

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-1C

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

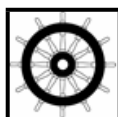
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2024-05-06**.

Issued at **Hamburg** on **2019-05-07**

DNV GL local station:
Jiangyin Station

Approval Engineer:
Roland Priebe



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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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-1C"

is a class A-60 single-leaf fire door. It consists of Fibertex type rock wool insulation glued to a 1.5 mm stainless steel plate on both sides. The Fibretex type rock wool insulation material was produced by Tianchang KMD New Insulation Materials Co., Ltd. and was 55 mm nominal thick, with 150 kg/m³ nominal density, 0.6 % moisture content and 3 % organic content. The glue is a low flame-spread PAPU-30 type polyurethane adhesive from Jingjiang Green Functional Material Co., Ltd.

Total door leaf thickness: 65 mm.

The door leaf was installed at one side with four stainless steel hinges. A fireproof C-1 door lock provided by Nantong Hujiang Marine Technology Co., Ltd. was fitted 1100 mm above the bottom of the door leaf.

The door frame is a three-sided door frame made by steel plate of 110 mm x 80 mm x 3 mm and is fastened to the bulkhead with M5 x 25 mm stainless steel bolts. A fireproof seal strip of 20 mm x 15 mm provided by Jiangyin Leaders Accessories Co., Ltd. was installed at the inside perimeter of the door frame.

The door leaf may be fitted with a window constructed from 32 mm fireproof glass YS-A60, consisting of 5 mm tempered glass + 22 mm fireproof solution + 5 mm tempered glass, produced by Yixing Yushi Special Glass Co., Ltd.

For further details refer to the test reports listed under Type Examination documentation below.

Application/Limitation

Approved for use as an integrated part of fire retarding division of class A-60.

Max. size of door leaf (W x H): 1134 mm x 2204 mm

Max. clear opening (W x H): 1100 mm x 2200 mm

Max. clear opening of window (W x H): 500 mm x 700 mm

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, use and maintenance.

Note that this is a fire safety certificate which only covers fire technical properties (i.e. does not cover any evaluation related to watertightness, weathertightness etc.).

Type Examination documentation

Test Report No. FT17072 dated 2017-05-15 from Far East Fire Testing Centre, Shanghai, 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.