Certificate No: LR2444184SS
Issue Date: 15/03/2024
Expiry Date: 14/03/2029

Certificate of Type Approval

This is to certify that the product detailed below will be accepted for compliance with the applicable Lloyd's Register Rules and Regulations and with the International Convention for the Safety of Life at Sea, (SOLAS), 1974, as amended, for use on ships and offshore installations classed with Lloyd's Register, and for use on ships and offshore installations when authorised by contracting governments to issue the relevant certificates, licences, permits etc.

Manufacturer	**Survitec Group Ltd.**
Address	Kingsway, Dunmurry, Belfast BT17 9AF, United Kingdom
Type	Liferafts
Description	100 Person Roll-Over Canopied Reversible Inflatable Liferaft, “RFD SURVIVA 100” (also known as “BEAUFORT SEAFARER 100, SURVITEC ZODIAC 100 and DBC 100”)
Trade Name	"RFD SURVIVA 100"
Specified Standard	IMO Resolution MSC.81(70), as amended IMO Res. MSC 481(102)

This certificate is not valid for equipment, the design or manufacture of which has been varied or modified from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid Certificate.

The attached Design Appraisal Document forms part of this certificate.

This certificate remains valid unless cancelled or revoked, provided the conditions in the attached Design Appraisal Document are complied with and the equipment remains satisfactory in service.

Lijo Thomas

Lijo Thomas

Fire & Safety - Senior Surveyor to Lloyd's Register EMEA
A member of the Lloyd's Register group

71 Fenchurch Street, London, EC3M 4BS, United Kingdom

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DESIGN APPRAISAL DOCUMENT

ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. LR2444184SS

The undernoted documents have been appraised for compliance with the relevant requirements of International Conventions, and this Design Appraisal Document forms part of the Certificate.

This Design Appraisal Document forms part of the Certificate.

This Certificate is a Renewal and an Amendment of Certificate Number SAS S190018/M1

APPROVAL DOCUMENTATION

RFD SPEC. No. 589 Issue 45, undated.

M228, SERVICE MANUAL FOR SURVIVA SOLAS STYLE REVERSIBLE LIFERAFTS RAMP LAUNCH LIFERAFT — 50/100 PERSONS, Version 7, dated 10/04/2017.

Drawing. No	Rev No.	Date	Drawing Title
D43887S01	6	01/09/2021	Surviva 50 Reversible Liferaft General Assembly
D43887S02	3	25/02/2009	Surviva 50 Reversible Liferaft Main Assembly
D43887S03	8	24/04/2013	Main Assembly 50 Person Reversible Liferaft

TEST REPORTS

Report No.	Date	Title or Description
50P/REV/97/5.1	20/10/1997	25m Drop test, 50 Person Reversible Liferaft, SOLAS B pack, as witnessed by Surveyor acceptable to Lloyds Register.
19/99	08/10/1999 19/10/1999	25m Drop test, 100 Person Reversible Liferaft, as witnessed by Lloyds Register Surveyor.
64/04	12/11/2004	18m Drop test, 50 Person Reversible Liferaft, SOLAS A pack, as witnessed by Lloyds Register Surveyor.
2013/048	04/12/2013	Jump test, 25 Person Liferaft MKIV, as witnessed by Lloyds Register Surveyor.
22/99	21/10/1999	Weight test & Inspection, 50 Person & 100 Person Reversible Liferaft, SOLAS B pack, as witnessed by Lloyds Register Surveyor.
03/05	11/01/2005	Weight test & Inspection, 50 Person & 100 Person Reversible Liferaft, SOLAS A pack, as witnessed by Lloyds Register Surveyor.
49/11	14/11/2011	Towing test, 50 Person Reversible Liferaft as witnessed by Surveyors acceptable to Lloyds Register.
53/2011	02/11/2011	Mooring out test, 50 Person Reversible Liferaft, as witnessed by Lloyds Register Surveyor.
50P/REV/97/5.6 & 23/PHG/MA	20/03/1992	Liferaft painter system test, 50 Person Reversible Liferaft, read across from Ferryman 65P liferaft model, as witnessed by Surveyors acceptable to Lloyds Register.

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50P/REV/97/5.7	17/09/1997	Loading and seating test, 50 Person Reversible Liferaft, as witnessed by Surveyor acceptable to Lloyds Register.
16/99	04/10/1999	Boarding & Closing arrangement test, 50 Person Reversible Liferaft as witnessed by Lloyds Register Surveyor.
50P/REV/97/5.9	17/09/1997	Stability test, 50 Person Reversible Liferaft, as witnessed by Surveyor acceptable to Lloyds Register.
50P/REV/97/5.10	20/10/1997	Manoeuvrability test, 50 Person Reversible Liferaft, as witnessed by Surveyor acceptable to Lloyds Register.
50P/REV/97/5.11	17/09/1997	Swamp test, 50 Person Reversible Liferaft, as witnessed by Surveyor acceptable to Lloyds Register.
50P/REV/97/5.12	05/12/1997	Canopy closure test, 50 Person Reversible Liferaft, as witnessed by Surveyor acceptable to Lloyds Register.
50P/REV/97/5.13	05/12/1997	Buoyancy of float-free liferaft test, 50 Person Reversible Liferaft, as witnessed by Surveyor acceptable to Lloyds Register.
50P/REV/97/5.17.1	17/09/1997	Damage test, 50 Person Reversible Liferaft, as witnessed by Surveyor acceptable to Lloyds Register.
50P/REV/97/5.17.6	09/10/1997	Hot Inflation test, 50 Person Reversible Liferaft, as witnessed by Surveyor acceptable to Lloyds Register.
17/99	04/10/1999	Hot Inflation test, 100 Person Reversible Liferaft, as witnessed by Lloyds Register Surveyor.
15/99	04/10/1999	Cold Inflation test, 50 & 100 Person Reversible Liferaft, as witnessed by Lloyds Register Surveyor.
21/99	25/10/1999	Pressure test, Surviva Reversible Liferaft 50 Person, as witnessed by Lloyds Register Surveyor.
22/99	21/10/1999	Detailed inspection, Raft inspection & Weight Tests on Surviva Reversible Liferaft 50 Person, as witnessed by Lloyds Register Surveyor.
01/05	13/01/2005	Submergence test on Surviva Reversible Liferaft 50 & 100 Person c/w SOLAS A pack, as witnessed by Lloyds Register Surveyor.
50P/REV/97/5.20	10/10/1997	Wind velocity test, 50 Person Reversible Liferaft, as witnessed by Surveyor acceptable to Lloyds Register.
50P/REV/97/5.21	10/10/1997	Self-draining test, 50 Person Reversible Liferaft, as witnessed by Surveyor acceptable to Lloyds Register.
21/04	21/06/2004	Seam strength test (buoyancy), as witnessed by Surveyor acceptable to Lloyds Register.
61/2008	27/08/2008	Seam strength test (canopy), as witnessed by Surveyor acceptable to Lloyds Register.

