

Factory-Verified Replacement

MERYDOM 091.40.2199.990.11.1502

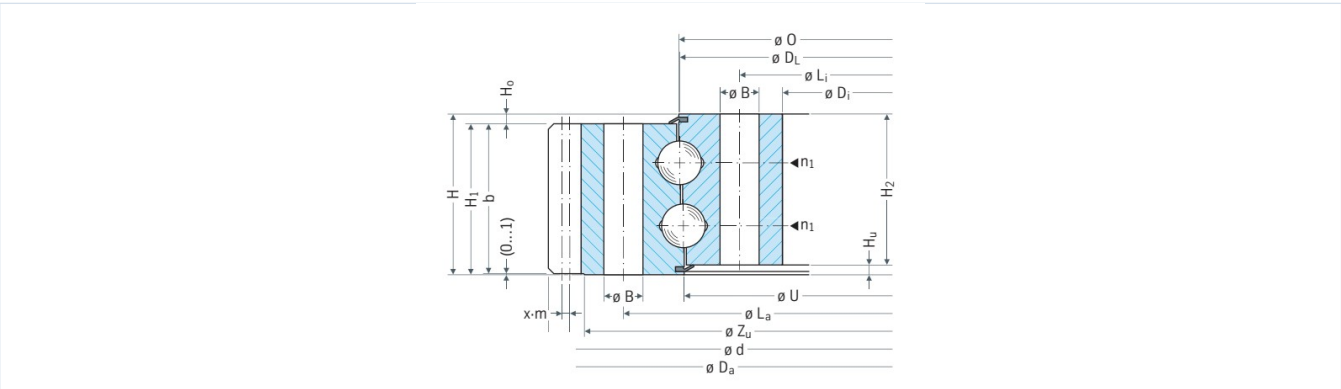
Certified for interchange with Rothe Erde 091.40.2199.990.11.1502. This document consolidates the public product record, complete published specifications, technical media, source traceability and engineering confirmation notes.

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	REFERENCE
091.40.2199.990.11.1502	Rothe Erde 091.40.2199.990.11.1502
SERIES	STRUCTURE
09 Series	Double-row four-point contact ball
OVERALL OD	OVERALL ID
2,447.2 mm	2,016 mm
OVERALL HEIGHT	GEAR
148 mm	External gear

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	091.40.2199.990.11.1502
Certified interchangeable with	Rothe Erde 091.40.2199.990.11.1502
Verification status	Level 3 - MERYDOM Engineering Verified
Reviewed by	MERYDOM Engineering Department
Public record UID	FKE7IVCA62ESJTZ25GZ5TQUVBR
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	091.40.2199.990.11.1502
Bearing structure	Double-row four-point contact ball
Gear arrangement	External gear
DIMENSION	
Raceway diameter (DL)	2,199 mm
Overall outside diameter (Da)	2,447.2 mm
Overall inside diameter (Di)	2,016 mm

Complete Product Data

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DIMENSION (CONTINUED)	
Overall height (H)	148 mm
Catalog diameter O (O)	2,207 mm
Catalog diameter U (U)	2,197 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)	1,342 kg
MOUNTING	
Outer ring bolt circle (La)	2,309 mm
Inner ring bolt circle (Li)	2,095 mm
Common mounting-hole count (n)	64
Common mounting-hole diameter (B)	36 mm
Metric bolt nominal size (M)	33 mm
GEAR	
Gear pitch diameter (d)	2,408 mm
Gear module (m)	14 mm
Gear tooth count (z)	172
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)	2,381 mm
PERFORMANCE	
Permitted circumferential force, normal (X1)	121.33 kN
Permitted circumferential force, maximum (X2)	242.67 kN
MISCELLANEOUS	
Grease nipple count (n1)	8
PERFORMANCE RATINGS	
Catalog Reference X1	121.33 kN Not simultaneous with other listed dynamic ratings
Catalog Reference X2	242.67 kN Not simultaneous with other listed dynamic ratings
MOUNTING INTERFACES	
Outer ring mounting	64 holes - M 33
Inner ring mounting	64 holes - B 36
GEAR INTERFACE	
Pitch system	module
Module reference	14 mm
Number of teeth	172
SOURCE TRACEABILITY	
Source document code	ROTHE_ERDE_CATALOG_2023
Source file	Rothe Erde.pdf
PDF page	91

Complete Product Data

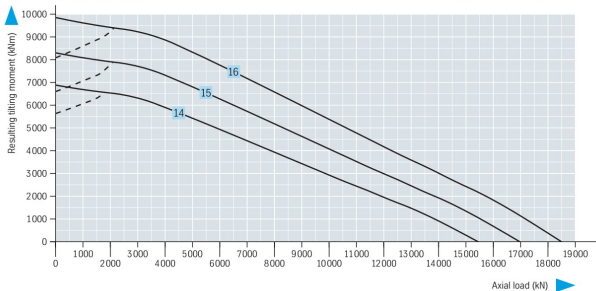
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SOURCE TRACEABILITY (CONTINUED)	
Printed page	176-177
Source language	EN
Original unit system	Metric
PUBLISHED TECHNICAL MEDIA	
Load Curve Chart	page-091-load-curves.png SHA-256: 9c377d2ac0973a58158d2aaa68ff9528eff17aeb1de7396e397aa9b844f1191d
Outline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

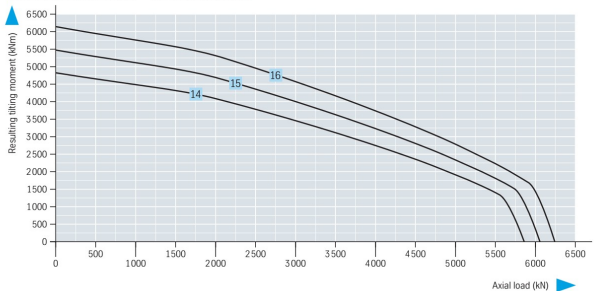
Published Load / Performance Chart

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 FKE7IVCA62ESJTZ25GZ5TQUVBR	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/products/slewing-bearing-replacements/rothe-erde/091-40-2199-990-11-1502/>

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