EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB00006YX

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED). This Certificate is issued by DNV 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)
Type MUG-CO-A0, Centre-Opening Fire Door for Ship Elevator

Issued to
Jiangsu Hailu Technology Incorporated Corporation
JIANGYIN, JIANGSU, China

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2020/1170,**
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 **2026-06-14**.

Issued at **Hamburg** on **2021-06-15**

DNV local station:
Jiangyin NB & CMC

Approval Engineer:
Karolina Kusmider

Notified Body
No.: **0098**

for **DNV SE**

Christine Mydlak-Roeder
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 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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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 AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") 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.

Product description

"Type MUG-CO-A0, Centre-Opening Fire Door for Ship Elevator" is double-leaf steel sliding door.

The door leaf (each 594 mm wide) is composed of the following layers:

- 0.8 mm thick steel plate
- 55 mm thick rockwool AZ-120 type(density 120 kg/m^3) manufactured by Jiangying Anzhou Construction Material Co.,Ltd
- 0.8 mm thick steel plate

Its right edge is step-type designed, which can connect with the fixing edge of door leaf, and its right on the unexposed side is fixed with labyrinth-type decorative strip, which connects with decorative strip of right door leaf when the door set is closed.

Internal parts inside the door leaf is fixed by the adhesive.

Total thickness of door leaf is 57 mm.

The door leaf is fitted with handle and keyhole.

The four-sided door frame is formed by 1.5 mm thick Q235A steel plates and is filled in the interior by rockwool insulation material. The door frame is installed at the bottom with the bottom frame, on which a sill with track is fixed. A door header assembly having sliding fitting is installed at the top of the door frame.

Door Header Assembly includes eccentric roller, hanger roller, rope stopper, cable, pipe and weight and is welded to the steel bulkhead.

Sill is made of 1.5 mm thick stainless steel plate and is welded to the bottom frame of door frame.

For further details, please see Type Examination documentation below.

Application/Limitation

Approved for use as lift-landing door of class A-0.

Max. clear opening:	1000 x 2200 mm (w x h)
Max. size of door leaves:	1139 x 2316 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.

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.

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

Type Examination documentation

Test Report No. FT15052 dated 2015-03-02 issued by Far East Fire Testing Centre, Shanghai, China.

Tests carried out

Tested according to IMO 2010 FTP Code part 3.
The door has been successfully tested for extended test period of 68 minutes.

Marking of product

The product is to be marked with name and address of manufacturer, type designation, fire technical rating, the MED Mark of Conformity and USCG Approval Number if applicable (see first page).