Maritime & Coastguard Agency

Approved Body authorised by the MCA

Certificate No: LR22496021UKMB
Issue Date: 01/10/2022
Expiry Date: 30/09/2027

UK TYPE-EXAMINATION (MODULE B) CERTIFICATE

This is to certify that:

Lloyd's Register Marine Limited (LRM Ltd) did undertake the relevant type approval procedures for the type of equipment identified below which was found to be in compliance with the requirements of the Merchant Shipping (Marine Equipment) Regulations 2016, as amended, subject to any conditions in the schedule attached hereto.

Manufacturer	**Survitec Group Ltd.**
Address	Kingsway, Dunmurry, Belfast, BT17 9AF, Northern Ireland, United Kingdom
Reference	MSN1874 Amendment 6
Regulation Item (No. & Item Designation)	**UK/1.14a Automatically self-righting liferafts: inflatable**
Product Type	Automatically Self-righting Liferaft
Product Description	35 person's davit-launched canopied inflatable automatically self-righting Liferaft packages for extended service intervals.
Trade Name	RFD Endura R 35 SR DL (also known as DSB LR 97 E 35LSR, SURVITEC ESR35DL, SURVITEC ZODIAC EPS 35DL, CREWSAVER ESR, ELLIOT ESR).
Specified Standard	SOLAS CH III, Regulations 4, 20.8.3,34. LSA Code, Regulations I/1.2, IV/4.1 & 4.2. HSC 2000 Code, Regulation 8.1. Resolution MSC.81(70), Part 1 as amended. MSC.1/Circ.1328 MSC/Circular.809 MSC/Circular.811

The attached Design Appraisal Document (schedule) forms part of this certificate. This certificate remains valid unless suspended, expired or withdrawn, provided the conditions in the attached schedule are complied with and the equipment remains satisfactory in service.

Lijo Thomas

Lijo Thomas

Senior Surveyor
For and on behalf of Lloyd's Register Marine Ltd. (8512)

Lloyd's Register Marine Limited (Reg. no. 13281335) is a limited company registered in England and Wales. Registered office: 71 Fenchurch Street, London, EC3M 4BS, UK.
A member of Lloyd's Register group.

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

UK TYPE-EXAMINATION (MODULE B) CERTIFICATE

This certificate is issued under the authority of the MCA.This certificate will not be valid if the manufacturer makes any changes or modifications to the approved type of equipment, which have not been notified to, and agreed with the approved body named on this certificate.

During the period of validity of this certificate the applicable regulations (international conventions and the relevant resolutions and circulars of the IMO) and testing standards may change, therefore the product conformity may need to be re-assessed by the Approved Body.

The "UK 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 Schedule 2 of the Merchant Shipping (Marine Equipment) Regulations 2016, as amended is fully complied with and controlled by a written inspection agreement with an Approved Body.

Lloyd's Register Marine Limited (Reg. no. 13281335) is a limited company registered in England and Wales. Registered office: 71 Fenchurch Street, London, EC3M 4BS, UK.
A member of Lloyd's Register group.

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

ATTACHMENT TO UK TYPE EXAMINATION (MODULE B) CERTIFICATE No. LR22496021UKMB

The undernoted documents have been appraised for compliance with the relevant requirements of International Conventions and the Merchant Shipping (Marine Equipment) Regulations 2016, as amended for the UK Type Examination of marine equipment for use on UK ships

This Design Appraisal Document forms part of the Certificate.

APPROVAL/EXAMINED DOCUMENTATION

DSB Survitec Group Service Manual for SOLAS 74/96 Self-righting Liferafts and their equipment.

Art- No.: 8.09.57.15.0, issue date: 09/2002

MSA Certificate for inflatable liferaft buoyancy tube material NR 204/2.

Design Change Sheet No 0023, regarding the introduction of New Humidity sensor (for compliance with IMO MSC.1/Circ.1328) on Liferafts Endura range.

Design Change Sheet No 9968, regarding the introduction of Thanner DK99 as an alternative Inflation System on Marine MK4 SOLAS liferafts.

Design Change Sheet No 9922, regarding the introduction of new container straps and crimps.

Drawing. No	Rev No.	Date	Drawing Title
23511-01/02/03	C	15.06.08	LSR SOLAS LSA 35 Person Type 11

TEST REPORTS

LR97LSR 35 person Davit Launched Life Raft Prototype Test report completed 9th March 1999.

