MARINE DIVISION

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Certificate number: 16005/A2 EC

File number : RAD 4/28725/2

Annex A1 Item number : A.1/5.3

This certificate is not valid when presented without the full attached schedule composed of 7 sections

EC TYPE EXAMINATION CERTIFICATE

as per Module B of European Union Council Directive 96/98/EC on marine equipment
as last amended by Commission Directive 2002/75/EC of 2 September 2002

This certificate is issued to

Japan Marina Co., Ltd.

Tokyo - JAPAN

for the type of product

NAVTEX RECEIVER

Navtex receiver Type: NT-2000 / DEBEG 2902 / ALDEN AE-2000

Regulations and standards :
SOLAS 74, as amended, Regulations IV/7.1.4, X/3, IMO Resolution MSC.36(63)14.6.1.4(1994 HSC Code), MSC.97(73)14.7.1.4(2000 HSC Code), A.525(13), A.694(17), MSC.148(77), ITU-R M.540-2(06/90), ITU-R M.625-3(10/95), IEC 61097-6(1995), IEC 60945 (2002), IEC 61097-6(ed2-2005), IEC 61162-1, IEC 61162-2.

This certificate is issued under the French Maritime Authority to attest that BUREAU VERITAS did undertake the relevant type-examination procedures for the product identified above which was found to comply with the relevant requirements of the Council Directive 96/98/EC of 20 December 1996 as amended

This certificate is valid until : 22 Nov 2010

At Paris la Défense, on : 22 Jun 2007

For BUREAU VERITAS, Notified Body N°0062
By order of the Secretary

L.COURREGELONGUE

Approval office

Local office : BV KOBE
Surveyor : M. Kakimoto

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION :

Navtex receiver Type: NT-2000 / DEBEG 2902 / ALDEN AE-2000

The equipment comprises:
- radio receivers
- a signal processor
- a dedicated display device
- printer output port and a thermal printer (option)
- a non-volatile message memory
- connection to an integrated navigation system (INS).

1.1 Main Features:

1.1.1 Receiving Frequency:
518 kHz(first receiver), 490 kHz & 4209.5 kHz (second receiver)

1.1.2 Type of Reception:
FIB, (FEC) mode

1.1.3 Sensitivity:
Better than 1 µV/ 50 ohm ant. input

1.1.4 Input Protection:
Capable of withstanding 30V rms of RF signal

1.1.5 Display screen:
8-inch color VGA TFT LCD, daylight-viewing

1.1.6 Navtex Messages:
40 characters per line, 18 lines per screen

1.1.7 Message Storage:
capacity: 200 messages of average length 500 characters

1.1.8 Message tagging/Protection:
Permanent storage in up to 25% of non-volatile memory (equivalent to approx. 50 messages)

1.1.9 External I/O Specifications:
- Printer interface: RS-232C
- IBS/INS: RS-422
- Additional I/O port: I/O DATA
- Approved sentences as per NMEA 0183/ IEC 61162-1

1.1.10 Power Requirements: 24VDC

1.1.11 Printer Specifications:
PR-900 and DEBEG 9529: Thermal moving head type, 40 characters/line

1.1.12 Active Antenna Specifications:
Type: 3-frequency active Whip antenna, 1.2 m, with preamplifier

1.1.13 Software version: 1.3

2. DOCUMENTS AND DRAWINGS :

2.1 - Technical Specification dated Sep. 2005.
2.2 - Drawing and bill of material ref. BV: DT3/05/02495/KER/NF & 3051212/1.
2.3 - Operation & Installation Manual:
UM-NT2000-12 - 2nd Ed. dated Jan. 2007
2.4 - DEBEG 2902 Operation & Installation Manual:
UM2902-V3, 3rd Ed. dated Feb. 2007
2.5 - AE-2000 Instruction Manual:
UM-AE2000-2.0, 2nd Ed. dated Feb. 2007
2.6 - Manual (s) for installation, use and maintenance to be stamped by a Society's Surveyor. To be available in one of the IMO languages, in addition to ship's flag language.
2.7 - Before changes can be implemented, new drawings must be provided to Bureau Veritas for review and acceptance. The new drawing list will be stamped and endorsed accordingly.

3. TEST REPORTS :

3.1 - JMC Test report N° T2005005 dated Oct. 2005 and N° T2005005-2 dated April, 2007
(tests witnessed by a Society Surveyor).
3.2 - Tokimec test report N° BV-NT2000-TA-01 dated 06/Jun./2005.
3.3 - Research Institute of Marine engineering Test report N° 05-113(E) dated 10/Jun./2005.
3.4 - KENTA Test reports N° 203869 & 203873 dated October 2005.
3.5 - Reviewed for validation by the Society.
3.6 - The equipment has been tested in accordance with:
- IEC 61097-6 Ed2 (2005),
- IMO resolutions MSC.148(77) and A513(13).

4. APPLICATION / LIMITATION :

As per requirements of Regulations stated on front page of this certificate.

5. PRODUCTION SURVEY REQUIREMENTS :

5.1 - The Manufacturer shall have a quality control system audited by a competent authority to ensure continuous compliance with the type approval conditions.

5.2 - Each Navtex Receiver intended to be fitted onboard a ship registered to a national register adhering to the directive shall be delivered with a Declaration of Conformity, which shall be signed by the manufacturer.

5.3 - Each equipment is to be supplied with Manual (s) for installation, use & maintenance (cf. §2 above).

6. MARKING OF PRODUCT :

6.1 - Maker's name or trade mark,
- Serial number of the units,
- Equipment type number or model identification under which it was type-tested,
- Minimum safe distance at which the equipment may be mounted from a standard and a steering magnetic compass,
- ⊙ conformity mark and number of the Notified Body undertaking surveillance module (where BV, 0062),
- Last two digits of year mark affixed.

6.2 - Markings as detailed in article 11 of the Directive, must not be applied until the relevant modules 'D', 'E' or 'F' certificate has been issued to the manufacturing works by the notified body.
6.3 - Alternatively, the marking may be presented on a display at equipment start- up.
6.4 - The title and version of each software element included in the installed software system shall be either marked or displayed on command on the equipment.
6.5 - When the marking and the title and version of the software are displayed only on the display, such information shall also be included in the equipment manual.

7. OTHERS :

7.1 - This approval is given on the understanding that the Society reserves the right to require check tests to be carried out on the Navtex Receiver at any time, and that **Japan Marina Co., Ltd, Tokyo - Japan**, will accept the responsibility for informing shipbuilders or their sub-contractors of the proper methods of use and general maintenance of the Navtex Receiver and of the conditions of this approval.

7.2 - This certificate supersedes the Type Approval Certificate N° 16005/A1 EC issued on 06/10/2006 by the Society.

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