

EC Type-Examination (Module B)

Directive for Marine Equipment

Certificate No.: **DK-0200-MarED-193 version 7**

Issued by FORCE Certification A/S - EC-notified body number 0200

This is to certify that:

FORCE Certification A/S did undertake the relevant type approval procedures for the equipment identified below which was found to be in compliance with the Life Saving Appliance requirements of Marine Equipment Directive (MED) 2014/90/EU, as amended, last amended by Regulative 2017/306/EU subject to any conditions in the schedule attached hereto.

Applicant and Manufacturer: **Alcares ApS**
Rugmarken 10
3650 Ølstykke
Denmark

Identification of Marine Equipment:
Item: **MED/1.2c**
Product Type: **Position-indicating lights for life-saving appliances**
Product Designation: **Jack MRH**
Jack MRH-Alk

Specified Standard:
(Tested in accordance with): **LSA code MSC.48(66) adopted on 4 June 1996 and MSC.81(70) adopted on 11th December 1998**

Amendments to LSA code:
MSC.207(81) adopted on 18 May 2006
MSC.218(82) adopted on 8 December 2006

Amendments to testing methods:
MSC.200(80) adopted on 13 May 2005
MSC.226(82) adopted on 8 December 2006
MSC.323(89) adopted on 20 May 2011

The examined samples are found to fulfil the requirements stated in:

The International Testing Standard IMO Res. MSC.81(70) and the applicable reg. SOLAS 74 as amended, where the relevant requirements are specified in the amendment to The Directive, item MED/1.2c

Documentation for observance of relevant requirements stated in ANNEX II (Module B) of the Directive and the basis for the type examination are described in the appendix to this certificate.

This certificate will remain valid unless cancelled or revoked, provided the conditions in the attached appendix are complied with and the equipment remains satisfactory in service.

The certificate will not be valid if the manufacturer makes any changes or modifications to the approved equipment, which have not been notified to, and agreed with the notified body named on this certificate.

Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be reapproved prior to it/they being placed on board vessels to which the amended regulations or standards apply.


This new version of EC-Type Examination Certificate DK-0200-MarED-193 version 6 dated 2016-08-29 is issued due to the implementation of the new Marine Equipment Directive.

FORCE Certification A/S task No.: 117-24664

FORCE Certification A/S ID No.: 02151

Date of issue: 2017-02-22

Date of expiry: 2022-02-22



Niels Jørgen Sibbersen
Certification Manager



Philippa Weirup Osted
Examiner

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

Extracts from this EC Type-Examination Certificate may only be reproduced with a written permission from FORCE Certification A/S

Appendix to EC Type-Examination Certificate

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Applicant and
Manufacturer: **Alcares ApS
Rugmarken 10
3650 Ølstykke
Denmark**

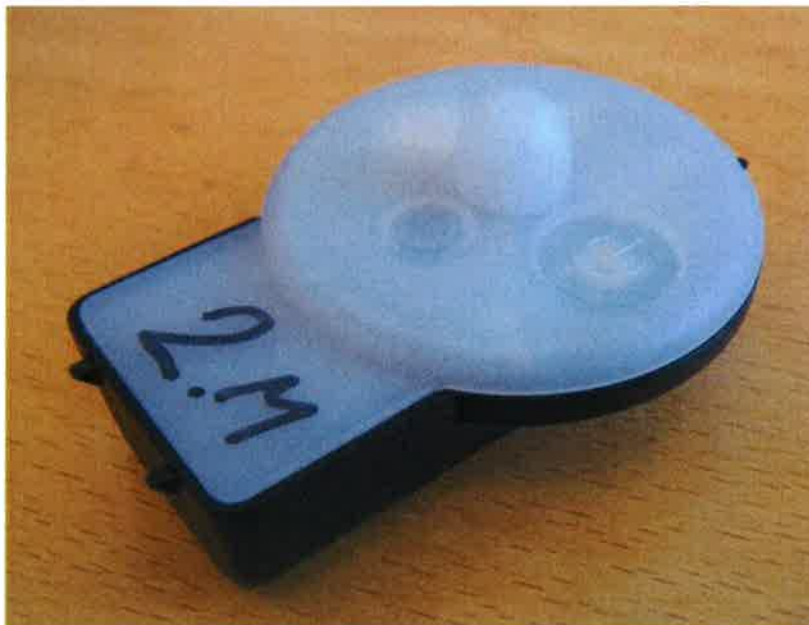
Identification of Marine Equipment:

