

EC Type Examination (Module B) Certificate

This is to certify that:

LLOYD'S REGISTER VERIFICATION LIMITED (LRV), designated as a "notified body" under the terms of the Merchant Shipping (Marine Equipment) Regulations 2016 (S.I. 2016 No.1025), as amended, 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 Marine Equipment Directive (MED) 2014/90/EU, subject to any conditions in the Design Appraisal Document attached hereto.

| | |
|---|--|
| Manufacturer | Survitec Services & Distribution Ltd., t/a Crewsaver |
| Address | Survitec House, Lederle Lane, Gosport, Hampshire, PO13 0FZ, United Kingdom |
| Reference | Regulation (EU) 2019/1397 |
| Regulation Item (No. & Item Designation) | MED/1.4 Lifejackets |
| Product Type | LIFEJACKETS |
| Product Description | Twin chamber inflatable Lifejacket for adults – Type: "Seacrewsader 2010" and "Crewfit Twin 2010" |
| Specified Standard | IMO Resolution MSC.81 (70), Part 1 as amended by Resolution MSC.200 (80), MSC.207 (81), MSC.226 (82) and MSC.323 (89). |
| Trade Name | Seacrewsader 2010 and Crewfit Twin 2010 |

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 This certificate remains valid unless suspended, expired or withdrawn, provided the conditions in the attached schedule are complied with and the equipment remains satisfactory in service.

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 notified body named on this certificate. The manufacturer should notify LRV of any modification or changes to the equipment in order to obtain a valid Certificate.

Should the specified regulations or standards be amended during the period of validity of this certificate, the product is to be re-approved prior being placed on the market and on board vessels to which the amended regulations or standards apply.

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 and controlled by a written inspection agreement with a notified body.

Lloyd's Register Verification Limited (Reg. no. 4929226) 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.

Lijo Thomas

Senior Surveyor to Lloyd's Register
Verification Ltd
A member of the Lloyd's Register group

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ATTACHMENT TO EC TYPE EXAMINATION (MODULE B) CERTIFICATE No. MED 1550205-03

The undernoted documents have been appraised for compliance with the relevant requirements of International Conventions and European Union legislation for the EC Type Examination of Marine Equipment for use on Merchant Ships Registered in the European Economic Area.

This Design Appraisal Document (schedule) forms part of the Certificate.

This Certificate is an Amendment of Certificate No MED 1550205-02

EXAMINED DOCUMENTATION

| <u>Plan Date</u> | <u>Title or Description</u> |
|-------------------------|--|
| April 2010 | Component Drawing (Harness) |
| April 2010 | Component Drawing (Non Harness) |
| April 2010 | Dimension Drawing |
| April 2010 | Inflation Chamber Patterns |
| April 2010 | Cover Patterns |
| April 2010 | Construction |
| April 2010 | Hood Pattern |
| 25th August 2010 | Product specification PGS 2010 |
| 28th September 2011 | Product Specification Part (A) Issue 6 |
| April 2010 | Seacrewsader 2010 & Crewfit Twin 2010, No 00799 & 00840 Issue No 1 |

TEST REPORTS

SGS test report No: PPE 10786(1)/SM/07 for inflation chamber material, TPU 1001/P, dated 30/April/2007.

Component certification for MK5 automatic inflator issued by Fleetwood Test House, dated 19/01/2010.

FORCE Technology test report for stainless steel buckle, Report No 110-24383.c, dated 01/07/2010.

Test report No 107-38263-b, dated 04/08/2008 issued by FORCE Technology for buckle SS40.

Fleetwood test report no BLS/FTL/2218, dated 29th July 2010 for seacrewsader 2010 and crewfit twin 2010 inflatable lifejacket.

Fleetwood test report no BLS/FTL/2218a, dated 2nd August 2010 for seacrewsader 2010 and crewfit twin 2010 inflatable lifejacket.

Fleetwood test report no DAR/FTL/1182, dated 21st May 2008 for automatic inflation system MA1EC manufactured by CM Hammar.A.B.

