EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB00000YF

Application of: Council Directive 96/98/EC of 20 December 1996 on Marine Equipment (MED) as amended by directive (EU) 2015/559. This Certificate is issued by DNV GL SE based on the notification of the German Federal Ministry of Transport, Building and Urban Development.

This is to certify:

That the Fire Doors
with type designation(s)
LMD-HD-RO-G Class A-60 Double Leaf Hinged Fire Door
Issued to

Podszuck GmbH

Kiel, Germany

is found to comply with the requirements in the following Regulations/Standards:
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 **2019-11-23**.

Issued at **Hamburg** on **2016-08-12**

DNV GL local station:
Hamburg
Approval Engineer:
Pavel Golyshev

Notified Body
No.: **0098**

for **DNV GL SE**

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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 Council Directive 96/98/EC, as amended.
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.
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

"LMD-HD-RO-G" Class A-60 Double Leaf Hinged Fire Door. The structure and shape of each door leaf is symmetrical with the exception that the main leaf (active door leaf) has a width of 1321 mm and the second door leaf (passive door leaf) has a width of 1290 mm.
Each door leaf consists of:

- Face sheet I: 1.50 – 2.00 mm thick steel sheet
- Insulating core of 2 x 25 mm calcium silicate boards Silca 200 manufactured by Calsitherm GmbH (nominal density 210 kg/m³)
- Face sheet II: 1.50 – 2.00 mm thick steel sheet

In addition a 50 x 6 mm calcium silicate board layer of Promatect H manufactured by Promat GmbH (nominal density 870 kg/m³) is fitted along the top, bottom and trailing edges. Layers of Promatect H boards are also fitted on the locks and on the handles (see drawing for more details). An adhesive Promat K84 of approved type was used to affix the insulation.
The door frame is made of Z-profile steel 54 x 50 x 30 x 4 mm welded to the bulkhead. The left and right door leaves each are connected to the frame by 3 hinges. Three pins which engage into the frame when the door leaves are in the closed position are fitted on the hinge side of each door leaf.
The active door leaf is fitted with a three point lock system operated by the door handle. The passive door leaf is fitted with locking bolts which engage in the frame at the top and bottom of the door leaf.
The left and right door leaves may be fitted with fireproof rectangular window type Contraflarm Marine A-60 located at the centre of the upper half of each door leaf. The dimension of the glass panel is 430 mm x 630 mm x 27 mm (width x height x thickness). The 1.5 mm thick steel profile frame is bolted to the door leaf. A combination of Insulfrax paper insulation strips and Kerafix Flexpress intumescent sealing strip is fitted around the window between the glass pane edges and frame.
Total thickness of door leaf: 54-55 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.
Maximum size of clear opening: 2495 x 2800 mm (width x height). An LMD-HD-RO-G door having this maximum clear opening size has an overall size of 2647 x 2952 mm (width x height). IMO MSC.1/Circ.1319 para 2 may be applied for an LMD-HD-RO-G door of marginally larger dimensions.
Maximum size of window clear opening in each leaf: 400 mm x 600 mm (width x height).
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.
Note that this is a fire safety certificate which only covers fire technical properties (i.e. not to cover any evaluations related to watertightness, weathertightness etc.).

Type Examination documentation

Test Report No. PGA10493 dated 7th of July 2014 issued by Danish Institute of Fire and Security Technology (DBI), Hvidovre, Denmark (GL Ref. No.14-068737). Assessment No. 20151349 dated 17th of December 2015 issued by MPA Dresden, Freiberg, Germany. Drawings No. P14-2305.001-2.0, P14-602.2-2.0 and P14-2305.001-2.0.

Tests carried out

Tested according to IMO FTPC 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.