

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)
A-15 single

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

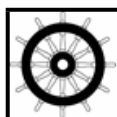
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2023-08-13**.

Issued at **Hamburg** on **2018-08-14**

DNV GL local station:
Rostock

Approval Engineer:
Pavel Golyshev



Notified Body
No.: **0098**

for **DNV GL SE**

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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



Product description

"A-15 single"

A single leaf hinged fire door composed of door leaf and frame and various fittings.

The door leaf is manufactured by 1.5 mm thick steel sheets and is 1232 mm wide and 2210 mm high in external size. The insulation inside the door leaf consists of one layer of 36 mm thick stone wool insulation of type Tizol-Flot 150 (manufactured by Tizol, nominal density: 150 kg/m³). The insulation is glued to the steel sheets with an adhesive of approved type.

Along all edges of the door leaf a cover made by 15 mm x 43 mm x 15 mm x 0.7 mm steel U-profiles is fixed by steel pop rivets. The steel profile is folded inwards along the 15 mm edges.

The door frame is made by Z-profile of specification 60 mm x 53 mm x 24 mm x 4 mm bolted to the steel bulkhead. This type of door frame may also be tack- and fully welded to the steel bulkhead.

Alternative frame acc. to supplement to test report: U-profile with an extra flange of specification 65 mm x 65 mm x 53 mm x 24 mm and a thickness of 4 mm. This type of frame shall be fully welded to the steel bulkhead and insulation of the bulkhead shall fill out the hollow frame, acc. to drawing no. "A-15_FRAME-TYPES_01-01" of the supplement.

The door leaf is connected to the frame by three steel hinges at one of its vertical edge (two hinges are fitted in the upper part and the other one fitted in the lower part) and is fitted with a latch/bolt lock at the other edge.

The door may be optionally fitted with:

- Fireproof rectangular glass window of multilayer construction (total thickness 23 mm) of type Pilkington Pyrosop 60-101, provided by Pilkington Deutschland AG Gelsenkirchen, Germany. Window frame and fixing details acc. to drawing no. "A-15-SINGLE_FIRETEST_05.2018_02-04" of the test report;
- Self-closing (fitted with chain spring "18") hose port with approx. 150 mm square clear opening (with the door closed), further details acc. to drawing no. "A-15-SINGLE_FIRETEST_05.2018_03-04" of the test report;
- Magnetic sensor DC124 mounted at the top of the door leaf near the corner at the lock side.

The door leaf is mounted with a 1.9 mm x 40 mm intumescent strip of type Promaseal PL (provided by Promat GmbH, Germany) adhered along the bottom edge of the door leaf. The intumescent strip of same type and specification is also adhered along the bottom edge of the hose port, as well as on the door leaf above the hose port and along the hinged side. In addition, same intumescent strip is fixed to the door frame (both Z- and U-profiles): along the top and the vertical sides inside the door frame profile is adhered along the flange.

Total door leaf thickness (not including the edge cover): 39 mm.

For further details, see test report and supplement to test report (both with enclosed drawings) listed under Type Examination documentation below.

Application/Limitation

The door is approved for installation in steel bulkheads of class A-15. Installation of the door in bulkheads made of other materials (aluminium, FRP, etc.) are subject to case-by-case approval.

Max. clear opening door size (as tested): 1200 mm x 2200 mm (height x width).

Max. clear view opening size of window: 400 mm x 400 mm (width x height).

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.

Doors with windows shall not be fitted in the boundaries of machinery spaces of category A.

Job Id: **344.1-008442-1**
Certificate No: **MEDB00004C4**

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.

Type Examination documentation

Test report No. PGA11232A (edition 1) and supplement (revision 1) to test report PGA11232A both dated 8th of August 2018 and issued by Danish Institute of Fire and Security Technology, Denmark.

Tests carried out

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

The door has been successfully tested with extended test period for at least 18 minutes for insulation and 68 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, 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. Doors with a window area exceeding 645 cm² are not part of this certificate and need direct USCG approval.

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.