



## EC TYPE EXAMINATION (MODULE B) CERTIFICATE

No.	<b>03-001536/031232</b>
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### THIS IS TO CERTIFY:

That Croatian Register of Shipping did undertake the relevant type approval procedures for the equipment identified below which was found to be in compliance with requirements of Marine Equipment Directive (MED) 96/98/EC as last amended by directive (EU)2015/559, subject to any conditions in the schedule attached hereto.

### TYPE AND DESCRIPTION OF PRODUCT

**MX575D / HS80A - GPS/DGPS Compass with GLONASS**

### ANNEX A.1 NO AND ITEM DESIGNATION

A.1/4.41 – Transmitting heading device (THD) (GNSS method)

### MANUFACTURER:

**NAVICO HOLDING AS**  
**Nyåskaiveien 2, 4374 Egersund – Norway**

### REGULATIONS AND STANDARDS (in accordance with Annex A.1, Directive)

SOLAS 1974 as amended, Reg. V/19  
 IMO Res. A.694(17), IMO Res. MSC.116(73), IMO Res. MSC.191(79).

### NOTICE:

1. Further details of the product and conditions for certification are given overleaf.
2. This certificate will not be valid if the manufacturer makes any changes or modifications to the approved equipment, which have not been notified to, and agreed with the notified body named on this certificate.
3. 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.
4. The Mark of Conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-control phase module (D, E, or F) of ANNEX B of the Directive is fully complied with and controlled by a written inspection agreement with a notified body.
5. In case limitations of use apply, these should be indicated of in the Schedule of Approval.

Issued by Croatian Register of Shipping, notified body number 2489.

This certificate is valid until: **2020-07-25**

Place and date: **Split, 2016-07-25**

Seal

Signature

**Marinko Popović, dipl.ing.**

## THE SCHEDULE OF APPROVAL

### 1. PRODUCT DESCRIPTION

*MX575D/HS80A GPS/DGPS Compass with GLONASS system consists of the following components:*

		<i>Item name</i>	<i>Part No.</i>
1.	<i>Receiver and antenna</i>	<i>MX575D HS 80A</i>	<i>000-11644-001 000-11643-001</i>
2.	<i>User interface unit</i>	<i>MX610 or/and MX612 or/and GN70</i>	<i>000-10914-001 000-10915-001 000-10913-001</i>
3.	<i>Junction box</i>	<i>MX610JB MX612JB</i>	<i>000-11139-001 000-10916-001</i>

### 2. APPLICATION/LIMITATION OF USE

*Product is re-certified against latest edition of the standard IEC 62288 Ed. 2.0 (2014-07) – Presentation of navigation information.*

<i>Standard-Magnetic and Steering-Magnetic compass safe distance</i>	<i>300 mm</i>
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### 3. DESIGN DRAWINGS AND SPECIFICATIONS

*HS80/HS80A/MX575C/MX575D GPS Compass Manual – P/N 988-10221-003;*

*GN70/MX610/612 Operator and Installation Manual – P/N 988-10372-003.*

### 4. TYPE TEST RECORDS/LABORATORY RECOGNITION STATUS

*IEC 61108-1 Ed.2.0, 2003 – Global positioning system (GPS) – Receiver equipment – Performance standards;*

*IEC 61108-2 Ed.1.0, 1998 – Global navigation satellite system (GLONASS) –Receiver equipment – Performance standards;*

*IEC 61108-4 Ed.1.0, 2004 – Shipborne DGPS and DGLONASS maritime radio beacon receiver equipment – Performance requirements;*

*IEC 61162-1 Ed.4.0, 2010 – Maritime navigation and radiocommunication equipment and systems – Digital interfaces;*

*IEC 61162-3 Ed.1.1, 2010 – NMEA2000;*

*IEC 60945 Ed. 4.0 (2002-08) including Corrigendum 1(2008) – Environmental testing;*

