

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Watertight Door**with type designation(s)
Albatros, Eagle and Seagull sliding door

Issued to

Winel B.V.
Assen, Netherlandsis found to comply with
DNV GL rules for classification – Ships**Application :****Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.**Issued at **Høvik** on **2018-02-13**This Certificate is valid until **2023-02-12**.DNV GL local station: **Rotterdam, Offshore & Newbuilding**for **DNV GL**Approval Engineer: **Alessandro Russo**

Arild Rogne
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.



Product description

These watertight doors are sliding doors.

Type	Size	Pressure (kN/m ²)
HD-12430-070/1	800 x 2000 mm	250
HD-12430-070/2	1000 x 2000 mm	150
HD-12430-070/3	1400 x 2100 mm	85
HD-12430-071/1	800 x 2000 mm	250
HD-12430-071/2	1000 x 2000 mm	150
HD-12430-071/3	1400 x 2100 mm	85
446.01.0000	1200 x 2100 mm	120

Application/Limitation

The door has been Type Approved with respect to watertightness only.

The watertight doors are found to comply with DNVGL-RU-SHIP (July 2017) Pt.3 Ch.12 Sec.3 "4 Internal watertight doors and hatches" for maximum design pressures as specified above.

The design pressure at the location where the doors are to be fitted shall be equal or less than the pressure above.

Dimensions of the light opening of the doors can be smaller than shown on the drawings, provided that scantlings and distance between the cleats and the spacing of the stiffeners are maintained.

The Type Approval does not cover the supporting structure of the doors, which is subject to approval. Interface showing door frame and bulkhead shall be submitted for case-by-case approval by yard/end user.

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

Each door shall be hydrostatically tested, according to according to DNVGL-RU-SHIP (July 2017) Pt.2 Ch.4 Sec.8 before installation on board.

The complete door installation is to be operationally tested onboard.

Indication, showing whether the door is open/closed, shall be fitted on the bridge of the ship.

Hydraulic system, hydraulic cylinders and accumulators shall be delivered with DNVGL Product Certificates.

Type Approval documentation

WINEL Drawings:

HD-12430-070/1 Door C.O 800 x 2000 mm Pressure 250 kN/m²
HD-12430-070/2 Door C.O 1000 x 2000 mm Pressure 150 kN/m²
HD-12430-070/3 Door C.O 1400 x 2100 mm Pressure 85 kN/m²
HD-12430-071/1 Door C.O 800 x 2000 mm Pressure 250 kN/m²
HD-12430-071/2 Door C.O 1000 x 2000 mm Pressure 150 kN/m²
HD-12430-071/3 Door C.O 1400 x 2100 mm Pressure 85 kN/m²
HD-12430-002/1 Doorplate 800 x 2000 mm
HD-12430-002/2 Doorplate 1000 x 2000 mm
HD-12430-002/3 Doorplate 1400 x 2100 mm
HD-12430-001/1 Frame 800 x 2000 mm
HD-12430-001/2 Frame 1000 x 2000 mm
HD-12430-001/3 Frame 1400 x 2100 mm
HD-12430-004/800 Rail C.O 800
HD-12430-004/1000 Rail C.O 1000 HD-12430-004/1400 Rail C.O 1400

Job Id: **262.1-013882-3**
Certificate No: **TAS000019W**

HD-12430-101 Closing Plate
HD-12430-102 Catchplate
HD-12430-103 Blocking cone type 1
HD-12430-104 Blocking cone type 1
HD-12430-116 Cylinder support type 1
HD-12430-117 Cylinder support seagull
HD-12430-150 Welding procedure rail
446.01.0000 Class drawing

Tests carried out

Test report dated 2008-12-24 witnessed by DNV Rotterdam.

Marking of product

The product is to be marked with the following info:

- Manufacturer's name or brand
- DNVGL Type Approval Certificate No. TAS000019W
- Type designation
- Max allowable design pressure as specified above

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 shall be done bi-yearly with a time window of +/- 3 months.