DNV·GL

Certificate No:
MEDB00002MG

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

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

This is to certify:

That the Magnetic compass – Class A for ships

with type designation(s)
JUPITER

Issued to
Northrop Grumman Sperry Marine B.V. - German Branch
HAMBURG, Germany

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2017/306,**
item No. MED/4.1. SOLAS 74 as amended, Regulations V/18, V/19 & X/3, IMO Res. A.382(X), IMO Res. A.694(17), IMO Res. MSC.36(63), IMO Res. MSC.97(73), IMO Res. MSC.302(87)

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

This Certificate is valid until **2022-05-31**.

Issued at **Hamburg** on **2017-06-01**

DNV GL local station:
Hamburg

Approval Engineer:
Jan Reinecke

Notified Body
No.: **0098**

for **DNV GL SE**

Sven Dudszus
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), as allowed by the "Agreement between the European Community and the United States of America on Mutual Recognition of Certificates of Conformity for Marine Equipment", signed February 27th, 2004.

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-surveillance 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 GL 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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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.

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Job Id: **344.1-006913-1**
Certificate No: **MEDB00002MG**

Product description

1. Standard Compass:

- Magnetic compass Class A (N under N) to use alternatively with the binnacles:	Type: 2060, Trade name: JUPITER
- Binnacle with correcting devices	Type: 2486
- Binnacle with correcting device alternatively with B-C correcting system with optical transmission (Reflection tube) max. length 4000mm	Type: 4054, Trade name: NAVIPOL I
- Binnacle as NAVIPOL I without optical transmission (Reflection tube) with hood	Type: 4085, Trade name: NAVIPOL II
- Binnacle as NAVIPOL I without optical transmission (Reflection tube) with hood and window	Type: 4105, Trade name: NAVIPOL III
- Binnacle with correcting devices alternatively card height shortens up to 870mm alternatively with B-C correcting system	Type: 4297, Trade name: NAVIPOL I M
- Binnacle with correcting devices	Type: GFK-BII, TKH-10, GFK-B Manufacturer: W. Ludolph, Bremerhaven

2. Standard Compass:

- Magnetic compass Class A (N under S) to use alternatively with the binnacles:	Type: 2555, Trade name: Jupiter
- Binnacle with correcting devices	Type: GFK-BII, TKH-10, GFK-B Manufacturer: W. Ludolph, Bremerhaven

3. Steering Compass:

- Magnetic compass Class A (N under N) to use alternatively with the binnacles:	Type: 2060, Trade name: JUPITER
- Binnacle with correcting devices	Type: 2486
- Binnacle with correcting devices alternatively with B-C correcting system with optical transmission (Reflection tube) max. length 4000mm	Type: 4054, Trade name: NAVIPOL I
- Binnacle as NAVIPOL I without optical transmission (Reflection tube) with hood	Type: 4085, Trade name: NAVIPOL II
-Binnacle as NAVIPOL I without optical transmission (Reflection tube) with hood and window	Type: 4105, Trade name: NAVIPOL III
- Binnacle with correcting devices alternatively card height shortens up to 870mm alternatively with B-C correcting system	Type: 4297, Trade name: NAVIPOL I M
- Binnacle with correcting devices	Type: GFK-BII, TKH-10, GFK-B Manufacturer: W. Ludolph, Bremerhaven

4. Steering Compass:

- Magnetic compass Class A (N under S) to use alternatively with the binnacles:	Type: 2555, Trade name: JUPITER
- Binnacle with correcting devices	Type: GFK-BII, TKH-10, GFK-B Manufacturer: W. Ludolph, Bremerhaven

Application/Limitation
None

Type Examination documentation
Test Reports: Confirmation of specified standards by BSH dated 2012-06-26.

Manuals:
- Operation and Installation Manual JUPITER, 056016
- Description and Installation Mnaual NAVIPOL, 056012

Tests carried out
Applicable tests according to ISO 25862 (2009), ISO 1069 (1973), IEC 90645 (2002) incl. Corr. 1 (2008)

Marking of product
According to Article 10 of the Council Directive (MED):

- The wheel mark shall be affixed visibly, legibly and indelibly to the product or to its data plate and, where relevant, embedded in its software. Where that is not possible or not warranted on account of the nature of the product, it shall be affixed to the packaging and to the accompanying documents.
- The wheel mark shall be affixed at the end of the production phase.
- The wheel mark shall be followed by the identification number of the notified body, where that body is involved in the production control phase, and by the year in which the mark is affixed.
- The identification number of the notified body shall be affixed by the body itself or, under its instructions, by the manufacturer or the manufacturer's authorised representative.

For specific products, manufacturers may use an appropriate and reliable form of electronic tag instead of, or in addition to, the wheel mark.

END OF CERTIFICATE