DNV·GL

Certificate No:
MEDB00003FT

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 "B" Class divisions, fire integrity

with type designation(s)
Class B-15 ceiling / A-30 deck construction with built-in components

Issued to
Stengel GmbH
Ellwangen, Germany

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2017/306,**
item No. MED/3.11b. SOLAS 74 as amended, Regulation II-2.3.4 & II-2/9 and IMO 2010 FTP Code

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

This Certificate is valid until **2022-11-27**.

Issued at **Hamburg** on **2017-11-28**

DNV GL local station:
Augsburg

Approval Engineer:
Pavel Golyshev

Notified Body
No.: **0098**

for **DNV GL SE**

Sven Dudszus
Head of Notified Body

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

"Class B-15 ceiling /A-30 deck construction with built-in components"
Class B-15 ceiling, consisting of 25 mm thick rock wool, type Rockwool RPI 17 (density 170 kg/m³) covered with 0.7 mm thick galv. steel sheets, panels connected to each other with groove and hooks; along the joint a steel strip (1480 mm x 100 mm, thickness: 1 mm) was mounted on unexposed side (the steel strips were fixed with drilling screws), acc. to enclosure 1.1 of test report.
Remark acc. to Assessment 20632599 GS-BS-Hau: evidence of equivalence between glued or screwed insulation boxes, range of size L=200 mm to 550 mm, B=200 mm to 330 mm and H=40 mm to 65 mm (length, width and height).

Total panel thickness: 25 mm.

Class B-15/B-0 ceiling (see also under Application/Limitation) with following optional fittings:

Detail 1, downlight, type "Lightpartner DL52 A1":
screwed, circular cut-out of 143 mm, insulated with a mineral wool box (external dimension: 550 mm x 335 mm and height of 65 mm) and second layer on top of the box (thickness: 15 mm), acc. to drwg. no.: 200024_32[V00], page 3 and photo nos: 21 to 26.

Detail 2, loudspeaker, type "Visaton DL8":
mounted with clips, circular cut-out of 93 mm, insulated with a mineral wool box (external dimension: 200 mm x 200 mm and height of 65 mm) and second layer on top of the box (thickness: 15 mm), acc. to drwg. no.: 200024_32[V00], page 3 and photo nos: 29 and 30.

Detail 3, downlight, type "Lightpartner DL 90S":
mounted with spring steel clips, circular cut-out of 110 mm, insulated with a mineral wool box (external dimension: 550 mm x 335 mm and height of 50 mm) and second layer on top of the box (thickness: 15 mm), acc. to drwg. no.: 200024_32[V00], page 3 and photo nos: 34 to 36.

Detail 4, exhaust air unit with flexible aluminium duct:
consisting of URH – exhaust air valve and mounting ring, reducer 125 mm/100 mm, insulated and FTAI 100/length 600 mm flexible circular duct, alu, insulated, fixed with aluminium tape, circular cut-out of 160 mm, acc. to drwg. no.: 200024_33[V00], page 4 and photo nos: 39 to 44 and 46.

Detail 5, razor socket:
screwed, cut-out of 139 mm x 68 mm, insulated with a mineral wool box (external dimension: 200 mm x 200 mm and height of 50 mm) and second layer on top of the box (thickness: 15 mm), insulation box was placed by aluminium tape, acc. to drwg. no.: 200024_33[V00], page 4 and photo nos: 49 to 51.

Detail 6, exhaust air unit with flexible steel duct:
acc. to drwg.-no. 200024_33, page 4.

For further details, see test reports and assessment listed under Type Examination documentation below.

Application/Limitation

Approved for use as a horizontal fire retarding division of class B-15 with restricted application as stated below:
The ceiling combined with fittings/details 1, 2, 3, 4 and 5 fulfils the requirements for a Class B-15 ceiling.
The ceiling combined with fitting/detail 6 fulfils the requirements for a Class B-0 ceiling.

With a minimum distance between exposed side of the ceiling and the A-Class structural steel deck of 300 mm, the whole construction may be regarded as a horizontal fire retarding division of Class A-30.

Maximum panel size: 1914 mm x 2980 mm (width x length).

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, use and maintenance.

Type Examination documentation

Test report no.: PGA10003 dated 30th of August 2011 and PGA10004 dated 30th of October 2011 both issued by Danish Institute of Fire and Security Technology, Hvidovre, Denmark and assessment 26032599 GS-BS-Hau dated 8th of November 2012 issued by DMT GmbH & Co. KG, Dortmund, Germany.

Tests carried out

Tested according to IMO FTP Code Part 3 and in compliance with IMO 2010 FTP Code Ch.8.

Marking of product

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

USCG Approval Category (Module B) number

This product has been assigned a U.S. Coast Guard Module B number 164.105/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.