



TYPE APPROVAL CERTIFICATE
No. LAB386118CS

This is to certify that the product identified below is in compliance with the regulations herewith specified.

<i>Description</i>	Hatch fitted on deck
<i>Type</i>	Bofor HWTA60 Hatch (Bofor Watertight A60 Hatch)
<i>Applicant</i>	BOFOR DENIZCILIK SANAYI VE TICARET LTD.STI. IMES SANAYI SITESI, C BLOK,308 SOK,NO.18 Y.DUDULLU, Umraniye TURKEY
<i>Manufacturer</i>	BOFOR DENIZCILIK SANAYI VE TICARET LTD.STI.
<i>Place of manufacture</i>	IMES SANAYI SITESI, C BLOK,308 SOK,NO.18 Y.DUDULLU, Umraniye TURKEY
<i>Reference standards</i>	IMO Res. MSC.307(88)-(2010 FTP Code)

Issued in **Genoa** on **April 16, 2019**. This Certificate is valid until **April 15, 2024**

RINA Services S.p.A.

Enrico Cabella

This certificate consists of this page and 1 enclosure

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Bofor HWTA60 Hatch (Bofor Watertight A60 Hatch)

Product description

Hatch having maximum clear opening size of 1000 mm x 1200 mm composed, moving from the side exposed to the fire, of a steel plate 2 mm thick, and of a steel plate 4 mm thick on the other side while in the middle a steel plate 2 mm thick is fitted. Inside leaf are welded 2 longitudinal and 2 transversal stiffeners, having dimensions of 8 x 50 mm, between external plate of 6 mm and intermediate plate of 2 mm. In the leaf inside the insulating material compound is composed of one layer of non-combustible material type PROMAGUARD ALU 6 mm thick and density of 240 kg/m³ fitted on the steel plate 2 mm thick, a void space, one layer of the same insulating material fitted on the intermediate steel plate 2 mm thick, a layer of fire retardant type Nofirno having thickness of 2 mm and a layer of mineral wool 40 mm thick and density of 100 kg/m³. The hatch frame is composed of a steel profile 6 mm thick fixed to the deck by means of 41 steel screws type M8 with pitch of 110 mm. The hatch opening system is secured by means of three hinges while the closure is made tight with a gasket having dimensions of 40x20 mm fitted in the bended edge on the rabbet, which is shielded with a thermo-expanding gasket type Zenith having dimensions of 2x20 mm fitted on the perimetral edge leaf and on the rabbet between frame and leaf. The hatch is equipped with a wedge closing system fitted in the leaf inside, that acts on 8 closure points by means of one handle.

Fields of application

Fire resistant A-60 Class hinged watertight hatch fitted on steel decks (maximum hydrostatic head 0.2 bar applied on both faces) in compliance with IMO MSC.1/Circ. 1319 dated 11 June 2009; in this case the dimensions relevant to the hatch may be increased of 15% provided that the surface area is not increased of more than 10%.

Reference documents

BOFOR Marine Products drawing No. 2018-10-001 "Watertight A60 Fire Rated Steel Flush Hatch" dated 2 April 2019 approved on 10 April 2019 with endorsement No. LABS-1828.

Tests carried out

Tests as per RINA Test Laboratory Report No. 2018CS013861 issued on 15 April 2019 according to APPENDIX 1 of IMO 2010 FTPC Part 3 and Hydrostatic Test as per Report N.2018XT17001 issued on 24 May 2018.

General conditions for the approval

- a) The initial conditions verified by RINA at the time of the approval are to be maintained
- b) Any changes to the initial conditions are to be promptly communicated to RINA, which reserves the right to repeat the relevant assessment
- c) This certificate will no be valid if the manufacturer makes any changes or modifications to the approved equipment, which have not been notified to, and agreed with RINA
- d) RINA personnel are to allowed to witness during the performances of activities, upon their request
- e) The activities are to be carried out in compliance with the RINA Rules and/or other applicable Rules
- f) Should the specified regulations or standards be amended during the validity of this certificate, the product is to be reappraised prior to it being placed on board vessels to which the amended regulations or standards apply.

Genoa April 16, 2019

File Allegato/Attached file