EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB000089K

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)
Hatches (integrated / with frame)

Issued to
R & M International GmbH
Hamburg, **Germany**

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2022/1157,**
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 **2028-01-23**.

Issued at **Hamburg** on **2023-01-24**

DNV local unit:
Hamburg – CMC North/East

Approval Engineer:
Roland Priebe

Notified Body
No.: **0098**

for **DNV SE**

Christine Mydlak-Roeder
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 1/2018 dated February 18th, 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 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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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 300,000 USD.

Product description

The "**Hatches (integrated / with frame)"** are bulkhead fire doors classed as B-0.

Integrated:

The fire door is made of 25 mm thick mineral wool with 0.6 mm steel sheets covering all surfaces.

Inside the door opening an intumescent strip of 2 mm thickness is provided.

The door is mounted into the bulkhead with a piano hinge fixed with blind rivets. A U-profile is fixed inside the bulkhead panels groove and a T-shaped profile at three sides of the opening is preventing the integrated fire door from opening to the inside.

With frame:

The fire door is made of 25 mm thick mineral wool with 0.6 mm steel sheets covering all surfaces.

Inside the door opening an intumescent strip of 2 mm thickness is provided.

The frame is a steel Z-profile with the dimensions 15.5 x 31 x 30 x 1.5 mm.

The door is mounted into the bulkhead with a piano hinge fixed with blind rivets. A U-profile is fixed inside the bulkhead panels groove.

Both fire doors were provided with two turning looks located 250 mm from the top and bottom of the hatch.

The rock wool insulation of type ABM-SR 200 from Shanghai ABM Rock Wool Co., Ltd. has a nom. thickness of 24 mm, a nom. density of 200 kg/m³ and a nom. organic content of 1.5%. The insulation is adhered to the steel coverings.

For further details refer to the documentation listed below under "Type Examination documentation".

Application/Limitation

Approved for use as an integrated part of fire retarding division of class B-0.

Integrated:
Max. door leaf size: 1870 mm x 1023 mm x 25 mm (height x width x thickness)
Max. door clear opening: 1837 mm x 1000 mm (height x width)

With frame:
Max. door leaf size: 1870 mm x 1023 mm x 25 mm (height x width x thickness)
Max. door clear opening: 1850 mm x 1000 mm (height x width)

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.

The insulation materials and adhesives and gaskets 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.

Type Examination documentation

Test report No. PGB10160A dated 2022-10-14 from the Danish Institute of Fire and Security Technology, Hvidovre, Denmark.

Tests carried out

Tested according to IMO Res. MSC.307(88) – 2010 FTP Code Annex1, Part 3.

The door has been successfully tested with extended test period for at least 36 minutes for fire integrity in compliance with IMO MSC.1/Circ.1319.

Marking of product

The product or packing is to be marked with name and address of manufacturer, type designation, fire technical rating, the MED Mark of Conformity and USCG approval if applicable (see page 1).