Technical report No: SPC0181974/1005/11 issue 2, dated 23rd June 2010 for the fabric.

Technical report No: SPC0181599/1003, dated 12th March 2010 for the webbing.

Technical report No: SPC0179670/0943, dated 18th December 2010 for the thread.

EC Type Examination certificate for "290 Deck Safety Harness" issued by Fleetwood notified body.

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Fleetwood test report no BLS/FTL/2219a, dated 6th September 2010 for Crewsaver 290 deck safety harness to EN ISO 12401:2009.

Fleetwood test report no SLJ/FTL/2276, dated 14th October 2010 for seacrewsader and crewfit twin lifejacket safety harness and integrated cowtail/safety line to EN ISO 12401:2009.

Test report No: 2008000970, Issue 1, dated 12/01/2009, on salt spray testing on lifeline hook.

Test report for Seacrewsader 2010 fitted with mobilarm and integrated elasticated cowtail safety line, report number BLS/FTL/2292, dated 26th November 2010, conducted at Fleetwood testing laboratory.

Technical report No: SPC0181029/0951, dated 19th January 2010 for the tubular webbing used on the elasticated cowtail.

Tri-Burst zipper function test, Fleetwood Test Laboratory test report number DK/FTL/2351a, dated 21.10.2011.

Drop test for lifejacket fitted with Seamarshall PLB, Fleetwood Testing Laboratory test report number DK/FTL/2351, dated 13.10.2011.

FORCE TECHNOLOGY test report no: 111-24339.a, dated 22-06-2011 for No 0534 Fast Donning Safety Buckles manufactured by Makefast.

Fleetwood Testing Laboratory test of the Seacrewsader 2010 seismic lifejacket with integrated cowtail to EN ISO 12401:2009 for deck safety harnesses and deck safety lines, test report BLS/FTL/2351, dated 18th July 2011.

PRUFBERICHT test report No 0910068-1, dated 05.02.2009.

SATRA Technology Centre test report No FWT0196151/1128/T-3, dated 10th November 2011 for the Fabric Riverseal 200HT.

Fleetwood test report No BSL/FTL/2426, dated 29th March 2012.

Fleetwood test report No BLS/FTL/2565, dated 21st October 2013.

Fleetwood Testing Laboratory test of the 01218 3D Seacrewsader twin chamber 275N inflatable lifejacket with UML pro sensor elite auto inflation mechanism with amended manifold position, test report DB/FTL/3147e, dated 26th July 2019.

Fleetwood Testing Laboratory test of the 01218 3D Seacrewsader twin chamber 275N inflatable lifejacket with seismic bladder, zipped viewing panels, test report NW/FTL/3147d, dated 25th June 2019.

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CONDITIONS OF CERTIFICATION

| Product | Inflation System | Variants | | Inflation Chamber material |
|--|--|--|---|--------------------------------|
| | | Front Closure | Cover | |
| 01218 3D Seacrewsader 2010 with seismic bladder, Zipped inspection window and AU10 Personal Locator Beacon | Pro Sensor Elite Automatic Inflator, UML | Deck Safety Harness version with stainless steel 3 bar buckle, Waist belt version with plastic buckle and Waist belt version with plastic buckle combined with Fall Arrest Harness | Polyester cover/removable, wipe clean cover/removable, Silver flame proof and fire retardant cover/removable. | TPU 1001/P Riverseal 200-HT |
| 01218 3D Seacrewsader 2010 with Zipped Inspection Window | Pro Sensor Elite Automatic Inflator, UML | Deck Safety Harness version with stainless steel 3 bar buckle, Waist belt version with plastic buckle and Waist belt version with plastic buckle combined with Fall Arrest Harness | Polyester cover/removable, wipe clean cover/removable, Silver flame proof and fire retardant cover/removable. | TPU 1001/P Riverseal 200-HT |
| Seacrewsader 2010 | MK5, UML | Deck Safety Harness version with stainless steel 3 bar buckle, Waist belt version with plastic buckle and Waist belt version with plastic buckle combined with Fall Arrest Harness | Polyester cover/removable, wipe clean cover/removable, Silver flame proof and fire retardant cover/removable. | TPU 1001/P Riverseal 200-HT |
| Seacrewsader 2010 Seismic lifejacket. | MK5, UML | Deck Safety Harness version with survivor locating devices Mobilarm/ Sea Marshall and integrated elasticated cowtail safety line. | Polyester cover/removable, wipe clean cover/removable, Silver flame proof and fire retardant cover/removable. | TPU 1001/P Riverseal 200-HT |
| Crewfit Twin 2010 | MA1EC, Hammar | Deck Safety Harness version with stainless steel 3 bar buckle, Waist belt version with plastic buckle and Waist belt version with plastic buckle combined with Fall Arrest Harness | Polyester cover/removable, wipe clean cover/removable, Silver flame proof and fire retardant cover/removable. | TPU 1001/P Riverseal 200-HT |

