Certificate no.:
TAS000042N

TYPE APPROVAL CERTIFICATE

This is to certify:

that the Special Joining Shackle MBL 710 t

with type designation(s)
SJS.0710.04.TA.23

issued to
FORJAS IRIZAR, S.L.
Lazkao, Gipuzkoa, Spain

is found to comply with
DNV-OS-E302 – Offshore mooring chain, Edition July 2022

Application:

**To be used for Temporary, Mobile and Long Term Mooring,
as defined in DNV-OS-E301 Position Mooring July 2021.**

Issued at **Høvik** on **2023-11-13**
This Certificate is valid until **2028-11-12**.
DNV local unit: **Bilbao**

for **DNV**

Approval Engineer: **Pierre-Eric Moulia**

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.

Product description

Special Joining Shackle with a Ø102mm body to connect mooring lines with mooring chain up to 82.5 mm R4 and rope with breaking strength up to 710 ton.

Application/Limitation

The approval is conditional that the manufacturer is approved by DNV to make R4 grade material.

The shackles are to be used in connection with mooring lines for Temporary, Mobile and Long Term Mooring as defined in Offshore Standard DNV-OS-E301 “Position Mooring” July 2021.

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 2022.

Marking of product

Each shackle shall be marked according to Offshore Standard DNV-OS-E302 “Mooring Chain” July 2022 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/