Certificate No:
TAS000030Y

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Weathertight Door

with type designation(s)
Steel Weathertight Door

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

is found to comply with
DNV GL rules for classification – Ships
DNVGL-OS-C301 – Stability and watertight integrity

Application :

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

Issued at **Høvik** on **2021-04-28**
This Certificate is valid until **2026-04-27**.
DNV local station: **Norway CMC, West**

Approval Engineer: **Grzegorz Wolski**

for **DNV**

Håvard Helling
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.

Product description
Steel Door for Bow Loading System
Is a single leaf door made of steel. Plates are stiffened by grillage system and additional closing plate.

Min. thickness of door is 305 mm

Please see Type Approval documentation below for details.

Application/Limitation
This product can be used as shell doors on tankers for oil if below conditions are met.

Max. bow impact pressure: 740 kPa
Max. rule length of vessel: 350 m

Doors are designed for temperatures between -20 and +50 deg C.

Area that is accessible by this door is to not have any unprotected openings leading below the deck.

Doors are to be used with approved electric and/or hydraulic system.

Materials are to be delivered with certificates equivalent to DNVGL Rules for Ships, Pt2, Ch1, Sec 2.

Type Approval documentation
Drawing No. 1142568.001 Rev B from manufacturer
Drawing No. 1143774.001 Rev C from manufacturer
Drawing No. 1144426.001 Rev C from manufacturer
Drawing No. 1144428.001 Rev 0 from manufacturer
Drawing No. 1144429.001 Rev 0 from manufacturer
Drawing No. 1144430.001 Rev 0 from manufacturer
Drawing No. 1144431.001 Rev 0 from manufacturer

Tests carried out
Tests according to applicable standards have been carried out at 09.03.2021.

Marking of product
The doors are to be marked with the manufacturer's name or trademark, type designation and serial number.

Periodical assessment
For retention of the Type Approval, a DNV Surveyor shall perform periodical assessment 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.