DNV·GL

Certificate No:
MEDB00003CR

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)
ALVEDOOR B 15 M Type I and Type II

Issued to
R & M International GmbH
Hamburg, Germany

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2017/306,**
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 **2023-01-21**.

Issued at **Hamburg** on **2018-01-22**

DNV GL local station:
Rostock

Approval Engineer:
Timo Linn

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

© DNV GL 2014. DNV GL and the Horizon Graphic are trademarks of DNV GL AS.

Product description

"Alvedoor B 15 M Type I"
single leaf hinged door composed of an insulated core of 38 mm "ABM-SR", manufactured by Shanghai Advanced Building Materials China, of density 150 kg/m^3, covered on each side with 0.7 mm steel sheets and glued with an adhesive.

The door may be fitted with a 400 x 400 mm (height x width) window of type "Pyrostop 60-101" from Pilkington, or a 30 mm thick (6mm thoughened glass +18mm fire solution + 6mm toughened glass) window from Qinghuangdao Xingyang Special Glass Co., Ltd in upper part of door leaf. The window type "Pyrostop 60-101" may also can be round type with maximum diameter 400 mm.

The door may also be fitted with an escape panel 600 x 600 mm (height x width) with ventilation louver in lower part of door blade.

The door is fitted with 3 or 4 hinges. The door frame is made of 1,5 mm steel sheets and is fasten with screws to the bulkhead.

Total thickness of door 40 mm.

The door may be constructed with increased insulation thickness to 48 mm. Alternative door leaf thickness is 50 mm. When constructed with increased insulation thickness, the door may be fitted with an extra layer of 0.7 mm steel sheets on one or both sides of the door leaf.

"Alvedoor B 15 M Type II"
single leaf hinged door compose of an insulated core of 37.6 mm ABM-SR type rock wool, of density 150 kg/ m^3 manufactured by Shanghai Advanced Building Materials Mineral Wool Factory, covered on front side with 1.2 mm steel plate and on back side with 0.8 mm steel plate. The steel plates are glued to the insulation with an adhesive. The door has 3 hinges. The door frame is made of 1,5 mm steel sheets and is fasten with screws to the bulkhead.

Total thickness of door 39.6 mm.

Application/Limitation

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

Max. clear opening(Type I): 2200 x 1150 mm (height x width).
Max. clear opening (Type II): 2008.7 x 850 mm (height x width).

The doors may be fitted with a concealed door closer with type designation "Geze Boxer" or "Dorma ITS".

A fire door (Type I) 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 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.

Note that this is a fire safety certificate which only covers fire technical properties (i.e. not to cover any evaluations related to watertightness, weathertightness etc.).

Type Examination documentation

"Alvedoor B 15 M Type I"
Test Report No. FT11188 dated 16 August 2011 from Far East Fire Testing Centre (FEFTC), Shanghai, China.

Assessment Report No. PHA10422b dated 24 September 2013 from Danish Institute of Fire and Security Technology, Denmark.

Assessment Report No. FT13 (A) 02 (increased insulation thickness) dated 22 January 2013,
No. FT13 (A) 05 (extra steel sheet) dated 4 March 2013,
No. FT13 (A) 08 (four hinges) dated 16 July 2013 all from Far East Fire Testing Centre (FEFTC), Shanghai, China.

Test Report No. FT13186 dated 15 July 2013 from Far East Fire Testing Centre (FEFTC), Shanghai, China.

Drawings:
No. C 301 078 A, C 300925 F, C 301293, all dated 28 February 2000
D 100 345 B dated 9 August 1999,
D 300925 E dated 9 April 1998,
B 100634 A dated 28 February 1996
B 301433 and D 100345 dated 9 February 1999.
B301668 dated 19 October 1995 (Geze Boxer door closer).

"Alvedoor B 15 M Type II"
Test report No. FT11189 dated 25 August 2011 from Far East Fire Testing Centre, Shanghai, China.
Drawing No. K000020.00 Rev. A and K000020.01 Rev. A, both dated 9 June 2011.

Tests carried out

Tested according to IMO 2010 FTP Code part 3, and IMO FTPC Part 3 and in compliance with IMO 2010 FTP Code Ch. 8.

The door (Type I) has been successfully tested for extended test period of 36 minutes.

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.