

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB00001DM

Application of: Council Directive 96/98/EC of 20 December 1996 on Marine Equipment (MED) as amended by directive (EU) 2015/559. This Certificate is issued by DNV GL SE based on the notification of the German Federal Ministry of Transport, Building and Urban Development.

This is to certify:

That the Windows and side scuttles

with type designation(s)

Marine Class A-60 rectangular window and -side scuttle

Issued to

Wuxi Lanhai Marine Fitting Equipment Co., Ltd.

Huishan JIANGSU, China

is found to comply with the requirements in the following Regulations/Standards:

Annex A.1, item No. A.1/3.25 and Annex B, Module B in the Directive SOLAS 74 as amended, Regulation II-2/9, IMO MSC/Circ.847, 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 **2021-09-11**.

Issued at **Hamburg** on **2016-09-12**

DNV GL local station:

Jiangyin FiS&CMC

Approval Engineer:

Pavel Golyshhev

Notified Body

No.: **0098**

for **DNV GL SE**

Sven Dudzus

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 Council Directive 96/98/EC, as amended.

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.

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

"Marine Class A-60 rectangular window and -side scuttle"

The main structure of the rectangular type fire window (acc. to drwg. no. WX235-A60-00) and the round type side scuttle (acc. to drwg. no. WX236-A60-00) consists of:

- Glass assembly, manufactured by Qinhuangdao Yaohua Industrial and Technical Glass Ltd. and consisting of 15 mm thick toughened glass from the fire exposed side, 6 mm thick toughened glass from the fire unexposed side and 22 mm (20 mm for side scuttle) thick fireproof solution in between
- Window seat welded into "T" shape by 90 mm x 10 mm and 65 mm x 10 mm flat steels, the window seat is continuously welded into the bulkhead
- Window frame assembled with 20 mm x 35 mm square steel, connected to the window seat by 35 (12 for side scuttle) M8 steel bolts
- Calcium silicate board (20 mm x 20 mm) of YGB-W-0 type (nominal density 690 kg/m³) manufactured by Suzhou City Weiyu Marine Material Decoration Co., Ltd. is put in between the window frame and window seat
- Press frame made by 65 mm x 6 mm flat steel and connected with the window frame by 70 (24 for side scuttle) M6 steel bolts
- Ceramic wool insulation material of type XN-3 (density 170 kg/m³ and 20 mm thickness) manufactured by Ningbo Huanyu Fireproof Material Co., Ltd. filled in between the window glass and window frame
- Fire retardant seal rubber manufactured by Jiangyin City Jisheng Marine Rubber Product Co., Ltd. put around the window glass

Total thickness of glass assembly of rectangular window: 43 mm.

Total thickness of glass assembly of side scuttle: 41 mm.

Application/Limitation

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

Maximum size of clear opening of rectangular window: 1500 x 1000 mm (width x height).

Maximum clear opening diameter of side scuttle: 450 mm.

Restricted application: Installation of the window as tested. Exposed side is 15 mm thick window pane and uninsulated steel bulkhead side (for use on tankers acc. to Reg. II-2/4.5.2.3, SOLAS 74).

Each window is subject to the applicable tests and markings acc. to ISO 614 (1989), ISO 1095 (1989), ISO 1751 (1993), ISO 3254 (1989), ISO 3903 (1993) and ISO 3904 (1994).

The window and the scuttle have 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. FT10325 dated 12th of October 2010, issued by Far East Fire Testing Centre (FEFTC), Shanghai, China.

Tests carried out

Tested according to IMO FTPC Part 3 and in compliance with IMO 2010 FTP Code Ch.8.

Marking of product

The product or packing is to be marked with name of manufacturer, type designation, MED Mark of Conformity and USCG approval number if applicable. In addition to mark of conformity, each window shall be provided with permanent marking "Inside" as well as "A-60".