

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)
WDF-M16 Type Class A-60 Fire Door

Issued to

Wuxi Dongzhou Marine Equipment Co., Ltd
Wuxi, China

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

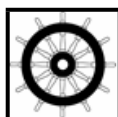
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2022-07-26**.

Issued at **Hamburg** on **2017-07-27**

DNV GL local station:
Jiangyin Station

Approval Engineer:
Pavel Golyshev



Notified Body
No.: **0098**

for **DNV GL SE**

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

"WDF-M16 Type Class A-60 Fire Door"

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

The door leaf is 1308 mm wide and 2208 mm high in external size and consists of (from the side exposed to fire):

- Face sheet I: 1 mm thick steel plate
- Insulating board I: 10 mm thick YB type fireproof board (density 1000 kg/m³) manufactured by Suzhou Youlian Ship Equipment Co., Ltd
- Insulating core: 40 mm ceramic wool (two layers with each nominal 20 mm thick) of type TG-2 (nominal density 170 kg/m³) manufactured by Yixing Yuanyang Ship Material Co., Ltd
- Insulating board II: 10 mm thick YB type fireproof board (density 1000 kg/m³) manufactured by Suzhou Youlian Ship Equipment Co., Ltd
- Face sheet II: 4 mm thick steel plate

Fireproof seal strip of 40 mm x 4 mm (provided by Shanghai Jiar Fu Decoration Materials Co., Ltd) and watertight rubber strip of 30 mm x 18 mm (provided by Jiangyin Haida Rubber Co. Ltd) are fixed at the door leaf perimeter.

The door leaf is connected to the four-sided frame (made by 4 mm thick steel Z-profile) by 3 steel hinges and a CT-Z-1-QM type fireproof lock is fitted at the ½ height of the door leaf. A watertight rubber strip of 30 mm x 18 mm (provided by Jiangyin Haida Rubber Co. Ltd) is fixed at four sides of door frame.

The door frame is fixed to the steel bulkhead by bolts.

The door may be optionally fitted with 50 mm thick fireproof glass window, provided by Qinhuang Island Haigang District Yuehua Industrial Technology Glass Factory and installed in the upper half of door leaf. The window pane is composed (from the side exposed to fire) by 15 mm toughened glass + 20 mm fireproof solution + 15 mm toughened glass.

Total thickness of door leaf: 65 mm.

For further details, see test report and drawing listed under Type Examination documentation below.

Application/Limitation

The door is 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.

Clear opening size (as tested): 1200 x 2100 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.

Maximum clear view opening size of window: 400 x 500 mm (width x height).

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

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.).

Job Id: **344.1-006811-2**
Certificate No: **MEDB00002GH**

Type Examination documentation

Test report no. FT16216 dated 31st of May 2016, issued by Far East Fire Testing Centre (FEFTC), Shanghai, China.
Drawing no. 262WDF132-00.

Tests carried out

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

The door has been successfully tested for extended test period of 68 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.