DNV·GL

Certificate No:
MEDB00005MN

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED), issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Authority. This Certificate is issued by DNV GL AS under the authority of the Government of Norway.

This is to certify:

That the Windows and side scuttles

with type designation(s)
A-0 Class Open Fireproof Rectangular Window

Issued to
QINHUANGDAO XINGYANG MARINE FITTING CO., LTD.
Qinhuangdao, 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

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

This Certificate is valid until **2024-12-15**.
Issued at **Høvik** on **2019-12-16**

DNV GL local station:
Tianjin

Approval Engineer:
Thorvald Furuseth

Notified Body
No.: **0575**

for **DNV GL AS**

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

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Product description

"A-0 Class Open Fireproof Rectangular Window"
A single-layer A-0 fire window constructed of a steel main frame, steel window frame, single layer window pane, press plate, insulation material and seal material:

- Single layer toughened glass with 12 mm thickness from manufacturer.
- Insulation: 20 mm LYHX-816T type ceramic wool (density 160 kg/m^3) from Shandong Luyang Share Co., Ltd.
- Fire proof strip of 15 mm x 5 mm, used between glass and window frame from Jiangyin Junshan Marine Fitting Co., Ltd.
- Watertight strip of 12 mm x 15 mm, used between window frame and main fram from Jiangyin Junshan Marine Fitting Co., Ltd.
- Expansion graphite strip of 15 mm x 2.5 mm, used between the window frame and main frame from Shanghai Jiar Fu Decoration Material Company Ltd.
- The 6 mm thick press plate is fixed to the window frame with M6 steel bolts (maximum spacing 75 mm).

The window seat is welded to the main frame. The main frame is welded to the bulkhead.

The window is fitted with three hinges and seven locking devices. The hinge blocks and the lock boards are welded to the window frame. The hinge rests and the snap rests are welded to the main frame.

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

Application/Limitation

The window is approved for installation in steel bulkheads of class A-0. Other applications are subject to case-by-case approval.

Bulkhead surrounding the window to be insulated to A-0 on unexposed side.

Restricted application: Fire against uninsulated steel bulkhead side (fire from outside).

Maximum size of fire technical glazing unit: 906 x 1206 mm (W x H).
Maximum clear light size: 800 x 1100 mm (W x H).

Thermal radiation test was carried out with satisfactory results according to IMO 2010 FTP Code part 3, Appendix 3.

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 authorities in each case.

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

Type Examination documentation

Test Report No. FT13333 dated 19 November 2013 from Far East Tesing Centre, Shanghai, China.

Drawing No. XY0291-00 from the manufacturer.

Tests carried out

Tested according to IMO 2010 FTP Code part 3

Marking of product

The product is to be marked with name and address of manufacturer, type designation, fire-technical rating and MED Mark of Conformity (see first page).