



MARINE DIVISION

Certificate number: 07494/D0 BV

File number: LSA 6337/02

Product code: 6032H

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

C M HAMMAR AB

V:a Frölunda - SWEDEN

for the type of product

HYDROSTATIC RELEASE UNIT

Hydrostatic Release Unit , Type HAMMAR H20 & Hydrostatic/Electric Remote Release Unit, Type H20 ERU, for float-free arrangement of EPIRB's

Requirements:

SOLAS 74 Convention as amended, Reg. III/4, X/3, III/13, III/26 & III/34

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

IMO Res. MSC.36(63)-(1994 HSC Code) 8 & IMO Res. MSC.97(73)-(2000 HSC Code) 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)

IMO MSC/Circ.811 & IMO MSC/Circ.980

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: 24 Jan 2018

For BUREAU VERITAS,

At BV GOTHENBURG, on 24 Jan 2013,

Magne MOLLER



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 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 SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

This version of the **HAMMAR H20** Hydrostatic Release Unit is intended for fitting Float-free arrangements of EPIRB's.

The version **HAMMAR H20-ERU** (Hydrostatic /Electric Release Unit) is intended for use together with an Electronic Remote Release system, designated under trade name "*Hammar ERRS*", i.e. EPIRB's can be released from one or more remote positions.

- The ERRS system is powered by the ship's Emergency Power Supply and by a back-up battery at every Control Panel.
- The ERRS system may be activated from one or several remote release positions.
- The ERRS system does not affect the hydrostatic function of the HAMMAR H20.
- Operational lifetime of a total of 24 months installed onboard

The **HAMMAR H20**, which is part of the system, was separately approved in accordance with the European Council Directive 96/98/EC on Marine Equipment (M.E.D), as amended.

- It is not fitted with a manual operation device.
- It does not need to be periodically serviced (It is of "disposable sealed unit" type).
- It is set for release at a depth not less than 1.5 metres and not greater than 4 metres.
- It is not part of the painter system (It is not subjected to the painter system strength).
- Its Operational lifetime is set to a total of 24 months installed onboard.

2. DOCUMENTS AND DRAWINGS:

- Drawings and specifications:

Document	Issue	Date
CM HAMMAR AB - DRAWING AND SPECIFICATIONS	1	2012-05-25

- Manual(s) for installation use and maintenance.

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

3. TEST REPORTS:

As per test report listed in the following document:

Hydrostatic Realease Units

Number	Date	Description
85M51019	28/08/1985 29/08/1985	Type tests on the membranes
21.99-90 34084	24/01/1990	Corrosion tests on the blades
M51400	04/09/1990	Corrosion tests on the blades and HRU
	10/12/1993	Reassessed by the Swedish National Maritime Administration - Maritime Safety Inspectorate
KMyP203085b	2002/08/06	Type tests : Corrosion resistance, Temperature cycling, and release test
N° KMyP03765	2002/09/05	Type tests : Corrosion resistance, Temperature cycling, and release test
P801304	2008/03/13	Solar radiation test

Weak Link

Number	Date	Description
31.309.78.212	15/03/1985	Initial type tests
	2009/10/14	Weak link test

Plastic bolt

Number	Date	Description
90M10348	20/03/1991	Tensile strength of the plastic bolt

ERRS system

Number	Date	Description
02090P	08/11/2002	EMC tests
P206128 rev.1	24/02/2003	Type tests in accordance with EN 60945:1997
P206128-1	27/02/2003	corrosion test

4. APPLICATION / LIMITATION:

- As per requirements stated on front page of this Certificate.
- The onboard installation and the maintenance of the Hydrostatic Release Unit shall be carried out according to manufacturer's instructions.
- It needs no annual service, maintenance or spare parts, but must be replaced after 24 months.
- It shall be provided with a simple system of recording the expiry date (month/year) at which the unit must be replaced.
- If marked with more than a single expiry date (month/year), the unit will be invalid and must be replaced.

5. PRODUCTION SURVEY REQUIREMENTS:

The **HAMMAR H20** Hydrostatic Release Unit and the **HAMMAR H20-ERU** are to be supplied by **CM HAMMAR 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.

To be manufactured, checked for quality and tested in accordance with the protocol approved by Bureau Veritas on the basis of IMO Resolution MSC. 81(70), Part 2.

CM HAMMAR 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 :

CM HAMMAR AB

August Barks Gata 15
S-42132 V:a Frölunda
SWEDEN

6. MARKING OF PRODUCT:

To be permanently marked on the unit or identification plate securely attached to the unit, as follows:

- "HAMMAR H20 E" or "HAMMAR H20 ERU E"
- Serial number.
- Expiry date.
- BV (SOLAS) approved.
- For EPIRB use only.
- The notation: "DO NOT PAINT".

7. OTHERS:

This approval is given on the understanding that the Society reserves the right to require check tests to be carried out on the HRU's at any time and that **CM HAMMAR AB**, Sweden will accept the responsibility for informing shipbuilders or their subcontractors of the proper methods of use and general maintenance of the equipment and the conditions of this approval.

This certificate supersedes the Certificate of Type Approval N° 07494/C0 BV, issued on 24/01/2008 by the Society.

*** END OF CERTIFICATE ***