EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB00007S3

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED), issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Authority. This Certificate is issued by DNV AS under the authority of the Government of Norway.

This is to certify:

That the Fire Doors

with type designation(s)
A-60 DOUBLE OPENED FIRE DOOR

Issued to
Wuxi MNET Equipment Tech Co., Ltd.
Wuxi, Jiangsu, China

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2021/1158,**
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 **2027-04-19**.

Issued at **Høvik** on **2022-04-20**

DNV local station:
Jiangyin NB & CMC

Approval Engineer:
Thorvald Furuseth

Notified Body
No.: **0575**

for **DNV AS**

Sverre Olav Bergli
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 United States of America and the EEA EFTA states on the mutual recognition of Certificates of Conformity for Marine Equipment" signed 17 October 2005, and amended by Decision No 1/2019 dated February 22nd, 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 AS 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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

"A-60 DOUBLE OPENED FIRE DOOR"
A door construction consisting of double leaves steel door in a steel frame.
Each of the door leaves is composed of 1.5 mm thick steel plate + 8 mm thick inorganic fireproof board YB type (manufactured by Suzhou Youlian Ship Fitting Co., Ltd. with nominal density of 1200 kg/m^3) + 41 mm thick ceramic wool TG-II type (manufactured by Yixing Marine Insulation Material Factory with nominal density of 170 kg/m^3) + 8 mm thick inorganic fireproof board (the same as above) + 1.5 mm thick steel plate. Adhesive is used for the fixation of insulation material.

Total thickness of door leaf: 60 mm

The door may be fitted with two glass observation window (one on each door leaf, manufactured by Yixing City Yushi Special Glass Co., Ltd.) with total thickness of 40 mm (8 mm toughened glass + 20 mm fireproof solution + 12 mm toughened glass) in the upper part of the door leaf.

Both door leaves are fitted with 3 hinges (6 hinges total) along one vertical edge and at the other edge a steel door lock. The door frame is formed by 1.5 mm and 4 mm thick steel plates with ceramic wool insulation filled in the cavity and is to be bolted or welded to the bulkhead.

The double fire door may be provided with two designs with regard to the corners' shape of the door leaves and frame:

- Standard design (as tested) with square corners of door leaves and frame
- Optional design (based on assessment of the test laboratory FT15 (A) 02) with round corners of the door leaves (R100) and the frame (R150), acc. to Drawing no. 262WHL651(Y)-00. The given radial dimensions are not variable without further assessment. The gap between door leaf and door frame shall be the same as that of the standard design

For further details, see the test report and drawings mentioned 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.

Max. size of left door leaf:	1206.5 x 2551.5 mm (W x H)
Max. size of right door leaf:	1201.5 x 2551.5 mm (W x H)
Max. clear opening of door leaf:	2300 x 2500 mm (W x H)
Max. clear opening of window:	400 x 600 mm (W x H)

The insulation materials and adhesives used have to be approved according to the Marine Equipment Directive and bear the MED 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, use and maintenance.

Type Examination documentation

Test report No. FT09161 dated 30th July 2009 from Far East Fire Testing Centre, Shanghai, China.

Technical Assessment Report FT15 (A) 02 dated 1st of April 2015 from Far East Fire Testing Centre, Shanghai, China.

Drawing Nos.:
- 262WHL651-00 (2 pages) dated 20th April 2010,
- 262WHL651-01 (1 page) dated 20th April 2010,
- 262WHL651-02 (1 page) dated 20th April 2010,
- 262WHL651-03 (1 page) dated 20th April 2010,
- 262WHL651-FW dated 20th April 2010,
- 262WHL651(Y)-00 dated 18th of August 2016.

All from Wuxi Delin Marine and Ocean Technology (Group)Co.,Ltd., Wuxi, China

Tests carried out

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

Marking of product

The product is to be marked with name and address of manufacturer, type designation, fire technical rating, the 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. For larger windows, USCG shall be contacted.