



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 | Markus Lifenet ehf. |
| Address | Hvaleyrarbraut 27, Hafnarfjordur, 220, Iceland |
| Type | Means of Recovery of Persons |
| Description | Manually Deployed Man Overboard Retrieval Device |
| Trade Name | Markusnet MS 0.5, MS.10, MS.20, MS.30 |
| Specified Standard | BS ISO 19898:2019 |

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 Marine and Offshore India LLP 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.

Units 1702-1704, 17th Floor (Level-13), Building Q2, Aurum Q Parc; Gen 4/1 TTC, Thane-Belapur Road, Ghansoli, Navi Mumbai, 400710, India

Bhaskar Gole

Lead Specialist - Lifesaving Appliances to Lloyd's Register Marine and Offshore India LLP

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. LR26125174SS

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 an Amendment and a Renewal of Certificate Number LR21459800SS.

APPROVAL DOCUMENTATION

| Drawing No. | Date | Title |
|--------------------|-------------|------------------------------------|
| TD No. 1 | - | Markusnet Type MS Components |
| TD No. 2 | 1999-09-10 | Rescue-net Structure |
| TD No. 3 | 1999-09-10 | Net Structure and Attached Parts |
| TD No. 4 | - | Container Components |
| MS Lable 1 | - | Container Lable |
| MS Lable 2 | - | Freeboard Lable |
| MS Lable 3 | - | Instruction Lable on Container Lid |
| MS Lable 4 | - | Technical Information on Lid |
| LEI-039 / 3 | - | Manoverboard Safety & Rescue Guide |
| LEI-040/2 | - | Technical Sheet |

PQA, Product Quality Assurance, Control No. PRJ111005061292, as witnessed by LR Surveyor, dated 29 January 2026.

TEST REPORTS

IceTec Tensile & Buoyancy test report No. 8HP0047 dated 3 March 2000.

Netherlands Navy Testing, report dated 1 May 1991.

Tensile, Buoyancy and Temperature Cycling Test carried out at Innovation Centre Iceland, Report No 8HP15056, dated 10.08.2015.

Operational tests: Recovery test (self-boarding), Recovery test (assisted boarding), 30° Inline test, 90° Rotation Test, Launching Time Test, test report dated 13/02/2022 & 05/04/2022.

Tensile load test, test report No: 422064, 30th March 2022.

Temperature cycling test, Floatation test, Tensile loading test, Test report No: 422004, Test report dated May-13 2022.

CONDITIONS OF CERTIFICATION

| | |
|---------------------------|------------------------------|
| Maximum number of persons | : 1 |
| SWL | : 92 Kg |
| Type: | Lifting height up to: |
| MS.05 | 5 m |
| MS.10 | 10 m |
| MS.20 | 20 m |
| MS.30 | 30 m |

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. LR26125174SS**

1. For the use of recovery of one person at a time in horizontal or deck chair position from water to onboard deck of a vessel by manual lifting or by means of mechanical hoisting.
2. Recovery equipment should be clearly marked as single person use only along with the maximum lifting height it is designed for, the name and address of manufacturer, the manufacturer's model designation, the year of assembly of the equipment and the maximum safe loading.
3. For each installation of the recovery device, the vessel owner/Operator shall conduct and document a Risk Assessment that take into account the anticipated condition and ship specific characteristics. The recovery plans and procedures should facilitate the transfer of persons from the water to the ship while minimizing the risk of injury from impact with the ship's side or other structures, including the recovery appliances itself.
4. Ship specific plan and procedure for recovery of persons from the water should be developed in accordance with MSC.1/Circ 1447 and MSC.1/Circ 1182. The recovery operation to be conducted without causing undue hazard to the ship and the ship's crew, taking into account, but not limited to:
 - .1 manoeuvrability of the ship;
 - .2 freeboard of the ship;
 - .3 points on the ship to which casualties may be recovered;
 - .4 characteristics and limitations of equipment intended to be used for recovery operations;
 - .5 available crew and personal protective equipment (PPE);
 - .6 wind force, direction and spray;
 - .7 significant wave height (Hs);
 - .8 period of waves;
 - .9 swell; and
 - .10 safety of navigation.
5. Recovery operations should be conducted at a position clear of the ship's propellers and, as far as practicable, within the ship's parallel mid-body section.
6. A source of illumination and, where required, a source of power should be available for the area where the recovery operation is conducted.
7. On board drills should be conducted to ensure that the crew are familiar with this equipment and Ship's recovery procedures.
8. The hoisting mechanism to be used in conjunction with this recovery device 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's satisfaction.
9. **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 and ship specific basis.



ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. LR26125174SS

10. A staged demonstration of compatibility of the recovery device and hoisting arrangement by way of function test with 1.1 times the working load should be carried out to the satisfaction of the attending Surveyor. The date of installation test should be clearly and durably marked on the unit.
11. 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. 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.
12. Instructions for installation, use and maintenance are to be supplied with each device according to its end use.
13. 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.
14. 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.
15. 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.

PLACE OF PRODUCTION

Markus Lifenet ehf
Hvaleyraubraut 27,
220 Hafnarfjordur,
Iceland

Bhaskar Gole
Lead Specialist-Lifesaving Appliances
Fire & Safety, Statutory Discipline Team
Lloyd's Register Marine and Offshore India LLP
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)

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.