EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB00007SS

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 AS under the authority of the Government of Norway.

This is to certify:

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

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

Issued to
Wuxi MNET Equipment Tech Co., Ltd.
Wuxi, Jiangsu, China

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2021/1158,**
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 **2027-04-19**.

Issued at **Høvik** on **2022-04-20**

DNV local station:
Jiangyin NB & CMC

Approval Engineer:
Thorvald Furuseth

Notified Body
No.: **0575**

for **DNV AS**

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

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

"Class A-0 Fire Rectangular Window"
is a fireproof rectangular window with rounded corners composed of a glass unit with framing and sealing arrangement. The glass unit is a single 12 mm thick layer of toughened glass (manufactured by Qinghuangdao City Haigang District Yuehua Industrial and Technical Glass Factory).

The window frame consists of steel main frame, with dimensions of 100 x 12 mm (H x T), steel internal flange, with dimensions of 38 x 12 mm (H x T) and 50 x 5 mm (W x T) steel glass retainer (pressure plate). Glass panel is insulated with 20 mm thick ceramic cotton gasket (manufactured by Yixing Ocean Ship Material Co., Ltd. with nominal density of 170 kg/m^3) and fire proof tape.

Glass retainer is fixed to the frame by means of 112 pcs. M6 x 16 mm countersunk screws around the frame.

The window main frame is welded to the bulkhead.

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

Application/Limitation

The window is approved for use as an integrated part of fire retarding steel bulkheads of class A-0.
Other applications are subject to case-by-case approval.

Maximum size of window:	1760 x 2460 mm (W x H)
Maximum size of clear opening:	1700 x 2400 mm (W x H)

Fire against uninsulated steel bulkhead side.

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. FT16283 dated 20th July 2016 from Far East Fire Testing Centre, Shanghai, China.

Drawing no. 261WHL063A-00-NHBZ, dated 23rd May 2016, from Wuxi Hailian Marine Fittings., China
Drawing no. 261WHL063A-00, dated 23rd May 2016 from Wuxi Hailian Marine Fittings., China
Drawing no. 261WHL063A-00-01, dated 23rd May 2016, from Wuxi Hailian Marine Fittings., China
Drawing no. 261WHL063A-00-02, dated 23rd May 2016, from Wuxi Hailian Marine Fittings., China
Drawing no. 261WHL063A-00-03, dated 23rd May 2016, from Wuxi Hailian Marine Fittings., China

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, MED Mark of Conformity (see first page).