EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate no.:
MEDB0000BZA
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)
A-60 double

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: **2026-03-17**

Expiry date: **2028-08-29**

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

"A-60 double"
is a class A-60 double fire door optionally equipped with window and hose port.

The structure and shape of each door leaf A+B is identically and consists of 1.5 mm thick galvanized steel sheet + 22 mm stone wool + 6 mm fire board + 22 mm stone wool + 1.5 mm thick galvanized steel sheet. The layers are glued together with an adhesive of approved type. The steel sheets of both door leaves are folded forming an overlap of 20 mm along the vertical edges as well as along the top edge of the door leaves. The steel sheets are spot welded together along the bottom edge.

The insulating stone wool is of type ABM-SR 150 (density 150 kg/m³) provided by Shanghai ABM Rockwool, China and the fire board is of type Promina M (density 1000 kg/m³) provided by Promat Research and Technology Centre, Belgium.

Both door leaves are fitted with three steel hinges and mounted with a 1.9 mm x 20 mm intumescent strip of type Promaseal PL, provided by Promat Germany adhered along the lock side, as well as along the hinged side, the top edge and the bottom edge of both door leaves.

Door leaf A (inactive) is provided with a casing along the entire lock side covering the two espagnolette locks. The lock at the top consists of an espagnolette latch lock activated by a door handle mounted approx. 380 mm from the top of the door leaf. The espagnolette lock at the bottom of the casing is activated when the active door is closing pressing the latch inwards and the bolt downwards. An intumescent strip Promaseal, provided by Promat, Germany is adhered along the top, the bottom the hinged side and the lock side of the door leaf.

Door leaf B (active) is provided with a three-point lock. The lock at the top and the bottom consisted of a latch lock. The central lock consists of a latch/bolt lock. All three lock casings are covered with a 1.5 mm thick steel casing and insulated inside on both sides with 6 mm Promina M fire board. Along the opposite door leaf a protection cap is welded on the inside along the openings in the espagnolette casing. The protection caps are covering the holes for the latches and bolt of the three locks. At the central part of the lock side the door leaf is mounted with two fire hooks (300 mm above and 300 mm below the lock). An intumescent strip Promaseal, provided by Promat, Germany is adhered along the top, the bottom and the hinged side of the door leaf.

The steel door frame size is 2670 mm x 2315 mm x 56 mm x 4 mm (W x H x D x T) and consists of three 4 mm x 29 mm x 56 mm x 60 mm Z-profile along the top and the vertical edges as well as a steel U-profile 4 mm x 30 mm x 56 mm x 30 mm mounted upside down along the bottom. The various frame profiles are fixed together by means of brackets. The door frame is fixed to the bulkhead by welding or with M10 mm bolts with a maximum distance of 270 mm. Alternatively the Z-shaped profile may be substituted by an U-shaped profile of 34 mm x 56 mm x 65 mm x 65 mm, 4 mm thick and fully welded to the bulkhead – see Supplement 1, PGA11194A.

Both door leaves may be fitted with a window of maximum size 460 mm x 460 mm in the upper half of the door leaf. The glass pane consists of 27 mm thick Pyrostop 60-201 provided by Pilkington.
Alternatively, the door leaves may be fitted with a round window of 32 mm glass "Type A-60", made by Yuehua Industr., China - see Supplement 2, PGA11194A.

At the lower part of the lock side the active door leaf B may be fitted with a hose port. The piano hinge of the hose port is mounted to the door leaf with pop-rivets. The hose port is closing automatically by means of a concealed spring feeder (chain spring).

Total thickness of each door leaf: 53.5 mm.

For further details see documents under Type Examination documentation below.

Application/Limitation

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.

Maximum door leaf size, each: 1270 mm x 2235 mm (W x H)
Maximum clear door opening: 2500 mm x 2200 mm (W x H)
Maximum clear window opening: 405 mm x 405 mm (W x H), alternative: Ø 405 mm
Maximum clear hose port opening: 150 mm x 150 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.

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

USCG approval: 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.

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).