacement record. Source values are retained and metric references are shown where available.

SOURCE TRACEABILITY (CONTINUED)	
Printed page	176-177
Source language	EN
Original unit system	Metric
PUBLISHED TECHNICAL MEDIA	
Load Curve Chart	page-091-load-curves.png SHA-256: 9c377d2ac0973a58158d2aaa68ff9528eff17aeb1de7396e397aa9b844f1191d
Outline Drawing	page-091-outline.png SHA-256: eea1f2eaa62033b789c37ca7859ed6fe94a01141be3360d250c15dfec38bd1c0

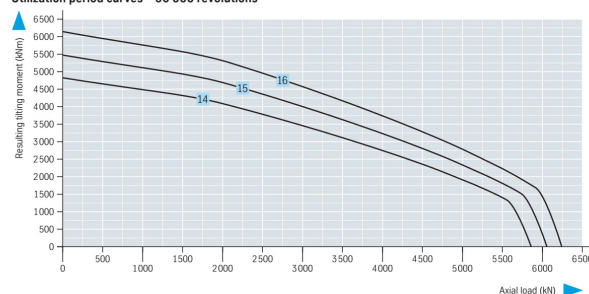
Published Load / Performance Chart

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-091-load-curves.png | SHA-256: 9c377d2ac0973a58158d2aaa68ff9528eff17aeb1de7396e397aa9b844f1191d

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**FVN63KXUUU4Q3ZJUV6HYI4WYM****SOURCE DOCUMENT****ROTHE_ERDE_CATALOG_2023****SOURCE FILE****Rothe Erde.pdf****SOURCE LOCATION****PDF page 91 | Printed page 176-177****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/091-40-2003-991-41-1502/>

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