

# TYPE APPROVAL CERTIFICATE

**This is to certify:****That the Buoyant smoke signals (pyrotechnics)**with type designation(s)  
**Ikaros MOB Mk IV Light signal**Issued to  
**Hansson PyroTech AB**  
**Lindesberg, Örebro Län, Sweden**

is found to comply with

**Application :****Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.****This certificate is recognized by Transport Canada.**Issued at **Høvik** on **2019-05-22**for **DNV GL**This Certificate is valid until **2024-05-21**.DNV GL local station: **Gothenburg**Approval Engineer: **Nathaniel Frithiof**

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**Mårten Schei-Nilsson**  
**Head of Section**

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.



Job Id: **262.1-030236-1**  
Certificate No: **TALB000002N**

## Product description

"Ikaros MOB Mk IV Light signal"

lifebuoy position indicating light signal. Tested with drop height 60 m.

Design weight: 4.5 kg

Body colour: Yellow

The light signal can be combined with the "Ikaros MOB Mk IV Smoke signal", the complete unit will then be called Ikaros "MOB Mk IV Light and Smoke signal".

## Application/Limitation

The design assessment is based on IMO Res. MSC.48(66), as amended by IMO Res. MSC.207(81) and IMO Res. MSC.218(82) and the Canadian Life Saving Appliance Standard – TP14475 E , Part I, Ch. III, item 3.1.4.

Production and installation testing shall be carried out according to IMO Res. MSC.81(70), Part 2, Ch.4.

Each lifebuoy is not to be stowed at a height above the waterline exceeding 60 m.

Expiration date not to exceed 4 years after date of manufacture.

## Type Approval documentation

Checklists and reports:

Form no.	Rev.	Title	Date
TA 401		Type approval assessment report	2018-11-21
204GTB15		BV Test report	2015-05-19

Technical documentation:

Drawing no.	Rev.	Title	Date
SBTC 15-0085R		Test record (Temp. cycling, salt & vibration)	2015-03-30
SBTC 15-0074		Test record (60 m drop and 30 cm wave test)	2015-04-13
		MOB lights - Evaluation and test report (IMO MSC/Circ.980)	2015-03-30, 2015-04-02
DS 345105	1	Document structure (technical documentation)	2018-05-29
PP 15-04		Test program	2015-04-14
		Lifebuoy Self-Igniting Light, Test Report	2015-04-13, 2015-05-19

## Tests carried out

Tested in accordance with the requirements of IMO Res. MSC.81(70), as amended by IMO Res. MSC.200(80), IMO Res. MSC.226(82), IMO Res.323(89) and the Canadian Life Saving Appliance Standard – TP14475 E, Part II, Ch. 4.

## Marking of product

The product is to be marked with name and address of manufacturer, type designation, date of manufacture (month and year), date of expiry, lot number and operational restrictions.



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The instructions for operating the distress signal are to be permanently marked on the casing, or the signal is to carry a diagram clearly showing the manner of operating the signal.

All markings are to be provided in both English and French translations.

**Periodical assessment**

DNV GL's surveyor is to be given permission to perform Periodical Assessments at any time during the validity of this certificate and at least after 2 years and again after 3.5 years. The arrangement is to be in accordance with procedure described in DNVGL-CP-0338 Section 4.