

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)

WDF-C27 Type Class A-60 Soundproof Fire Side Scuttle

Issued to

Wuxi Dongzhou Marine Equipment Co., Ltd
Wuxi, China

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

Regulation **(EU) 2020/1170,**

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

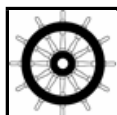
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2025-12-29.**

Issued at **Hamburg** on **2020-12-30**

DNV GL local station:
Jiangyin NB & CMC

Approval Engineer:
Marcin Tobiasz



Notified Body
No.: **0098**

for **DNV GL SE**

Christine Mydlak-Roeder
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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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.



Product description

"WDF-C27 Type Class A-60 Soundproof Fire Side Scuttle"

a circular window constructed of outside rim, window frame, glass, press plate, deadlight, insulation and seal materials:

- 69.8 mm glass assembly consisting of 19 mm thick main tempered glass, 22 mm thick fireproof liquid, 6 mm thick tempered glass, 6 mm thick mid-air gap, 5 mm thick tempered glass, 2.28 mm thick soundproof film, 3 mm thick tempered glass, 1.52 mm thick soundproof film, 5 mm thick tempered glass (produced by provided by Qinghuangdao Yaohua Industrial and Technical Glass Co., Ltd.).
- The glass pane is installed in a window frame made of 18 mm thick steel profiles welded into the cut-out in the bulkhead.
- The glass retaining frame of the window is fixed to the window frame by 22 pcs M6 x 20 mm stainless steel bolts and the seal plate is fixed to the glass retaining frame by 8 psc M6 x 14mm stainless steel bolts.
- Insulation is a TG-II type ceramic wool (density 170 kg/m³, produced by Yixing Yuanyang Ship Materials Co., Ltd.) and 10 mm thick YB type inorganic fireproof board (density 1000 kg/m³), produced by Suzhou Youlian Ship's Equipment Co., LTD.).
- Seal material:
 - watertight rubber strip 5 x 20 mm thick provided by Jiangyin Haida Rubber Co., Ltd. placed between window glass and window frame.
 - fireproof rubber strip 4 x 20 mm thick provide by Shanghai Jiaer Fu Decoration Material Co., Ltd. used between window glass and glass retaining frame.

The window frame is fixed to the bulkhead by welding.

For further details see 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 19 mm tempered glass (from the outside)

Maximum size of window:	Ø 540 mm
Maximum clear light size:	Ø 450 mm
Maximum size of glass pane:	Ø 498 mm

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. FT17239 dated 8 November 2017 from Far East Fire Testing Centre, Shanghai, China.

Drawing No. 261WDF1702-00 (2 pages) dated 15 April 2017 from manufacturer.

Drawing No. 261WDF1702-01 dated 15 April 2017 from manufacturer.

Drawing No. 261WDF1702-02 dated 15 April 2017 from manufacturer.

Drawing No. 261WDF1702-03 dated 15 April 2017 from manufacturer.

Drawing No. 261WDF1702-04 dated 15 April 2017 from manufacturer.

Drawing No. 261WDF1702-06 dated 15 April 2017 from manufacturer.

Tests carried out



Job Id: **344.1-010861-1**
Certificate No: **MEDB00006XY**

Tested according to IMO Resolution 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).