Ambient Inflation Test 35DL SRL Endura Marine Report No: 03/07 Date compiled 15/05/07.

Cold Inflation Test DSB 35DL SRL Endura Marine Report No: 04/07 Date compiled 15/05/07.

Hot Inflation Test DBS 35DL SRL Endura Marine Report No: 05/07 Date compiled 15/05/07.

DSB LR97 LSR – 35 person Drop Test, report No. 52774 and 52338, dated 10 December 1999.

Wind Velocity Test; report No. 48329, dated 17 March 1998, witnessed by Surveyor acceptable to Lloyd's Register.

Test for self draining of floors of Canopied reversible Liferafts and automatically self-righting Liferaft, report No. 52338, dated 20 May 1999, witnessed by Surveyor acceptable to Lloyd's Register.

Seam Strength Test, report No. 52402, dated 9 March 1999, witnessed by Surveyor acceptable to Lloyd's Register.

Self Righting Test, report No. 52402, dated 9 March 1999, witnessed by Surveyor acceptable to Lloyd's Register.

Strength of Lifting Components, report No. LR 97 L, dated 14 July 1997, witnessed by Surveyor acceptable to Lloyd's Register.

Inflation test report dated 22-23.05.12, as witnessed by a Lloyd's Register surveyor and detailed in the Marine Report No 19/2012.

Drop test report, dated 06.06.12, as witnessed by a Lloyd's Register surveyor and detailed in the Marine Report No 20/2012.

Series of MSC.1/Circ. 1328 test reports completed to demonstrate compliance with requirements stated under MSC.1/Circ. 1328, as witnessed by a Lloyd's Register surveyor and detailed in the Marine Report No: 2012-051.

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

ATTACHMENT TO UK TYPE EXAMINATION (MODULE B) CERTIFICATE No. LR22496021UKMB

Marine Report No 64/12	Test Matrix
Marine Report No 98/11	Jump Test – MSC 81/70 5.2
Marine Report No 94/11	Towing Test – MSC 81/70 5.4
Marine Report No 77/11	Mooring Out Test – MSC 81/70 5.5
Marine Report No 68/11	Loading and Seating – MSC 81/70 5.7
Marine Report No 77/11, 76/11, 78/11	Boarding Test – MSC 81/70 5.8
Marine Report No 81/11	Stability Test – MSC 81/70 5.9
Marine Report No 67/11	Damage Test – MSC 81/70 5.17.1
Marine Report No 64/11	Lifting Component Strength Test – MSC 81/70 5.16.1
Marine Report No 82/11	DL Impact Test – MSC 81/70 5.16.2
Marine Report No 83/11	DL Drop Test – MSC 81/70 5.16.3
Marine Report No 84/11	DL Liferaft Boarding Test – MSC 81/70 5.16.4
Marine Report No 88/11, 89/11	Manoeuvrability Test – MSC 81/70 5.10
Marine Report No 85/11	DL Strength Test – MSC 81/70 5.17.10
Marine Report No 86/11	Cold Overload Test – MSC 81/70 5.17.11
Marine Report No 87/11	Lowering Test – MSC 81/70 5.17.12
TR2018-007	36m Drop Test, dated 28/02/2018
TR2018-016	55m Drop Test, dated 04/05/2018

CONDITIONS OF CERTIFICATION

1. Liferaft specifications when used with Thanner/Hydrauflax Inflation Systems.

SOLAS Pack	Container Type/Size	Stowage Height	Stowed Weight	Laden Weight
A	35/7F	25 M	354 KGS	3242 KGS
B	35/8F	25 M	264 KGS	3152 KGS
A	35/7F	36 M	354 KGS	3242 KGS
B	35/8F	36 M	264 KGS	3152 KGS
A	35/7F	55 M	354 KGS	3242 KGS
B	35/8F	55 M	264 KGS	3152 KGS

Towing Forces: *@ 2 KTS = 0.965 KN*
@ 3 KTS = 1.956 KN

Configuration: "**DSB 35DL**" Liferafts consist of a complete standard SOLAS approved 35 person Davit Launched Liferaft hermetically sealed within a moisture-controlled envelope. The status of the atmosphere within the envelope can be verified at any time. The Liferafts include means to evaluate the humidity level behind the protective barrier and to detect any leakage of inflation gas during the annual onboard inspection in accordance with MSC.1/Circ. 1328.

