

Factory-Verified Replacement

MERYDOM 16277001

Certified for interchange with Kaydon 16277001. 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

16277001

REFERENCE

Kaydon 16277001

SERIES

DT Series

STRUCTURE

Eight-point contact ball

OVERALL OD

2,080.006 mm

OVERALL ID

1,657.299 mm

OVERALL HEIGHT

142.011 mm

GEAR

Internal gear

No public model drawing is attached to this record. Submit the application and required interface format for final drawing confirmation.

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                        | 16277001                                               |
| Certified interchangeable with       | Kaydon 16277001                                        |
| Verification status                  | Level 3 - MERYDOM Engineering Verified                 |
| Reviewed by                          | MERYDOM Engineering Department                         |
| Public record UID                    | 6PGUC3VWGR6G6FZIVSNTJQWDB6                             |
| MATERIALS                            |                                                        |
| Configurable ring material options   | 42CrMo / 50Mn                                          |
| Seal material                        | NBR - Nitrile rubber                                   |
| Configurable spacer material options | Engineering nylon / Brass                              |
| IDENTIFICATION                       |                                                        |
| Reference brand                      | Kaydon                                                 |
| Reference series                     | DT Series                                              |
| Reference model                      | 16277001                                               |
| Bearing structure                    | Eight-point contact ball                               |
| Gear arrangement                     | Internal gear                                          |
| DIMENSION                            |                                                        |
| Overall outside diameter (Do)        | 81.890 in   Metric reference: approximately 2,080 mm   |
| Overall inside diameter (di)         | 65.248 in   Metric reference: approximately 1,657.3 mm |
| Inner ring body ID (dr)              | 67.520 in   Metric reference: approximately 1,715 mm   |

Complete Product Data

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| DIMENSION (CONTINUED)        |                                                                           |
|------------------------------|---------------------------------------------------------------------------|
| Overall height (H)           | 5.591 in   Metric reference: approximately 142.01 mm                      |
| Assembly weight (G)          | 2460 lb   Metric reference: approximately 1,115.837 kg                    |
| MOUNTING                     |                                                                           |
| Outer ring bolt circle (Lo)  | 78.740 in   Metric reference: approximately 2,000 mm                      |
| Inner ring bolt circle (Li)  | 70.866 in   Metric reference: approximately 1,800 mm                      |
| GEAR                         |                                                                           |
| Gear pitch diameter (D2)     | 65.669 in   Metric reference: approximately 1,667.99 mm                   |
| Gear tooth count (z2)        | 139                                                                       |
| PERFORMANCE                  |                                                                           |
| Maximum gear tooth load (Fz) | 41140 lbf   Metric reference: approximately 183 kN                        |
| Moment load rating (Crm)     | 2534900 ft lbf   Metric reference: approximately 3,436.86 kN m            |
| PERFORMANCE RATINGS          |                                                                           |
| Moment                       | 2534900.0000000000 ft lbf   Metric reference: approximately 3,436.86 kN m |
| Gear Tooth                   | 41140.0000000000 lbf   Metric reference: approximately 183 kN             |
| MOUNTING INTERFACES          |                                                                           |
| Outer ring mounting          | 54 holes - 1.299                                                          |
| Inner ring mounting          | 54 holes - 1.299                                                          |
| GEAR INTERFACE               |                                                                           |
| Pitch system                 | MODULE                                                                    |
| Module reference             | 12 mm                                                                     |
| Number of teeth              | 139                                                                       |

Complete Product Data

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| SOURCE TRACEABILITY  |                        |
|----------------------|------------------------|
| Source document code | KAYDON-CAT390          |
| Source file          | Kaydon_Catalog_390.pdf |
| PDF page             | 90                     |
| Printed page         | 88                     |
| Source language      | EN-US                  |
| Original unit system | Inch                   |

Source and Verification Traceability

|                                                                               |                                                                     |
|-------------------------------------------------------------------------------|---------------------------------------------------------------------|
| <div>PUBLIC RECORD UID</div> <div>6PGUC3VWGR6G6FZIVSNTJQWDB6</div>            | <div>SOURCE DOCUMENT</div> <div>KAYDON-CAT390</div>                 |
| <div>SOURCE FILE</div> <div>Kaydon_Catalog_390.pdf</div>                      | <div>SOURCE LOCATION</div> <div>PDF page 90   Printed page 88</div> |
| <div>VERIFICATION</div> <div>Level 3 - MERYDOM Engineering<br/>Verified</div> | <div>REVIEWED BY</div> <div>MERYDOM Engineering Department</div>    |

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

Email: jovi@merydom.com | Email: andi@merydom.com | WhatsApp: +86 17705201170

Product page: <https://rotnex.com/products/slewing-bearing-replacements/kaydon/16277001/>

Trademark and legal notice: referenced brand and model names are used only for identification and cross-reference. MERYDOM is an independent manufacturer and is not affiliated with or endorsed by the referenced brand unless expressly stated.