

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED), issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Authority. This Certificate is issued by DNV GL AS under the authority of the Government of Norway.

This is to certify:

That the Fire Doors

with type designation(s)

A60 Single leaf hinged door - type HB-H

Issued to

Baggerød AS
HORTEN, Norway

is found to comply with the requirements in the following Regulations/Standards:

Regulation **(EU) 2019/1397,**

item No. MED/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

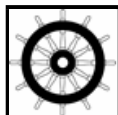
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2025-08-02.**

Issued at **Høvik** on **2020-08-03**

DNV GL local station:

Norway Fleet in Service, East-South



for **DNV GL AS**

Approval Engineer:

Marcin Tobiasz

Notified Body

No.: **0575**

Roald Vårheim

Head of Notified Body

A U.S. Coast Guard approval number will be assigned to the equipment when the production module has been completed and will appear on the production module certificate (module D, E or F), as allowed by the "Agreement between the United States of America and the EEA EFTA states on the mutual recognition of Certificates of Conformity for Marine Equipment" signed 17 October 2005, and amended by Decision No 1/2019 dated February 22nd, 2019.

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-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU.

This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV GL AS of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled.

Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.



LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") 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

"A60 Single leaf hinged door – Type HB-H"

is a Class A-60 hinged single leaf door composed of a door leaf with two steel L- profiles stiffeners, a door frame, 3 hinges, a stainless steel lockset, insulation and sealing materials.

The door leaf is composed of an insulated core (two layers of FireMaster Marine Plus, 128 kg/m³ produced by Thermal Ceramics) covered with 1.5 mm thick steel sheets on each side. The thicknesses of the insulation layers are 38 mm and 25 mm. The steel sheets are bent around the door edge and are interlocking against each other. The door is internally stiffened with two vertical steel L-profiles.

The door may be fitted with a 27mm thick window of type Pilkington Pyrostop 60-201. The window frame is bent from a 2mm steel sheet to a Z-profile. The window frame was fixed with 4 pcs of M5x12mm screws on the vertical edges and 2 on the horizontal edges. 5 mm thick Superwool Plus Paper was used along the edges of the window. Also, 30x20mm Promatect H (940 kg/m³) was used around the glass pane inside the door leaf.

The door frame consists of 3 mm thick steel L-profiles. A Z-profile with oval holes is fixed to the doorframe making it possible to adjust the distance to the door leaf.

The door frame is fixed to the steel bulkhead using M8 x 30mm bolts placed c/c 250 mm on the horizontal edges and c/c 300 mm on the vertical edges. The door frame may also be welded to the steel bulkhead.

Max. door thickness: 63 mm.

For further details see drawings listed under Type Examination documentation below.

Application/Limitation

The door is approved for installation in steel bulkheads of class A-60. 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: 1180 x 2275 mm (W x H).

Max clear opening of door: 1100 x 2221 mm (W x H).

Max clear opening of window glazing: 200 x 500 mm (W x H).

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

A fire door of marginally larger dimensions than a fire-tested fire door may be individually assessed and accepted by Flag Administration (or Recognized Organization acting on its behalf) for a specific project with the same classification, provided documented compliance with IMO MSC.1/Circ.1319.

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

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

Type Examination documentation

Test report no. PGA10664 dated 20 April 2015 from DBI, Hvidovre, Denmark.

Assessment/confirmation from Morgan Advanced Materials dated 23 June 2020.

Drawing no. 19647-001, Rev. A, dated 2015-01-15 from manufacturer

Drawing no. 19647-002, Rev. 0, dated 18 September 2014 from manufacturer

Tests carried out



Job Id: **344.1-004795-2**
Certificate No: **MEDB000069F**

Tested according to IMO 2010 FTP Code Part 3.

The door has been successfully tested for extended test period of 68 minutes.

Marking of product

The product is to be marked with name and address of manufacturer, type designation, fire technical rating, the MED Mark of Conformity and USCG Approval Number if applicable (see first page).

USCG approval limitations

The approval is limited to fire doors without windows and doors with total window area of 645 cm², or less, in each door leaf. For larger windows, USCG shall be contacted.