TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MERB00008Y6
Revision No:
0

This Certificate is issued by DNV UK Limited based on authorisation of the Maritime & Coast Guard Agency (MCA) as an UK Approved Body to undertake conformity assessments on marine equipment in accordance with the requirements of the Merchant Shipping (Marine Equipment) Regulations 2016 as amended.

This is to certify:

That the Fire Doors

with type designation(s)
HB-S

Issued to
Baggerød AS
HORTEN, **Norway**

is found to comply with the requirements in the following Regulations/Standards:
Regulation **MSN 1874 Amendment 9,**
item No. UK/3.16. SOLAS 74 as amended, Regulation II-2/9, IMO 2010 FTP Code and IMO MSC.1/Circ.1511, IMO MSC.1/Circ.1319

Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2029-07-03**.

Issued at **London** on **2024-07-04**

for **DNV UK Ltd.**

DNV local unit:
Sandefjord

Approval Engineer:
Tessa Biever

Approved Body No.: **0097**

Mydlak-Röder, Christine
MER Service Responsible

Maritime & Coastguard Agency
UK Approved Body Authorised by the MCA

This certificate will not be valid if the manufacturer makes any changes or modifications to the approved type of equipment, which have not been notified to, and agreed with the approved body named on this certificate.
During the period of validity of this certificate the applicable regulations (international conventions and the relevant resolutions and circulars of the IMO) and testing standards may change, therefore the product conformity may need to be re-assessed by the Approved Body.
"The Mark of Conformity" may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-control phase module (D, E or F) of Schedule 2 of the Merchant Shipping (Marine Equipment) Regulations 2016, as amended is fully complied with and controlled by a written inspection agreement with an approved body. In case limitations of use apply, these should be indicated in the Annex.

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

"HB-S",
is a single leaf sliding door composed of a 100 mm (38 mm + 38 mm + 25 mm) thick insulation core of type 'Firemaster Marine Plus' (density 96 kg/m^3, manufactured by Morgan Advanced Materials) with a 2 mm steel sheet on each side. The door leaf may be equipped with a window of glass type 'Pyrostop 60-201 (manufacturer d by Pilkington) with dimensions 240 mm x 540 mm x 27 mm (W x H x T).

Total door thickness: 104 mm.

The door leaf is fitted with reinforcements on the perimeter, made of an asymmetric C shaped stainless steel profile on the top side and, on the other three sides, of C shaped stainless steel profiles, 3 mm thick, welded to the stainless steel sheets.

The door leaf, on each face, is fitted with two vertical L shaped stainless-steel stiffeners, 2 mm thick and having dimensions of 20 x 40 mm, welded to the stainless-steel sheets.

The stainless-steel sliding guide, produced by HELM and named Art. No. 400, has thickness of 3.2 mm, width of 48.5 mm and height of 43.5 mm. The suspension elements with height adjustable joint, produced by HELM and named Art. No. 404, have width of 68 mm. In correspondence to the suspension elements, the sliding guide is fixed to the bulkhead by means of four brackets 860 mm far from each other and made of a stainless-steel element having an overhang of 153 mm.

The leaf is fitted with a closure system, actuated by a stainless-steel handle.

The door frame is composed of stainless-steel profiles 3 mm thick. These elements form the roller guides and the labyrinths on the edges of the leaf. The door frame may be fixed to the bulkhead by means of 54 bolts type M8x25 with pitch of 150 mm or by means of welding.

The window's inside frame is composed of two C shaped stainless steel profiles on each side, fixed to an insulating material named Promatect H, having density of 870 kg/m^3 and dimensions of 20 x 30 mm, by means of bolts type M5x35 (four on each vertical edge and two on each horizontal edge).

The window's inside frame, on each side, is composed of two shaped stainless steel profiles that support the glass and it is completed with an insulating material of type 'Insulfrax Board 110 LD' having section of 3 x 20 mm. Another insulating layer of the same type 'Insulfrax Board 110 LD' and having section of 5 x 104 mm is provided in the window's frame.

For further details, see drawing listed under Type Examination documentation.

Application/Limitation

Approved for installation in steel bulkheads of class A-30. Installation of the door in bulkheads made of other materials (aluminium, FRP, etc.) are subject to case-by-case approval.

Max. size of door leaf:	2735 mm x 2735 mm (W x H)
Max. size of door clear opening:	2500 mm x 2580 mm (W x H)
Max. size of window clear opening:	240 mm x 540 mm (W x H)

The insulation materials and adhesives used have to be approved according to the Marine Equipment Regulations and bear the UK Mark of Conformity. This requirement may also be applicable for surface materials used, if required by relevant rules and regulations.

Note that this is a fire safety certificate which only covers fire technical properties (i.e. does not cover strength evaluations related to watertightness, weathertightness, etc.).

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

Type Examination documentation

Test report No. 2014CS011591/1 dated 18 January 2016.

Assessment report No. 150101-30 Rev.2 dated 21 December 2018 from RISE, Trondheim, Norway.

Drawing No. 19088_203 Rev.2 from manufacturer.

Tests carried out

Tested according to IMO 2010 FTP Code part 3.

Marking of product

The product is to be marked with name and address of manufacturer, type designation, fire technical rating and the UK Mark of Conformity (see first page).