

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 Fire Doors

with type designation(s)
A-60 service door 261 WHL 028X-00'

Issued to

Wuxi Delin Marine and Ocean Technology (Group)Co.,Ltd.
Wuxi, China

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2017/306,**
item No. MED/3.16. SOLAS 74 as amended, Regulation II-2/9, IMO 2010 FTP Code and IMO MSC.1/Circ.1511

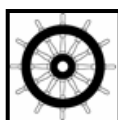
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2023-01-02.**

Issued at **Høvik** on **2018-01-03**

DNV GL local station:
Jiangyin

Approval Engineer:
Tessa Biever



Notified Body
No.: **0575**

for **DNV GL AS**

Vidar Dolonen
Head of Notified Body

A U.S. Coast Guard approval number will be assigned to the equipment when the production module has been completed and will appear on the production module certificate (module D, E or F), as allowed by the "Agreement between the United States of America and the EEA EFTA states on the mutual recognition of Certificates of Conformity for Marine Equipment" signed 17 October 2005.

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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



Product description

'A-60 service door 261 WHL 028X-00'

is a fire proof service door composed of a 1.5 mm stainless steel plate, insulation and seal material as follows:

Door frame:

The door frame is composed of a 1.5 mm stainless steel plate filled with a ceramic wool insulation material type: TG-II (produced by Yixing Ocean Ship Material - nominal density 170 kg/m³). A fireproof strip is fixed at three sides of the door frame. On the top and bottom of the frame a guide rail and pulley are installed for opening and closing the door.

Door leaf:

The door leaf is composed, seen from the exposed side:

- 1.0 mm thick stainless steel plate
- 8 mm thick inorganic fire proof board (type: YB produced by Suzhou Youlian Ship Fitting Co.Ltd – nominal density 1000kg/ m³)
- ceramic wool (type: TG-II produced by Yixing Ocean Ship Material- nominal density 170 kg/ m³)
- 8 mm thick inorganic fire proof board (type: YB produced by Suzhou Youlian Ship Fitting Co.Ltd – nominal density 1000kg/ m³)
- 1.0 mm stainless steel plate.

Total thickness: 41 mm

The door leaf is installed in the middle of the door frame at approx. 100 mm from the frame side.

One layer of 1.0 mm thick stainless steel material was rimmed at the perimeter of the window pane. The insulation material is fixated by using an adhesive. Two channel steel stiffeners of 10 mm x 39 mm x 1.5 mm were fixed transversely in the door leaf (one 200 mm above the middleline and one 200 mm beneath the middleline of the door leaf). A fireproof lock was installed at one side of the door.

The door frame may be bolted or welded to the bulkhead.

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

Application/Limitation

The door is approved for installation in steel bulkheads of class A-60. Installation of the door in bulkheads made of other materials (aluminium, FRP, etc.) are subject to case-by-case approval.

Max clear opening: 2000 mm x 1200 mm (width x height)

Max size of door leaf: 2090 mm x 1247 mm (width x height)

Restricted application: fire on the insulated side.

The insulation materials and adhesives used have to be approved according to the Marine Equipment Directive and bear the Mark of Conformity. This requirement may also be applicable for surface materials used, if required by relevant rules.

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

Type Examination documentation

Test report no. FT17087 dated 10th of May 2017 from Far East Fire testing Centre, Shanghai, China.

Drawing Nos. :

- 261 WHL 028X-00-00 (Assembly) Rev.0 dated 2017-02-09
- 261 WHL 028X-00-01 (Window frame) Rev.0 dated 2017-02-09
- 261 WHL 028X-00-02 (Window pane) Rev.0 dated 2017-02-09



Job Id: **344.1-007583-1**
Certificate No: **MEDB00003DJ**

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 and fire-technical rating, MED Mark of Conformity and the USCG approval number (see first page).