

Factory-Verified Replacement

MERYDOM 31-50 3550/2-07530

Certified for interchange with IMO 31-50 3550/2-07530.
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

31-50 3550/2-07530

REFERENCE

IMO 31-50 3550/2-07530

SERIES

350 Series

STRUCTURE

Three-row roller

OVERALL OD

3,955.2 mm

OVERALL ID

3,285 mm

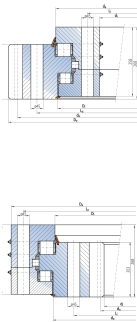
OVERALL HEIGHT

mm

GEAR

External gear

Published Technical Drawing



imo-31503550207530-drawing.webp

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	31-50 3550/2-07530
Certified interchangeable with	IMO 31-50 3550/2-07530
Verification status	Level 3 - MERYDOM Engineering Verified
Reviewed by	MERYDOM Engineering Department
Public record UID	DHTEK5AQUQSMIYWTZ2JE5LQXB
MATERIALS	
Configurable ring material options	42CrMo / 50Mn
Seal material	NBR - Nitrile rubber
Configurable spacer material options	Engineering nylon / Brass
IDENTIFICATION	
Reference brand	IMO
Reference series	350 Series
Reference model	31-50 3550/2-07530
Bearing structure	Three-row roller
Gear arrangement	External gear
DIMENSION	
Overall outside diameter (Da)	3,955.2 mm
Overall inside diameter (di)	3,285 mm
Assembly weight (G)	5,830 kg

Complete Product Data

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MOUNTING	
Outer ring bolt circle (La)	3,750 mm
Inner ring bolt circle (Li)	3,375 mm
Outer ring mounting-hole count (na)	54
GEAR	
Gear pitch diameter (d)	3,888 mm
Gear module (m)	24 mm
Gear tooth count (z)	162
Addendum modification coefficient (x)	0.5
PERFORMANCE	
Permitted circumferential force, normal (fz_norm)	420 kN
Permitted circumferential force, maximum (fz_max)	760 kN
Static radial load rating (Co_rad)	4,402 kN
Static axial load rating, tension (Co_ax_T)	41,488 kN
Static axial load rating, compression (Co_ax_H)	22,131 kN
Dynamic radial load rating (C_rad)	1,815 kN
Dynamic axial load rating, tension (C_ax_T)	8,409 kN
Dynamic axial load rating, compression (C_ax_H)	6,272 kN
PERFORMANCE RATINGS	
Fz Norm	420 kN Not simultaneous with other listed dynamic ratings
Fz Max	760 kN Not simultaneous with other listed dynamic ratings

Complete Product Data

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PERFORMANCE RATINGS (CONTINUED)	
Co Rad	4,402 kN Not simultaneous with other listed dynamic ratings
Co Ax T	41,488 kN Not simultaneous with other listed dynamic ratings
Co Ax H	22,131 kN Not simultaneous with other listed dynamic ratings
C Rad	1,815 kN Not simultaneous with other listed dynamic ratings
C Ax T	8,409 kN Not simultaneous with other listed dynamic ratings
C Ax H	6,272 kN Not simultaneous with other listed dynamic ratings
MOUNTING INTERFACES	
Outer ring mounting	54 holes - See source drawing
Inner ring mounting	holes - See source drawing
GEAR INTERFACE	
Pitch system	module
Module reference	24 mm
Number of teeth	162
SOURCE TRACEABILITY	
Source document code	IMO_TRIPLE_ROW_ROLLER_EN
Source file	imo_rollendrehverbindung-en.pdf
PDF page	11
Printed page	Not published
Source language	EN
Original unit system	Metric

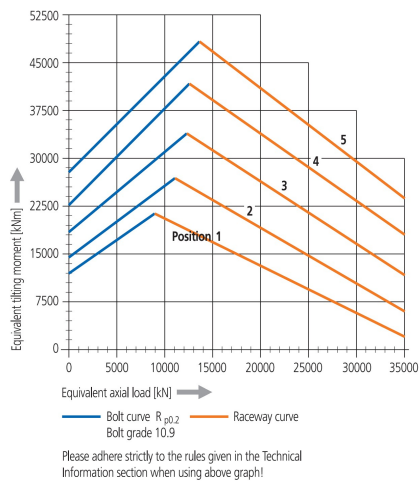
Complete Product Data

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PUBLISHED TECHNICAL MEDIA	
Load Curve Chart	imo-31503550207530-curve.webp SHA-256: 349b78fd17d31ca91c8b0290eca95f596c945350821c6df1c34d3e5f01362791
Outline Drawing	imo-31503550207530-drawing.webp SHA-256: 74b10d2067fc6e3149e8a36ce5e54f33b8557b3c5f8a7275fe12adcec39427f0

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.



Bearing ring material: 42CrMo4V
8 to 12 Taper type grease nipples on each circumferential row
Mounting holes equally spaced
Raceway system supplied pre-lubricated
Dimensions without tolerances DIN ISO 2768 coarse

Clearances		
Position	Radial clearance	Axial clearance
1	max. 0.5	max. 0.15
2	max. 0.5	max. 0.15
3	max. 0.5	max. 0.17
4	max. 0.6	max. 0.20
5	max. 0.6	max. 0.20

imo-31503550207530-curve.webp | SHA-256: 349b78fd17d31ca91c8b0290eca95f596c945350821c6df1c34d3e5f01362791

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 DHTEXK5AQUQSMIYWTZ2JE5LQXB	SOURCE DOCUMENT IMO_TRIPLE_ROW_ROLLER_EN
SOURCE FILE imo_rollendrehverbindung-en.pdf	SOURCE LOCATION PDF page 11 Printed page Not published
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/imo/31-50-3550-2-07530/>

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