

MARINE DIVISION67/71 Boulevard du Château
92200 Neuilly-sur-Seine - FranceTel. 33 1 55 24 70 00
Fax. 33 1 55 24 70 45
www.veristar.com

Certificate number: 06892/C0 EC

File number: LSA 2466/02 & PYR 2466/08

Annex A1 Item number: A.1/1.2b

*This certificate is not valid when presented without the full attached schedule composed of 7 sections***EC TYPE EXAMINATION CERTIFICATE***as per Module B of European Union Council Directive 96/98/EC on marine equipment
as last amended by Commission Directive 2002/75/EC**This certificate is issued to***Nammo LIAB AB**

Lindesberg - SWEDEN

*for the type of product***POSITION-INDICATING LIGHTS FOR LIFEBOUYS**

Ikaros MOB Mk III Light Signal, Art. N° 345105

Regulations and standards:SOLAS 74 Convention as amended,
Regulations III/4, X/3, III/7.1.3, III/22.1.2, III/22.3.1, III/32.1, III/32.2 and III/34
IMO Resolution MSC.48(66) amended by MSC.207(81) and MSC.218(82)
IMO Resolution MSC.97(73) 8.1, 8.3, 8.10 (2000 HSC Code)
IMO MSC/Circ. 885
IMO Resolution MSC.81(70) amended by MSC.200(80) and MSC.226(82)*This certificate is issued under the French Maritime Authority to attest that BUREAU VERITAS did undertake the relevant type-examination procedures for the product identified above which was found to comply with the relevant requirements of the Council Directive 96/98/EC of 20 December 1996 as amended***This certificate is valid until: 14 Apr 2014**

At Neuilly, on: 14 Apr 2009

For BUREAU VERITAS, Notified Body N°0062
By order of the Secretary

Approval office

Local office: BV GOTHENBURG
Surveyor: M. Moller

L.COURREGELONGUE

**This certificate does not allow to issue the Declaration of Conformity and to affix the mark of conformity (wheelmark) to the products corresponding to this type. To this end, the production-control phase module (D, E or F) of Annex B of the Directive is to be complied with and controlled by a written inspection agreement with a notified body.***This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with BUREAU VERITAS. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. BUREAU VERITAS is designated by the French Maritime Authority as a "notified body" under the terms of the French Regulations Division 140 Chapter 140-2. This certificate is issued within the scope of the General Conditions of BUREAU VERITAS Marine Division. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against BUREAU VERITAS for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.*

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION

"Ikaros MOB Mk III Light Signal". The self-igniting light is combined with the "Ikaros MOB MK III smoke signal": the complete unit is the "Ikaros Mob Mk III Light & Smoke Signal – article No. 345105". The Ikaros MOB MK III smoke signal" is approved as per EC Type Examination certificate No 06891/xx EC

Technical data

| | |
|------------------------|--------------------------------|
| Dimensions | 200x500 mm |
| Weight | 4.8 Kg |
| Body colour | Yellow |
| Light performance | minimum 2 cd - minimum 2 hours |
| Maximum stowage height | 45 m |

2. DOCUMENTS AND DRAWINGS

2.1 - Manufacturer's drawings:

As per Technical report "List of drawings and changes to MOB Light & Smoke" N° TR07-018 dated 2007/10/12 with the drawing N°620102 edition 01 dated 31/03/2008.

No departure from the drawings shall be made without the prior consent of the Society.

2.2 - Manuals for installation, use and maintenance.

3. TEST REPORTS

3.1 - Type tested by the manufacturer, under supervision of Bureau Veritas, in accordance with IMO Res. A689(17), as amended by MSC/Circ.615 & IMO Res. MSC 54(66), Part 1, para 10.2 :

- Test protocol as per Manufacturer's Technical specification N° TB 703-3, dated 03.03.97.

- Type test report, issued by BUREAU VERITAS, ref. 6005/6891/AO/O-H, dated 27.03.1997.

3.2 - Light further type tested for "Luminous Intensity Test", in accordance with the requirements of the LSA Code, IMO Res.MSC.48 (66), as per test report from SP, Swedish National Testing and Research Institute, Sweden, report ref: 99F44823, dated 11/02/99.

3.3 - Further type tested, by the manufacturer, under the supervision of BV, after modifications as described in "Technical Specification Article No 345105 dated 10/10/2001", as per "Type Approval Tests of MOB Mk III" report dated 19/06/2001 and further type tested for vibration test by "Forsvarets Materielverk ProvFFK" as per test report No 21/01 dated 13/03/2001.

3.4 - Further, type tested in accordance with IMO Resolution MSC. 81(70), Part 1, 10.2 & 10.4 and IMO MSC/Cic. 980 by SP Swedish National Testing and Research Institute, Boras, Sweden, as per test report N° P202934 dated 2002-06-18 and by HANSSON PyroTech AB, Sweden, under the supervision of a Society's Surveyor, as per test report dated 2002-10-01.

3.5 - The lifebuoy self-igniting light has been type tested by the manufacturer, on-site and in the in-house laboratory, under supervision of Bureau Veritas, as per test report of "Annual Tests 2007" dated 21th December 2007, as per test report of "TR-017" dated 14th September 2007, as per test report of "TR-020" dated 30th October 2007 and as per test report of "TR-024" dated 19th December 2007

3.6 - Type tested also for the "Vibration test" and for the "Corrosion and Seawater resistance test" by Bofors Test Center AB as per test report 07-0983R dated 17th December 2007

3.7 - The lifebuoy self-igniting light has been type tested by the manufacturer, on-site and in the in-house laboratory, and witnessed by Bureau Veritas, as per test report of "Annual Tests 2008" dated 16/10/2008

4. APPLICATION / LIMITATION

4.1 - As per requirements of Regulations stated on front page of this certificate.

4.2 - Is not to be stowed at a height above the waterline exceeding 45 meters.

4.3 - Shall be used as per Manufacturer's operational instructions.

5. PRODUCTION SURVEY REQUIREMENTS

5.1 The manufacturer shall institute a quality control procedure to ensure that the lifebuoy self-igniting lights are produced to the same standard as the approved prototype and shall keep records of any production tests carried out in accordance with instructions given in IMO Resolution MSC.81 (70) Part 2.

5.2 The production conformity assessment module shall be either a Production Quality Assurance system (Module D) or a Product Quality Assurance system (Module E) or a Product Verification process (Module F).

5.3 Each lifebuoy self-igniting light intended to be fitted onboard a ship registered to a National register adhering to the Directive shall be delivered with a Declaration of Conformity.

6. MARKING OF PRODUCT

6.1 Brief instructions or diagrams clearly illustrating the use of the lifebuoy self-igniting light shall be printed on the casing.

6.2. The signal body shall bear the following marks:

- Trade name
- Date of manufacture and date of expiry
- Maximum stowage height
- SOLAS approved
- Lot number
- ☒ conformity mark and number of the Notified Body undertaking surveillance module (where BV, 0062)
- Last two digits of year mark affixed

7. OTHERS

7.1 This approval is given on the understanding that the Society reserves the right to require check tests to be carried out at any time and that manufacturer will accept full responsibility for informing Shipowners of proper methods of use, storing and maintenance of the self-activating smoke signal and of the conditions of this approval.

7.2 This certificate supersedes EC Type Examination Certificate No 06892/B2 EC issued on 06 May 2008 by the Society.

*** END OF CERTIFICATE ***