



EC TYPE EXAMINATION (MODULE B)

CERTIFICATE No. MED164422CS

This is to certify that RINA Services S.p.A. (Notified Body No. 0474) did undertake the relevant type approval procedures for the equipment identified below, which was found to be in compliance with the Fire Protection requirements of Marine Equipment Directive (MED) 2014/90/EU, including the requirements and testing standards of Regulation (EU) 2021/1158.

<i>MED Item N°</i>	MED/3.16
<i>USCG Category N°</i>	164.136
<i>Description</i>	Fire doors
<i>Type</i>	Bofor WT A60 Door (Bofor Watertight A60 Hinged Door)
<i>Applicant</i>	BOFOR DENIZCILIK SANAYI VE TICARET LTD.STI. AYDINLI BIRLIK OSB MAH., BATI CAD., No.28 34953 Tuzla TURKEY
<i>Testing standards</i>	IMO Res. MSC.307(88)-(2010 FTP Code) - IMO MSC.1/Circ. 1319
<i>Reference standards</i>	Chap. II-2 of SOLAS 74 Convention, as amended, RINA Rules for the certification of Marine Equipment

Issued in Genoa on
May 9, 2022

This Certificate is valid until
April 9, 2027

This Certificate consists of this sheet plus an attachment

Enrico Cabella
RINA Services S.p.A.

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**ATTACHMENT TO
CERTIFICATE No. MED164422CS**

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Manufacturer

BOFOR DENIZCILIK SANAYI VE TICARET LTD.STI.

Place of Manufacturer

AYDINLI BIRLIK OSB MAH., BATI CAD., No.28
34953 Tuzla
TURKEY

Name & place of Authorised Representative

ALEX MARINE SA
PIRAEUS
GREECE

Product description

Single leaf hinged door whose maximum clear opening size is 617 mm wide, 1820 mm high and having radiused corners with radius of 100 mm. The door leaf, having maximum dimension of 721 mm in width, 1920 mm in height and thickness of 99 mm, is composed of a steel plate 5 mm thick having the edges bended on the rabbet and of a steel sheet 2 mm thick, fitted on the side opposite to the opening. Between the two sheets an insulating material compound is fitted. The insulation material compound is composed, moving from the side not exposed to the fire, of a layer of mineral wool covered on one side with an aluminium foil type ROCKWOOL MARINE FIREBATTS 100 having thickness of 40 mm and density of 100 kg/m³ glued, by means of adhesive type Sika Firestop Marine, 2 mm thick, to a steel sheet having thickness of 2 mm, one layer of material type PROMAGUARD ALU 6 mm thick and having density of 240 kg/m³, a cavity for the lever closing device movement and one layer of PROMAGUARD ALU. The PROMAGUARD ALU layers are fixed to the steel sheets by means of steel pins; a further layer having width of 120 mm is fitted on the joints. Inside the leaf "U" shaped steel stiffeners, having dimensions of 42x65 mm and thickness of 6 mm, are welded to steel plate, 5 mm thick, on the perimeter (one stiffener) and in transversal position (two stiffeners). Two additional longitudinal plate stiffeners, 2 mm thick and having dimensions of 40x10 mm are fitted, in the middle, between the transversal and perimeter stiffeners. The door frame is composed of a carbon steel angular having dimensions of 102x46 and thickness of 6 mm bolted to the bulkhead by means of M8 bolts having pitch of 64 mm and is insulated with two layers of the same mineral wool having width of 100 mm and thickness of 60 and 40 mm. The frame makes the closure tight with the gasket fitted in the leaf bended edges with an L shaped steel profile having the same thickness and dimensions of 31x24 mm welded to the frame at a distance of 42 mm from the frame bended edge. The door is equipped with a lever closing device that acts on 10 points fitted inside the leaf and actuated by an handwheel.



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Field of application

Fire resistant A-60 Class single leaf hinged watertight (maximum hydrostatic head 0.3 bar applied on both faces) door in compliance with IMO MSC.1/Circ. 1273 dated 30 May 2008. In this case the dimensions relevant to the height and width of the door may be increased of 15% provided that the surface area is not increased of more than 10%.

Reference documents

Bofor drawings No. 01 rev. 1 dated 12 January 2012 approved on 30 March 2012 with endorsement No. LABS-652.

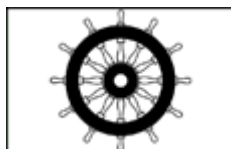
Tests carried out

Test as per RINA Test Laboratory Report No. 2011CS013865 issued on 6 April 2012 according to IMO Res. A. 754(18) and to IMO MSC.1/Circ. 1319 dated 11 June 2009. RINA Turkey Test Report No. 08-XT-708-01 dated 22 April 2009.

This certificate annuls and replaces the certificate No. MED247217CS dated 07/28/2017 due to renewal.

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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 control phase module (D, E or F) of Annex II of the Directive is fully complied with a written inspection agreement with a Notified Body



XXXX/YYYY

"WHEELMARK FORMAT"

XXXX Notified Body number undertaking surveillance module

YY Last two digits of year mark affixed

USCG Approval marking

This equipment is covered by the scope of 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 and amended by Decision No. 1/2018 dated February 18th, 2019 according to U.S. Coast Guard approval category **164.136**.

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 MED.

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 be 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 reapproved prior to it being placed on board vessels to which the amended regulations or standards apply.



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