

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	BC Service Europe S.r.l.
Address	Via al Molo Giano sns 16128 Genova Italy
Product Type	RELEASE MECHANISM
Product Description	"On-Load/Off-Load" twin fall simultaneous release mechanism for use with Lifeboats and Lifeboats/Rescue Boats - Type "U-Hook 3".
Specified Standards	IMO Resolution MSC.81 (70) Part 1 as amended by Resolution MSC.226 (82) and MSC.321 (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 19 January 2015

Expiry date 18 January 2020

Certificate No. SAS S150007

Signed



Sheet No 1 of 4

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.



DESIGN APPRAISAL DOCUMENT

Date 19 January 2015	Quote this reference on all future communications MTES/SFS/TA/NR/WP18816221
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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

Operation & Maintenance Manual for Lifeboat Release Mechanism Type: "U-Hook 3", Rev. No 2 and dated October 2014.

<u>Dwg. No</u>	<u>Rev.</u>	<u>Date</u>	<u>Title</u>
901.001.XX	3	05/16/2014	Release Mechanism Arrangement
3041	C	22/01/1987	Release Mechanism
3060	C	28/01/1987	Hydrostatic Interlock
101.001.3	3	06/14/2014	U-Hook 3 Side
101.002.3	3	06/14/2014	U-Hook 3 Hook
101.003.3	3	06/14/2014	U-Hook 3 Arm
101.006.3	3	06/14/2014	U-Hook 3 Cam
101.010.3	3	06/14/2014	U-Hook 3 Hook Pin
101.013.3	3	06/14/2014	U-Hook 3 Locking Indicator
201.001.3	4	06/11/2014	U-Hook 3 Exploded View

TEST REPORTS

Prototype Test Report performed in accordance with MSC.81 (70), Part 1 as amended by Res. MSC.321 (89), for Release Mechanism Type "U-Hook3", Doc. No 0001.0002 and dated 16th & 17th July 2014 as witnessed by LR Surveyor.

CONDITIONS OF CERTIFICATION

1. Maximum Safe Working Load: 3 Tons per hook.
2. The Centrally Operated "On-Load/Off-Load" Twin Fall Simultaneous Release Gear System type: "U-Hook 3" has been appraised also against LSA Code as amended by Resolution MSC.218 (82) and MSC.320 (89).
3. Each release mechanism is to be clearly marked with approval information including the Administration which approved it and any operational restriction to ensure compliance with LSA Code I/1.2.2.9.
4. Each release gear is to be statically proof-tested to 2.2 times the safe working load.
5. Clear waterproof instructions for release from falls shall be supplied for placing both at the helmsman's position and at each hook station. Additional danger signs shall be posted at each hook station to alert crew members to the proper method of resetting.



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6. Clear operating instructions shall be provided with a suitability worded warning notice colour coding, pictograms, and/or symbols as necessary for clarity. For compliance with SOLAS Regulation III/35 and III/36 fully detailed Operations and Maintenance Manuals shall be supplied with each hook or hook system.
7. The system is to be kept maintained, serviced and tested as required by SOLAS Regulation III/20.11.2.
8. The attachment of each hook and installation of the hook to boat structure do not form part of this Design Appraisal but it is expected that these shall be to the satisfaction of the attending Surveyor and in accordance with SOLAS Regulation III/16.2 and 34.
9. In accordance with LSA Code as amended by Res. MSC.320 (89) all components of the hook unit, release handle unit, control cables or mechanical operating links and the fixed structural connections in a lifeboat shall be of material corrosion resistant in the marine environment without the need for coatings or galvanizing. Mechanical operating links such as control cable shall be waterproof and shall have no exposed or unprotected areas.
10. **Installation n board:** The on board arrangements and installation of this equipment are not part of this Design Appraisal or Certificate. All such arrangements are to be to the satisfaction of the Surveyors attending on board.
11. Alteration/modifications to the Type Approval release mechanism will invalidate the Type Approval Certificate which, in turn, will affect the validity of the related Statutory Certificate (f the vessel on which the release mechanism is installed). In such cases, where the equipment requires alterations/modifications, these are only to be carried out with the agreement/approval of the Flag State Administration (of the vessel on which the Release Mechanism is installed) on an installation-by-installation basis.
12. 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.
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. For compliance with SOLAS Regulations III/35 and III/36 fully detailed Operations and Maintenance Manuals shall be supplied with each hook or hook system.



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Register

Lloyd's Register EMEA

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16. 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

PLACE OF PRODUCTION

BC Service Europe S.r.l.
Via al Molo Giano sns
16128 Genova
Italy



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).