

TYPE EXAMINATION CERTIFICATE – EC MODULE B

Certificate no.:
MEDB00008DM

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED). This Certificate is issued by DNV SE based on the notification of the Federal Maritime and Hydrographic Agency of Germany.

This is to certify:

that the Transmitting heading device THD (GNSS method)

with type designation(s)
NAVISTAR

issued to

Sperry Marine B.V. - German Branch
Hamburg, Germany

is found to comply with the requirements in the following Regulations/Standards:

Regulation (EU) 2024/1975,

item No. MED/4.41. SOLAS 74 as amended, Regulations V/18, V/19 & X/3, IMO Res. A.694(17), IMO Res. MSC.36(63), IMO Res. MSC.97(73), IMO Res. MSC.116(73), IMO Res. MSC.191(79), IMO Res. MSC.302(87)

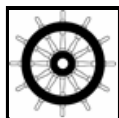
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2030-08-18**.

Issued at **Hamburg** on **2025-08-19**

DNV local unit:
Hamburg – CMC North/East

Approval Engineer:
Jörg Rebel



Notified Body
No.: **0098**

for **DNV SE**

Mydlak-Röder, Christine
Head of Notified Body

A U.S. Coast Guard approval number will be assigned to the equipment when the production module has been completed and will appear on the production module certificate (module D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU.

This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV SE of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled. Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to USD 300 000.

The transmitting heading device (THD) type NAVIGAT S consists of the following components necessary for operation:

<i>Mandatory components:</i>	<i>Part number</i>	<i>Software</i>
GNSS Antenna type NAVISTAR 2	060461-0000-xxx	1.7.x
Redundancy module	060462-0000-xxx	
Converter and Amplifier Unit	074904-0000-xxx	3.xxx
Converter and Amplifier Board	025826-0000-xxx	3.xxx
incl. CAB/CAU Main PCB	020760-0000-xxx	3.xxx
Data Distribution Unit (DDU)	074907-0001-xxx	3.xxx
	or 074907-0002-xxx	3.xxx
NAVITWIN V	074902-0001-xxx	3.xxx
	or 074902-0002-xxx	3.xxx

The following repeater may be used:

Steering Repeater (console mounted)	074881-0001-xxx
Steering Repeater (console mounted) (permanent magnetic heading)	074882-0001-xxx
Repeater (bulkhead mounted)	074883-0001-xxx
Bearing Repeater	074880-0001-xxx
Bearing Repeater	074926-0000-xxx
with	
Bearing Repeater Stand	074887-0000-xxx
Bearing Repeater Stand	or 074911-0000-xxx
or	
Bearing Repeater Bracket	074886-0000-xxx
Bearing Repeater Bracket (height adjustable)	or 074888-0000-xxx
Terminal Box	074859-0000-xxx

Application/Limitation

- The equipment is able to provide position data on the serial output.
- This Certificate does not cover approval of the equipment as GPS (item MED/4.63).

Type Examination documentation

DNV No.	Document ID	Rev.	Description
12	056372	L	Manual: System operation, installation and service - CompassNet
11	5017-0141-36	A	Report: Sperry Marine, Tests for integration of NAVISTAR 2 to CompassNet acc. to ISO 22090-3 (2014) and IEC 62923-1/-2
10	5017-0141-35	A	Report: Sperry Marine, Tests for integration of NAVISTAR 2 to CompassNet
9	155-25	1	Report: Treo, Tests for Redundancy Module (Part number 060462-000-000) acc. to IEC 60945, 10.9
8	PTR-02110-001	2022-08-09	Report: ComNav, Tests for G2/G2B acc. to IEC 61162 (2016), 8.3.77 (RMC)
7	BSH/4612/4413108/17-2	2017-03-06	Report: BSH, Tests for G2 acc. to ISO 22090-3 (2014), 6.6 and 6.7
6	BSH/4612/4413108/17	2017-02-21	Report: BSH, Tests for G2 acc. to ISO 22090-3 (2014), 4.8, 4.9, 6.3 and 6.4
5	BSH/4612/4412617/13-1	2013-10-10	Report: BSH, Tests for G3 acc. to IEC 61162-1 (2010) and IEC61162 (1998)
4	BSH/4612/4412617/13	2013-10-10	Report: BSH, Tests for G3 acc. to ISO 22090-3 (2004)
3	-	2013-09-06	Statement: ComNav, Waiver acc. to IEC60945, 8.12.1
2	11121-1S	2013-09-11	Report: LabTest Cert, Tests acc. to IEC60945, 7.2, 8.2 to 8.4, 8.7, 8.8 and 11.2
1	11121-1E	2013-05-28	Report: LabTest Cert, Tests acc. to IEC60945, 9 and 10

Tests carried out

- Environmental and EMC testing: IEC 60945 (2002) incl. Corrigendum 1 (2008)
- Interface testing: IEC 61162-1 (2016), IEC 61162-2 (1998)
- Presentation testing: IEC 62288 (2021)

- Bridge alert management testing: IEC 62923-1 (2018) and IEC 62923-2 (2018)
- Performance testing: ISO 22090-3 (2014)

Marking of product

According to IEC 60945, Sect.4.9:

The product to be marked with following information, where practicable:

- Identification of the manufacturer,
- Equipment type number or model identification under which it was type tested,
- Serial number of the unit,
- Compass safe distance.

Alternatively, the marking may be presented on a display at equipment start-up, and in case of fixed equipment compass safe distance may be given in the equipment manual.

END OF CERTIFICATE