

EC Type Examination (Module B) Certificate

This is to certify that:

LLOYD'S REGISTER Marine Deutschland GmbH (LRMD), designated as a "notified body" based on the notification of the Federal Maritime and Hydrographic Agency of Germany, did undertake the relevant type approval procedures for the type of equipment identified below which was found to be in compliance with the requirements of Marine Equipment Directive (MED) 2014/90/EU and the valid Commission Implementing Regulation (EU) in force indicating design, construction and performance requirements and testing standards for marine equipment, subject to the conditions below and the attached Schedule which also forms part of this Certificate.

Manufacturer	Daoming Optics & Chemical Co., Ltd.
Address	No.1, Yingbin Avenue, No.3, Xiangzhu Industrial Park, Xiangzhu Town, Yongkang City, Jinhua City, Zhejiang, People's Republic of China
Reference	Marine Equipment Directive (MED) 2014/90/EU, Regulation (EU) 2023/1667
Regulation Item (No. & Item Designation)	MED/1.30 Retro-Reflective Materials
Product Type	Retro-Reflective Materials
Product Description	Retro-Reflective Materials, Type II: Highly weather-resistant retro-reflective material for lifesaving appliances suitable for continuous outdoor exposure.
Specified Standard	SOLAS 74 Reg. III/4, SOLAS 74 Reg. X/3 SOLAS 74 Reg. III/34 IMO Res. MSC.36(63)-(1994 HSC Code) 8 IMO Res. MSC.48(66)-(LSA Code) I IMO Res. MSC.97(73)-(2000 HSC Code) 8 IMO MSC.1/Circ.1628 IMO Res. MSC.481(102)
Row of the Regulation Item	Row 2 of 2 of Regulation (EU) 2023/1667
Trade Name	DM1101B

Lloyd's Register Marine Deutschland GmbH, Willy-Brandt-Straße 59-65, 20457 Hamburg, Germany.
A member of the Lloyd's Register group

Lijo Thomas

Fire & Safety - Senior Surveyor
For and on behalf of Lloyd's Register Marine Deutschland GmbH (2923)

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BUNDESAMT FÜR
SCHIFFFAHRT
UND
HYDROGRAPHIE

Notified Body authorised by
BSH 0800-S23/4822:013

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Certificate No: LR2443692MB

Issue Date: 16/05/2024

Expiry Date: 15/05/2029

EC Type Examination (Module B) Certificate

The attached Design Appraisal Document (schedule) forms part of this certificate. This certificate remains valid unless suspended, expired or withdrawn, provided the conditions in the attached schedule are complied with and the equipment remains satisfactory in service.

This certificate will not be valid if the manufacturer makes any changes or modifications to the approved type of equipment, which have not been notified to and agreed with the notified body named on this certificate. The manufacturer should notify LRMD of any modification or changes to the equipment in order to obtain a valid Certificate.

Should the specified regulations or standards be amended during the period of validity of this certificate, the product is to be re-approved prior being placed on the market and on board vessels to which the amended regulations or standards apply.

The Mark of Conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-control phase module (D,E, or F) of ANNEX II of the Directive is fully complied with and controlled by a written inspection agreement with a notified body.

Lloyd's Register Marine Deutschland
GmbH, Willy-Brandt-Straße 59-65, 20457
Hamburg, Germany.
A member of the Lloyd's Register group

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Certificate No: LR2443692MB
Issue Date: 16/05/2024
Expiry Date: 15/05/2029
Reference: UKITSO/LSA/TA/LT/TSO-23-007419/PRJ11100438131

ATTACHMENT TO EC TYPE EXAMINATION (MODULE B) CERTIFICATE No. LR2443692MB

The undernoted documents have been appraised for compliance with the relevant requirements of International Conventions and European Union legislation for the EC Type Examination of Marine Equipment for use on Merchant Ships Registered in the European Economic Area.

This Design Appraisal Document (schedule) forms part of the Certificate.

This Certificate Supersedes and is a Renewal of Certificate Number 0525-MED-DE-MED 1950078

Approval Documentation

Operation Instruction of Retro-reflective Material, Enterprise Standard Q/ZDM06-2016, dated 23/08/2016.

Product Outline, Document Number DM1101B-001, dated 24/03/2016.

Test Reports

Retro-reflective sheeting DM1101B, Test Report No 2021053, conducted at Wuhan Testing Centre of Marine Life-saving Appliances, in accordance with IMO Res. MSC. 481 (102), dated 22/09/2021.

Conditions of Certification

1. The material shall be marked and identified as required by the paragraph 1.2.2.9 of LSA code and other applicable regulations.
2. Approval of this material is only applicable to its use when applied to Life-Saving Appliance as defined by the applicable Regulation stated on Page 1 of this Certificate.
3. When fitting retroreflective material on life saving appliances, guidance may be taken in accordance with examples shown in Annex 1 of IMO Resolution IMO Res. MSC.481(102).
4. 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.
5. Production items are to be manufactured in accordance with a quality control system which shall be maintained to ensure that items are of the same standard as the approved prototype.
6. 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.
7. Production items of the subject equipment are to be manufactured in accordance with either an approved Production Quality Assurance system (Module D), a Product-Quality assurance system (Module E) or a Product Verification Process (Module F). The wheelmark cannot be affixed to the product until a conformity assessment module is in place.
8. Each item, batch or lot of the equipment is to be issued with a "Declaration of Conformity" and have the "Mark of Conformity" affixed after a conformity assessment module is in place.
9. The manufacturer shall keep a copy of the EC type-examination certificate, its annexes, and additions together with the technical documentation at the disposal of the national authorities for at least 10 years after the wheel mark has been affixed on the last product manufactured and in no case for a period shorter than the expected life of the marine equipment concerned.
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.

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Place of Production

Zhejiang Longyou Daoming Optics & Chemical Co., Ltd
No.7, Xingye Road, Chengnan Industrial New City
Donghua Street, Longyou County
Quzhou City, Zhejiang
People's Republic of China

Lijo Thomas
Senior Specialist
Fire & Safety, Statutory Discipline Team
UK&I Technical Support Office, Marine & Offshore
For and on behalf of Lloyd's Register Marine Deutschland
LRMD EC Distinguishing No. 2923

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TA144-145 1.0.0 DAD-DAD MRA Rev01