



Marine & Offshore
Division

Certificate number: 06148/B0 BV

File number: LSA 2466/10

Product code: 6007H

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

HAND FLARES

Ikaros Hand Flare, Red
Hand Flare Distress Signal, Art. N° 341 510

Requirements:

Australian Standard AS 2092-2004

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: 17 Jul 2019

For BUREAU VERITAS,

At BV GOTHENBURG, on 17 Jul 2014,

Ulf Mentzer



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=dovmijlhcy>

BV Mod. Ad.E 530 May 2009

This certificate consists of 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION

| Article N° | Trademark | Designation | Diameter | Overall length |
|------------|-----------------|------------------------|----------|----------------|
| 341 510 | HANSON Pyrotech | Ikaros Hand Flare, Red | 30mm | 243mm |

- Tactile marking: a plus sign (+) on the red lid on top of the signal

2. DOCUMENTS AND DRAWINGS

- Drawings and specifications:

| Number | Title | Revision | Date |
|-----------|----------------------------------|----------|------------|
| DS 341510 | Hand Flare, red, tactile marking | 1 | 2014/06/30 |

- Manual(s) for installation use and maintenance.

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

3. TEST REPORTS

The product has been type tested by the manufacturer and witnessed by Bureau Veritas as per test reports listed :

| DATE | TEST | |
|------------|---------------|---|
| 3/11/2004 | N° 341 100 | “circ.980 – Ikaros Polar MK IV” |
| 21/12/2007 | | Annual Tests 2007 |
| 30/10/2007 | SBTC 07-0807R | Temperature cycling test and Salt spray test by SAAB BOFORS TEST CENTER, Sweden |
| 16/10/2008 | --- | Annual Tests 2008 |
| 01/10/2013 | --- | - 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) |

4. APPLICATION / LIMITATION

- As per requirements of regulations stated on front page of this certificate.
- Each hand flare will be supplied with its instructions for use, inspections and on-board maintenance complying with Regulations stated on the front page of this certificate.
- The equipment shall be replaced prior the date of expiry which is marked in the signal casing (but not later than 3 years from the manufacture date).
- Shall be used as per Manufacturer's operational instructions.

5. PRODUCTION SURVEY REQUIREMENTS

The manufacturer shall institute a quality control procedure to ensure that the hand flares are produced to the same standard as the approved prototype and shall keep records of any production tests carried out in accordance with AS 2092-2004.

Arrangements shall be made, for a Society's Surveyor, to carry out, on a periodic basis, product audits at the Manufacturer's Works.

For information concerning the production phase modules, **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

Every item, or batch of items, to be affixed with the following marking:

- Identification of the type of signal
- Manufacturer name or logo
- Type designation
- Date of manufacture
- Date of expiry
- Batch number

Brief instructions or diagrams clearly illustrating the use of the hand flare shall be printed indelibly on its casing;

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 hand flare and the conditions of this approval.

This certificate supersedes the Type Approval Certificate No 06148/A0 BV issued on 24/04/2009 by the Society.

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