



Lloyd's
Register

Transport
Canada
Safety and Security




CERTIFICATE OF TYPE APPROVAL ISSUED ON BEHALF OF TRANSPORT CANADA

This is to certify that

The product detailed below will be accepted for compliance with the applicable Lloyd's Register Rules and Regulations with regards to 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 Transport Canada to issue the relevant certificates, licences, permits etc.

Manufacturer	Daniamant Limited
Address	Unit 3, The Admiral Park Airport Service Road Hilsea Portsmouth Hampshire PO3 5RQ United Kingdom
Type	LIFERAFT LIGHTS
Description	Manually controlled flashing position indicating lights for survival craft - Type: "Rescue-Master 2B, Rescue-Master 3B and Rescue-Master 12V"
Specified Standards	IMO Resolution MSC.81 (70), Part 1, as amended by Resolution MSC.226(82), MSC.200(80) & MSC. 323(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	22 November 2016	Expiry date	21 November 2021
Certificate No.	LRTC 0000115	Signed	
Sheet No	1 of 3	Name	L. Thomas 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.



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DESIGN APPRAISAL DOCUMENT

Date 22 November 2016	Quote this reference on all future communications SOUTSO/SFS/TA/MM/LT/WP27423868
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ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. LRTC 0000115

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>Plan/Doc No.:</u>	<u>Revision</u>	<u>Title or Description</u>
TF-DK-07	02	Technical File

Installation and Maintenance Instructions, Rescue Master 2B/Rescue Master 3B Liferaft Light, 23-712, Issue 04 (C6495)

Installation and Maintenance Instructions, Rescue-Master 12V, 23-714 Issue 05 (C6468)

TEST REPORTS

Force Institute, test report No. 117524/m1445-527, dated 06-09-1999.

Temperature cycling and light output test, Force Institute, File No. 110984/m1445-481.b, dated 18-03-1999.

Temperature cycling and light output test, Force Institute, File No. 123175/m1445-575 rev.1, dated 29-09-1999 (5.3V battery).

Light output test, Force Institute, File No. 1445-184090, dated 15-08-2002 (12V).

Fire test report, Danish Institute of Fire Technology, File No. F101719, dated 19-04-1999.

Measurement of Chromaticity, test report No. DANAK-KAP724037-1304, dated 04-05-1999.

Vibration test, test report No. K251078, dated 03-06-1999.

CONDITIONS OF CERTIFICATION

1. The "Rescue Master 12V" position indicating lamp is to be connected to the crafts 12V electrical system. The survival craft is to have a fuel tank capacity for 12 hours operation
2. Lights powered by batteries shall be marked with a means of determining their age or the date by which they are to be replaced
3. Each light is to be marked with the information required by the LSA Code Paragraph 1.2.2.9 and 1.2.3
4. Lights which have reached their date of replacement shall be disposed of safely with due regard to their lithium batteries
5. For compliance with SOLAS Regulation III/35 and III/36, fully detailed operations and maintenance manuals shall be supplied with each light
6. The arrangements and installation of the lights on survival crafts are not part of this design appraisal or certificate and are to be to the satisfaction of the Surveyors attending on board
7. 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
8. 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



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9. 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
10. 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
11. All instructions or markings that accompany life-saving appliances or are printed directly on the appliances must be in both English and French, as per Canadian procedures for approval of life-saving appliances and fire safety systems, equipment and products document no. TP 14612E (05/2011) paragraph 2.2.1.3. However independent signage can be accepted in lieu of the instructions or marking required in paragraph 2.2.1.3 if it is in both English and French, highly visible (size, colour, posting location), water and weather proof and posted at each muster station and where the appliance is stored

PLACES OF PRODUCTION

Daniamant Limited
Unit 3, The Admiral Park
Airport Service Road
Hilsea
Portsmouth
Hampshire
PO3 5RQ
United Kingdom

Daniamant ApS
Industrivej 24C
3550 Slangerup
Denmark



Lijo Thomas
Senior Specialist
Statutory Fire & Safety
Southampton 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).