Marine & Offshore

Certificate number: 50667/B1 BV
File number: LSA87048/03
Product code: 6028I

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

SURVITEC GROUP LIMITED

BELFAST - UNITED KINGDOM

for the type of product

RESCUE BOATS

Rigid/Inflated Rescue Boat, Type: RIBO 450

Requirements:
SOLAS 74 Convention as amended, Regulations III/4, X/3, III/21, III/31 and III/34
IMO Res. MSC.48(66) -(LSA Code)- amended by MSC.207(81), MSC.218(82), MSC.272(85), MSC.293(87), MSC.320(89), MSC.368(93), MSC.425(98), MSC.459(101) and MSC.485(103) I, V
IMO Res. MSC.36(63) -(1994 HSC Code)- as amended, 8
IMO Res. MSC.97(73) -(2000 HSC Code)- as amended, 8
IMO Res. MSC.81(70) amended by MSC.200(80), MSC.226(82), MSC.274(85), MSC.295(87), MSC.321(89), MSC.323(89), MSC.378(93), MSC.427(98), MSC.472(101) and MSC.488(103)
IMO MSC/Circ.1006 and IMO MSC.1/Circ.1631
ISO 15372:2000 & ISO 15372:2000/Amd 1:2021

Transport Canada Requirements:
Transport Canada Life Saving Equipment Regulations, TP14475 and TP14612

This certificate is issued to attest that Bureau Veritas Marine & Offshore 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: 30 Jun 2028

For Bureau Veritas Marine & Offshore,
At BV LONDON, on 08 Jul 2024,
Jonathan WATSON

This certificate was created electronically and is valid without signature

This certificate is recognized by Transport Canada

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 Marine & Offshore. 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 & Offshore 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 Marine & Offshore 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.

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION :

Rigid/Inflated Rescue Boat of GRP Construction with 4 points lifting slings, Type: RIBO 450.

Main Particulars	RIBO 450
Length Over All	4.50 m
Breadth	1.90 m

ENGINE TYPE	YAMAHA 25 HP - 4 strokes	YAMAHA 40 HP - 4 strokes	MERCURY 25 HP - 2 strokes	MERCURY 40 HP - 2 strokes
Light Weight (Fully equipped)	356 kg	424 kg	349 kg	372 Kg
Light Weight (Fully equipped) + Console	379 kg	447 kg	372 kg	395 kg
Full Load (6 persons)	851 kg	919 kg	844 kg	867 kg
Full Load (6 persons) + Console	874 kg	942 kg	867 kg	890 kg
Fuel oil tank capacity	24 litres (1 x 24L)	24 litres (1 x 24L)	25 litres (1 x 25L)	25 litres (1 x 25L)

Console: 23 kg
Maximum capacity: 6 persons including one person lying down on a stretcher.
Buoyancy working pressure: 0.24 bar.

2. DOCUMENTS AND DRAWINGS :

Design Report

Reference Number	Date	Revision	Title	Pages
BF0852-TC	05/02/2024	I	RIBO 450 SOLAS - TC	7

Drawings , Calculation Notes & Structural Drawings

Reference Number	Date	Revision	Title	Pages
BF0852-TC	05/02/2024	I	§ 3: Drawing List § 4: List of drawing - Structural Documentation	7

Materials and Components

Reference Number	Date	Revision	Title	Pages
D.I.F. RIBO EC	22/01/2024	V	Suppliers File RIBO EC	6
D.I.F RIBO annexe	05/02/2024	G	Suppliers File RIBO CCG - specific items	2

The rescue boat has various accessories as described in "Design report BF0852-EC".

Operating and maintenance manual

Reference Number	Date	Title	Pages
Z63571	04/2020	RIBO 450 US & TC approvals OPERATING AND MAINTENANCE MANUAL	118

No departure from these drawings is permitted without the prior consent of the Society.

3. TEST REPORTS :

Rescue Boat

Date	Test Report	
08/08/2008	IEN-05-08	Mooring out test
23/04/2009	BE049/2009	Prototype tests on serial number Proto 205
14/07/2009	IEN-06-09	Heavy weather test
20/05/2010	IEN 11-11	Liferaft towing test
20/05/2010	IEN 10-10	Heavy weather test
23/03/2010	BE 010/2010	Additional tests
24/03/2011	IEN 04-11	Liferaft towing test
13/03/2013	IEN 06-13	Overload strength test
24/01/2014	BE 003/2014	Additional tests on serial number XMP C232MA414
15/10/2014	BE 034/2014	Additional tests on serial number XMP C836N1415
15/01/2018	BE 001/2018	Additional tests (Benches)
30/11/2018	BE 047/2018	Additional tests (Console & Righting Bag)
17/12/2018	BE 059/2018	Additional tests (Mercury Engine 25 & 40 HP)
17/12/2018	BE 060/2018	Additional tests (Yamaha Engine 25 HP 4 strokes)
26/06/2019	BE 027/2019	Additional tests (Yamaha Engine 40 HP 4 strokes)
28/04/2023	BE 060/2018	Updated version of the test report with a new fuel tank capacity
28/04/2023	BE 027/2019	Updated version of the test report with a new fuel tank capacity
05/05/2023	BE049/2009	Updated version of the test report with a new fuel tank capacity

