

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-C2S 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) 2019/1397**,
item No. MED/3.11b. SOLAS 74 as amended, Regulation II-2/3.4 & II-2/9, IMO 2010 FTP
Code, IMO MSC/Circ.1120 and IMO MSC.1/Circ.1581

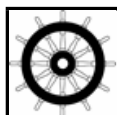
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2025-08-11**.

Issued at **Hamburg** on **2020-08-12**

DNV GL local station:
Jiangyin

Approval Engineer:
Karolina Kusmider



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, and amended by Decision No 1/2018 dated February 18th, 2019.

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Product description

"B-15 class ceiling panel type JCP-C2S"

is made of panels installed 420 mm below an A-class deck. The panels are composed of 24 mm thick rock wool insulation covered on both sides by 0.5 mm steel sheets. Adhesive of approved type is used between the steel sheets and the rock wool insulation.

The panels are wedge jointed and cut at wedge is 28mm deep along longer edge. Along shorter edge the panels are connected by T-type beams.

The ceiling is hung under the deck by four 30x3 mm hanging members at T-type beam of ceiling as well as by 30x3 mm hanging members at four corners of ceiling and four edges of ceiling being welded to the underside of deck.

The rock wool insulation is of type "Fibertex" with a nominal density of 120 kg/m³, manufactured by Tianchang KMD New Insulation Material Co., Ltd.

Total thickness of the ceiling is 25 mm.

For more details about the ceiling and fittings please see drawings listed under Type Examination documentation below.

Application/Limitation

Ceiling panels are approved for use as a fire retarding division of class B-15.

Maximum size of panels: 600 x 2400 mm (W x L).

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. FT18128 dated 12th July 2018 issued by Far East Fire Testing Centre, Shanghai, China.

Tests carried out

Tested according to IMO Resolution MSC.307(88) - IMO 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).