DNV·GL

Certificate No:
MEDB000046X

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED), issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Authority. This Certificate is issued by DNV GL AS under the authority of the Government of Norway.

This is to certify:

That the Lifebuoys self-activating smoke signals

with type designation(s)
Ikaros MOB IV smoke signal

Issued to
Hansson PyroTech AB
Lindesberg, Örebro Län, Sweden

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2018/773,**
item No. MED/1.3. SOLAS 74 as amended, Regulation III/4, III/7, III/34 & X/3, LSA Code and 2000 HSC Code 8

Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2023-12-16**.

Issued at **Høvik** on **2018-12-17**

DNV GL local station:
Stockholm

Approval Engineer:
Nathaniel Frithiof

Notified Body
No.: **0575**

for **DNV GL AS**

Roald Vårheim
Head of Notified Body

A U.S. Coast Guard approval number will be assigned to the equipment when the production module has been completed and will appear on the production module certificate (module D, E or F), as allowed by the "Agreement between the United States of America and the EEA EFTA states on the mutual recognition of Certificates of Conformity for Marine Equipment" signed 17 October 2005.

The mark of conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU.
This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV GL AS of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled.
Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.

NORWEGIAN ACCREDITATION PROD 019

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Product description

"Ikaros MOB Mk IV Smoke signal"
lifebuoy self-activating smoke signal. The smoke signal is producing smoke for at least 15 minutes.

Tested with drop height 60 m.

Design weight: 4.5 kg
Body colour: Yellow

The smoke signal can be combined with the "Ikaros MOB Mk IV Light 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).

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 Examination documentation

Technical documentation and reports:

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 smoke - Evaluation and test report (IMO MSC/Circ.980)	2015-08-19
DS 345205	1	Document structure (technical documentation)	2018-05-29
PP 15-04		Test program	2015-04-14

Tests carried out

Tests are documented in accordance with recommendation on testing of Lifesaving Appliances, IMO Res. MSC.81(70) Part 1, as amended by IMO Res. MSC.226(82), and IMO Res. MSC.323(89).

Marking of product

The product is to be marked with name and address of manufacturer, type designation, date of manufacture, date of expiry, operational restrictions, Mark of Conformity and USCG number if applicable (see first page).

The product should be provided with brief instructions or diagrams clearly illustrating the use printed on the body.