




EC TYPE EXAMINATION (MODULE B) CERTIFICATE

This is to certify that:

LLOYD'S REGISTER VERIFICATION LIMITED (LRV), designated as a "notified body" under the terms of the Merchant Shipping (Marine Equipment) Regulations 2016 (S.I. 2016 No. 1025) did undertake the relevant type approval procedures for the equipment identified below which was found to be in compliance with the essential Navigation equipment requirements of Marine Equipment Directive (MED) 2014/90/EU and Commission Implementing Regulation (EU) 2018/773 indicating design, construction and performance requirements and testing standards for marine equipment, subject to any conditions in the Design Appraisal Document attached hereto.

Manufacturer (Applicant)	Northrop Grumman Sperry Marine BV
Address	118 Burlington Road New Malden Surrey, KT3 4NR United Kingdom (UK)
Reference Regulation Item (No & Item designation) USCg Category Number	Regulation 2018/773 MED/4.33 TRACK CONTROL SYSTEM (WORKING AT SHIP'S SPEED FROM MINIMUM MANOEUVRING SPEED UP TO 30 KNOTS) 165.112 TRACK CONTROL
Product Type	VisionMaster FT Panel PC, ECDIS with TRACK CONTROL Hardware component parts of the equipment above are listed in the attached design appraisal document. Software version: - 11.1.0
Product Description	Track Control System
Specified Standards	IMO Resolutions: A694(17), MSC191(79), MSC74(69), MSC302(87) IEC 60945 (2002) incl. IEC 60945 Corr. 1 (2008) IEC 61162-1 Ed5.0 (2016) and IEC61162-2 Ed1.0 (1998) IEC 62065 Ed2.0 (2014-02) IEC 62288 Ed. 2.0 (2014-07)

The attached Design Appraisal Document (schedule) forms part of this certificate.
This certificate remains valid unless cancelled or revoked, provided the conditions in the attached schedule are complied with and the equipment remains satisfactory in service.

Date of issue	12 June 2019	Expiry date	9 May 2024
Certificate No.	MED 1900012/M2	Signed	 Southampton City Office Lloyd's Register Verification Ltd. <small>LR422.2.2016.09</small>
Sheet No	1 of 6	Name	P. Huntley-Hawkins For and on behalf of Lloyd's Register Verification LRV EC Distinguishing No. 0038

Note:

This certificate is issued under the authority of the MCA.
This certificate is not valid for equipment; the design or manufacture of which has been varied or modified from the specimen tested. The manufacturer should notify the notified body named on this certificate of any modification or changes to the equipment in order to obtain a valid Certificate.

This equipment is covered by the scope of 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 and amended by Decision No.1/2018 dated February 18th, 2019 according to U.S. Coast Guard approval category USCG Module B number: 165.112/EC0038.

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)

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ATTACHMENT TO EC TYPE EXAMINATION (MODULE B) CERTIFICATE No. MED 1900012/M2

The undernoted documents have been appraised for compliance with the relevant requirements of International Conventions and European Union legislation for the EC Type Examination of Marine Equipment for use on Merchant Ships Registered in the European Economic Area.

This Design Appraisal Document (schedule) forms part of the Certificate.

This Certificate is an amendment of Certificate No. MED 1900012/M1.

HARDWARE DETAILS

Schedule 1 - Type numbers of processor and display unit.

- Processor - 65901AZ
- Panel PC - 65926AA
- PCIO Interface Unit - 65900AA or 65900AB
- Control Panel - 67003AF, 67003KF, 67003AH, or 67003KH
- Security Device - 32SDT005
- Network switch - RA00009746
- Navipilot 4000+ Control and Display Unit (CDU) - 4960 and software 020800-0000-000 Rev. k
- Navipilot 4000+ Steering Control Unit (SCU) - 4961 and software 020801-0000-000 Rev. k

NOTES:

1. The 32SDT005 Multi-node security device allows operation of an integrated multi display ships bridge. A security string defines the product type on all the nodes for a particular vessel's bridge operating plan. The product type must be set to ECDIS, ECDIS with Radar overlay or Total Watch as appropriate.
2. A Total Watch product enables operation as a Multi-function workstation and allows the operator to switch between Chart Radar, ECDIS and conning display. This certificate only applies to Track Control when the mode is set to ECDIS for a Total Watch system.
3. This approval remains valid for Minor software amendments, as allowed by the 11.1.x numeric format, where written details of the modifications have been submitted to and accepted by the Notified Body.
4. This equipment also provides a remote interface to the ships propulsion controller and is compliant with Route Based Speed Control as defined in IEC62065 Annex B, as well as standard Manual Speed Control.

