



Certificate no.:
TAS00004M0

TYPE APPROVAL CERTIFICATE

This is to certify:
that the Slewing Bearing

with type designation(s)
12-1995-00_R1CX, 12-1995-01_R1CX

issued to
DEFONTAINE SAS
La Bruffiere, Vendee, France

is found to comply with
DNV standard DNV-ST-0378 – Offshore and platform lifting appliances

Application:
See next page

Issued at **Høvik** on **2025-02-14**
This Certificate is valid until **2030-02-13**.
DNV local unit: **France CMC**

for **DNV**

Approval Engineer: **Peder Bendik Møll**

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to USD 300 000.

Product description

2 row slewing bearing $\varnothing 1995\text{mm}$ for Offshore/platform cranes and offshore gangways. 2 Variants

Application/Limitation

12-1995-00_R1CX:

Minimum design temperature: -20°C

Slewing bearing is approved for the loads specified below which are to including all dynamic factors and additional offshore safety factors SF1 as specified in DNV-ST-0378 Sec.8 if applicable.

	Time %	Speed rpm	Axial kN	Radial kN	Moment kNm
LC1	5	0.5	285	60	2400
LC2	45	0.5	255	55	1785
LC3	50	0.5	235	50	1385
Extreme Static	0.0	600	600	200	5150

	Time %	Slewing speed rpm	Total Slewing torque on ring (shared on 4 pinions) kNm
LC1	5	0.5	771
LC2	95	0.5	234
Max Static torque			1320

Number of teeth in slewing bearing -109
Module 16

Service life 5 000 Hours/ 150 000 revolutions

All drawings 12-1995-00_R1CX, where X can be any number for colour variants is approved as long as there is no structural or material difference

It is assumed that the slewing bearing is not loaded with maximum tilting moment in the direction that gives separation forces in the area of the "missing" mounting bolts

12-1995-01_R1CX:

Minimum design temperature: -20°C

Slewing bearing is approved for the loads specified below which are to including all dynamic factors and additional offshore safety factors SF1 as specified in DNV-ST-0378 Sec.8 if applicable.

	Time %	Speed rpm	Axial kN	Radial kN	Moment kNm
LC1	5	0.19	330	70	3015
LC2	45	0.19	330	35	2665
LC3	40	0.19	330	0	2505
LC4	10	0.19	330	0	2080
Peak1	Static	0.00	490	170	5800
Peak2	Static	0.00	480	195	5190

	Time %	Slewing speed rpm	Total Slewing torque on ring (shared on 4 pinions) kNm
LC1	40	0	0
LC2	10	0	0
LC3	5	0.19	740
LC4	45	0.19	315
Max Static torque			2240

Number of teeth in slewing bearing -109
Module 16

Service life 12552 Hours/ 143097 cycles (Any tooth is assumed to contact with maximum 2 pions per cycle at average)

All drawings 12-1995-01_R1CX, where X can be any number for colour variants is approved as long as there is no structural or material difference

It is assumed that the slewing bearing is not loaded with maximum tilting moment in the direction that gives separation forces in the area of the "missing" mounting bolts

For both variants

1. Flanges and adjacent structure have not been evaluated nor covered by this approval.
2. Slewing Bearing Mounting bolts M30 to be class 10.9 in both inner and outer ring.
3. Slewing Bearing Mounting bolts shall be pretensioned to 80% of yield strength.
4. The slewing ring and slewing ring fastener material needs to be delivered with 3.2 material certificate, documenting compliance with DNV material requirements.
5. Inner and outer rings to be made of 42CrMo4, core hardened hardness 260-300HB. Gear ring surface hardness 56HRC

Type Approval documentation

Tests carried out

Separate test of slewing bearing is not required. The slewing bearing is to be tested together with the crane.

Marking of product

Each slewing bearing is to be marked according to DNV-ST-0378 Sec.14.5

Periodical assessment

For retention of the Type Approval, a DNV Surveyor shall perform periodical assessment after two years (+/- 90 days) and after 3.5 years (+/- 90 days) to verify that the conditions for the approval are complied with. Reference is made to DNV-CP-0338.

Manufactured by:

ROLLIX DEFONTAINE
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FRANCE