

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)
CGFM-1k Type Class A-60 Double-Leaf Fire Door

Issued to

Jiangsu Hailu Technology Incorporated Corporation
JIANGYIN, JIANGSU, 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

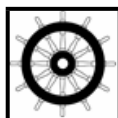
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2025-01-27**.

Issued at **Hamburg** on **2020-01-28**

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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



"CGFM-1k 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:

- 0.6 mm thick steel plate.
- 3 mm thick inorganic fireproof board type YB (density 1000 kg/m³) manufactured by Suzhou Youlian Ship Fittings Co., Ltd.
- 52.5 mm thick layer of ceramic wool of type KMD-Y (density 120 kg/m³) manufactured by Tiachang KMD New Insulation Materials Co., Ltd.
- 3 mm thick inorganic fireproof board type YB.
- 0.6 mm thick steel plate.

Internal parts are glued together.

Total thickness of each door leaf: 60 mm.

Each door leaf is fitted to the door frame with 4 hinges and a fireproof lock system. A 3 mm thick stainless steel plate (U shaped with specification 650 x 65 x 3 mm) covers the upper edge of the door leaf. 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 4 mm provided by Jiangyin Leaders Accessorie Co., Ltd.

The three-sided door frame is formed by 3 mm thick steel plates. Strips of 20 x 15 mm are fitted at the three sides of door frame provided by Jiangyin Leaders Accessorie Co., Ltd. The door frame may be welded or bolted (M4.8 mm self-drilling screws c/c 260 mm) to the bulkhead.

The door leaves may be fitted with:

- Window, fireproof glass manufactured by Yinxing Yushi Special Glass Co Ltd, thickness 32 mm (composed of: 5 mm tempered glass, 22 mm fireproof liquid, 5 mm tempered glass).
- Hose port (150 mm x 150 mm), lower corner of the 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:	1243 x 2407 mm (W x H)
Max. clear opening of door:	2400 x 2400 mm (W x H)
Max. clear opening of glazed unit:	500 x 700 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.



Job Id: **344.1-008789-1**
Certificate No: **MEDB00004SU**

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.