

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-3A

Issued to

Jiangsu Hailu Technology Incorporated Corporation
JIANGYIN, JIANGSU, China

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2018/773**,
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 **2019-07-11**.

Issued at **Hamburg** on **2019-07-11**

DNV GL local station:
Jiangyin

Approval Engineer:
Karolina Kusmider



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.

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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



Product description

"CGFM-3A"

a class B-15 double-leaf door. Both door leaves are composed from exposed side, of 0.8mm thick steel plate, 38 mm rock wool plate of 120 kg/ m³ nominal density(manufactured by Jiang Yin An Zhou Construction Material Co., Ltd.) and+ 0.8 mm thick steel plate.

Total door leaf thickness: 40 mm.

Each door leaf is fitted to the door frame with three 5-inch hinges.

Insulation material inside the door leaf is fixed by the adhesive.

One of the door leaves is fitted with two steel shoot bolts, one at bottom and one at top to latch the leaf with the door frame at mid-seam . The leading door leaf is fitted with a C-1 type fireproof door lock provided by Nantong Hujiang Locks Co., Ltd. arranged 1100mm above the door bottom edge. The other door leaf is fitted with a fixed door handle.

The following optional features may be fitted:

- A fireproof observation window with clear view size of 400 x 400mm may be installed in both door leaves at a height of approximately 220mm below the door leaf top edge. The steel window retaining frame is fixed to the door leaf with screws. The fireproof glass is 28mm thick.
- A louvered escape hatch of external size 440mm wide, 540mm high and 38mm thick having a clear opening size of 417mm wide and 517mm high, arranged at a height of approximately 120mm above the door leaf bottom edge may be installed in each door leaf.
- A fire hose port 150mm high x 150mm wide and 40mm thick may be arranged in the lowest corner of the leading door leaf at mid-seam.

Three-edge door frame composed of a rectangular box incorporating a 18 x 4 mm flanged lip, constructed from 1.2 mm thick steel plate. The hollow core of the rectangular box is filled with AZ-120 type rock wool with nominal thickness of 80 mm and nominal density of 120kg/m³ provided by Jiang Yin An Zhou Construction Material Co., Ltd.

The top part of the frame is a 2000mm wide x355mm high and 50mm thick compound rock wool panel with the same flanged lip. . A continuous groove fixed at three sides of the door frame is for the fireproof strip of 20 mm x 4 mm, provided by Jiangyin Lide Fittings Co., Ltd.

Application/Limitation

Approved for use as an integrated part of fire retarding division of class B-15.

Max. size of door leaf (W x H): 964 mm x 2092 mm

Max. clear opening (W x H): 1900 mm x 2100 mm

Max. clear opening of fireproof observation window (W x H): 400 mm x 400 mm

Max. clear opening of louvered escape hatch (W x H): 417mm wide and 517mm

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.

With reference to SOLAS Reg.9.4.1.2.1 and 4.2.1, doors approved without the sill being part of the frame, shall be installed such that the gap under the door does not exceed 25mm.

Installation and maintenance of the door shall be in accordance with maker's instructions

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

Type Examination documentation

Job Id: **344.1-008175-1**
Certificate No: **MEDB000043B**

Test Report No. FT12304 dated 2012-11-22 from Far East Fire Testing Centre, Shanghai, China.

Drawing. No. 262HL-38D3-T0, dated 2015-07-12 from Jiangyin Hailu Technology Incorporated Corporation, China.

Drawing. No. 262HL-38D3-T1, dated 2015-07-12 from Jiangyin Hailu Technology Incorporated Corporation, China.

Drawing. No. 262HL-38D3-00, dated 2015-07-12 from Jiangyin Hailu Technology Incorporated Corporation, China.

Drawing. No. 262HL-38D3-01, dated 2015-07-12 from Jiangyin Hailu Technology Incorporated Corporation, China.

Drawing. No. 262HL-38D3-02-L, dated 2015-07-12 from Jiangyin Hailu Technology Incorporated Corporation, China.

Drawing. No. 262HL-38D3-02-R, dated 2015-07-12 from Jiangyin Hailu Technology Incorporated Corporation, China.

Drawing. No. 262HL-28A-T1-1, dated 2015-07-12 from Jiangyin Hailu Technology Incorporated Corporation, China.

Drawing. No. 262HL-38D3-T2, dated 2015-07-12 from Jiangyin Hailu Technology Incorporated Corporation, China.

Drawing. No. 262HL-38E-02-02, dated 2015-07-12 from Jiangyin Hailu Technology Incorporated Corporation, China.

Drawing. No. 262HL-38T-00, dated 2015-07-12 from Jiangyin Hailu Technology Incorporated Corporation, China.

Drawing. No. 262HL-38T-01, dated 2015-07-12 from Jiangyin Hailu Technology Incorporated Corporation, China.

Tests carried out

Tested according to IMO Resolution MSC.307(88) - IMO 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, fire technical rating, Mark of Conformity and USCG marking 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.