EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB000083E

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)
252Xf005M-00 Type Class A-60 Fire Door

Issued to
Wuxi Xinfan Marine Equipment Co., Ltd.
Wuxi, 100, **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

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

This Certificate is valid until **2027-07-07**.

Issued at **Hamburg** on **2022-07-08**

DNV local station:
Jiangyin NB & CMC

Approval Engineer:
Timo Linn

Notified Body
No.: **0098**

for **DNV SE**

Christine Mydlak-Roeder
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 1/2018 dated February 18th, 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 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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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 300,000 USD.

Product description
"252Xf005M-00 Type Class A-60 Fire Door"
A single leaf hinged fire door composed of door leaf and continuous frame and various fittings. Construction and installation are illustrated in figures 1 to 8 of the test report.

Door frame:
The door frame is a four-sided door frame size 1150mm wide x 2150mm high x 140 mm thick.
The clear opening size was 1000mm wide x 2000mm high. For details, see figures 2-3.

Door leaf
Is a 3 steel hinged door leaf which is 1042mm wide x 2242mm high in external size with a total thickness of 60mm. It is composed, from the exposed side, of 1.0mm thick stainless-steel plate + 6mm thick inorganic fire board + ceramic wool + 6mm thick inorganic fire board + 1.5mm thick stainless-steel plate.
The door leaf was attached to the door frame by three hinges installed at one side of door leaf. A fireproof lock was installed at the other side of door leaf, 900mm above the bottom of door leaf. The door leaf was installed with a linkage locking device and central locker. The detailed structure was illustrated in figures 4-7.

Door may be fitted with:
Windows, 350 x 500mm in clear light size. Fire glass: 42mm thick and 440 x 540mm in external size, which was composed, from the exposed side, of 12mm thick tempered glass + 22mm retardant solution + 8mm thick tempered glass, provided by Yixing Yushi Special glass Co.;Ltd.

Lock: C-1 type door lock, which was provided by Nantong Hujiang Marine Technology Co.;Ltd.

The door was tested with the door frame fixed to the bulkhead by bolting.

Total thickness of door leaf: 60mm.

Insulation material
TG-II type ceramic wool 170kg/m³ in nominal density, 20mm in nominal thickness produced by Yixing Ocean Ship Material Co., Ltd.

YB type inorganic fireproof board 1000kg/m³ in nominal density, 10mm in nominal thickness produced by Suzhou Youlian Ship Fitting Co., Ltd.

For further details, see test report with included drawings 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 (aluminum, FRP, etc.) are subject to case-by-case approval.

Maximum size of the door leaf:	1150mm x 2150mm (width x height)
Maximum clear opening door size (as tested):	1000mm x 2000mm (width x height)
Maximum clear window opening:	350mm x 500mm (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.

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.

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.).

Each product is to be supplied with its manual for installation and maintenance.

Type Examination documentation
Test report no. FT21245 dated 30th of July 2017, issued by Far East Fire Testing Centre (FEFTC), Shanghai, China.

Drawing no.: 252XF005M-00 - 252XF005M-01 and 252XF005M-JB Wuxi Dongzhou Marine Equipment Co., Ltd.

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 68 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.