Item: **MED/1.2c**

Product Type: **Position-indicating lights for life-saving appliances**

Product Designation: **Jack MRH
Jack MRH-Alk**

Design:



"Jack MRH"

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History:

Issue/change:	Document:	Date:
- Original certificate	DK-0200-MarED-193 ver. 1	2012-02-22
- Version added, using alternative battery	DK-0200-MarED-193 ver. 2	2012-09-10
- Separate material list	DK-0200-MarED-193 ver. 3	2012-09-14
- Update of certificate – 7th amendment, use of alternative battery	DK-0200-MarED-193 ver. 4	2013-09-30
- Alternative batteries	DK-0200-MarED-193 ver. 5	2016-07-04
- Address corrected	DK-0200-MarED-193 ver. 6	2016-08-29
- Update due to the implementation of new Marine Equipment Directive and new expiry date	DK-0200-MarED-193 ver. 7	2017-02-22

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Documentation for observance of the relevant requirements:

Test House	File No.	Testing/Inspection of:
FORCE Technology	111-33003	Type Testing of Jack MRH
FORCE Technology	112-30014.a	Temperature cycle Jack ARH + Jack ARH+ALK
DELTA - Danish Electronics, Lights and Acoustics	DELTA-L102372-3738	Light Test, Chromaticity Test and Drop Test
DELTA - Danish Electronics, Lights and Acoustics	DELTA-A506584	Vibration Test – The vibration test was performed on a similar type – RAFT, Jack A and Jack M
DELTA - Danish Electronics, Lights and Acoustics	DELTA-L102542-3956	Light Test of Jack ARH-ALK*
FORCE Technology	110-26415.d	Supplementary testing of the use of alternative battery (Jack A-ALK)
DELTA - Danish Electronics, Lights and Acoustics	DELTA-L102253-3433	Supplementary testing of the use of alternative battery (Jack A-ALK)
FORCE Technology	110-34454	Use of alternative batteries:
DELTA - Danish Electronics, Lights and Acoustics	DELTA-L102372-3525	Supplementary testing of the use of Kendal alkaline battery
DELTA - Danish Electronics, Lights and Acoustics	DELTA-L102372-3524	Supplementary testing of the use of lithium battery from Great Powers
DELTA - Danish Electronics, Lights and Acoustics	DELTA-L102692-4191 rapport(UK)	Supplementary testing of the use of Reiden battery
DELTA - Danish Electronics, Lights and Acoustics	DELTA-L102798-4783	Supplementary testing of the use of Varta battery on type identical light
FORCE Technology	116-26028.b	Supplementary testing of the use of Varta battery on type identical light

*) The Jack ARH-ALK is type-identical to model Jack MRH, except that model Jack ARH-ALK use has an automatic water activation mechanism (print circuit board) and use a different type of battery. The same battery which is to be used for Jack MRH-ALK.

Partial conclusion:

The device designated "Jack MRH" and "Jack MRH-ALK" is found to fulfil the requirements in The International Testing Standard IMO Res. MSC.81(70) and the applicable reg. SOLAS 74 as amended, where the relevant requirements are specified in the amendment to The Directive, item MED/1.2c as well as the requirements in ANNEX II (Module B) of the Directive.

The following documentation was available:

Description of quality management system:	Module D certificate - DK-0200-MarED-QA-132/10
User Manual and marking:	FORCE Technology report 111-33003
List of materials/manufacturers used for manufacturing the device:	"List of Materials for DK-0200-MarED-193" valid on the date of production.
Technical documentation:	- Drawings - Specification of battery - Specification of print circuit

Conclusion

Based on the above mentioned attestation it can be concluded that the position indicating light designated, "Jack MRH" and "Jack MRH-ALK" meets the conditions of EC type-examination in accordance with the Marine Equipment Directive (MED) 2014/90/EU as amended, last amended by Regulative 2017/306/EU (1st Amendment).

FORCE Certification A/S task No.: 117-24664

Date: 2017-02-22

Philippa Weirup Osted
Examiner