DNV·GL

Certificate No:
MEDB00005UY

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 'A' and 'B' class fire proof windows and side scuttles

with type designation(s)
JSTM-A60-01

Issued to
Jiangsu Tie Mao Glass Co.,Ltd.
Nantong, Jiangsu, China

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2019/1397,**
item No. MED/3.25. SOLAS 74 as amended, Regulation II-2/9, IMO MSC/Circ.1120 and IMO 2010 FTP Code, IGC Code 3

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

This Certificate is valid until **2025-05-20**.
Issued at **Hamburg** on **2020-05-21**

DNV GL local station:
Nantong

Approval Engineer:
Karolina Kusmider

Notified Body
No.: **0098**

for **DNV GL SE**

Gerhard Aulbert
Head of Notified Body

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

"JSTM-A60-01"
a rectangular window constructed of window frame, fireproof glass, press plate, insulation and seal materials.

- 46 mm multilayer glass assembly consisting of 10 mm thick tempered glass, 9 mm thick air layer, 6 mm thick tempered glass, 5 mm thick solid fire layer, 5 mm thick tempered glass, 5 mm thick solid fire layer and 6 mm thick tempered glass (produced by Jiangsu Tie Mao Glass Co., Ltd.).
- Insulation is a LGB-0 type calcium silicate board (density 1100 kg/m^3, produced by Suzhou Weiyu Marine Materials Decoration Co.,Ltd.).
- Seal adhesive is placed between glass and window frame as well between window glass and press plate. Fireproof sealing strip (20 mm x 4 mm) is used as well.
- Press plate made of 12 mm stainless steel plate is fixed to the window frame by M6 x 40 mm steel countersunk head screws (max spacing 75 mm).

The window frame is fixed to the bulkhead by welding.

For further details, see the drawings listed under Type Examination documentation below.

Application/Limitation

The window is approved for installation in steel bulkheads of class A-60. Other applications are subject to case-by-case approval.

Restricted application: fire against fireproof glass (from the outside).

Maximum size of fire window:	2380 mm x 2080 mm (W x H)
Maximum clear light size:	2300 mm x 2000 mm (W x H)
Maximum size of glass pane:	2330 mm x 2030 mm (W x H)

The window has only been evaluated with respect to fire technical properties (e.g. strength requirements have not been considered). Arrangement and location of any window is subject to approval from relevant authority in each case.

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

Type Examination documentation

Test report No. FT19220 dated 6th September 2019 from Far East Fire Testing Centre, Shanghai, China.

Tests carried out

Tested according to IMO Res. MSC.307(88) - 2010 FTP Code, Annex 1, Part 3.

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 (see first page).