

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 Penetrations through "A" class divisions: pipe, duct, trunk, etc penetrations

with type designation(s)

Marine drains Type 480, 485 and Marine pipe penetrations 878 in Aluminium division

Issued to

Blücher Metal A/S
Vildbjerg, Midtjylland, Denmark

is found to comply with the requirements in the following Regulations/Standards:

Regulation **(EU) 2018/773**,

item No. MED/3.26b. SOLAS 74 as amended, Regulation II-2/9, IMO MSC.1/Circ.1276 and IMO 2010 FTP Code

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

This Certificate is valid until **2023-10-16**.

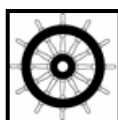
Issued at **Høvik** on **2018-10-17**

DNV GL local station:

Aalborg

Approval Engineer:

Tessa Biever



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.

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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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



Product description

"Marine drains Type 480, 485 and Marine pipe penetrations 878 in Aluminium division"
Penetration system for Blücher pipes type 878 (Ø40-110) composed of steel sleeves/scuppers of thickness 5 mm welded to the bulkhead/deck and Blücher pipes welded to the sleeve.

The pipe may be fitted with SI or EPDM sealings.

Drains 480 and 485 (Ø50-110)), composed of a lower part and/or an upper part, welded into a flange/sleeve, which are welded to a deck.

Pipes and drains are to be insulated with approved insulation (e.g. Paroc Wired Mat 100 or Rockwool Marine Wire Mat 105) according to drawings S-0392-309/316/301 Rev. A/317 Rev. A and 305 Rev. A.

Applications/Limitations

Approved for use as in class A-0 to A-60 in Aluminium bulkheads and decks as follows:

Type	Deck	Bulkhead
Pipe 878 SI Sealing	A-0 to A-60	A-0 to A-30
Pipe 878 EPDM Sealing	A-0 to A-60	A-0 to A-60
Drain 480	A-0 to A-60	N/A
Drain 485	A-0 to A-60	N/A

Other applications are subject to case-by-case approval.

The insulation material used has to be approved according to the Marine Equipment Directive and bear the Mark of Conformity.

Each product is to be supplied with its manual for installation and use.

Type Examination documentation

Test report Nos. :

- PG 11807, Serial No. 11490 dated 23 June 2008 (A0-A60 AL- Deck),
- PG 11278, Serial No. 9381 dated 22 December 2003 (A30/A60 Steel bulkhead – EPDM sealing)
- PG11270, Serial No. 9351 dated 22 December 2003 (A0 Steel Bulkhead - EPDM sealing)

All from DIFT, Denmark.

Test reports Nos. :

- PG12302 and PG 12303 both dated 27 January 2011 from DBI, Denmark (trap assessment)

Test report Nos.:

- PGA11214A dated 19 April 2018 (A0 Steel bulkhead)
- PGA11215A dated 23 April 2018 (A60 Steel bulkhead)
- PGA11264A dated 09 August 2018 (A0 Steel bulkhead)
- PGA11265A dated 10 August 2018 (A60 Steel bulkhead)

Assessment Reports Nos.:

- PH13466 dated 2 March 2011 (Ø40mm assessment)
- PH13644 dated 25 March 2011 (watertrap assessment)

Both from DBI, Denmark.

Assessment report No. PHA11036A dated 25 September 2018 (assessment that steel covers alu) from DBI, Denmark (valid until 24 September 2023)

Drawing Nos.:

- S-0392-309/316/301 Rev. A/317 Rev. A and 305 Rev. A (insulation)



Job Id: **344.1-000332-35**
Certificate No: **MEDB00004MD**

- S-0392-302 Rev. B/303 Rev.A/304 Rev. A/311 Rev. A/312/310/306 Rev.B/318 Rev. A/307 Rev. B/308 Rev. B/350/351 and 352 (details)
All from Blücher Metal A/S.

Tests carried out

Tested according to IMO FTPC 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 (see first page).