DNV·GL

Certificate No:
MEDB0000451

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)
KD-0058098

Issued to
LETHE Exterior Doors GmbH
Schwanewede, 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 **2023-07-09**.

Issued at **Hamburg** on **2018-07-10**

DNV GL local station:
Bremerhaven

Approval Engineer:
Timo Linn

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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
Single hinged leaf fire door, type **"KD-0058098**" Class A-30 door" tested in an aluminium bulkhead.

The door leaf consists of a core of aluminum (minimum thickness: 6 mm) and a cover sheet of 3 mm thick steel. A steel locking rod, window, a top door closer and a cable duct with cable entry has been integrated into the door leaf. (Thickness of door leaf is 131mm).
Door leaf is insulated with 10 mm or 20 mm thick layers of the material "Promaxon Typ A" (density: 850 kg/m³), manufactured by Promat GmbH, glued together with the aluminum core and the cover plate. Used adhesive is "SikaForce-7752 FRW", manufactured by SIKA Services AG.

The door leaf is connected to a frame of aluminum profiles screwed together with a steel sealing frame. The gap between sealing steel frame and frame is circumferential sealt with "Rotabond 2000". Also a sealing strip (20 mm x 3 mm, W x D) of the intumescent material "PROMASEAL PL", manufactured by Promat GmbH has been installed.
The frame with round corners is installed and clamped in the aluminum bulkhead by 8 retainer.
The gap between the frame and the bulkhead is sealed circumferentially with the sealant "Rotabond 2000" manufactured by KENT Belux SPRL Europe.

The door may be optionally fitted with:

Locking linkage:
The locking link made of steel connected the door lock (mortise lock on the right 65 mm 3801Z) with a door handle set of the type "door locker FSB 1070 Vielzahn" manufactured by Franz Schneider Brakel GmbH + Co KG with three locking latches as well as the locking release.

Cable duct with cable entry:
At the height of the handle set (height: 926 mm) three cables, type "Lapp Olflex 3x0.25 mm²" are routed from the door lock to the cable penetration consist of stainless steel 1.4404 and covered with acrylic glass. Manufactured by Lethe exterior doors GmbH.

Upper door closer
Door closer type "HGB-VD-2838" manufactured by Dormakaba Deutschland GmbH made of cast steel was integrated into the frame.

Window
Fireproof rectangular glass window, composed (from the side exposed to fire) of 6/10mm laminated safety glass with safety foil between + 8mm air gap + 6mm toughened safety glass + 22 mm fireproof solution gel + 6 mm toughened glass layer (total thickness: 34 mm), provided by Yachtglass Gmbh & Co. KG. Window is glued and fixed with retainers into the door leaf. A circumferential strip (20 mm × 3 mm, W × D) of the intumescent material Promaseal LW manufactured by Etex Building Performance GmbH has been inserted into the gap between the glazing and the door leaf.

For further details, see test report listed under type examination documentation below.

Application/Limitation
The door is approved for installation in aluminum bulkheads of class A-30. Installation of the door in bulkheads made of other materials (steel, FRP, etc.) are subject to case-by-case approval.

A fire door of marginally larger dimensions than a fire-tested fire door may be individually assessed and accepted by Flag Administration (or Recognized Organization acting on its behalf) for a specific project with the same classification, provided documented compliance with IMO MSC.1/Circ.1319.

Maximum size of door leaf: 1020 mm x 2000 mm (width x height)
Maximum clear opening size: 970 mm x 1950 mm (width x height).
Maximum clear view opening size of window: 560 mm x 830 mm (width x height).

Doors with windows shall not be fitted in the boundaries of machinery spaces of category A.

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 no. KD-0058098 dated 7th of May 2018, issued by DMT GmbH & Co.KG, Germany.

The door has been successfully tested with extended test period in compliance with IMO MEC.1/Circ.1319.

Tests carried out
Tested according to IMO Res. 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).

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.

USCG Approval Category (Module B) number
This product has been assigned a U.S. Coast Guard Module B number 164.136/EC0098 to note type approval to Module B only as it pertains to obtaining US Coast Guard approval 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.