DNV·GL

Certificate No:
MEDB000017A

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 Fire Doors

with type designation(s)
KS-DMA60 Class A-60 Single Leaf Hinged Fire Door

Issued to
Nantong Cosy Marine Equipment Technology Co., Ltd.
Nantong City, China

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2015/559,**
Annex A.1, item No. A.1/3.16 and Annex B, Module B in the Directive; SOLAS 74 as amended, Regulation II-2/and IMO 2010 FTP Code

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

This Certificate is valid until **2021-10-31**.

Issued at **Hamburg** on **2016-11-01**

DNV GL local station:
Nantong CMC

Approval Engineer:
Pavel Golyshev

Notified Body
No.: **0098**

for **DNV GL SE**

Sven Dudszus
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 European Community and the United States of America on Mutual Recognition of Certificates of Conformity for Marine Equipment", signed February 27th, 2004.

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

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Product description

"KS-DMA60 Class A-60 Single Leaf Hinged Fire Door"
The door leaf consists of:

- Face sheet I: 0.6 mm thick galvanized steel
- Insulating layer I: 19 mm thick rock wool manufactured by Tianchang KMD New Insulation Materials Co. Ltd. (density 150 kg/m³)
- Inorganic fireproof YB type board 10 mm thick manufactured by Suzhou Youlian Ship Equipment Co., Ltd. (density 1000 kg/m³)
- Insulating layer II: 19 mm thick rock wool manufactured by Tianchang KMD New Insulation Materials Co. Ltd. (density 150 kg/m³)
- Face sheet II: 0.6 mm thick galvanized steel

The door's four sided frame is made of 1.5 mm thick steel plate and filled with rock wool material manufactured by Tianchang KMD New Insulation Materials Co. Ltd. (density 150 kg/m³).

The door leaf is connected to the frame by 3 stainless steel hinges. A fireproof seal expansion strip (8967 type) manufactured by Shanghai Jia Fu Decoration Material Co., Ltd. is fixed inside continuous groove along the three sides of the door frame.

The door leaf is fitted with marine fireproof door lock of C-1 type made of stainless steel.

The door may be fitted with:

- fireproof rectangular window glass pane of external size 540 mm x 540 mm x 32 mm (width x height x thickness) manufactured by Yixing YuShi Special Glass Co., Ltd
- escape hatch (kick out panel) located in the lower half of the door leaf, made of 53 mm thick rock wool manufactured by Tianchang KMD New Insulation Materials Co. Ltd. (density 150 kg/m³) and covered with 0.6 mm thick galvanized steel
- self-closing hose port with 158 mm x 164 mm (width x height) clear opening when door closed and inset into the lower edge of the door, opposite the door hinges

Total thickness of door leaf: 50 mm.

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.

The door was tested with the door frame fixed to the bulkhead with bolts (acc. to the test report) and is also approved for use with door frames both bolted, tack- and fully welded to the bulkhead.

Maximum size of clear opening: 1100 x 2200 mm (width x height).
Maximum size of clear opening of escape hatch: 420 x 520 mm (width x height)
Maximum size of window clear opening: 500 x 500 mm.

The insulation materials and adhesives and gaskets 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 and regulations.

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

Type Examination documentation

Test Report No. FT16051 dated 20th of June 2016 issued by the Far East Fire Testing Centre (FEFTC), Shanghai, China. Drawing QKS-000-A28-512-000 Rev. 1.

Tests carried out

Tested according to IMO 2010 FTP Code Part 3.

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.

USCG approval limitations

The approval is limited to fire doors without windows and doors with total window area of 645 cm², or less, in each door leaf. Doors with a window area exceeding 645 cm² are not part of this certificate and need direct USCG approval.