

EC CERTIFICATE TYPE EXAMINATION (MODULE B)

This is to certify that:

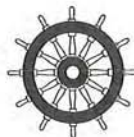
DNV GL SE, a Notified Body under the terms of the Marine Equipment Directive 96/98/EC of 20 December 1996, notified by the German Federal Ministry of Transport, Building and Urban Development, did undertake the relevant type approval procedures for the equipment identified below which was found to be 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.	94 420 - 10 HH
Applicant	Northrop Grumman Sperry Marine B.V. German Branch Woltmanstr. 19 20097 Hamburg, GERMANY
Product Description	Gyro Compass
Product Name	Type 4991
Trade Name	NAVIGAT X MK2
Specified Standards	IMO Resolution A.424 (XI), A.694(17), MSC.191(79) ISO 8728 (2014), IEC 60945, (2002) incl. corr.1 2008, IEC 62288 (2014), IEC 61162-1 (2010), IEC 61162-2 (1998).
Related Directive	(EU) 2015/559
Equipment Section	Navigation equipment
Annex A.1 Item No.	A.1/4.3
Date of Re-issue	2016-06-13
Expiry Date	2021-06-12

DNV GL SE

Notified Body No.: 0098

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Christine Mydlak-Röder
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Schedule of Approval

Approval Documentation

Test report : 04/4050-1, 06/6172-1-4 (60945 EMC), 6297/0045/04 (ISO8728, IEC61162), 5346A/B/04 (60945 Env), 6343b/08 (IPx6)

Technical Data

The Northrop Grumman Sperry Marine Gyrocompass NAVIGAT X MK2 comprises of the following equipment necessary for functioning:

Mastercompass:	NAVIGAT X MK2	Type: 4991
With Gyrosphere:		Type: 4911 or 5000
And Container Mod. 10/2 or Container Mod. 10/3		Type: 4991-2000 Type: 4991-4000
Heading Management System	NAVITWIN IV	Type: 4994
The following repeater may be used:		
Steering repeater (console mounted)		Type: 5016 AA
Steering repeater (console mounted)		Type: 4881
Steering repeater (console mounted)		Type: 4881 AA
Steering repeater (console mounted)		Type: 5016 AB
Steering repeater (console mounted)		Type: 4881 AD
(Magnetic, only in connection with NAVITWIN)		
Repeater (bulkhead mounted)		Type: 5016 AC
Repeater (bulkhead mounted)		Type: 4881 AC
Repeater (bulkhead mounted)		Type: 4881 AK
Bearing repeater		Type: 5016
Bearing repeater		Type: 4881 AB
Bearing repeater with		Type: 4881 AM
Bearing repeater stand		Type: 4622 AB or 4622 AC or 4622 AD
Bearing repeater stand (Sperry)		Type: 1812783
Bearing repeater bracket		Type: 4890
Bearing repeater bracket (height adjustable)		Type: 4905
Terminal box		Type: 4884
Terminal box		Type: 4894
Options:		
Compass Monitor	NAVITWIN III	Type: 4923
Voyage Data Printer (only in connection with NAVITWIN)		Type: 4805
Gyro Compass Control Unit		Type: 4926
Fluxgate Coil for Magnetic Compass		Type: 4863
Digital Tape Repeater		Type: DTR 600
Universal Digital Repeater (UDR)		Type: 4891
Multifunction Display	NAVIDATA	Type: 4806 AC
Multifunction Display	NAVIDATA	Type: 4806 AD

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Multifunction Display	NAVIDATA	Type: 4806 AE	
Switch over box		Type: 4932	
Splitter box		Type: 4936 or 4992	
Optoisolator		Type: 55555	
Power Supply		Type: 2568	
Documentation:			
Operation, Installation and Service Manual	NAVIGAT X MK2		056341 Rev. C , 08 May 2008
Operation, Installation and Service Manual	Repeater Compass System		056261 Rev. D, 04 May 1998
Operation, Installation and Service Manual	Switch-Over Unit		056318 Rev. A , 15 Sep 1999
Operation, Installation and Service Manual	NAVITWIN IV		056344 Rev. A , 16 Mar 2006
Operation, Installation and Service Manual	Universal Digital Repeater		056351 Rev. B , 04 Feb 2008

Remarks

None

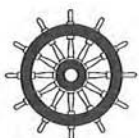
Limitations on the acceptance or use of the product

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.