Certificate No:
TAF00001R3

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Class H Door

with type designation(s)
H-120DT

Issued to
Baggerød AS
HORTEN, **Norway**

is found to comply with
DNV offshore standards

Application :

The door is approved for installation in steel bulkheads of class H-120.

Issued at **Høvik** on **2022-04-08**
This Certificate is valid until **2027-04-07**.
DNV local station: **East & South Norway CMC**

Approval Engineer: **Kristin Grønnæss**

for **DNV**

Helene David-Andersen
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

"H-120DT"
is a triple hinged door construction consisting of an active, passive, and top door leaf. The door leaves are composed of 3 mm thick steel sheets with an insulating core of four layers (38+25+25+38 mm) of "Firemaster Marine Plus Blanket" (density 128 kg/m^3, manufactured by Morgan Thermal Ceramics). The active door leaf is fitted with a 3-point lock and a handle, whereas the passive and top door leaf are fitted with four steel shoot bolts (Ø20 mm) each.

Total door leaf thickness is 131 mm.

The active and passive door leaves are fixed to a four-sided door frame by four hinges, whilst the top door leaf is fixed with six hinges. The four-sided door frame is made of 4 mm thick steel and may either be welded or bolted (M8x30, c/c max. 150 mm) to the bulkhead.

The door construction may be fitted with:
- Window in the upper part of the active and/or passive door leaf with glass thickness of 96 mm (type "Pyrostop 60-101" (23 mm) + "Pyrostop 60-201" (27 mm), manufactured by Pilkington).
- Three horizontal steel stiffeners on the inner side of both steel sheets on the active and passive door leaf.

For further details, see drawings listed under Type Approval documentation.

The product may be manufactured at the following locations:
- Baggerød AS, Horten, Norway.

Application/Limitation

The door is approved for installation in steel bulkheads of class H-120. Installation of the door in bulkheads made of other materials (aluminium, FRP, etc.) are subject to case-by-case approval.

Max. clear opening door:	2500 x 3500 mm (W x H).
Max. size of active door leaf:	1177 x 2490 mm (W x H).
Max. size of passive door leaf:	1490 x 2490 mm (W x H).
Max. size of top door leaf:	2680 x 1192 mm (W x H).
Max. clear opening window:	500 x 500 mm (W x H).

The door construction may be delivered without the top door leaf, i.e. with clear opening of 2500 x 2300 mm (W x H).

Any surface materials used have to be approved for smoke and toxicity and low flame spread characteristics (IMO 2010 FTP Code parts 2 and 5) when required according to relevant rules.

Each product is to be supplied with its manual for installation, use and maintenance.

Type Approval documentation

Certification in accordance with Class Program DNV-CP-0338, September 2021.

Test report No. PGB10062A dated 25 June 2021 from DBI, Hvidovre, Denmark.

Test report No. 150071-38 dated 25 January 2021 from RISE, Trondheim, Norway.
Assessment report No. PHD10026A dated 28 December 2021 from DBI, Hvidovre, Denmark.

Drawing No. I0002-015-001, Rev. 3, dated 29 November 2021 from maker.
Drawing No. I0002-015_002, Rev. 3, dated 9 September 2021 from maker.

Tests carried out

Tested according to IMO 2010 FTP Code part 3 with furnace temperature following the hydrocarbon curve according to EN 1363-2:1999.

Marking of product

The product is to be marked with name of manufacturer, type designation and fire technical rating.

Periodical assessment

DNV's surveyor is to be given permission to perform Periodical Assessments at any time during the validity of this certificate and at least every second year. The arrangement is to be in accordance with procedure described in Class Programme DNV-CP-0338, Section 4.