DNV·GL

Certificate No:
MEDB00005H0

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED), issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Authority. This Certificate is issued by DNV GL AS under the authority of the Government of Norway.

This is to certify:

That the "B" Class divisions, fire integrity

with type designation(s)
BIP C-161 B-0 Class Continuous Ceiling with Electrical Fittings

Issued to
BIP Industries Co., Ltd.
Yangsan-si, Gyeongsangnam-do, Republic of Korea

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 **2024-12-19**.
Issued at **Høvik** on **2019-12-20**

DNV GL local station:
Gimhae Station

Approval Engineer:
Marcin Tobiasz

Notified Body
No.: **0575**

for **DNV GL AS**

Roald Vårheim
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 United States of America and the EEA EFTA states on the mutual recognition of Certificates of Conformity for Marine Equipment" signed 17 October 2005, and amended by Decision No 1/2019 dated February 22nd, 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 AS 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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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.

NORWEGIAN ACCREDITATION PROD 019

Product description

"BIP C-161 B-0 Class Continuous Ceiling with Electrical Fittings"
composed of panels suspended below structural deck.The panels consists of 15 mm thick mineral wool (manufactured by KCC Corporation) of density 200 kg/m^3, covered with 0.6 mm thick steel sheets. The panels are connected to each other by fitting screws covered by omega profiles.
The panels are suspended below the structural deck with Hanger sets connected to T-carriers.

Max. panel thickness: 30 mm

The panels may incorporate:

- Ventilation diffusers model HME-160 (Tilting Type) produced by Halton and approximate weight of 21.6 kg, with cut out dimension in panel of Ø285 mm. The ventilation unit is bolted to the "C" shape support and the "C" shape support is fitted to the ceiling panel with the adhesive. The ventilation unit is included with a front cover and the front cover is insulated inside with 25 mm thick mineral wool (manufactured by KCC Corporation) of density 140 kg/m^3.
- Light fitting for LED down light model CDLL produced by Eaton and approximate weight of 2.5 kg, with cut out dimension in panel of Ø155 mm. Light fitting is fixed to 1.2 mm steel plate which is connected omega profiles.
- Speaker unit model BF560T-70W produced by DNH and approximate weight of 0.73 kg, with cut out dimension in panel of Ø133 mm. Speaker unit is closed in a steel box made from 1.6 mm thick steel mounted to omega profile.
- Hatch CAH-35 Access hatch, composed of a 35 mm thick insulation core of mineral wool with nominal density 140 kg/m^3 (from KCC Corporation, Korea), covered on each side with 0.6 mm thick steel sheets. The hatch is fitted with door lock and is fixed to hatch frame by means of a full length piano hinge. The hatch frame is made of 1.6 mm thick steel plate and fastened to the ceiling panel by overhead screws.
  Max. hatch size: 490 x 690 mm (W x L).
  Max. hatch clear opening: 400 x 600 mm (W x L).

For further details, see the drawings mentioned under Type Examination documentation.

Application/Limitation

Approved for use as a horizontal continuous fire retarding division of B-0.

Max panel size is 600 x 2375 x30 mm (W x L x D).
Max. distance between T-carriers: 2375 mm
Max. distance between Hanger sets along T-carriers: 900 mm

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 use.

Type Examination documentation

Test report No. KOMERI-0402-19T1970 dated 24 September 2019 from KOMERI, Busan, Korea.

Drawing No. F2019-C161 W/E.F.-R0 dated 16 May 2019 from the manufacturer.

Tests carried out

Tested according to IMO 2010 FTP Code part 3.

Marking of product

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