



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	SHM Products Pvt Ltd
Address	BPT Plot No.51B, Magazine Street 1st Lane, Darukhana, Mazagaon, 400010, Maharashtra, Mumbai, India
Type	EMBARKATION LADDER
Description	Embarkation Ladder with both wooden or aluminium steps
Trade Name	Boulder Embark Ladder By SHM
Specified Standard	IMO Resolution MSC.81 (70), as amended ISO 5489:2008

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.



DESIGN APPRAISAL DOCUMENT

Page

2 of 4

Certificate No:

LR23270441SS

Issue Date:

14/06/2023

Expiry Date:

13/06/2028

Reference:

UKITSO/LSA/TA/LT/MB/WP47389306/PRJ11100381157

ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. LR23270441SS

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

<u>Drawing No:</u>	<u>Drawing Title</u>	<u>Drawing Rev:</u>	<u>Date:</u>
SHM-EL-A-01	GENERAL ARRANGEMENT DRAWING OF 65mtr. EMBARKATION LADDER	5	27/03/2023
SHM-EL-ALS-01	ALUMINIUM STEP	02	23/12/2022
SHM-EL-MRD-01	MARKING DETAILS	01	30/01/2023
SHM-EL-RALS-01	REPLACEMENT ALUMINIUM STEP	00	23/12/2022
SHM-EL-RPS-MRD-01	REPLACEMENT STEP MARKING DETAILS	00	30/01/2023
SHM-EL-SC-01	STEP FIXTURE AND CLAMP	02	23/12/2022
SHM-EL-THIM-01	THIMBLE	02	23/12/2022

Procedure For the Replacement of Steps Embarkation Ladder, undated.

Embarkation Ladder Rigging & Maintenance Manual, undated.

TEST REPORTS

Test Protocol-(TP-EL-01) Rev 1, Test Report for Embarkation Ladder as per ISO 5489:2008 covering Visual examination, Step flexibility, Step friction, Step surface durability, Ladder and Step attachment strength and Unrolling test as witnessed by Lloyd's Register, Report dated 20/12/2022 & 21/12/2022.

CONDITIONS OF CERTIFICATION

1. Maximum Embarkation ladder length: 65M.
2. Step Material: Hard Wood or Aluminium.
3. Side Rope: Manila or Polypropylene.
4. The aluminium step has been accepted as an equivalent material as per the provision of LSA code 6.1.6.2.1. No other step material shall be used.
5. Instructions for installation, use and maintenance are to be supplied with each ladder according to its end use.
6. Embarkation ladder should have sufficient length to reach, in a single length, from the deck to the waterline in the lightest seagoing condition under all conditions of trim of up to 10° and a list of up to 20° either way.

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents, 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. LR23270441SS

7. The embarkation ladder shall be given the designation "Embarkation ladder ISO 5489"; followed by the letter "S" which indicates the number of steps; followed by the letter "L" which indicates the length, in metres.
8. The top end of one side rope on each side of the ladder shall extend at least 3 m beyond the top ladder step, or an extension service rope shall be fitted to each side rope eye splice or thimble by means of an eye splice or shackle. The diameter of an extension service rope shall be at least the diameter of the side ropes.
9. The embarkation ladder to be marked on bottom of at least two steps with the name and address of the manufacturer; the manufacturer's model designation; "ISO 5489" and "SOLAS"; the year of assembly or reassembly of the ladder; identification of the approving maritime safety administration, along with any approval indications required by that administration; where used, identification of a recognized organization acting on behalf of the maritime safety administration.
10. The bottom of each replacement step shall be marked with the name and address of the manufacturer; the manufacturer's model designation; the words "REPLACEMENT STEP ONLY"; the year of production of the step; "ISO 5489" and "SOLAS"; identification of the approving maritime safety administration, along with any approval indications required by that administration and where used, identification of a recognized organization acting on behalf of the maritime safety administration.
11. Each ladder shall be subjected to the ladder and step attachment strength test in Table 1 of ISO 5489 at approximately 30-month intervals. Each ladder which fails the test shall be rebuilt or scrapped. The ladder shall be stamped or tagged near the bottom of the ladder with the date of the test and the identification of the person or company performing the test. The person or company performing the test shall also provide a test certificate for the owner of the ladder, indicating the details of the test, including the date, and the identification of the person or company performing the test.
12. The arrangements and installation of the ladder on board are not part of this design appraisal or certificate and are to be to the satisfaction of the Surveyors attending on board.
13. Production tests and inspections of embarkation ladders should be carried out as described in informative Annex A of ISO 5489:2008.
14. 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.
15. 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.
16. Production tests are to be conducted in accordance with the applicable requirements ISO 5489 Annexe A; 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.
17. 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.



DESIGN APPRAISAL DOCUMENT

Page

4 of 4

Certificate No:

LR23270441SS

Issue Date:

14/06/2023

Expiry Date:

13/06/2028

Reference:

UKITSO/LSA/TA/LT/MB/WP47389306/PRJ11100381157

ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. LR23270441SS

PLACE OF PRODUCTION

SHM Products Pvt Ltd
53A, Sasunavghar, Ahmedabad Highway
Versova Bridge, Behind Hotel Darya Sagar
Godbunder, 401202
Maharashtra, Thane
India

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)

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents 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.