

## 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.

<b>Manufacturer</b>	Survitec Services & Distribution Ltd., t/a Crewsaver
<b>Address</b>	Survitec House Lederle Lane Gosport Hampshire, PO13 0FZ United Kingdom
<b>Product Type</b>	LIFEJACKETS
<b>Product Description</b>	Twin chamber inflatable lifejacket for adults – Type: “Seacrewsader 2010” and “Crewfit Twin 2010”.
<b>Specified Standards</b>	IMO Resolution MSC.81 (70), Part 1 as amended by Resolution MSC.200 (80), MSC.207 (81), MSC.226 (82) and MSC.323 (89).

**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.**

Date of issue	10 August 2015	Expiry date	9 August 2020
Certificate No.	SAS S150095	Signed	
Sheet No	1 of 6	Name	N. Ramos Surveyor to Lloyd's Register EMEA A Member of the Lloyd's Register Group

**Note:**

**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 of any modification or changes to the equipment in order to obtain a valid certificate.**

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 the '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.



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#### ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. SAS S150095

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.

#### 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
25 <sup>th</sup> August 2010	Product specification PGS 2010
28 <sup>th</sup> September 2011	Product Specification Part (A) Issue 6
April 2010	Seacrewsader 2010 & Crewfit Twin 2010, No 00799 & 00840 Issue No 1

This Certificate is the renewal of Certificate No SAS S100121/M3.

#### 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 29<sup>th</sup> 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 23<sup>rd</sup> June 2010 for the fabric.

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

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

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

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

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



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##### TEST REPORTS - CONTINUED

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 26<sup>th</sup> November 2010, conducted at Fleetwood testing laboratory.

Technical report No: SPC0181029/0951, dated 19<sup>th</sup> 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 18<sup>th</sup> July 2011.

PRUFBERICHT test report No 0910068-1, dated 05.02.2009.

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

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

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



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#### ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. SAS S150095

#### CONDITIONS OF CERTIFICATION

Product	Inflation System	Variants		Inflation Chamber material
		Front Closure	Cover	
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

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 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.



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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. Full arrest harness version is to be marked on the outside explaining the lifejacket is only for "Trained Persons Only".
9. Full 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 servicing 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. Detailed instructions for in service maintenance are to be provided to each purchaser of the subject Lifejacket.
14. 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.
15. 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.
16. 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.
17. 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.
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.



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#### ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. SAS S150095

##### PLACE 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

Winning Industrial Co., Ltd  
Sha Jing Keng Industrial Zone  
Fu Shan District  
Liao Bu  
Dong Guan  
Guangdong  
People's Republic of China

N. Ramos  
Specialist  
Fire & Safety  
Marine Technology and Engineering Services  
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).*