DNV·GL

Certificate No:
MEDB00002SS

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)
DQ-TG/D-II Class A-60 Deck

Issued to
Zhejiang Pusen New Material Technology Co., Ltd.
HUZHOU ZHEJIANG, 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 **2019-06-01**.

Issued at **Hamburg** on **2017-06-29**

DNV GL local station:
Shanghai CMC

Approval Engineer:
Marius Mørner

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

"DQ-TG/D-II Class A-60 Deck"
is a steel structural deck, insulated on its underside with 30mm thick TG type ceramic wool of nominal density 170 kg/m³, manufactured by Zhejiang Pusen New Material Technology Co., Ltd.

The surfaces of the steel deck plate between the stiffeners (600mm apart) are fully covered with a single layer of 30mm thick ceramic wool insulation. The width of the insulation blanket for the tested specimen was 600mm. An individual layer of the 30mm thick ceramic wool insulation is applied over each stiffener.

The fire insulation is fixed with 3mm diameter welded steel pins with 30mm diameter steel washers. The stiffened and fire insulated side was exposed to fire from below. Pins are located on both sides of the seams at a distance of 50mm from the seam joints and both on top of and on either side of the stiffeners. Additional pins are located on each side of the seam joints in the middle between two stiffeners. Spacing between pins in the stiffener direction is 290mm up to a maximum of 450mm.

The application and securing of the Insulation blanket is illustrated the manufacturer's drawing No. DQ-A60-06-20 dated 2012-07-01 which was included in the test report.

For further details see test report stated under "Type Examination documentation" below.

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. FT12065 dated 26th July 2012 issued by Far East Fire Testing Centre, Shanghai

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).