

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Bow Loading**with type designation(s)
QRS84

Issued to

**MacGregor Norway AS, Pusnes Office
Arendal, Norway**is found to comply with
DNV GL rules for classification – Ships**Application :****Serves as the mooring strong point for 76 and 84 mm chain, grade R4.
In compliance with class notations: Bow loading and SPM.**Issued at **Høvik** on **2019-11-28**This Certificate is valid until **2024-11-27**.for **DNV GL**DNV GL local station: **Oslo Mooring, Diving &
Offshore Equipment**Approval Engineer: **Tomasz Kapella****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.



Job Id: **262.1-029299-1**
Certificate No: **TAS00001YF**

Product description

Hydraulically operated bow chain stopper for Bow loading and SPM class notations.

Types:

Application/Limitation

Type Approval documentation

Tests carried out

Prototype tests are reported in the reports no:

- 5790-01-PUS-R-KA-0031 rev.00 – LOAD TEST PROCEDURE , QRS84, SWL 250t
- 5790-01-PUS-R-KA-0021 rev.02 – LOAD TEST PROCEDURE , QRS84, SWL 500t

The complete installation is to be function tested onboard after instalation.

Marking of product

Periodical assessment

DNV GL surveyor has the permission to perform Certification Retention Survey at any time during the validity period of this certificate.

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.