

# EC CERTIFICATE TYPE EXAMINATION (MODULE B)

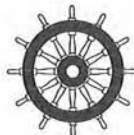
This is to certify that:

DNV GL SE, a Notified Body under the terms of the Marine Equipment Directive 96/98/EC of 20 December 1996, notified by the German Federal Ministry of Transport, Building and Urban Development, did undertake the relevant type approval procedures for the equipment identified below which was found to be in compliance with the requirements of Marine Equipment Directive (MED) 96/98/EC as amended, subject to any conditions in the schedule attached hereto.

Certificate No.	<b>37 959 - 12 HH</b>
Applicant	<b>Northrop Grumman Sperry Marine B.V. German Branch Woltmanstr. 19 20097 Hamburg, GERMANY</b>
Manufacturer	<b>Northrop Grumman Sperry Marine B.V. German Branch Woltmanstr. 19 20097 Hamburg, GERMANY</b>
Product Description	<b>Rate Of Turn Indicator (ROTI)</b>
Product Name	<b>Type 5021</b>
Trade Name	<b>NAVIGAT 3000</b>
Specified Standards	<b>IMO Resolutions: A.526 (13), A.694 (17), MSC.191(79), MSC.97(73), MSC.36(63), Testing Standards: IEC 61162-1 (2010), IEC6116-2 (1998), IEC 60945 (2002) + Corr.1 2008, ISO 20672 (2007), IEC 62288 (2014).</b>
Related Directive	<b>(EU) 2015/559</b>
Equipment Section	<b>Navigation equipment</b>
Annex A.1 Item No.	<b>A.1/4.9</b>
Date of Re-issue	<b>2016-06-13</b>
Expiry Date	<b>2021-06-12</b>

**DNV GL SE**

**Notified Body No.: 0098**



*Christine Mydlak-Röder*  
**Christine Mydlak-Röder**

Certificate No: 37 959 - 12 HH

Date of Re-issue: 2016-06-13

**Schedule of Approval**

**Further Places of Production**

Northrop Grumman LITEF GmbH; Lörracher Str. 18; 79115 Freiburg, GERMANY

**Approval Documentation**

Test report : Treo 047-12, Treo 057-12, Treo 082-12, BSH 762 NAVIGAT 3000, 120605-1-d\_NG\_Skorsby, 120606-1-d\_NG 3000\_SerialIn.

**Technical Data**

The Northrop Grumman Sperry Marine Fiber-Optic Gyrocompass NAVIGAT 3000 comprise of the following equipment necessary for functioning:

Mastercompass:	NAVIGAT 3000 Type: 5021
Interface and power supply unit:	Type: 4902
Control and Display Unit:	Type: 4995

The following repeater may be used:

ROT Display Unit	+-30deg/min	192mm	Type: 60372
ROT Display Unit	+-60deg/min	192mm	Type: 60421
ROT Display Unit	+-90deg/min	192mm	Type: 60379
ROT Display Unit	+-300deg/min	192mm	Type: 60380
ROT Display Unit	+-30deg/min	144mm	Type: 60368
ROT Display Unit	+-60deg/min	144mm	Type: 60393
ROT Display Unit	+-90deg/min	144mm	Type: 60369
ROT Display Unit	+-300deg/min	144mm	Type: 60370

**Documentation:**

Operation, Installation and Service Manual	NAVIGAT 3000	056362
Operation, Installation and Service Manual	Repeater Compass System	056359
Operation, Installation and Service Manual	Switch-Over Unit	056318
Operation, Installation and Service Manual	NAVITWIN IV	056350
Operation, Installation and Service Manual	Universal Digital Repeater	056351

**Remarks**

None

Certificate No: 37 959 - 12 HH

Date of Re-issue: 2016-06-13

**Limitations on the acceptance or use of the product**

none

**Notes:**

This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV GL SE, as the Notified Body, of any modifications or changes to the approved equipment. 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.

An 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.