



Certificate no.:
TAS0000464

TYPE APPROVAL CERTIFICATE

This is to certify:

that the Weathertight Door

with type designation(s)

Weathertight Musketeer Door (optional window) – FD

issued to

Winel B.V.

Assen, Netherlands

is found to comply with

DNV rules for classification – Ships

DNV-OS-C301 – Stability and watertight integrity, Edition July 2020 (Amended August 2021)

Application:

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

Issued at **Høvik** on **2024-02-13**

This Certificate is valid until **2029-02-12**.

for **DNV**

DNV local unit: **Netherlands VMC**

Approval Engineer: **Xiaolu Wu**

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.



Form code: TA 251

Revision: 2023-09

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Page 1 of 3

Product description

Weathertight single-handle operated single-leaf grade A steel door.

If scantlings and spacing are maintained, sizes can vary up to the maximum of 2050 mm x 1000 mm.

Optional fixed rectangular window with glazing material of toughened safety glass. Solid pane glass with thickness 12 mm towards the outside. Laminated glass towards the inside. The solid and the laminated glass panels are separated by an air gap. The window is fixed to the door panel by a stainless-steel retainer which is mounted with 24 countersunk stainless steel M6 screws. Seal of CR rubber. Maximum aperture size, height x width, 530 x 330 mm.

Deadlight, when fitted, is made from steel.

Application/Limitation

The door has been Type Approved with respect to weathertightness only, i.e. fire integrity has not been considered.

The door which shall open outwards from the area to be protected, is found to comply with the requirements for weathertight doors in DNV-RU-SHIP Pt.3 Ch.12 Sec.2 (July 2022) and DNV-OS-C301 Ch.2 Sec.2 [4] (July 2020 amended August 2021) for a maximum outside design sea pressure of 30,5 kN/m².

A door with window can be used only at position where it is allowed. A door with window on the freeboard deck may not protect openings leading below freeboard deck or openings into enclosed superstructures or deckhouses that are considered buoyant.

A door with window is to be fitted with a dead light if located in a position where dead light is required. The deadlight is not covered by this type approval and shall be submitted for case-by-case approval.

Dimensions of the light opening of the doors can be smaller than shown on the drawings, provided that scantlings, maximum distance between the cleats and fabrication method and material are maintained. The Type Approval does not cover the support of the doors in the bulkheads, which is subject to approval. Drawings showing connection between door frame and bulkhead shall be submitted by yard/end user for a case-by-case approval.

Particular consideration shall be given if located in highly stressed areas or in areas critical to fatigue.

Type Approval documentation

Drawings:

Weathertight.M.D. – Window, 009.00 2050x1000 12 cleats, Rev A

Detail Window in Door, 009.99

Fixed A60-window, R5354-1

Tests carried out

After installation onboard, the door shall be function and leak tested onboard according to DNV-RU-SHIP, Pt.2, Ch.4, Sec.8 (July 2022) and DNV-OS-C301, Ch.2, Sec.2, [9] (July 2020 amended August 2021).

The tests are to be witnessed by a DNV surveyor.

Marking of product

The product is to be marked with:

- Manufacturer's name or brand
- DNV Type Approval Certificate No. TAS0000464
- Type designation



Job ID: **262.1-017855-3**
Certificate no.: **TAS0000464**

- Design pressure

Periodical assessment

DNV 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 DNV-CP-0338.