EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate no.:
MEDB0000BYG
Revision no.:
0

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED). This Certificate is issued by DNV SE based on the notification of the Federal Maritime and Hydrographic Agency of Germany.

This is to certify:

that the **Fire doors**

with type designation(s)
B-15M single Type I / Type II

issued to
Rheinhold & Mahla GmbH
Schellerdamm 22-24 21079 Hamburg Germany,

is found to comply with the Implementing Regulation **(EU) 2025/1533** for
Item no. **MED/3.16** (Row **1 of 1**)
according to the following requirements:
SOLAS 74 Reg. II-2/9, IMO MSC.1/Circ.1511

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

Date of issue: **2026-03-10**

Expiry date: **2028-03-05**

DNV local unit:
Hamburg – CMC North/East

Approval Engineer:
Meike Grabau

Notified Body
no.: **0098**

for **DNV SE**

Christine Mydlak-Röder
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 European Community and the United States of America on Mutual Recognition of Certificates of Conformity for Marine Equipment, signed February 27th, 2004, and amended by Decision No 1/2023 dated May 26th, 2023.
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 SE 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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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 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 USD 300 000.

Product description

"B-15M single Type I / Type II"
is a class B-15 single leaf hinged door composed of door leaf, frame, window and escape panel.

For further details, see appendix and documents listed under Type Examination documentation below.

Please see Appendix: Product Description

Application/Limitation

Approved for use as an integrated part of fire retarding division of class B-15.

Maximum door leaf size, type I, variant A: 1181 mm x 2210 mm (W x H)
Maximum door leaf size, type I, variant B: 1182 mm x 2212 mm (W x H)
Maximum door leaf size, type I, variant C: 1182 mm x 2205 mm (W x H)
Maximum door leaf size, type II: 932 mm x 2020 mm (W x H)
Maximum clear door opening, type I: 1150 mm x 2200 mm (W x H)
Maximum clear door opening, type II: 900 mm x 2000 mm (W x H)
Maximum clear window opening: 400 mm x 400 mm (W x H)
Maximum clear escape opening: 600 mm x 600 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 (type I, variant A) 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.

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.

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

Type Examination documentation

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, the Mark of Conformity and USCG Approval Number if applicable (see first page).

APPENDIX
Product Description

Certificate no.:
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"B-15M single Type I – variant A":
The door leaf is composed of 37.5 mm type ABM-SR rock wool (produced by Shanghai Advanced Building Materials Mineral Wool Factory, density: 150 kg/m³), sandwiched between two 0.7 mm thick galvanized steel plates. The insulation is glued to the steel plates with an adhesive of approved type. The door leaf is connected to the frame by three stainless steel hinges at one side and fitted with a lock at the other side. The upper part of the door may be optionally fitted with a fireproof rectangular glass window with a total thickness of 23 mm, composed of fireproof glass type Pyrostop 60-101 (manufactured by Pilkinton Germany) in a press frame fixed to the door leaf by bolts.
The lower part of the door may be optionally fitted with an escape panel and/or ventilation grilles. The escape panel and the ventilation grilles consist of a 0.7 mm thick steel plate and the escape panel frame is composed of 1.5 mm steel plate.
The four-sided door frame with dimension 1230 mm x 2500 mm x 51.5 mm (W x H x D) is composed of 1.5 mm thick galvanized steel plate without insulation, either welded or bolted to the bulkhead.

Total door leaf thickness: 39 mm.

"B-15M single Type I – variant B":
The door leaf is composed of 37.5 mm type SeaRox SL 440 rock wool (produced by Rockwool, density: 150 kg/m³), sandwiched between two 0.7 mm thick galvanized steel plates. The insulation is glued to the steel plates with an adhesive of approved type. Along all edges of the door leaf a 25 mm x 35 mm x 25 mm C profile is mounted and a 25 mm x 30 mm x 1.5 mm reinforcement is installed inside the door leaf at the hinge side. The door leaf is connected to the frame by three steel hinges at one side and fitted with a lock at the other side.
The upper part of the door may be optionally fitted with a fireproof rectangular glass window with a total thickness of 23 mm, composed of fireproof glass type Pyrostop 60-101 (manufactured by Pilkinton Germany) in a press frame fixed to the door leaf by bolts. A strip of 4 mm thick Insulfrax paper is adhered between the glass pane and the frame.
The lower part of the door may be optionally fitted with an escape panel and/or ventilation grilles. The escape panel consists of a 0.7 mm thick steel plate and the escape panel frame is composed of 1.5 mm steel plate. The ventilation grille is made of 1.0 mm thick steel plate.
The four-sided door frame with dimension 1270 mm x 2475 mm x 51.5 mm (W x H x D) is composed of 1.5 mm thick steel plate, insulated by 48.5 mm type SeaRox SL 440 rock wool (produced by Rockwool, density: 150 kg/m³), either welded or bolted to the bulkhead.

Total door leaf thickness: 39 mm.

"B-15M single Type I – variant C":
The door leaf is composed of 38.5 mm type ABM-SR150 rock wool (produced by Shanghai ABM Rock Wool, density: 150 kg/m³), sandwiched between two 0.7 mm thick galvanized steel plates. The insulation is glued to the steel plates with an adhesive of approved type. The door leaf is connected to the frame by three hinges at one side and fitted with a lock at the other side.
The upper part of the door may be optionally fitted with a fireproof rectangular glass window with a total thickness of 32 mm, composed of 6 mm reinforced glass + 20 mm fire gel + 6 mm reinforced glass (manufactured by Qinhuang Island Haigang Industrict Yuehua Industrial Technology) in a press frame fixed to the door leaf by bolts.
The lower part of the door may be optionally fitted with an escape panel and/or ventilation grilles. The escape panel, the escape panel frame and the ventilation grille consist of a 0.7 mm thick steel plate.
The three-sided door frame with dimension 1270 mm x 2500 mm x 51.5 mm (W x H x D) is composed of 1.5 mm thick steel plate filled with type ABM-SR150 rock wool (produced by Shanghai ABM Rock Wool, density: 150 kg/m³), either welded or bolted to the bulkhead.

Total door leaf thickness: 40 mm.

“B-15M single Type II”:
The door leaf is composed of 37.5 mm type ABM-SR rock wool (produced by Shanghai Advanced Building Materials Mineral Wool Factory, density: 150 kg/m³), sandwiched between two 0.7 mm thick galvanized steel plates. The insulation is glued to the steel plates with an adhesive of approved type. The door leaf is connected to the frame by three or four steel hinges at one side and fitted with a lock at the other side.
The upper part of the door may be optionally fitted with a fireproof rectangular glass window with a total thickness of 30 mm, composed of 6 mm toughened glass + 18 mm fire solution + 6 mm toughened glass (produced by Qinghuangdao Xingyang Special Glass) in a press frame fixed to the door leaf by bolts.
The lower part of the door may be optionally fitted with an escape panel with ventilation grilles. The escape panel and the ventilation grilles consist of a 0.7 mm thick steel plate and the escape panel frame is composed of 1.5 mm steel plate.
The four-sided door frame with dimension 990 mm x 2500 mm x 51.5 mm (W x H x D) is composed of 1.5 mm thick steel plate without insulation, either welded or bolted to the bulkhead.

Total door leaf thickness: 39 mm.

B-15M single Type II may be constructed with an alternative door leaf thickness of 50 mm, where the insulation thickness is increased by 11 mm. With increased insulation thickness, the door may be fitted with an extra layer of 0.7 mm steel sheets on both sides of the door leaf.