DNV·GL

Certificate No:
MEDB00005X2

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-M8 Type Class A-60 Door 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 **2025-02-10**.
Issued at **Hamburg** on **2020-02-11**

DNV GL local station:
Jiangyin CMC

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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-M8 Type Class A-60 Door Double-leaf Fire Door"
A double leafed hinged steel door in a steel frame. The door leaves are composed of the following layers:

- 1.2 mm thick steel plate.
- 5 mm thick inorganic fireproof board type YB (density 1200 kg/m^3) manufactured by Suzhou Youlian Ship Fittings Co., Ltd.
- 28 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 reinforced with four longitudinal and four vertical stiffeners 20 mm x 10 mm x 1.2 mm. In addition to the stiffeners the door leaf is fitted with 0.8 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 the two door leaves are arranged with fixing edge at the their joint.

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 21 mm x 14 mm is used in the inside groove of door frame, provided by Shanghai Jiar Fu Decoration Material Company Ltd. The door frame may be welded or bolted (M6x30 mm screws spaced maximum 300 mm apart) to the bulkhead.

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:	816.5 x 2134 mm (W x H)
Max. clear opening of door:	1600 x 2100 mm (W x H)

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.

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

Type Examination documentation

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, MED Mark of Conformity and USCG approval number if applicable (see first page).