Certificate No:
TAS000035H

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Chain Stopper

with type designation(s)
Chain Stopper QRCS 84

Issued to
MacGregor Norway AS
Arendal, **Norway**

is found to comply with
DNV rules for classification – Ships

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.

Issued at **Høvik** on **2021-09-08**
This Certificate is valid until **2026-09-07**.
DNV local station: **Norway CMC, West**

Approval Engineer: **Igor Antonijevic**

for **DNV**

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.

Manufactured by

The Chain stoppers are manufactured at one of the following manufacturers:

Product description

Hydraulically operated chain stopper for Bow loading and SPM Emergency Towing.

Application/Limitation

Design temperature range:	-20°C to -45°C
Chain size:	76mm or 84mm
SWL:	up to 5000kN

- Design follows requirements of RU-SHIP Pt.6, Ch.4, Sec.1 – Bow loading
- Design follows requirements of RU-SHIP Pt.6, Ch.5, Sec.12 – Single Point Mooring
- Design follows requirements of RU-SHIP Pt.5, Ch.5, Sec.2, par 2.2 – Emergency towing and IMO resolution MSC.35(63) for strongpoint for SWL of 2000kN.
- Material selection complies with the requirements in RU-SHIP Pt. 6 Ch.6 Sec. 4
- The fixation and support to the deck structure is not covered by this approval and is assumed covered by separate drawings.

Type Approval documentation

Tests carried out

-The complete installation is to be function tested onboard after installation.
-Prototype test report 3039-01 has been endorsed by DNV Kristiansand dated 2005-03-01.

Marking of product

Periodical assessment

Periodical assessment will be required 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 DNVGL-CP-0338. DNV surveyor has the permission to perform Certification Retention Survey at any time during the validity period of this certificate.

END OF CERTIFICATE