DNV·GL

Certificate No:
MEDB000031J

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)
Marine TKAB-5D Type Class A-60 Deck

Issued to
Shanghai ABM Rock Wool Co., Ltd.
Shanghai, China

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2017/306,**
item No. MED/3.11a. SOLAS 74 as amended, Regulation II-2/3.2 & II-2/9, IMO 2010 FTP Code, IMO MSC/Circ.1120 and IMO MSC.1/Circ.1434

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

This Certificate is valid until **2020-01-02**.

Issued at **Hamburg** on **2017-08-02**

DNV GL local station:
Nantong

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

"Marine TKAB-5D Type Class A-60 Deck" consisting of a 4.5 mm steel deck suitable stiffened, insulated on exposed side with (thickness: 50 mm) Fire Marine Rockwool (density: 90 kg/m³) .The deck is covered with 3 layers of 50 mm thick rock wool and fixed with pins up to the same height of the stiffener.The stiffeners are covered with a 50 mm thick strip of rock wool insulation and fixed with pins. Insulation overlaps the stiffeners.

The insulation is fixed to the deck and stiffeners by means of Ø3 mm welded steel pins and Ø30 mm washers (18 sets /m²).
Maximum spacing between the Pins is 400 mm. the insulation around the stiffeners is fixed by pins on the stiffeners. Pins are located at a max distance of 100 mm from joints.

Insulation:
Rock wool, type ABM-FR60, density 90 kg/m³

Application/Limitation

Approved for use as a horizontal 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, use and maintenance.

Type Examination documentation

Test Report No. FT14366 dated 2014-04-27 issued by Far East Fire Testing Centre, Shanghai, China. (DNV GL ref.-no.: 15-060757, 16-001491)

Tests carried out

Tested according to IMO 2010 FTP Code Part 3.

Marking of product

The product or packing is to be marked with name and address of manufacturer, type designation, fire-technical rating, the MED Mark of Conformity and USCG approval number, if applicable (see page 1).