

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)
JCP-C6B Type Class B-15 ceiling

Issued to

Jiangsu Hailu Technology Incorporated Corporation
JIANGYIN, JIANGSU, China

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2018/773**,
item No. MED/3.11b. SOLAS 74 as amended, Regulation II-2.3.4 & II-2/9 and IMO 2010 FTP Code

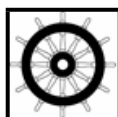
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2024-04-07**.

Issued at **Hamburg** on **2019-04-08**

DNV GL local station:
Jiangyin

Approval Engineer:
Timo Linn



Notified Body
No.: **0098**

for **DNV GL SE**

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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



Product description

"The JCP-C6B Type Class B-15 ceiling" is suspended below the steel structural deck and is assembled from 275 or 300mm wide and 25mm thick ceiling panels, having a rock wool core covered by a flanged 0.5mm thick steel sheet on the underside (exposed side). One layer of 25mm thick layer of rock wool was added on top of the ceiling panels giving a ceiling thickness of 50mm. The flanged longitudinal edges of the panels have overlapping joints and form 25 x 25 mm grooves between each panel after being overlapped. Within these grooves, the overlapping joints are riveted to omega formed support profiles W 60mm, H 20mm and t= 0.5mm running transversely to the panels. These support profiles are spaced at max. 420mm intervals and are connected to the steel structural deck by 8mm diameter steel rods. These rods are located at approx. 550mm intervals along the length of each omega formed support profile. The maximum panel length is 2400mm.

The panel ends connect on the flanges of an inverted T-bar (W50mm, H65mm and t=2mm) running transversely to the panels. This T-bar was suspended from the steel structural deck with 35 x 5mm flat bars spaced at approx. 600mm intervals along the length of each T-bar support and are welded to the deck.

A press frame made up of steel angle bars 30 x 5mm is arranged around the boundaries of the ceiling on the top surface of the groove to clamp the ceiling where it connects to bulkheads and also at the panel end connections. Where the press frame is connected to steel structural bulkheads and at the inverted T-bar at the panel ends, then this is by intermittent welding.

The JCP-C6B type Class B-15 ceiling was suspended under a steel structural deck. The air gap was 425mm.

The construction of the JCP-C6B type Class B-15 ceiling shall be in accordance with the manufacturer's drawings Nos. HL-C6B-03, HL-C6B-03-T1, HL-C6B-03-T2 and HL-C6B-03-T2-01 which are attached to the test report.

Insulation Material:

AZ -70 type rock wool of nominal density of 70 kg/m³ produced by the Jiangyin Anzhou Construction Material Co., Ltd.

Total panel thickness: 25 mm.

For further details, please see test report with included drawings listed under Type Examination documentation below.

Application/Limitation

Approved for use as a horizontal fire retarding division of class B-15.

The minimum distance between the ceiling panel and the structural steel deck is 425 mm.

Max. panel size: 300 mm 2400 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 and maintenance.

Type Examination documentation

Test Report No. FT12301 dated 14th December 2012 issued by Far East Fire Testing Centre, Shanghai, China.

This certificate is based on the previous MED Module B Certificate No.60526-13HH.



Job Id: **344.1-009181-4**
Certificate No: **MEDB000055M**

Tests carried out

Tested according to IMO Resolution MSC.307(88) – 2010 FTP Code Annex 1, Part 3.

Marking of product

The product 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 first page).