

Certificate of Type Approval

The product detailed below has been found by a member of the Lloyd's Register group to comply with the Specified Standard (s) referenced below and may be accepted for use on ships and offshore installations classed with Lloyd's Register, and on ships and offshore installations when authorised by relevant contracting governments.

| | |
|---------------------------|--|
| Manufacturer | Fibreight Developments Ltd/CQC Limited |
| Address | CQC House, 2-3 Brannan Court, Brannen Crescent, Barnstaple, Devon, EX31 3TD |
| Type | Man Over-Board Rescue and Retrieval System |
| Description | Manually operated man over board rescue and retrieval system – Type: "Fibreight" |
| Trade Name | Fibreight |
| Specified Standard | LSA Code Regulation I/1.2 IMO Resolution MSC.81 (70) Part 1 Section 1.2 & 1.4 SAE J 1960 ISO 4892-2 ASTM D4355 |

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

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

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

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 CERTIFICATE OF TYPE APPROVAL No. LR2042667SS

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 Certificate is a renewal of the Certificate No. SAS S150121/M3.

EXAMINED DOCUMENTATION

Technical File Document No ajph4, Issue 1 & dated 01.09.10.

Operations Instructions Fibrelight Document No ajph9, Issue No 3 & dated 05.01.15.

TEST REPORTS

- Test report on weathering of sample in accordance with SAE J1960, conducted at SATRA technology centre, Report No FWT01774444/0933/A, dated 9th September 2009.
- Test report on oil resistance and practical performance trial of the cradle, conducted at Fleetwood Testing Laboratory, Report No BLS/FTL/2140, dated 22nd March 2010.
- Test report on strength requirements of BS ISO 799-2004, conducted at RKS laboratories, Report No 2608, issue 2, and dated 12th May 2010.
- Tensile Test with stainless steel ballast rung Fibrelight Cradle conducted at Lloyd's British, Report No 239125 and dated 16th April 2014.
- Tensile Test Report conducted at Lloyd's British, Report No 247049 and dated 26th November 2014.
- Temperature Cycling Test, Oil Resistance Test and Weathering Test conducted at 4 Ward Testing, Report No R1721 and dated 2014.11.19.
- UV Resistance test in accordance with ASTM D4355, Report reference 10/17396 dated 26 September 2012.
- Tensile loading test of 10 mm GRP rods, Lloyd's British Test Report no 257510.5, dated 20/10/2015

Note: The Tensile Test has been tested in accordance with the ISO 799-2004 Table 2 "Ladder and step attachment strength".

CONDITIONS OF CERTIFICATION

1. Dimensions and configurations:

| Length | Width | Columns | Rung Material |
|----------------|-----------------|---------|--|
| 2 to 15 meters | 1.3 to 4 meters | 5 to 16 | 10 mm dia. Carbon Fibre or 10 mm dia GRP |

- SWL of individual GRP rungs over any 2 section/column: 150 KG
 - Maximum safe working when used as a scramble net shall not exceed 600 kg
2. The device has been examined and tested to be used as:
- a) Casualty recovery in horizontal position from water to survival craft
 - b) Stretcher for use in horizontal position
 - c) Scramble net

ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. LR2042667SS

3. A staged demonstration of compatibility of the recovery cradle and survival craft by way of function test to be carried out to the satisfaction of the attending Surveyor
4. A staged demonstration of compatibility of the scramble net and survival craft and/or the ship by way of function test to be carried out to the satisfaction of the attending Surveyor
5. When the equipment is used as a scramble net the freeboard of the survival craft or vessel should be within a minimum freeboard of 0.4 metres and a maximum of 15 metres
6. The equipment satisfies the objectives required by LSA Code, Regulation I/1.2 in matter of strength and suitability for marine environment. However, it is to be confirmed that the use of this Life-Saving Appliance is acceptable to the Flag Administration (of the vessel on which the Life-Saving Appliance is installed) on an installation-by-installation basis
7. For each installation of the equipment the "Company" (Ship Owner/Vessel Operator) should conduct and document a Risk Assessment that take into account the anticipated condition and ship specific characteristic and/or survival craft specific characteristic
8. Ship's Plan and Procedures for recovery of person from the water should take into account the equipment intended to be used and be developed in accordance with MSC.1/Circ. 1447 and MSC.1/Circular 1182
9. On board drills should be conducted to ensure that the crew are familiar with this equipment and Ship's recovery procedures
10. The loose gear to be used in conjunction with this equipment is not part of this Design Appraisal or Certificate, but is expected to be tested in accordance with requirements of IMO Resolution MSC.81 (70) and chapter 12 of the LR Code for lifting appliance as appropriate, to the attending Surveyor satisfaction
11. The equipment should be clearly marked with the maximum number of persons it can accommodate, based on a weight of 82.5 kg per person
12. Before the delivery, each unit/or batch is to be subject to a static proof load test of not less than 2.2 times the safe working load. The particulars of the tests are to be clearly and durably marked on the unit
13. The equipment has to be clearly marked with the name and address of manufacturer, the manufacturer's model designation, the year of assembly of the equipment, the maximum length and the maximum safe loading
14. For compliance with SOLAS Regulation III/35 & III/36 fully detailed operations and maintenance manuals shall be supplied with each equipment
15. **Installation on board:** The installation of the equipment is not part of this Design Appraisal or Certificate. All such arrangements are to be to the satisfaction of the vessel's Administration and/or RO acting on their behalf on an installation-by-installation basis
16. If the specified standards are amended during the validity of this certificate, the product is to be re-approved prior to it being supplied to vessels to which the amended standards apply
17. Production items are to be manufactured in accordance with the quality control system which shall be maintained to ensure compliance with SOLAS Regulation III/5
18. 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.
19. Should a Place of Production from the one stated below be required i.e. where the stages of manufacture/assembly/testing/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

ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. LR2042667SS

PLACE OF PRODUCTION

CQC House
2-3 Brannan Court
Brannen Crescent
Barnstaple
Devon, EX31 3TD



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).