*IEC 62288 Ed. 2.0 (2014-07) – Presentation of navigation information, CRS witness test – Egersund, 2016-05-13;*

*CRS letter of approval – 1741/TSE/VB/031175 dated 2016-07-12 (All Technical Documents & Test Reports included).*

### 5. MATERIALS OR COMPONENTS REQUIRED TO BE TYPE APPROVED OR TYPE TESTED

*This approval remains valid for subsequent minor software amendments, as allowed by the SW numerical format.*

*Written details of any such modification shall be submitted to and accepted by the approvals authority.*

### 6. OTHER MATERIALS AND/OR COMPONENT

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### 7. PRODUCTION SURVEY REQUIREMENTS

*The manufacturer is allowed to affix the Mark of Conformity to equipment referred and to issue a Declaration of Conformity as long as either of the following is fulfilled:*

*Module D – The quality system for production and testing shall be approved by the Notified Body or,*

*Module E – The quality system for inspection and testing shall be approved by the Notified Body or,*

*Module F – Compliance of the product in this EC Type Examination Certificate is to be verified by the Notified Body who shall also issue a Certificate of Conformity.*

### 8. ONBOARD INSTALLATION AND MAINTENANCE REQUIREMENTS

*The installation on board shall be verified and tested according to Installation & Operation Manual.*

**9. MARKING AND IDENTIFICATION**



Subject to compliance with the conditions in this Schedule of Approval which forms part of certificate, and those of Articles 10.1(i) and 11 of the Directive, the Manufacturer is allowed to affix the "Mark of Conformity" to the Product described herein.

2489/yy (yy = last two digits of year mark affixed)

**10. OTHERS**

SOFTWARE:

Item name	SW version
MX610/MX612/GN70	1.1.xx
MX610JB/MX612JB	1.1.xx
HS80A/MX575D	1.51.x

**APPENDIX – TYPE EXAMINATION DOCUMENTATION**

	Document title	Identification number	Revision index
1.	GNSS sat. nav. Receiver equipment, P204 GNSS receiver module Hemisphere GNSS Inc. Test Standards: IEC 61108-1:2003 IEC 61108-2:1998 IEC 61162-1:2010	BSH/4542/001/4112550/13-S3301	25. September 2013
2.	Transmitting heading device (THD) system Hemisphere GPS Inc Test Standards: IEC 61162-1/-2 IEC 60945:2002 ISO 22090-3	BSH/4615/4030330/07	30 July 2007
3.	Transmitting heading device (THD) system Hemisphere GPS Inc Test Standards: IEC 61162-1:2010 IEC 61162-2:1998	BSH/4612/4412065/11-2	14.03.2012
4.	Differential GPS Beacon Receiver Modul, SBX4 DGPS modul CSI Wireless, Hemisphere GPS Test Standard: IEC 61108-4 Ed.1:2004	BSH/4615/4120131/05	12. July 2006
5.	Transmitting heading device (THD) system Hemisphere GPS Inc Test Standards: ISO 22090-3:2004	BSH/4612/4412612/13	23.10.2013
6.	Transmitting heading device (THD) system Hemisphere GPS Inc Test Standards: IEC 61162-1:2010 IEC 61162-2:1998	BSH/4612/4412065/12-5	14.03.2012
7.	Environmental Testing of the MX575D Electronic Test Centre – MPB TECHNOLOGIES INC.	H10p5102 release 1	2013-09-05
8.	Mechanical Testing of the MX575D Electronic Test Centre – MPB TECHNOLOGIES INC.	H10p4667 release 04	2012-02-06
9.	MX575D Corrosion waiver Hemisphere GPS Inc.	-	January 6 <sup>th</sup> , 2012
10.	MX575D – EMC test Electronic Test Centre – MPB TECHNOLOGIES INC.	h10e5101-3 release 3	2013-11-19
11.	MX575D – Safe distance to Standard magnetic and Steering magnetic compass, BSH Germany	837	

**- END OF CERTIFICATE -**