

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-C2, Class B-15 Ceiling with fittings

Issued to

Jiangsu Hailu Technology Incorporated Corporation
JIANGYIN JIANGSU, China

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 **2022-09-04.**

Issued at **Hamburg** on **2017-09-05**

DNV GL local station:
Jiangyin

Approval Engineer:
Roland Priebe



Notified Body
No.: **0098**

for **DNV GL SE**

Sven Dudzus
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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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 marine JCP-C2 Class B-15 Ceiling consists of panels of 28.8mm thick rock wool plate enclosed with galvanised steel sheeting of 0.6mm in thickness. The rock wool is affixed to the steel sheets with an adhesive of approved type.

The ceiling panels are connected along their longitudinal axis by means of wedged joints. A tenon on the leading edge of a panel wedges into a U-shaped clamp on the receiving edge of the adjacent panel. The wedging depth is 28mm.

The marine JCP-C2 Class B-15 Ceiling with fittings will be constructed and installed in accordance with the manufacturer's drawings 262HL-28C-T0, 262HL-28C-T1, 262HL-28C-T1-1, CSHIC-TNHR-20C Sht. 6 and JPY21-1 and descriptions in test report No. FT11258.

The marine JCP-C2 Type Class B-15 ceiling may be fitted with:

Electrical Heating Diffuser installed in a recessed box constructed according to the applicant's drawing No. CSHIC-TNHR-20C Sht. 6. The recessed box consists of a 0.6mm thick steel sheet casing lined inside with 25mm thick Rockwool plate and mounted on the topside of the ceiling panel with a 2.0mm steel peripheral flange which is fixed to the ceiling panel with screws. An additional 20mm thick layer of Rockwool plate is provided between ceiling topside and the recessed box. A diffuser constructed from 1.0mm steel sheet is fixed to the underside of the ceiling. The maximum nominal diameter of the diffuser outlet is 200mm. The diameter of the cut-out in the ceiling and recessed box is 210mm. The maximum nominal diameter of the inlet arranged in the side of the recessed box is 100mm. The inlet fitting is constructed of steel sheet. A cut-out in the side of the recessed box is provided for a junction box. The cut out is covered with 1.0 mm thick steel sheet. Overall size of the recessed box including diffuser ceiling fitting is L600 x B500 and H300mm. Electrical Heating Diffuser CSHIC-TNHR-20C type is supplied by China National Shipbuilding Heavy Industry (Taixing) Co., Ltd.

Light fixture installed in a recessed box constructed according to the applicant's drawing No JPY21-1. The recessed box consists of a 0.6mm steel sheet casing lined inside with 50mm thick Rockwool plate and mounted on the topside of the ceiling panel with a 1.6mm thick steel peripheral flange which is fixed to the ceiling panel with screws. The cut out in the ceiling is 650mm long x 220mm wide. Overall size of the recessed box (not including fixing flange for the topside) is L750 x B320 and H100mm. The frame for the light fixture is constructed from 0.6mm and 1.0mm thick steel sheet.. The frame is fixed to the ceiling panel with screws.

Light fixture JPY21-1 type is supplied by Haixing Maritime Electric Group.

Insulation Material:

AZ type rock wool of nominal density of 120 kg/m³ produced by the Jiangyin Anzhou Construction Material Co., Ltd.

Application/Limitation

This certificate replaces the previous MED-B certificate 46405-12 HH.

The panel maximum dimensions are 2400mm in length and 600mm in width. The panel thickness is 30mm.

The panel ends are joined by means of an inverted steel T-bar 50 x 65 x 2mm which is supported by 30 x 5 steel flat bar hangers welded to the deck structure above and to the inverted T-bar. These hangers are spaced at max 600mm intervals.

The minimum distance between the ceiling panel and the structural steel deck is 450mm.

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.



Job Id: **344.1-007297-1**
Certificate No: **MEDB000032D**

Each system is to be supplied with its manual for installation, use and maintenance.

Type Examination documentation

Test Report Nos. FT00158 and FT11258 dated 18th December 2000 and 28th October 2011 respectively, issued by the FEFTC, Shanghai.
GL Ref. No.11-142379

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