



**BUREAU  
VERITAS**

Marine & Offshore  
Division

Certificate number: 06890/A1 BV

File number: PYR 2466/06

Product code: 6010H

*This certificate is not valid when presented without the full attached schedule composed of 7 sections*

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## TYPE APPROVAL CERTIFICATE

*This certificate is issued to*

**Nammo LIAB AB**

Lindesberg - SWEDEN

*for the type of product*

**LINE-THROWING APPLIANCES**

IKAROS Linethrower (Art. N° 346 100)

1 Line-throwing Appliance = 4 units "IKAROS Linethrower (Art. N° 346 100)"

**Requirements:**

SOLAS 74 Convention as amended,

Reg. III/4,X/3,III/18 & III/34

IMO Res. MSC.48(66) amended by MSC.207(81),MSC.218(82),MSC.272(85),MSC.293(87),MSC.320(89) & MSC.368(93)

HSC Code: IMO Res. MSC.36(63)§ 8, IMO Res. MSC.97(73)§8,

IMO Res. MSC.81(70) amended by MSC.200(80),MSC.226(82),MSC.274(85),MSC.295(87),MSC.321(89),MSC.323(89)

& MSC.378(93)

IMO MSC/Circ.980

TP 14612; TP 14475 & C.R.C.,c.1436

*This certificate is issued to attest that BUREAU VERITAS did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.*

**This certificate will expire on: 02 Dec 2019**

For BUREAU VERITAS,

At BV GOTHENBURG, on 12 Nov 2015,

Magne MOLLER



This certificate is recognized by Transport Canada

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. This certificate is issued within the scope of the General Conditions of BUREAU VERITAS Marine & Offshore Division available on the internet site www.veristar.com. 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 electronic version is available at: <http://www.veristarp.com/veristarnb/jsp/viewPublicPdfTypepec.jsp?id=p0ztibvmps>

BV Mod. Ad.E 530 October 2014

This certificate consists of 3 page(s)

QUALITY

HEALTH

SAFETY

ENVIRONMENT

SOCIAL  
ACCOUNTABILITY

## THE SCHEDULE OF APPROVAL

### 1. PRODUCT DESCRIPTION

- **1 Line-throwing Appliance** = 4 units " Ikaros Linethrower, Article N° 346 100"

*To conform to the requirements of the paragraph 7.1.1 of IMO Resolution MSC 48(66), each Line-throwing Appliance is constituted by a set of 4 units " IKAROS Linethrower, Article N° 346 100".*

<b>Trademark</b>	Nammo LIAB AB
<b>Type</b>	IKAROS Linethrower
<b>Reference</b>	346 100

Each unit "Ikaros Linethrower" includes its own Projectile with Cartridge and Line.

Length	Diameter	Weight	Nylon Rope
340 mm	230 mm	4 kg	300 meters of white polypropylene yarn with a breaking strength of not less than 2 kN

### 2. DOCUMENTS AND DRAWINGS

- Manufacturer's specification and drawings:

Number	Title	Revision	Date
DS 346100	IKAROS Linethrower	2	2015/08/24

- Manual(s) for installation use and maintenance.

*No departure from these documents is permitted without the prior consent of the society.*

### 3. TEST REPORTS

DATE	TEST
22/11/96	Prototypetest,Ikaros Line 3641 Initial type tests
15/11/2004	--- Annual Tests 2004
15/11/2006	--- Annual Tests 2006
21/12/2007	--- Annual Tests 2007
07/11/2008	--- Annual Tests 2008
03/10/2013	--- Taking into account the amended IMO resolutions
02/04/2014	--- Additional Type Tests (Annual Tests 2013)
30/05/2014	--- Additional Type Tests (Linked to annual Tests 2013)
20/10/2014	--- Additional Type Tests (Linked to annual Tests 2013)
18/08/2015	444GTB14 Attestation for Pyrotechnics (Markings - Rubbing test)
	--- Additional Type Tests

### 4. APPLICATION / LIMITATION

- As per requirements of regulations stated on front page of this certificate.
- Line-throwing appliances shall be replaced prior the expiry date marked on its casing but not later than **Four years** after date of manufacture.
- Each line-throwing appliances will be supplied with its instructions for use, inspections and on-board maintenance complying with Regulations stated on the front page of this certificate.
- To conform to the requirements of the paragraph 7.1.1 of IMO Resolution MSC 48(66), one Line-throwing Appliance is constituted by 4 units " Ikaros Linethrower, Article N° 346 100".
- Line-throwing appliance shall be stowed in a container that is weathertight.



## **5. PRODUCTION SURVEY REQUIREMENTS**

**Line-Throwing Appliances** are to be supplied by **Nammo LIAB AB** in compliance with the type described in this certificate.

This type of product is within the category HBV of Bureau Veritas Rule Note NR320.

**Nammo LIAB AB** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products.

For information concerning the production survey requirements, **Nammo LIAB AB** has declared that the product may be manufactured at the following manufacturing places:

**Nammo LIAB AB**  
**Box 54**  
**711 22 Lindesberg**  
**SWEDEN**

## **6. MARKING OF PRODUCT**

Brief instructions or diagrams clearly illustrating the use of the **Line-Throwing Appliances** shall be printed indelibly on its casing (to be both in English and in French);

The signal body shall bear the following marks:

- Manufacturer name, logo or trade-mark
- Type designation
- Date of manufacture (*month and year*)
- Date of expiry
- Lot number
- BV TAC number : 06890/A1 BV

## **7. OTHERS**

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 the manufacturer will accept full responsibility for informing Shipowners of proper methods of use, storing and maintenance of the line throwing appliance and the conditions of this approval.

This certificate supersedes Type Approval Certificate N° 06890/A0 BV, issued on 02/12/2014 by the Society.

**\*\*\* END OF CERTIFICATE \*\*\***