DNV·GL

EC-TYPE EXAMINATION CERTIFICATE

Certificate No:
MED-B-9978
Item No:
A.1/4.30
Job Id:
344.1-004531-1

Application of: Council Directive 96/98/EC of 20 December 1996 on Marine Equipment as amended by directive 2013/52/EU, issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Directorate. This Certificate is issued by DNV GL AS under the authority of the Government of the Kingdom of Norway.

This is to certify:

That the Electronic Chart Display and Information System (ECDIS)

with type designation(s)
ECDIS Navigator I, II, III, IV and V.

Issued to
Intermarine Electronics S.A.
Moschato, Greece

is found to comply with the requirements in the following Regulations/Standards:
Annex A.1, item No. A.1/4.30 and Annex B, Module B in the Directive. IMO Resolutions A.694(17), MSC.191(79) & MSC.232(82)

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

Høvik, 2015-06-01
for **DNV GL AS**

Marianne Strand Valderhaug
Head of Department

Notified Body No.: **0575**

DNV GL local office:
Piraeus

This Certificate is valid until
2016-01-31

Frederik Tore Elter
Surveyor

The Certificate is subject to terms and conditions overleaf. Any significant changes in design or construction of the product, or amendments to the Directive or Standards referenced above may render this Certificate invalid. The product liability rests with the manufacturer or his representative in accordance with Council Directive 96/98/EC, as amended. The Mark of Conformity may only be affixed to the product and a Declaration of Conformity may only be issued when the production/product assessment module referred to in the council directive, is fully complied with.

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Product description

ECDIS Navigator I, II, III, IV and V:

- ECDIS Navigator I, II and III consist of separate display, computer, keyboard, interface unit and optional UPS and radar overlay interface.
- ECDIS Navigator IV and V consist of integrated panel computer, keyboard, interface unit and optional UPS and radar overlay interface.

See Appendix for details.

Application/Limitation

See Appendix.

Type Examination documentation

See Appendix.

Tests carried out

- Performance testing, IEC61174 (2008)
- Environmental testing, IEC 60945 (2002)
- Serial interface testing, IEC 61162-1 (2010)
- Presentation of navigation information, IEC 62288 (2008)

Marking of product

The manufacturer and Type Destination to be applied to the equipment in a clearly visible location and in addition the equipment shall be marked with serial number, safe distance to magnetic compass, power consumption and/or supply voltage.

Mark of Conformity

The manufacturer is allowed to affix the Mark of Conformity according to Article 11 in the Council Directive 96/98/EC on Marine Equipment and shall issue a Declaration of Conformity, only when the module D or E or F of Annex B in the same directive is fully complied with.

Module D: The quality system for production and testing shall be approved by the Notified Body.

Module E: The quality system for inspection and testing shall be approved by the Notified Body.

Module F: Compliance of the products to type as described in this EC Type-Examination Certificate must be verified by the Notified Body who also shall issue a Certificate of Conformity.

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Product description

System hardware components:

Type	Unit	Unit Type designation
ECDIS Navigator I	Display 19 inch	IME5019
	Keyboard inc. trackball	IME5100 KEYBOARD
	Computer	IME5000 Main Unit
	Trackball Unit	M570
ECDIS Navigator II	Display 23 inch	IME5023
	Keyboard inc. trackball	IME5100 KEYBOARD
	Computer	IME5000 Main Unit
	Trackball Unit	M570
ECDIS Navigator III	Display 24 inch	IME5024
	Keyboard inc. trackball	IME5100 KEYBOARD
	Computer	IME5000 Main Unit
	Trackball Unit	M570
ECDIS Navigator IV	Display 19 inch, with integrated computer	IME6019
	Keyboard inc. trackball	IME5100 KEYBOARD
	Trackball Unit	M570
ECDIS Navigator IV	Display 24 inch, with integrated computer	IME6024
	Keyboard inc. trackball	IME5100 KEYBOARD
	Trackball Unit	M570
Interface	MNEA interface units (ECDIS to includes at least one of listed units)	IME5600
		IME5200
		IME5300
	Radar Overlay Unit	RPU 1.2
UPS		IME5400

Above listed ECDIS components may be delivered mounted in ECDIS Navigator Pedestal.

System software:

Software: Intermarine ECDIS version 6.0.0.x
SDK: SDK version 5.2.7.x
Presentation library: 3.4
Operation system: Windows 7 professional (x32)

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Application/Limitation

- The ECDIS Navigator is to be installed in accordance to installation documentation
- System may be installed with optional RADAR overlay unit.
- Interface to backup ECDIS on LAN.
- ECDIS Navigator supports presentation of radar targets, interfacing from radar by serial NMEA messages TLL and TTM.
- ECDIS Navigator may present anti-collision function, piracy and weather overlay.

Type Examination documentation

DNVGL No.	Title	Document No.
69	Report: IHO S-63 ed 1.1 - IEC61174 Annex J Test	
68	Report: Test report Navigtor ECDIS	
59	Manual: InterMarine ECDIS UserManual En May 2015	
58	Report: DNV_TA_tests_interface[16-17 April 2015]	
53	Manual: Radar Processor Unit 1.2 Technological Indicator Users Manual ver.1.3	
52	Manual: Radar Processor Unit 1.2 Installation Guide ver.1.3	
51	Manual: Radar Processor Unit 1.2 Connection Guidelines ver.1.1	
50	Manual: Operation Manual for Setting up RPU-1.1 ver.1.1	
46	Manual: Intermarine_ECDIS[IV-V]_InstallationManual_V2	
45	Manual: Intermarine_ECDIS[I-II-III]_InstallationManual_V2	
43	Report: A507031 - DANAK 1911050 - Jeppesen Norway - RPU1.2	
40	Report: BSH Color tabel for DUSK	
37	Report: Tests IHO S-63	
34	ReportTest Report-503835-E - ECDIS NAVIGATOR I II III	503835-E
33	Report: Test report 503834-E - ECDIS NAVIGATOR I II III	503834-E
30	Manual: Interface MANUAL IME 5600 8NMEAto1E-2.1_1.3	
29	Manual: Interface IME5300_manual_en	

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Type Examination documentation, cont.

DNV GL No	Title	Drawing No
28	Manual: Interface IME5200 (8 CHANNEL) interface	
12	Report: ECDIS NAVIGATOR IV IME 6019 - IEC6019 - 503987-2-E	503987-2-E
11	Report: ECDIS NAVIGATOR V IME6024 - IEC60945 - 503987-1-E	503987-1-E
10	Report: ECDIS NAVIGATOR IV IME 6019 - IEC60945 - 503986-2-E	503986-2-E
9	Report: ECDIS NAVIGATOR V IME 6024 - IEC60945 - 503986-1-E	503986-1-E
8	Report IEC60945 - 503835E	503835E
7	Report: IEC60945 - 503834E	503834E

Place and date
HØVIK, 2015-06-01

Frederik Tore Elter

END OF CERTIFICATE