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1. The lifejacket is approved only for use by adults of a weight and height range of 43 kg or above and a minimum of 155 cm or more
2. Each lifejacket is to be marked with the information required by LSA Code as amended by Regulation I/1.2.2.9 and II/2.2.1.2
3. Instruction for use shall be provided with each lifejacket, as prescribed by SOLAS Regulation III/35 one or more additional copies shall be provided for inclusion in the vessel's training Manual
4. When required, an approved lifejacket light meeting the requirements of the LSA Code as amended by Regulation II/2.2.3 is to be fitted. The light is to be tested and meet the requirements of IMO Resolution MSC.81 (70), Part 1, 10.3 & 10.4 and its attachment is to be to the satisfaction of the attending Surveyors
5. Each lifejacket shall be fitted with a whistle firmly secured by a lanyard as per LSA Code as amended by Regulation II/2.2.1.14
6. Each lifejacket shall be provided with a releasable buoyant line or other means to secure it to a lifejacket worn by another person in the water as per LSA Code as amended by Regulation II/2.2.1.16
7. As prescribed by SOLAS Regulation III/36 and where applicable, lifejacket shall be maintained as per manufacturer's instruction
8. Fall arrest harness version is to be marked on the outside explaining the lifejacket is only for "Trained Persons Only"
9. Fall arrest harness version is not to be stored onboard ships/ floating structures with other lifejackets.
10. In accordance to SOLAS Chapter III Regulation 20.8, inflatable lifejackets are required to be serviced at intervals not exceeding 12 months, provided where in any case this is impracticable, the Administration may extend this period to 17 months
11. Servicing is to be carried out at an LR approved or Flag Administration approved service station, which is competent to service the lifejacket having the proper facilities and trained personnel.
12. Inflatable lifejackets carried on United Kingdom ships and fishing vessels are required to be serviced at an approved service station in accordance to MGN339
13. The arrangements and installation of the lifejacket on board are not part of this design appraisal or certificate and are to be to the satisfaction of the Surveyors attending on board
14. 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
15. Production items are to be manufactured in accordance with either an approved Production Quality Assurance system (Module D) or Product Quality Assurance (Module E) or Product Verification (Module F) of the Marine Equipment Directive

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16. 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 (Module E) or witnessed by the Notified Body (LRV) as required by the Product Verification (Module F) of the Marine Equipment Directive. 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
17. Each item, batch or lot of the equipment is to have the “Mark of Conformity” affixed and be issued with a “Declaration of Conformity”
18. Should a change of Place of Production from that stated below be required 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 Certificate will require to be updated for Approval to be maintained

PLACES OF PRODUCTION

Survitec Services & Distribution Ltd., t/a Crewsaver
Survitec House
Lederle Lane
Gosport
Hampshire, PO13 0FZ
United Kingdom (UK)

Suzhou Betacera Technology Co., Ltd
No 500 Guanquan West Road,
Economic Development Zone,
Wujiang City
Jiangsu Province
215200
People's Republic of China



Lijo Thomas
Senior Specialist
Fire & Safety, Statutory Discipline Team
UK&I Technical Support Office, Marine & Offshore
For and on behalf of Lloyd's Register Verification
LRV EC Distinguishing No. 0038