

Certificate number: 20897/B0 BV File number: ACI 1200/204/2

Product code: 51601

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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TYPE APPROVAL CERTIFICATE

This certificate is issued to

Fabryka Sprzetu Okretowego MEBLOMOR S.A.

CZARNKOW - POLAND

for the type of product

A0 CLASS DOORS

A0 Class fire resistant deck hatch type N19/34.5902/H

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships Part C Chapter 4, SOLAS 74 Convention, as amended, Regulation II-2/9, II-2/3.2, IMO Resolution A.754(18), IMO Resolution A.61(67) [FTP Code] - IMO MSC.307(88) (2010 FTP Code) article 8 IMO MSC/Circ.1120, IMO MSC/Circ.1273.

This certificate is issued to attest that BUREAU VERITAS did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 26 Feb 2019

For BUREAU VERITAS,

At BV GDANSK, on 26 Feb 2014, Janusz URBAN

Zlhban



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with BUREAU VERITAS. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of BUREAU VERITAS Marine Division available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against BUREAU VERITAS for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

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THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

A-0 class deck hatch with steel coaming

The hatch is composed of the following elements, from top to bottom:

- a 780x780mm cover made of 6mm thick steel profiled along the perimeter, with a 50x6mm cross section steel flat bar and a 21x126x4 angle bar welded along the perimeter of the cover.
- an air gap where the locking mechanism made of 4 corner bolts is installed
- a 602x602mm masking plate made of 1.5mm thick galvanized steel plate, fixed to the angle bar by with 18 one-sided 4.8x10mm rivets

The hatch is mounted and welded on a 190mm high steel coaming (150mm above deck and 40mm below deck), made of a 10 mm thick steel plate and welded to the deck. A 6x36x42 steel angle bar is welded alongside the perimeter of the coaming.

In the external notch of the hatch cover, a 40x20mm of LARKIS silicone joint is fitted along the perimeter.

In the internal notch of the hatch cover, between the flat bar and the angle bar, 3 horizontal layers of PALSTOP P Fireboard produced by Branddex, S.p.z.o.o, Poland, nominal density 1500kg/m3 covered with polyethylene foil are installed, the first 4x25mm and the other two 4x30mm cross section. Those three layers are fitted perpendicularly to a vertical 4x45mm layer along the flat bar.

The layers are covered with a 0.14mm thick stainless steel tape fixed with metal plate and rivets.

The hatch is equipped with 2 hinges symmetrically fitted and spaced 420mm apart.

For more details, see drawings listed in §2 below.

Total thickness of the hatch: 138 mm

Maximum dimensions of the hatch: 780 x 780 mm (length x width)

Maximum clear size opening: 650 x 650 mm

Integrity time achieved: 60 minutes

2. DOCUMENTS AND DRAWINGS:

As per the following Manufacturer's drawings, stamped by CTO laboratory:

- N19/34.5902/H "Weathertight hatch A0 class" dated 28.04.2008
- N19/34.5902/H.01 "Coaming 650x650x190" dated 24.04.2008
- N19/34.5902/H.02 "Cover 780x780x6" dated 24.04.2008 N19/34.5902/H.07 "Fire gasket fixing" dated 25.04.2008
- N19/34.5902/H.10 "Masking plate" dated 28.04.2008

3. TEST REPORTS:

Test report No. RO-08/B-105/E "Test on fire resistance of A0 class weathertight ship hatch made acc. to doc. No. N19/34.5902/H" dated May 28, 2008 as per IMO FTP Code, Annex 1, Part 3 [testing standard: IMO Resolution A.754(18)] issued by CTO Ship design and research centre laboratory, Poland.

4. APPLICATION / LIMITATION:

- 4.1 May be used on A0 class decks when installed in accordance with the drawings listed in §2.
- 4.2 The fitting aboard to be the same as used for the test.
- 4.3 The hatch has only been evaluated with regards to fire resistance. The arrangement and location of any hatch with regards to strength requirements are subject to approval in each case.

5. PRODUCTION SURVEY REQUIREMENTS:

- 5.1 The A-0 class deck hatches are to be supplied by Fabryka Sprzetu Okretowego MEBLOMOR S.A. in accordance with the type described in this certificate and Bureau Veritas Rules for the Classification of Steel Ships.
- 5.2 This type of product is within the category IBV of Bureau Veritas Rule Note NR320.
- 5.3 BV product certificate is required.

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6. MARKING OF PRODUCT:

The product or packing is to be marked with manufacturer name, type, designation and fire-technical rating.

7. OTHERS:

- 7.1 This approval is given on the understanding that the Society reserves the right to require check tests to be carried out on the units at any time and that the applicant will accept full responsibility for informing shipbuilders, shipowners or their sub-contractors of the proper methods of use and general maintenance of the units and the conditions of this approval.
- 7.2 Where subcontracting takes place, the manufacturer remains entirely and solely responsible for compliance of the supplied products with the applicable requirements.
- 7.2 This Certificate supersedes the Type Approval Certificate n° 20897/A1 BV issued on 16/02/2009 by the Society.

*** END OF CERTIFICATE ***