DNV·GL

Certificate No:
TAS00002BB

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Weathertight Door

with type designation(s)
Steel Door for Bow Loading System

Issued to
MacGregor Norway AS, Pusnes Office
,

is found to comply with
DNV GL rules for classification – Ships
DNV GL offshore standards

Application :

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

Issued at **Høvik** on **2019-12-10**
This Certificate is valid until **2024-12-09**.
DNV GL local station: **Oslo Mooring, Diving & Offshore Equipment**

Approval Engineer: **Grzegorz Wolski**

for **DNV GL**

Chang Won Son
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.

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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.
Door is designed in two variants:
Variant 1: Lower Bow Door
Variant 2: Lower Bow Door with replacement tool

Thicknes 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: 1100 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

Variant 1:
Drawing No. 1127190 Rev.A from manufacturer.
Drawing No. 1127194 Rev.A from manufacturer.
Drawing No. 1127195 Rev.A from manufacturer.
Drawing No. 1127206 Rev.A from manufacturer.
Drawing No. 1127219 Rev.A from manufacturer.
Drawing No. 1127221 Rev.0 from manufacturer.
Drawing No. 1127222 Rev.0 from manufacturer.
Drawing No. 1127223 Rev.A from manufacturer.
Drawing No. 1127229 Rev.0 from manufacturer.
Drawing No. 1127230 Rev.0 from manufacturer.
Drawing No. 1127231 Rev.0 from manufacturer.

Variant 2:
Drawing No. 1127190 Rev.A from manufacturer.
Drawing No. 1127229 Rev.0 from manufacturer.
Drawing No. 1127230 Rev.0 from manufacturer.
Drawing No. 1127231 Rev.0 from manufacturer.
Drawing No. 1127360 Rev.C from manufacturer.
Drawing No. 1127361 Rev.C from manufacturer.
Drawing No. 1127362 Rev.0 from manufacturer.
Drawing No. 1127363 Rev.0 from manufacturer.
Drawing No. 1127364 Rev.B from manufacturer.
Drawing No. 1127365 Rev.0 from manufacturer.
Drawing No. 1127366 Rev.0 from manufacturer.
Drawing No. 1127390 Rev.B from manufacturer.
Drawing No. 1127433 Rev.A from manufacturer.
Drawing No. 1127473 Rev.0 from manufacturer.
Drawing No. 1127474 Rev.0 from manufacturer.
Drawing No. 1127475 Rev.0 from manufacturer.
Drawing No. 1129918 Rev.B from manufacturer.

Drawing No. 1129919 Rev.0 from manufacturer.
Drawing No. 1130705 Rev.B from manufacturer.

Tests carried out

Tests according to applicable standards have been carried out at 01 July 2019. See 5790-01-PUS-R-KA-0016 Rev.2 for details.

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 GL 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.