DNV·GL

Certificate No:
MEDB00004CM

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED). This Certificate is issued by DNV GL 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)
Door B-15 MK2

Issued to
R & M International GmbH
Hamburg, Germany

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2018/773,**
item No. MED/3.16. SOLAS 74 as amended, Regulation II-2/9, IMO 2010 FTP Code and IMO MSC.1/Circ.1511

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

This Certificate is valid until **2023-09-11**.

Issued at **Hamburg** on **2018-09-12**

DNV GL local station:
Rostock

Approval Engineer:
Pavel Golyshev

Notified Body
No.: **0098**

for **DNV GL SE**

Sven Dudszus
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.

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 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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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.

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Product description

"Door B-15 MK2"
A single leaf hinged fire door composed of door leaf and frame and various fittings.

The door leaf is composed of (starting at the side exposed to fire):

- 1.2 mm thick steel plate
- layer of rockwool insulation (approx. 15 mm thick)
- 0.7 mm thick punching steel plate
- 16 mm thick air gap
- 0.7 mm thick punching steel plate
- layer of rockwool insulation (approx. 15 mm thick)
- 1.0 mm thick steel plate

During the test, the door leaf was installed to open away from the heating conditions.

The four-sided door frame is made by 1.5 mm thick steel plate and filled with rock wool insulation. At the top of door frame, a 73 mm thick top panel of external size of 335 mm in height (355 mm including additional overlap of 20 mm on the side exposed to fire) is installed as one part of it. The top panel is insulated inside with rock wool.

For insulation of door leaf, frame and frame top panel, ABM-SR type marine moisture-proof rock wool slab (provided by Shanghai ABM Rockwool Co., Ltd, China, nominal density: 200 kg/m³) is used and fixed to the steel plates with an adhesive of approved type.

The door leaf is connected to the frame by three steel hinges at one of its vertical edge and is fitted with a fireproof lock at the other edge. The door frame is bolted to the bulkhead and may also be tack- and fully welded to the bulkhead.

The door may be optionally fitted with:

- Escape panel arranged as integrated part of the door leaf with slots cut into the steel sheet under the circumference of cover profile made by 1.5 mm x 30 mm steel plate, further details acc. to drawings nos. B-15MK2-KOP_FIRETEST_01.2015_02-04 and B-15MK2-KOP_FIRETEST_01.2015_03-04;
- Spy eye (Ø14 mm) acc. to drawing K701802;
- Cable pipe of Ø 18 mm x 479 mm installed at the mid position in door leaf, made by 1.0 mm steel plate and fixed by an adhesive of approved type.

Total thickness of door leaf: 50 mm (not including the edge cover).

For further details, see test reports with included drawings listed under Type Examination documentation below.

Application/Limitation

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

Max. size of door leaf: 933 mm x 2111 mm (width x height)
Max. clear opening door size: 900 mm x 2100 mm (width x height).
Max. clear opening of escape panel: 600 mm x 800 mm (width x height).

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.

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

Job Id: **344.1-008457-1**
Certificate No: **MEDB00004CM**

Type Examination documentation

Test reports nos. FT14061 dated 2nd of April 2014 and FT16121 dated 23rd of March 2016, both issued by Far East Fire Testing Centre (FEFTC), Shanghai, China.

Tests carried out

Tested according to IMO Resolution MSC.307(88) – 2010 FTP Code Annex 1, Part 3.

Marking of product

The product or packing is to be marked with name and address of manufacturer, type designation, fire-technical rating, MED Mark of Conformity and USCG approval number if applicable (see first page).

USCG Approval Category (Module B) number

This product has been assigned a U.S. Coast Guard Module B number 164.136/EC0098 to note type approval to Module B only as it pertains to obtaining US Coast Guard approval 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.