Safety at Sea, Report No RFFE02-RE-005-GO, Surviva 50 Person Reversible Stability Analysis (passenger weight increase), Issue 2, dated 17/11/2011.

Smithers Rapra, Fabric Material for Inflatable Liferafts, Report No 57781, dated 19/02/2015.

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DESIGN APPRAISAL DOCUMENT

ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. LR2444184SS

CONDITIONS OF CERTIFICATION

1. **Configuration:** Consisting of two 50 person roll-over canopied reversible inflatable liferaft -Type "RFD SURVIVA 50," packed in the same container and connected for their max capacity.
2. 100 persons inflatable liferaft Container size, maximum stowage height, weight(s) and towing forces:

SOLAS Pack	Container size/type	Stowed Height	Stowed Weight	Towing Forces
A-pack	RFD Mk15 Size 1	18m	650 kgs	@2kts, 1.17 kN @3kts, 2.129 kN
B-pack	RFD Mk15 Size 1	25m	500 kgs	@ 2kts, 1.17 kN @3kts, 2.129 kN

3. This liferaft has been approved assuming for each person an average mass of 82.5 kg's.
4. The liferaft container shall be marked as required by the LSA Code regulation IV/4.2.6.3, with the makers name or trademark, serial number, name of approving authority, number of persons its approved to carry, SOLAS, the type of emergency pack enclosed, date when last service, length of painter, maximum stowage height and launching instructions.
5. The liferaft shall be marked as required by the LSA Code regulations IV/4.2.7.1, with the makers name or trademark, serial number, date of manufacture, approving authority, name and place of last servicing station, and the number of persons it is approved to carry.
6. Provision shall be made for marking each life raft as required by the LSA Code regulation IV/4.2.7.2, with the name and port of registry of the ship to which the life raft us supplied, in such a form that the ship identification can be changed at any time without opening the container.
7. The service of the liferaft is to be undertaken annually at a Lloyd's Register approved or Flag Administration approved Service station duly authorised and appointed by the manufacturer subject to the following conditions.
8. Detailed instructions for use, maintenance and installation of the liferaft complying with SOLAS Regulations III/35 and 36 and also instructions for use and maintenance of the liferaft equipment shall be provided to each purchaser and be available on board. The liferaft and its equipment shall be kept in good working order at all times and checked at regular intervals according to the manufacturer's instructions and SOLAS requirements.
9. Retro-reflective materials, position-indicating lights and the equipment carried on board the liferaft as required by LSA Code Regulations IV/4.1.5 and 4.2.9 are to be an approved type in accordance with the applicable IMO requirements.
10. **Installation onboard:** The onboard arrangements and installation of the life raft, including launching of the liferaft are not part of this Design Appraisal or Certificate. All such arrangements are to be to the satisfaction of the attending surveyor.
11. If the specified standards are amended during the validity of this certificate, this product type is to be re-approved prior to it being supplied to vessels to which the amended standards apply.

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12. All equipment installed onboard the liferaft is to be of an approved type as required by SOLAS and the LSA Code, as applicable.
13. Production items are to be manufactured in accordance with a quality control system which shall be maintained to ensure compliance with SOLAS Regulation III/5.
14. Production tests are to be conducted in accordance with the applicable requirements of IMO Resolution MSC.81 (70), Part 2 and each item, batch, or lot be delivered with an LR Certificate of SOLAS Production Testing issued by the attending LR Surveyors following their witness of the tests. This does not preclude any further testing to additional requirements of the Marine Administration of the country where the ship is registered (i.e. the flag state) or those acting on behalf of that Administration.
15. Should a change of Place of Production from that provided at the application stage i.e., where the stages of manufacture/assembly/testing of this product take place, the new Place of Production is to be advised to us prior to the change taking place. This updated notification about the Place of Production is required for this Approval to be maintained.

Lijo Thomas
Senior Specialist
Fire & Safety, Statutory Discipline Team
UK&I Technical Support Office, Marine & Offshore
Lloyd's Register EMEA

Supplementary Type Approval Terms and Conditions

This certificate and Design Appraisal Document relates to type approval, it certifies that the prototype(s) of the product(s) referred to herein has/have been found to meet the applicable design criteria for the use specified herein, it does not mean or imply approval for any other use, nor approval of any products designed or manufactured otherwise than in strict conformity with the said prototype(s)

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