DNV·GL

Certificate No:
TAS00002RA

TYPE APPROVAL CERTIFICATE

This is to certify:

That the NDur Link HFL

with type designation(s)
KJNP084.6-20TA

Issued to
Schmiedestück-Vertrieb Feuerstein GmbH
Hattingen, Nordrhein-Westfalen, Germany

is found to comply with
DNVGL-OS-E302 – Offshore mooring chain, Edition July 2018

Application :

To be used for Temporary and Mobile Mooring
as defined in DNVGL-OS-E301, Position Mooring, July 2020

Issued at **Høvik** on **2020-10-02**
This Certificate is valid until **2025-10-01**.
DNV GL local station: **Essen**

for **DNV GL**

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 GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") 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.

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Product description

Non-standard Kenter Shackle to connect mooring lines.
This approval covers size 84 mm in R4, R5 and R6 grades. Locking stones have four noses.

Application/Limitation

The approval is conditional that the manufacturers are approved by DNVGL for R4, R5 and R6 grade material.

The shackles are to be used in connection with chains for Temporary and Mobile as defined in Offshore Standard DNVGL-OS-E301 "Position Mooring" July 2020.

The shackles shall be manufactured and tested in accordance with Offshore Standard DNVGL-OS-E302 "Offshore Mooring Chain" July 2018.

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 DNVGL-OS-E302 July 2018.
For the type approval, fatigue tests were performed with DNVGL Surveyors.

Marking of product

Each shackle shall be marked according to Offshore Standard DNVGL-OS-E302 "Mooring Chain" July 2018 Ch2 Sec2 §1.4.1 & §3.9.

Periodical assessment

For retention of this Type Approval, a DNVGL 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 DNVGL-CP-0338 Type approval scheme).