Schedule 2 - Ancillary Units

- Network Serial Interface - 4802181
- External serial interface - 4801162
- Course mode joystick - 4303153
- Analogue Interface Assembly - 1982776
- Kit Format Units - 65900614, 65900670, 65900635 and 65900625
- Secure Maritime Gateway - 67050FA



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APPROVAL/EXAMINED DOCUMENTATION

QINETIQ/D&TS/SES/TC0703744	30.03.2007
QINETIQ/MS/EES/TC1001181	26.03.2010
Change Note 65901/075	14.03.2012
Change Note 65920/027	30.05.2013
Change Note JLR037 Issue 1	28.10.2016
Change Note JLR039 (SC4 EEPROM) Issue 2	14.03.2017
Change Note JLR042	15.06.2017
Change Note JLR043	26.06.2017
Change Note JLR045	02.01.2018
Change Note JLR047	21.03.2018
Change Note JLR048	22.05.2018
JLR050 (VMFT Panel PC & USB Trackball) Issue 2	14.01.2019
VisionMaster Technical File	10.06.2015
VMFT V7.0 Impact Assessment + Results	18.02.2015
VMFT V8.0 Impact Assessment + Results	15.04.2016
VMFT V9.0 Impact Assessment + Results	20.03.2017
IA-V10-NML-008 (Impact Assessment VMFT 10.0.0)	18.09.2017
IA-V10.0.1-NML-009, issue 3 (Impact Assessment VMFT 10.0.1)	13.02.2018
IA-V11.1-NML-012 (VMFT V11.1.0 Impact Assessment)	20.12.2018
GA-V11-NML-002 (Gap Analysis IEC 61162-1 Ed. 4 to Ed. 5)	18.10.2017
IA-V11-NML-011 (Impact Assessment VMFT V11.0.0)	11.12.2018
ECDIS User Guide, 65900012-13 Rev. C	
VisionMaster Ships Manual 65900011-18 Rev A	-
DNV-GL Type Approval Certificate 20513-11HH	03.11.2016
DNV GL Type examination certificate (Module B) MEDB00001Z6, Revision 2	29.09.2017

TEST REPORTS

DANAK-196393	04.09.2002
BO613465/1	24.12.2004
DNV 2005-3112	14.03.2005
EMV-05/5061-1	12.04.2005
ECDIS Monitor, LCD, Test Procedure and Report	13.04.2005
DANAK-198181	23.12.2005
DANAK-198236	20.01.2006
JA 340-8596-4	16.03.2006
JA 340-8596-2	08.05.2006
JA 340-8596-1	14.07.2006
MET EMC19618-EN60945	28.08.2006
TL1016	30.10.2006
QINETIQ/D&TS/SS/CR0607592/1.0	06.12.2006
Sperry Marine Report 5000657	28.06.2007
BSH 46162/0040380/07	12.09.2007



