



Certificate No:
TAS000039W

TYPE APPROVAL CERTIFICATE

This is to certify:

That the D Shackle for Roll Thimble

with type designation(s)
11030201-RF

Issued to

GN Rope Fittings - Grofsmederij Nieuwkoop B.V.
Nieuwkoop, Netherlands

is found to comply with

DNV-OS-E302 – Offshore mooring chain, Edition July 2018 (Amended August 2021)

Application :

to be used for Temporary, Mobile and Long Term Mooring
as defined in Offshore Standard DNV-OS-E301 'Position Mooring' July 2021

Issued at **Høvik** on **2021-12-06**

This Certificate is valid until **2026-12-05**.

DNV local station: **Rotterdam**

for **DNV**

Approval Engineer: **Pierre-Eric Moulia**

.....
Inger-Helene Hals
Head of Section

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 300,000 USD.



Form code: TA 251

Revision: 2021-03

www.dnv.com

Page 1 of 2

Product description

D shackle for mooring chains with sizes up to grade NV R4 84 mm diameter (7208 kN).

Application/Limitation

The D shackle is to be used in connection with chains for Temporary, Mobile and Long Term Mooring as defined in Offshore Standard DNV-OS-E301 Position Mooring July 2021.

The D shackle shall be manufactured and tested in accordance with Offshore Standard DNV-OS-E302 Offshore Mooring Chain July 2018.

The approval is conditional that manufacturer is holding an DNV Approval of Manufacturer Certificate.

Individual Product Certificate is to be issued for each delivery.

Type Approval documentation

Tests carried out

For every order testing shall be carried out according to DNV-OS-E302 July 2018.

Marking of product

Each shackle shall be marked according to Offshore Standard DNV-OS-E302 October 2018 Ch2 Sec2 §1.4 & §3.9.

Periodical assessment

For retention of this Type Approval, a DNV surveyor shall perform a periodical assessment after two years (+/- 90 days) and after 3.5 years (+/- 90 days). The objective of the periodical assessment is to verify that the conditions for the Type Approval have not been altered. (Ref DNV-CP-0338 Type approval scheme).

Validity of this certificate can be checked at <https://approvalfinder.dnv.com/>