The liferaft has been approved assuming for each person an average mass of 82.5kg.

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

ATTACHMENT TO UK TYPE EXAMINATION (MODULE B) CERTIFICATE No. LR22496021UKMB

2. The liferafts container shall be marked as required by the LSA Code Regulation IV/4.2.6.3 with the maker's 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 serviced, length of painter, maximum stowage height and launching instructions.

3. The liferaft shall be marked as required by the LSA Code Regulation IV/4.2.7.1, with the makers name or trade mark, serial number, date of manufacture, approving authority, name and place of last servicing station, and the number of persons it is approved to carry.

4. Provisions shall be made for marking each liferaft 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 liferaft is supplied, in such a form that the ship identification can be changed at any time without opening the container.

5. This type of liferaft is designed to be serviced at extended intervals not exceeding 30 months which shall continue for the service life of the product, as long as the hermetic seal has not been compromised. The application of the 30 months service interval shall be pursuant to conditions stated within MCA letter, MS 67/11/6, dated 23 May 2016, and being subject to the acceptance of the vessels Marine Administration.

6. The Servicing of the liferaft is to be undertaken at a Service Station approved by the Flag administration duly authorised and appointed by the manufacturer subject to the following conditions:

   - The hermetic seal verification shall be performed on board at intervals not exceeding 12 months from the last service or onboard inspection, in accordance with MSC.1/Circ.1328 and the manufacturer's instructions by personnel trained and certificated by the Liferaft manufacturer.
   - On completion of the annual inspection, the supplied Log Card should be populated with details of the person's Certificate of competence number, container label, and the date of the next annual inspection.

7. The liferaft shall be fitted with a label containing the text, "the liferaft is permitted for an extended service interval of 30 months if serviced at an approved service station" and " the liferaft must be inspected on board at intervals not exceeding 12 months by a person certified for such purposes by Survitec Group".

8. Detailed instructions for use, maintenance, and installation of the liferaft complying with SOLAS Regulations III/35 and 36, and instructions for use and maintenance of the liferaft equipment shall be provided.

9. All equipment installed on board the liferaft is to be of an approved type as required by SOLAS and the LSA Code as applicable.

10. **Installation onboard:** The onboard arrangements and installation of the liferaft, including launching of the liferaft on ice are not part of the 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.

12. Production items of the subject equipment are to be manufactured in accordance with either an approved Production Quality Assurance System (Module D), a Product-Quality Assurance System (Module E), or a Product Verification Process (Module F), as applicable. The UK Conformity Mark cannot be affixed to the product until a conformity assessment module is in place.

13. Production tests are to be conducted in accordance with the applicable requirements of IMO Resolution MSC.81(70), Part 2 and be recorded by the manufacturer in accordance with either the approved Production Quality Assurance System (Module D), or Product Quality Assurance System (Module E), or a Product Verification Process (Module F), as applicable. 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.

14. Each item, batch or lot of the subject equipment is to be issued with a UK Declaration of Conformity and have the UK Conformity Mark affixed after a conformity assessment module is in place.

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

ATTACHMENT TO UK TYPE EXAMINATION (MODULE B) CERTIFICATE No. LR22496021UKMB

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.

16. The manufacturer must keep a copy of the UK type-examination certificate, its annexes, and additions together with the technical documentation at the disposal of the national authorities for a period of at least 10 years after the UK Conformity Mark has been affixed on the last product manufactured and, in no case for a period shorter than the expected life of the marine equipment concerned.

17. The Certificate holder is solely responsible for the products supplied under this Certificate and to ensure that their products are fully compliant with the relevant statutory regulations as applicable and are designed, manufactured, and installed to the same quality and specifications as the prototype tested, including components that are designed and manufactured by third parties.

18. Equipment items listed on the current version of Merchant Shipping Notice MSN 1874 (M+F) which are supplied with the liferaft are to be of an approved type when delivered to UK flagged vessels.

Lijo Thomas
Senior Specialist
Fire & Safety, Statutory Discipline Team
UK&I Technical Support Office, Marine & Offshore
For and on behalf of Lloyd's Register Marine Ltd.
(LRM Ltd) - UK Approved Body 8512

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.