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Certificate N°:
07493/B1 EC
File Number : LSA 6337/01
MED item number : A.1/1.16
USCG item number : 160.162
This Certificate is not valid where presented without the full attached Schedule, composed of 10 sections.



EUROPEAN COUNCIL DIRECTIVE 96/98 EC on MARINE EQUIPMENT (M.E.D.)

**EC TYPE EXAMINATION CERTIFICATE
(CERTIFICATE OF TYPE APPROVAL)**

This is to certify that Bureau Veritas, acting within the scope of its notification, did undertake the relevant type approval procedures for the equipment identified below which was found to be in compliance with the International Instruments and testing standards under the requirements of Council Directive 96/98/EC, as amended.

**FLOAT-FREE ARRANGEMENTS FOR LIFERAFTS (HYDROSTATIC RELEASE
UNITS)**

Float-free arrangement for liferafts, Hydrostatic Release Units, Types HAMMAR H20 & HAMMAR H20-ERU

MANUFACTURED BY:

C M HAMMAR AB
V:a Frölunda - SWEDEN

REGULATIONS & STANDARDS in accordance with Council Directive 96/98/EC, as amended by Commission Directive 2002/75/EC : SOLAS 74 Convention, as amended by 2000 SOLAS Amendments, Regs. III/13.4.2, III/26.2.2, III/34 - LSA Code, 1.2, 4.1.6.3- 2000 HSC Code, 8.1, 8.6.10 - IMO Resolution MSC. 81(70), Part 1, 11- IMO MSC/Circ. 811.

Expiry date: 2009-01-15

Local Office : BUREAU VERITAS GOTHENBURG


Magne Möller



At Paris la Défense, on : 2004-10-21



J.BENOIT
Marine Equipment Certification Manager
For BUREAU VERITAS, EC Notified Body N°0062



The Manufacturer is allowed to affix the MED Conformity Mark to approved equipment and issue a Declaration of Conformity, only when the production/product assessment module referred to in the Directive 96/98/EC, is fully complied with.
This Certificate remains valid until its date of expiry, unless cancelled or revoked, providing the conditions in the attached Schedule are complied with and the equipment remains satisfactory in service. This Certificate does not apply to equipment which has been varied or modified from the specimen tested.
Should the specified 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 standards apply.
This Certificate is issued within the scope of the General Conditions of BUREAU VERITAS Marine Division. Any Person not a party to the contract pursuant 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 judgment, 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.

Issued under the authority of the French Maritime Administration.



THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION :

a) The HAMMAR H20 Hydrostatic Release Unit is intended for fitting Float-free arrangements for liferafts. It is not fitted with a manual operation device. It does not need to be periodically serviced (It is of "disposable sealed unit" type).

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).

b) 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 liferafts can be launched 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.

(This EC Type Examination Certificate only covers the hydrostatic function of the HRU version HAMMAR H20-ERU, as per requirements of Regulations stated on front page of this certificate, and does not cover the additional ERRS system, although its design was assessed by the Society).

2. DESIGN DRAWINGS and/or SPECIFICATIONS

2.1 Design Drawings :

-A000163 rev.1 dated 16/09/2002 "Hydrostatic Release Unit HAMMAR H20 for liferafts"

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

and, for information only:

-A000165 rev.1 dated 18/09/2002 "Hydrostatic/Electric Release Unit HAMMAR H20 ERU for liferafts"

2.2 Manufacturing documentation :

To be approved by the Notified Body undertaking surveillance module, prior to EC  marking authorization.

2.3 Manuals for installation, use and maintenance:

To be available in one of the official languages of IMO, in addition to ship's Flag language.

3. TYPE TEST REPORTS / LABORATORY RECOGNITION STATUS

3.1 Type tested in accordance with IMO Resolution A521 (13) under supervision of the Swedish Maritime Safety Inspectorate, as per test report nr 31.309.78.212 dated 01/10/1985. The tests were carried out by SP. Statens Provningsanstalt National Testing Institute - Department of Materials Testing and Mechanics, PO Box 857, S-501 15 BORAS, Sweden :

(a) Test report n° 85M51019 dated 28/08/1985

(b) Test report n° 85M51019 dated 29/08/1985 (Test on membranes) 3.2 Further, type tested after modification of the Knife under supervision of the Swedish Administration of Shipping - Sjöfartsverket, as per test report ref. 21.99-90 34084 dated 24/01/1990. The tests were carried out by SP Swedish National Testing and research Institute, Boras, Sweden in accordance with paras 5.16.2.1 & 2.2 of Part 1 of IMO Res. A521 (13), as per test report n° M51400 dated 04/09/1990.