Additional type test related to Canadian's requirements

Date	Test Report	
04/11/2017	D0013/C17	Marking - Rubbing test
05/12/2017	BE 045/2017	Lifeline Patch
06/06/2018	BE 022/2018	Seating Test

Laminate material of hull and rigid cover

Date	Test Report	
08/11/2023 Rev.1	WIL-537851	Exposure to Laboratory light Sources
Revision 2	DM-QTD 2024-002	Fire retardancy test & Flame resistance test

Inherent and additional buoyancy materials

Date	Test Report	
17/12/2008	LA 08 TLS 2317 P.V.	Initial test report
10/04/2012	R024-BNN-12-100094-1/A	Additional test report

Maximum towing forces

ENGINE TYPE	YAMAHA 25 HP - 4 strokes	YAMAHA 40 HP - 4 strokes	MERCURY 25 HP - 2 strokes	MERCURY 40 HP - 2 strokes
Towing Force (Kg)	168	285.5	206	269
Test Report	*BE 060/2018*	*BE 027/2019*	*BE 059/2018*	*BE 059/2018*
Forces measured with rescue boat serial number	XDCDS041A C818	XDCDS041A C818	XDCDS041A C818	XDCDS041A C818

4. APPLICATION / LIMITATION :

- This certificate is issued by Bureau Veritas as Recognized Organisation of the Administration, as per SOLAS Convention and in compliance with the technical requirements therein, for equipment to be fitted on board ships entitled to fly its flag.
- The scope of the appraisal made by Bureau Veritas to issue this certificate is strictly restricted to the relevant requirements stated on the front page of this certificate.
- Application / limitation as per product description and requirements stated on front page of this certificate.
- The period of shelf life of equipment subjected to deterioration with age is to be indicated.
- On board installation & maintenance as per requirements stated on front page of this certificate.
- The maintenance of the rescue boat shall be carried out according by service stations, approved by a Recognized Organisation of the Administration, with instructions stated in the manual(s) for installation use and maintenance.

- The following equipment shall comply with the requirements of SOLAS 74, to the satisfaction of the ship's flag administration for acceptance of the equipped lifeboat on board the concerned ship:

Propulsion Engines

ENGINE TYPE	YAMAHA 25 HP - 4 strokes	YAMAHA 40 HP - 4 strokes	MERCURY 25 HP - 2 strokes	MERCURY 40 HP - 2 strokes
Type	25 HP F25G	40 HP F40F	25 HP	40 HP
Power	18.4 kW	29.4 kW	18.4 kW	29.4 kW

Others

Designation	Additional Information
Release Mechanism	with indication of SWL (to be not less than 950 kg)
Position indicating lights	
Thermal protective aids	
Retro reflective materials	
Radar reflector	
Portable fire-extinguishing equipment	
Compass	Artica 2"3/4 BA2 (Riviera Srl)
Searchlight	

The following equipment shall be type approved in accordance with SOLAS 74 and the Transport Canada *Life Saving Equipment Regulations*, TP14475 and TP14612, to the satisfaction of the ship's flag administration for acceptance of the equipped rescue boat on board the concerned ship:

Designation	Additional Information
Position indicating lights	
Thermal protective aids	
First aid kit	shall comply with TP14475 Part I paragraph 5

- Other rescue boat equipment as listed in LSA Code chapter 5.1.2.2, 5.1.2.3, 5.1.2.4, means for recharging searchlight batteries as per LSA Code chapter 4.4.6.11 and searchlight batteries is to be to the satisfaction of the ship's flag administration for acceptance of the equipped rescue boat on board the concerned ship.
- Electrical components including batteries to be as per documents and drawings listed in paragraph 2.

Fabric for inflated parts

Reference	Type	Manufacturer
Fabric	ORCA 866	Pennel & Flipo

Raw materials for the GRP Hull

Material	Type	Manufacturer
Gel Coat	BUFA ISO 3000	BUFA composite system
Resin	BUFA Firestop 8175	BUFA composite system
	H 13239 TA	Ashland Polynt Composites
Mats	M705 Chopped Strand Mat 3209 E-QX868	Owens corning
Woven Roving	600g/m²	QUIMIDROGA
UD	Ruban 8002	Les Fils d'Auguste Chomarat et Cie
Buoyancy material	POL CX 25 STD Gris	Flexicel

5. PRODUCTION SURVEY REQUIREMENTS :

5.1 - The Rescue Boats are to be supplied by **SURVITEC GROUP LIMITED** in compliance with the type and the requirements described in this certificate.

5.2 - This type of product is within the category IBV of Bureau Veritas Rule Note NR320.

5.3 - BV product certificate is required.

5.4 - The raw materials are to be traceable in case of compatibility problems in repair.

5.5 - Each equipment, or batch of equipment, is to be supplied with its Manual(s) for Installation, use & maintenance (to be both in English and in French).

6. MARKING OF PRODUCT :

Instructions, Diagrams, Markings illustrating the use of the Rescue boat shall be printed indelibly (to be both in English and in French).

The rigid/inflated rescue boat shall be marked with:

- Manufacturer's name
- Serial number
- Markings as per chapters 1.2, 4.4.1.2, 4.4.9 and 5.1.3.4 of LSA Code as amended.
- BV markings

7. OTHERS :

It is **SURVITEC GROUP LIMITED** responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

This certificate supersedes the previous Type Approval Certificate No 50667/B0 BV issued on 30/06/2023 by the Society.

***** END OF CERTIFICATE *****