

Type Approval Certificate



Germanischer Lloyd

This is to certify that the undemoted product(s) has/have been tested in accordance with the relevant requirements of the GL Type Approval System.

Certificate No. **44 540 - 07 HH**

Company **Veinland GmbH
Pappelallee 19
14554 Seddiner See, GERMANY**

Product Description **Electronic Chart Display and Information System
(ECDIS)**

Type **Navmaster ECDIS**

Environmental Category **C; EMC 1**

Technical Data /
Range of Application **Electronic Chart Display and Information System
(ECDIS) with backup and Raster Chart Display System**

Computer :
**ISIC PCM4
Motherboard D945GNTL ATX
Graphical card Matrox G550
Interface unit Moxa CP-132UL-V2; Moxa CP-134U; Moxa CP-102U;
Moxa C-218 with OPT 8F connection board
Radar overlay card C-Map ADSP 160
Key board Cherry G84xx
Track ball "Mousetrack"**

Monitor :
ISIC MON 2000M1

Test Standard **Guidelines for the Performance of Type Approvals Part 2, Edition 2003
Regulations for the Use of Computers and Computer Systems**

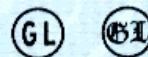
Documents **Test report : DANAK-198084; 2005-3356; DANAK-198181; DANAK-198057; Nemko
45157; Mariner 05.10.2004; 6542/080370/2004/S3330; Navmaster ECDIS Installation
Guide : Marking 2005; Navmaster User Guide Version 6.0.4.1; MED-B-3550 dated
2006-04-06**

Remarks **See Page 2**

Valid until **2012-03-25**

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File No. I.F.09

Hamburg, 2007-03-26

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J. Wittburg
Jürgen Wittburg

A. Grün
Andrea Grün

This certificate is issued on the basis of "Guidelines for the Performance of Type Approvals Part 1, Procedure".



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Software Version :

Navmaster ECDIS Ver. 6.0.4.x

C-Map SDK Ver. 3.6.1.3

IHO presentation library Ver. 3.3

Operating System :

Microsoft Windows XP; Service Pack 2

Remarks:

The installation shall be installed and tested on board according to the commissioning test procedure (described in the Installation and User Manual).

The Radar overlay function is not tested and not covered by this certificate.

The Navmaster ECDIS is found to comply with the requirements for ECDIS in RCDS mode of operation when using HCRF navigational data format.

A dual installation of Navmaster ECDIS is found to comply with the requirements for ECDIS with back-up arrangements.

The Navmaster ECDIS has been additionally assessed and found compliant with the recommendations of SN/Circ. 217 and relevant parts of SN/Circ. 243.

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