

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)

Class A-60 Fireproof Hydraulic Steel Sliding Door

Issued to

Jiangyin Huangshan Marine Fitting Co., Ltd
Jiangyin, China

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

Regulation **(EU) 2018/773**,

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 **2024-07-02**.

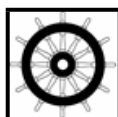
Issued at **Hamburg** on **2019-07-03**

DNV GL local station:

Jiangyin

Approval Engineer:

Timo Linn



Notified Body
No.: **0098**

for **DNV GL SE**

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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



Product description

The Class A-60 Fireproof Hydraulic Steel Sliding Door opens horizontally and comprises a sliding leaf running in lateral guide ways at top and bottom on a door frame mounted over an opening in a class A-60 bulkhead.

The clear opening size is 1200mm wide and 2000mm high. The materials, construction and installation shall be in accordance with the manufacturer's drawings 262.11HS30-0D 262.11HS30-00 to -04, -08, -10 and -11 attached to the test reports listed under "Approval documentation".

The door's L-form frame is fabricated from a 95 x 50 x 6mm steel rectangular hollow section (RHS) welded to 60mm thick x 90mm deep steel block and is arranged around the full perimeter of the bulkhead opening. The RHS part of the frame is welded to the steel structural bulkhead. The inner side of the steel block is insulated with 20mm thick ceramic wool which is clad with 3mm thick steel plate. The steel block of the door frame is arranged with a 14 x 14mm continuous groove (arranged on the face which interfaces with door leaf) in which a rubber seal for water tightness is embedded. Six sets of clamping devices fitted on each side of the door frame are provided for the closure between door frame and door leaf. The overall size of the door frame is 1550mm wide, 2350mm high and 120mm deep. The steel guide ways (L-profile 158 x 91.4 x 16), on which two wheels mounted on the top and on the bottom of the door leaf run permit the door leaf to slide horizontally.

The door leaf consists of (from the side which interfaces with the door frame) 3mm thick steel plate + 10mm thick fireproof board + 12mm thick steel plate + 58mm thick ceramic wool + 10mm thick fireproof board + 3mm thick steel plate. The total thickness of the door leaf is 96mm. The 12mm thick door leaf plate is reinforced with two vertical and six lateral 70mm x 18mm flat bars. The vertical edges are closed with 100 x 50mm flat bars. The bottom and top edges are closed with 59 x 25mm flat bars. The bottom and top parts of the door leaf are recessed to accommodate the guide arrangements for sliding. A continuous fireproof seal is arranged around the door leaf where it interfaces with the door frame. A pair of guide rollers are fitted both at the top of and at the bottom of the door leaf. Six sets of clamping devices are fitted on each side of the door leaf to provide for the closure between door frame and door leaf. The overall size of the door leaf structure is 1305 mm wide, 2105mm high and 103mm deep.

The door control system has to be tested and certified for compliance with IMO Res. MSC 307(88) – (2010 FTP Code), Annex 1, Part 4.

One fire test was conducted on a Class A-60 bulkhead specimen with stiffeners on the unexposed side, the insulation and Class A-60 Fireproof Hydraulic Steel Sliding Door being on the exposed side.

A further test was conducted on a Class A-60 bulkhead specimen with stiffeners and Class A-60 Fireproof Hydraulic Steel Sliding Door mounted on the unexposed side with the insulation on the exposed side.

The Class A-60 Fireproof Hydraulic Steel Sliding Door may be mounted on either side of a class A-60 bulkhead when the installation is as described in the manufacturer's drawings quoted above. These drawings are also part of the test reports listed under "Approval documentation".

Insulation and Sealing Materials:

Fireproof board YB type, 10mm and 1200 kg/m³ in nominal thickness and density manufactured by Suzhou Youlian Ship Fitting Co., Ltd.

Ceramic wool LZ-2 type, 58mm and 170 kg/m³ in nominal thickness and density manufactured by the Yixing City Kun Hao Fire Resistant Materials Co., Ltd.

Fireproof seal strip 4 x 40mm manufactured by Shanghai Jiar Fu Decoration Material Co., Ltd.

Installation on board, use and maintenance to be in accordance with the manufacturer's instructions.

Job Id: **344.1-009234-1**
Certificate No: **MEDB000058E**

For further details, see test reports and assessment listed 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.

Maximum clear opening size: 1200 mm x 2000 mm (width x height).

A fire door with modified door construction acc. to the Statement of the responsible fire testing laboratory DBI may be individually assessed and accepted by Flag Administration (or Recognized Organization acting on its behalf) for a specific project with the same classification.

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 and regulations.

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

Type Examination documentation

Test Report Nos FT12277 dated 23rd November 2012 and FT12278 dated 4th December 2012 issued by the Far East Fire Testing Centre (FEFTC), Shanghai, China.

This certificate is based on the previous MED B certificate 95051-14 HH.

Tests carried out

Tested according to MSC.307(88) – 2010 FTP Code, Annex 1, Part 3.

Marking of product

The product or packing is to be marked with name and address of manufacturer, type designation, fire-technical rating, MED Mark of Conformity and USCG approval number if applicable (see first page).