DNV·GL

Certificate No:
MEDB00001A5

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 "A" Class divisions, fire integrity

with type designation(s)
"A-60 Stacking Barrier" for closure of a Class A-60 bulkhead

Issued to
Jansen Systembau GmbH & Co. KG
Papenburg/Aschendorf, Germany

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2015/559,**
Annex A.1, item No. A.1/3.11a and Annex B, Module B in the Directive; SOLAS 74 as amended, Regulation II-2/3.2.5 and IMO 2010 FTP Code.

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

This Certificate is valid until **2016-11-07**.

Issued at **Hamburg** on **2016-11-07**

DNV GL local station:
Leer

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

"A-60 Stacking Barrier" for closure of a Class A-60 bulkhead having a clear opening size of 4900 mm wide and 3800 mm high, is composed of:

- structural support frame mounted around the top and sides of the bulkhead opening
- movable barrier consisting of six segments forming the barrier which can be pulled upwards and stacked together above the bulkhead opening
- drive unit with folding mechanics
- side frames which contain guide rails for the movable barrier

The movable barrier consists of six individual elements each with a height each of 655 mm which in the closed state, interlock with each other by means of guide profiles and tongue and groove profiles and are connected on the vertical edges via chain studs and carrier chains. The door is fastened by screws to a 5 mm thick steel which is provided with 70 mm thick insulation to the fire side.The materials used and the construction and installation of this stacking fire resisting barrier unit are to be as specified in the test report as listed under type examination documentation.

The structural support frame is constructed of steel rectangular hollow sections clad with Promatect-H fire strip. The structure forming the guide rails is constructed of 3 mm thick flanged steel plate clad with Promatect-PL fire strip.

The individual elements of the door leaf consist of two 0.75 mm thick folded zinc plated steel cover sheets with a 39 mm thick insulation core "CONROCK 15" sheathed with a 10 mm thick gypsum fibreboard "Rigidur H Marine 10" and glued together with an adhesive "PROMAT K84"
The vertical sides of each segment are fitted with support rollers and with guide rollers which run in the guide rails.
The side U-shaped guide /runner rails consist of multiple-folded 3 mm thick sheet steel profiles wich has been insulated with two continuous self-adhesive "Promaseal PL" strips are bonded into the U-shaped guide profile and on the support bracket and two"Promatect-H" strips are inserted into the cladding.

At the bottom edge of the topmost element as with the middle elements, tongue and groove profiles produced from multiple-folded 1.5 mm thick steel sheets are fastened to the folded edge of the cladding sheets. Self-adhesive "Promaseal PL" strips are bonded into the tongue profiles over the entire length of the element.
On the top edge of the top element and the bottom edge of the floor element the two outer cladding sheets are fastened to the upper door leaf labyrinth and the U-profile for the floor rubber fixing respectively by means of 2.5 mm thick zinc plated sheet steel connecting straps with self drilling screws.

Insulation Materials:

CONROCK 15, manufacturer: Deutsche ROCKWOOL Mineralwoll GmbH & Co OHG
Rigidur H Marine 10, manufactured by Saint-Gobain Rigips GmbH
Promatect-H and Promaseal-PL, manufactured by Promat AG

Adhesive:
PROMAT K84, manufactured by Promat AG

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

Application/Limitation

Stacking Barrier assembly for closure of a steel Class A-60 bulkhead is mounted on the bulkhead side exposed to fire and is constructed and installed as per the Manufacturer's Inspection Report:
Fig. 1.1 – Fig. 17.1 (Appendix 1-17).

Maximum clear opening size is 4900 x 3800 mm (height x width). A stacking barrier assembly having this maximum clear opening size has an overall size of 5080 mm in width and 4500 mm in height. IMO MSC.1/Circ.1319 Para 2 may be applied for a stacking barrier assembly of marginally larger dimensions.

Approved for use as a vertical fire retarding division of Class A-60.

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. 20151331 dated 14 March 2016 from MPA Dresden,Germany.

Tests carried out

Tested according to IMO 2010 FTP Code Annex 1, Part 3.
MSC.1/Circ.1319

Marking of product

The product is to be marked with name of manufacturer, type designation, fire technical rating and MED Mark of Conformity (see page 1).