



## 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>	<b>Markus Lifenet ehf.</b>
<b>Address</b>	Hvaleyrarbraut 27, 220 Hafnarfjordur, Iceland
<b>Type</b>	Means of Recovery of Persons
<b>Description</b>	System for Recovery of Person from Water
<b>Trade Name</b>	Markus Scramble-net Type SCN
<b>Specified Standard</b>	LSA Code Regulation I/1.2 IMO Resolution MSC.81 (70), Part 1 as amended Section 1.2 and 1.4 BS EN ISO 4892 – 2: 2013

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

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**ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. LR26118874SS**

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.

**APPROVAL DOCUMENTATION**

Technical file, Document for product specifications and components of Markus Scramble-net / Rescue-net type SCN, Document No. 1.6, dated 06<sup>th</sup> March 2026.

Technical Data for D Rings, Document No. 0145, undated.

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

**TEST REPORTS**

Test report on strength tests of meshes, vertical sections and lifting lines on samples exposed to temperature cycling test and combined exposure of temperature cycling test and oil test, conducted at Taeknisetur-IceTec. Laboratory, Report No. 425157, dated 24/02/2026.

Test report on Accelerated Weathering Conditioning of a Life-bag Construction, conducted at Accelerated Weathering Laboratory (AWL) Limited, Report No: TR 1003, dated 01/12/2024.

Test report on tensile strength of the vertical sections and lifting lines on control samples and after UV exposed sample, conducted at Taeknisetur-IceTec Laboratory, Report No. 426026, dated 11/02/2026.

Test report on Adjuster Buckle/Slide, conducted at Fleetwood Testing Laboratory, Report No. WL/FTL/3516-1, dated 31/10/2024.

Report on Testing of 316 stainless steel 20 mm Adjuster Buckle/Slide (0538/0539) & 50 mm Adjuster Buckle/Slide (0308/0309) by Fleetwood Testing Laboratory, Report No. FTL/3516, dated 31/10/2024.

Test Report on salt spray testing followed by tensile testing of Markus Lifenet Components, conducted at Materials Technology Ltd. Laboratory, Report No. Q1272, dated 05/02/2026.

Test report on tensile test on Danline rope, conducted at Taeknisetur-IceTec. Laboratory, Report No. 422064, dated 30/03/2022.

**CONDITIONS OF CERTIFICATION**

1. Dimensions and configurations:

Length	Width	Meshes
1.5 to 12 meters	0.4 to 3 meters	2 to 15

- SWL of individual mesh: 113 kg.
- SWL of individual vertical section: 178 kg.
- Maximum SWL when used as a scramble net shall not exceed: SWL of individual vertical section multiplied by the number of vertical sections.

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2. The device has been examined and tested to be used as Scramble net.
3. 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.
4. When the equipment is used as a scramble net the freeboard of the survival craft or vessel should be as per manufacturer's instruction.
5. The equipment satisfies the objectives required by LSA Code, Regulation 1/1.2 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.
6. 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.
7. On board drills should be conducted to ensure that the crew are familiar with this equipment and Ship's recovery procedures.
8. 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.
9. 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.
10. For compliance with SOLAS Regulation III/35 & III/36 fully detailed operations and maintenance manuals shall be supplied with each equipment.
11. The fitting and servicing of devices shall be done in accordance with the manufacturer's instruction by companies or person familiar with the device and accredited by the manufacturer.
12. 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.
13. A source of illumination and, where required, a source of power should be available for the area where the recovery operation is conducted.
14. 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.
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.



**ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. LR26118874SS**

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.

**PLACE OF PRODUCTION**

Markus Lifenet ehf  
Hvaleyrarbraut 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)*

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