DNV·GL

Certificate No:
MEDB00004DV

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 fire sliding door, type A 3000 Single

Issued to
KAEFER Schiffsausbau GmbH
Bremen, Germany

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 **2023-08-23**.

Issued at **Hamburg** on **2018-08-24**

DNV GL local station:
Bremerhaven

Approval Engineer:
John Alan Walton

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

Product description

Class A-60 fire sliding door, type A 3000 Single:

Prototype single leaf sliding door whose maximum standard clear opening is 2320mm (W) x 2420mm (H) has been tested as per RINA Test Laboratory reports Nos. 2007CS013588/1 and 2007CS013588/2 both dated 3rd August 2007:

The leaf is composed of symetrical panels having a total thickness of 50mm and its construction includes vertical and transversal joints. Such panels, having maximum dimensions of 1200mm (W) x 2300 mm (H), are composed of two slabs of material named LOLAMAT BOARD, 3mm thick and having density of 1440 kg/m³ and in between a mineral wool layer with a thickness of 44 mm and density of 170 kg/m³ named MEGAROCK or density of 195kg/m³ named RPI17 (manufacturer Rockwool).

Metal containing profiles are fitted into the leaf blade edges. The panel joints are made removing the mineral wool on the panel edges (for a depth of 20mm) and fitting inserts, having construction identical to the panels, 43.5mm thick and having a width of 40 mm. The inserts are glued to the LOLAMAT BOARD slabs by means of the adhesive named COSMOPUR Kl 1644 E. The door may be fitted with a self-closing hose port.

The door may be welded or bolted directly to the bulkhead or alternatively and with reference to the Technical Assessment report No.20181048 dated 17th July 2018 issued by MPA Dresden, be fitted to a steel structural mounting frame welded to the bulkhead around the opening in accordance with the Kaefer Welding Instruction Single Fire Sliding Door (Document No. SA18KD6DD020 dated May 2018).

Single leaf sliding door "Type 3000 A Single" with maximum clear opening sizes as listed below and as per RINA Thermal-mechanical analysis report No.TR 004/2009/TCHF dated 8 June 2009:
3000 mm (W) x 5000 mm (H)
4000 mm (W) x 2500 mm (H)

4000 mm (W) x 3000 mm (H)
5000 mm (W) x 3000 mm (H)

The latter two versions shall be fitted with the adoption of an additional steel omega profile (1.5mm thick) close to the lower edge.

For further details refer to the documentation listed below under "Type Examination documentation".

Application/Limitation

The Class A-60 fire sliding door, type A 3000 Single is approved for installation in steel bulkheads of Class A-60. Installation of this door in bulkheads made of other materials (aluminium, FRP, etc.) are subject to case-by-case approval.

This fire door having larger dimensions than the fire-tested fire door may be individually assessed and accepted by the flag administration (or recognised organisation acting on its behalf) for a specific project with the same classification, provided documented compliance with IMO MSC.1/Circ.1319

For larger doors exceeding 50% in surface area, a full analysis based on SOLAS Ch.II-2 Reg.17 should be performed to assess the safety of the vessel.

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

RINA Test Laboratory report Nos. 2007CS013588/1 and 2007CS013588/2 both dated 18th October 2007 and RINA Thermal-mechanical analysis report No.TR 004/2009/TCHF dated 8th June 2009.

KAEFER drawing No. BT07RT6KP080 (52 sheets) dated 29th July and IT07FU6SZ106 (8 sheets) dated 20th May 2008 and page 1/3 dated 6 August 2009 approved respectively on 6 August 2007, 23rd July 2008 and 14th August 2009 with endorsement No. LABS-25, No. LABS-158 and No. LABS-338.
KAEFER drawings Nos. IT07FU6SZ081, IT07FU6SZ082 dated 1st August 2007 and TB09FU6KP013 dated 26th May 2009 approved on 16 July 2009 respectively with endorsement Nos. LABS-310, LABS-31 land LABS-312.
Kaefer Welding Instruction Single Fire Sliding Door (Document No. SA18KD6DD020 dated May 2018).

Tests carried out

IMO Res. MSC.307(88), Clause 8
IMO Res.MSC.61(67), Annex 1, Part 3, IMO Res.A.754(18)

Marking of product

The product is to be marked with name of manufacturer, type designation, MED Mark of Conformity and USCG approval number (if applicable).

Product marking with the MED Mark of Conformity and USCG approval number (if applicable) is not permitted before the Module B certificate is combined with a valid Module D certificate.