



DET NORSKE VERITAS

TYPE APPROVAL CERTIFICATE

CERTIFICATE NO. S-7881

This is to certify that the
Weathertight Door

with type designation(s)
GRP Door with Central Closing

Issued to

Fabryka Sprzetu Okretowego MEBLOMOR S.A.
CZARNKOW, Poland

is found to comply with
Det Norske Veritas' Rules for Classification of Ships

Application
See page 3

This Certificate is valid until **2018-06-30**.

Issued at **Høvik** on **2014-01-07**

DNV local station: **Gdansk**

Approval Engineer: **Magdalena Huse**



Det Norske Veritas AS
Digitally Signed By: Moe, Erlend

Location: DNV Høvik, Norway

Signing Date: 2014-01-09

Erlend Moe
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.

If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Veritas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 2 million. In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.

Product description

GRP weathertight door with central closing.

| Size (H x B) | Number of closing appliance | Max design Pressure (kN/m ²) |
|-----------------|-----------------------------|--|
| 1400mm x 600mm | 2 toggles + 2 hinges | 16 |
| 1400mm x 650mm | 2 toggles + 2 hinges | 16 |
| 1400mm x 700mm | 2 toggles + 2 hinges | 16 |
| 1400mm x 750mm | 2 toggles + 2 hinges | 16 |
| 1500mm x 600mm | 2 toggles + 2 hinges | 16 |
| 1500mm x 650mm | 2 toggles + 2 hinges | 16 |
| 1500mm x 700mm | 2 toggles + 2 hinges | 16 |
| 1500mm x 750mm | 2 toggles + 2 hinges | 16 |
| 1600mm x 600mm | 3 toggles + 3 hinges | 16 |
| 1600mm x 650mm | 3 toggles + 3 hinges | 16 |
| 1600mm x 700mm | 3 toggles + 3 hinges | 16 |
| 1600mm x 750mm | 3 toggles + 3 hinges | 16 |
| 1700mm x 600mm | 3 toggles + 3 hinges | 16 |
| 1700mm x 650mm | 3 toggles + 3 hinges | 16 |
| 1700mm x 700mm | 3 toggles + 3 hinges | 16 |
| 1700mm x 750mm | 3 toggles + 3 hinges | 16 |
| 1800mm x 600mm | 3 toggles + 3 hinges | 16 |
| 1800mm x 650mm | 3 toggles + 3 hinges | 16 |
| 1800mm x 700mm | 3 toggles + 3 hinges | 16 |
| 1800mm x 750mm | 3 toggles + 3 hinges | 16 |
| 1400mm x 800mm | 4 toggles + 2 hinges | 16 |
| 1400mm x 850mm | 4 toggles + 2 hinges | 16 |
| 1500mm x 800mm | 4 toggles + 2 hinges | 16 |
| 1500mm x 850mm | 4 toggles + 2 hinges | 16 |
| 1600mm x 800mm | 5 toggles + 3 hinges | 16 |
| 1600mm x 850mm | 5 toggles + 3 hinges | 16 |
| 1700mm x 800mm | 5 toggles + 3 hinges | 16 |
| 1700mm x 850mm | 5 toggles + 3 hinges | 16 |
| 1800mm x 800mm | 5 toggles + 3 hinges | 16 |
| 1800mm x 850mm | 5 toggles + 3 hinges | 16 |

Version O is with a 560mm x 400mm window.

Version U1 has a Ø150mm side scuttle.

Version U2 has a Ø250mm side scuttle.

The doors have 4 different type of frames: "STK", "ALK", "STP" and "ALP" (Ref. drawing N19/34.231)

Application/Limitation

The doors may be used in access openings according to DNV Ship Rules Pt. 3 Ch.3 Sec. 6 and the International Convention on Load Lines, 1966 Ch.II Reg. 12.

The door is not to be fitted in a location where the design pressure is greater than indicated in the table above. Only specific sizes indicated in the table above is included in the type approval certificate.

GRP doors may not be fitted when it is specified that steel doors shall be used i.e. in galley, engine casing, etc. which may be considered as a space of greater fire risk.

The doors have not been considered with respect to fire protection.

Version O may not be used in openings on the freeboard deck that gives access to rooms that is to provide reserve buoyancy.

Version O, U1 and U2 is to be fitted with dead lights if the doors are fitted in locations where the International Convention on Load Lines requires that windows and side scuttles are fitted with dead lights.

Type Approval documentation

Drawing: N19/34.231

Survey Report No: GDA 00-233 + fax dated 2001-01-30 (Ref: GDA-0159-00)

DNV Type Approval Certificate No. K-1688

Tests carried out

A water head tightness test has been carried out, and the door was found to be weather tight under a pressure of 32 kN/m².

Marking of product

- Manufacturers name
- Type designation
- Max design pressure
- DNV Type Approval Certificate no. S-7881

The marking L-IV-1800x850-STK-O-Z3 implies:

L - Left opening type

IV - Model IV (Ref: drawing N19/34.231)

1800x850- Light opening in mm

STK- Type of frame (Ref: drawing N19/34.231)

O- Fitted with window

Z3- Fitted with key lock with handle.

Certificate No.: S-7881
File No.: 441.21
Job Id.: 262.1-016119-1

Certificate retention survey

Det Norske Veritas' surveyor is to be given permission to perform Certification Retention Survey at any time during the validity period of this certificate.

END OF CERTIFICATE