3.2 Further, type tested after modification of the Knife under supervision of the Swedish Administration of Shipping - Sjöfartsverket, as per test report ref. 21.99-90 34084 dated 24/01/1990. The tests were carried out by SP Swedish

National Testing and research Institute, Boras, Sweden in accordance with paras 5.16.2. & 2.2 of Part of IMO Res. A521 (13), as per test report n° M51400 dated 04/09/1990.

3.3 Further, reassessed by the Swedish National Maritime Administration - Maritime Safety Inspectorate as per letter dated 10/12/1993 for checking of compliance with IMO Res. A689 (17).

3.4 Further type tested by SP Laboratory (Swedish National Testing and Research Institute), for "breaking load test of rope sling with fisherman's knot" as per report ref: 96H30094B dated 05/06/95, and "tensile strength test of link/single point metal connector" as per report ref:99H50846 b dated 18/11/99.

3.5 Further modification, type tested by SP Laboratory (Swedish National Testing and Research Institute), for "Corrosion resistance test", "Temperature test" and ""Strength test, liferaft for more than 25 persons"(IMO Resolution MSC. 81(70), Part 1, paragraphs 11.2.1, 11.2.2 & 11.2.4), as per test reports N° KMyP203085b, dated 2002-08-06, N° KMyP03765, dated 2002-09-05 and N° KMP I-2013, dated 2002-10-28, and for "Weak link, tensile test", in accordance with LSA Code , paragraph 4.1.6.2.3, as per test report N° F2 14946, dated 2002-09-05.

3.6 The ERRS system was type tested in accordance with EN 60945 : 1997 by SP Laboratory (Swedish National Testing and Research Institute), as per test reports N° P206128 rev.1 dated 2003-02-24 & N° P206128-1 dated 2003-02-27 (corrosion test), and, for EMC tests, by EMC VÅST AB, Sweden, as per test report N° 02090P , dated 2002-11-08.

4. MATERIALS or COMPONENTS REQUIRED TO BE TYPE APPROVED or TYPE TESTED

Where the weak link (items N° 21,22 & 23 on drawing N° A000163 Rev. 1) is part of the supply, it shall be of a Society's approved type (to break under a strain of 2.2 +/- 0.4 kN)

5. OTHER MATERIALS and/or COMPONENTS

As per approved drawings, listed in section 21, above

6. APPLICATION / LIMITATION OF USE

6.1 Since not submitted to the painter strain there is no limitation in respect to the liferaft capacity (the "Rope sling" which is part of the device was strength tested at 15 kN, liferaft for more than 25 persons)

6.2 It needs no annual service , maintenance or spare parts, but must be replaced after two years.

7. PRODUCTION SURVEY REQUIREMENTS

7.1 As per IMO Resolution MSC.81(70), Part 2.

7.2 The Production Conformity Assessment Module shall be either "D.Production- Quality Assurance" or "E.Product- Quality Assurance" or "F.Product Verification".

7.3 Each manufactured equipment is to bear the ☼ conformity mark and number of the Notified Body undertaking surveillance module (where BV, 0062).

7.4 Each HRU intended to be fitted onboard a ship registered to a National register adhering to the Directive shall be delivered with a Declaration of Conformity or Certificate of Conformity.

7.5 Each equipment or Batch of equipment is to be supplied with its manual(s) for installation, use and maintenance (cf. para 2.3. above).

8. ON BOARD INSTALLATION & MAINTENANCE REQUIREMENTS

8.1 As per Manufacturer's Instructions and SOLAS 74 Convention, as last amended.

9. MARKING FOR IDENTIFICATION

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

- (a) HAMMAR H20 or HAMMAR H20 ERU
- (b) serial number
- (c) expiry date
- (d) * conformity mark and number of the Notified Body undertaking surveillance module (where BV, 0062).
- (e) Last two digits of year mark affixed.
- (f) the notation : "DO NOT PAINT"

In pursuance of the EU/US MRA+, and in accordance with the Council Decision 2004/425/EC of 21 April 2004, the manufactured item(s) can be affixed with the USCG conformity marking, subject to the authorization of the Conformity Assessment Body undertaking surveillance module.

10. OTHERS

10.1 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.

10.2 This certificate supersedes EC Type Examination Certificate No 07493/B0 EC , issued on 2004-01-15 by the Society.

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BUREAU VERITAS GOTHENBURG

