DNV·GL

Certificate No:
MEDB000065A

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)
HS-M12 Type Class A-60 Double-leaf Fire Door

Issued to
Jiangyin Haisheng Marine Outfitting & Decoraton Co., Ltd.
Jiangyin, China

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2019/1397,**
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 **2025-03-09**.
Issued at **Hamburg** on **2020-03-10**

DNV GL local station:
Jiangyin

Approval Engineer:
Marcin Tobiasz

Notified Body
No.: **0098**

for **DNV GL SE**

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") 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.

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Product description

"HS-M12 Type Class A-60 Double-leaf Fire Door"
A double leafed hinged steel door in a steel frame. The door leaves are composed of the following layers:

- 0.7 mm thick steel plate.
- 5 mm thick inorganic fireproof board type YB (density 1000 kg/m^3) manufactured by Suzhou Youlian Ship Fittings Co., Ltd.
- 28.5 mm thick layer of mineral wool of type KMD-Y-01 (density 120 kg/m^3) manufactured by Tianchang KMD New Insulation Materials Co., Ltd.
- 5 mm thick inorganic fireproof board type YB.
- 0.7 mm thick steel plate.

Internal parts are glued together.

The door leaf is fitted with the following steel stiffeners:

- 28 mm x 20 mm x 1.2 mm fixed at the perimeter of the glazed opening.
- 20 mm x 10 mm x 1.2 mm fixed at the bottom half of door leaf.

In addition to the stiffeners the door leaf is fitted with 0.7 mm thick edge cover fixed at the perimeter of door leaf.

Total thickness of each door leaf: 40 mm.

Each door leaf is fitted to the door frame with 3 hinges and a fireproof lock system. The left door leaf is fitted with locking bolts which engage in the frame at the top and bottom of the door leaf. In addition, a joint of the two door leaves is installed with sealing strips of 20 x 8 mm provided by Jiangyin Lide Decoration Co., Ltd.

The four-sided door frame is formed by 1.5 mm thick steel plates filled in the interior with rock wool insulation. The fireproof seal strip 20 mm x 15 mm is used in the inside groove of door frame, provided by Jiangyin Lide Decoration Co., Ltd. The door frame may be welded or bolted (M5x25 mm screws spaced maximum 300 mm apart) to the bulkhead.

The door leaf may be fitted with:

- 38 mm thick fireproof glass window manufactured by Yinxing Yu's Special Glass Co Ltd, composed of: 8 mm tempered glass, 22 mm fireproof liquid, 8 mm tempered glass).
- Hose port on lower corner of the right door leaf (opposite side to the hinged side).

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 (aluminium, FRP, etc.) are subject to case-by-case approval.

Max. size of each door leaf:	818 x 2234 mm (W x H)
Max. clear opening of door:	1600 x 2200 mm (W x H)
Max. clear opening of glazed unit:	400 x 500 mm (W x H)
Max. clear opening of hose port:	150 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 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

Tests carried out
Tested according to IMO Resolution MSC.307(88) – 2010 FTP Code Annex 1, Part 3.

Marking of product
The product or packing is to be marked with name and address of manufacturer, type designation, 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.