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DANAK-198899 Revision 2	10.12.2007
QINETIQ/EMEA/iX/CR070194/Issue 1.0	20.12.2007
QINETIQ/EMEA/iX/CR0802757/Issue 1.1	19.02.2008
QINETIQ/EMEA/iX/CR0709724/2	06.03.2008
DNV 2008-3142	11.03.2008
DNV 2008-3143	11.03.2008
QinetiQ/EMEA/iX/CR0709442	11.04.2008
DANAK-1910255	18.08.2008
QINETIQ/MS/EES/TSTR0801840/1	02.09.2008
DNV 2008-3464	18.09.2008
QinetiQ/MS/EES/TC0802918	17.10.2008
QinetiQ/MS/EES/TC0803242	14.11.2008
QinetiQ/MS/EES/TSTR0900216/1.0	29.01.2009
QinetiQ/MS/EES/TSTR0900779/1.0	24.02.2009
QinetiQ/MS/EES/TSTR0901740/1	20.04.2009
TL1316	29.06.2009
QINETIQ/MS/EES/TC0905317	14.12.2009
QINETIQ/MS/EES/TSTR0903808/3.0	14.12.2009
TUV 75906944 Report 01 Issue 1	14.01.2010
DANAK-1910681 Revision B	25.01.2010
DNV 2010-3124 rev. 2	19.08.2010
QINETIQ/TEG/TECS/TSTR1000030	24.08.2010
TUV 75909781 Report 02 Issue 1	22.10.2010
QINETIQ/TEG/TECS/TSTR1000308	02.02.2011
QINETIQ/TEG/TECS/TC1100272	03.07.2012
QINETIQ/MS/WD/TSTR1201598	13.08.2010
DANAK 1912564	02.11.2012
TUV 75919870 Report 04 Issue 1	April 2013
TUV 75921754 Report 01 Issue 1	April 2013
TUV 75931934 Report 01 Issue 1	December 2015
SP 4P07869	05.12.2014
SP 4P00022-2	06.05.2014
SP 5P05969-1	30.10.2015
NEMKO 254678	12.03.2014
DNV 2013-3038	03.04.2013
NEMKO 362879 Panel PC 26	06.11.2018
DANAK P18-0055-1	04.12.2018
SP 8P06394 CSD Panel PC	27.08.2018
TR-V10.0.1-NML-007 (Track Control with NaviPilot rev. J & K)	12.02.2018
TR-V10.0.1-NML-008 (IEC 61174 - 2015 Test Report)	12.02.2018
TR-V10.0.1-NML-009 (IEC 62065 - 2014 Test Report)	12.02.2018
TR-V10.0.1-NML-010 (IEC 62288 - 2014 Test Report)	12.02.2018
TR-V10.0.1-NML-011 (MSC.302(87) Test Report)	12.02.2018
TR-V10.0.1-NML-012 (System Performance Test)	13.02.2018
TR-V11.1-NML-020 (IEC 61174 - 2015 Test Report) Issue 2	14.01.2019



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TR-V11.1-NML-021 (IEC 62288 - 2014 Test Report)	20.12.2018
TR-V11.1-NML-023 (System Performance Test)	20.12.2018
TR-V11.1-NML-024 (System Performance Test)	03.01.2019
SP6P03819-2	13.09.2016
APPLICA Test and Certification, 21009, rev 0	10.02.2017
Hatteland Display, DOC102352-4, rev 2	03.04.2017
Hatteland Display, DOC102351-1, rev 2	05.04.2017
Hatteland Display, DOC102352-3, rev 1	11.11.2016
IST Test Report No. 94164	08.02.2018
TR-V11-NML-014 (IEC 62065 - 2014 Test Report)	12.11.2018
TR-V11-NML-015 (IEC 61162-1 - 2016 Test Report)	12.11.2018
TR-V11-NML-016 (IEC 61174 - 2015 Test Report)	12.11.2018
TR-V11-NML-017 (IEC 62288 - 2014 Test Report)	12.11.2018
TR-V11-NML-019 (System Performance Test)	12.11.2018
103230862LHD-001 (Intertek Environmental Test Report)	06.12.2017
103230862LHD-001 ISS 4 (Intertek EMC Test Report)	02.01.2018
416.095.1 (kmf_suv_magicnetgwr)	17.06.2016
416.095.2 (kmf_klima_magicnetgwr)	11.05.2016
416.095.3 (emc_nomatronics_magicnetgwr)	18.05.2016
962 (CSD_MagicNet)	08.03.2017

CONDITIONS OF CERTIFICATION

1. Production items of the subject equipment are to be manufactured in accordance with either an approved Production Quality Assurance system (Module D), a Product-Quality assurance system (Module E) or a Product Verification Process (Module F). The wheelmark cannot be affixed to the product until a conformity assessment module is in place
2. Each item, batch or lot of the equipment is to be issued with a "Declaration of Conformity" and have the "Mark of Conformity" affixed after a conformity assessment module is in place

SOFTWARE VERSIONS

11.1.0

STANDARDS NOT APPLICABLE

The following MED specified standards do not apply to this product:

IEC 61162-3 ed1.2 Consol. with am1 ed. 1.0 (2010-11) and am2 ed. 1.0 (2014-07)
IEC 61162-460 ed1.0 (2015-08)



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PLACE OF PRODUCTION

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LR422.2.2016.09

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UK and Ireland Technical Support Office, Marine & Offshore
For and on behalf of Lloyd's Register Verification
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