

Marine Equipment Directive EC Declaration of Conformity

Manufacturer: Northrop Grumman Sperry Marine B.V.

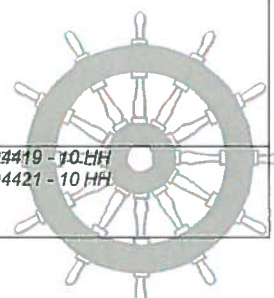
Woltmanstrasse 19

D-20097 Hamburg, Germany

Declaration: We hereby declare that the following specified equipment complies with the Marine Equipment Directive 96/98/EC, as amended by 2014/93/EU.
This equipment has been tested to verify compliance with the Regulations and Testing Standards as per EC Type Examination (B) and EC Quality System (D) issued by:
Notified Body No. 0098 Germanischer Lloyd

Magnetic compass (A.1/4.1)		
Type No.	Designation	EC TYPE EXAMINATION (B) Cert. No.: EC QUALITY SYSTEM (D) Cert. No.:
2060, 2555	Magnetic Compass JUPITER	94442 - 10 HH, 94443 - 10 HH
2486	Binnacle with correction devices	
4054, 4085, 4105, 4297	Reflection Binnacle NAVIPOL I, II, III, I M	
2695	Azimuth Device PV 24	
GFK-B II, GFK-B, TKH-10	Reflection Binnacle (W.Ludolph, Bremerhaven)	
PD 225, PD 81	Azimuth Device (W.Ludolph, Bremerhaven)	

Gyro compass (A.1/4.3)		
Type No.	Designation	EC TYPE EXAMINATION (B) Cert. No.: EC QUALITY SYSTEM (D) Cert. No.:
4913	Fiber-Optic Gyrocompass System NAVIGAT 2100	94416 - 10 HH, 94417 - 10 HH
4902	Interface and Power Supply Unit	
4892	Control and Display Unit	
4995	Control and Display Unit NAVIGAT 2100	37757 - 12 HH, 37758 - 12 HH
5021	Fiber-Optic Gyrocompass System NAVIGAT 3000	
4902	Interface and Power Supply Unit	
4995	Control and Display Unit	94418 - 10 HH, 94419 - 10 HH
4914, 4914 AA, 4914 CA	Gyrocompass System NAVIGAT X MK 1	
4911 + 5000	Gyrosphere	
4991-2000	Gyrosphere and Container Mod 10/2	94420 - 10 HH, 94421 - 10 HH
4991-3000	Gyrosphere and Container Mod 7/2	
4991-4000	Gyrosphere and Container Mod 10/3	
4926	Gyrocompass Control Unit	94416 - 10 HH, 94417 - 10 HH 94418 - 10 HH, 94419 - 10 HH 94420 - 10 HH, 94421 - 10 HH 37757 - 12 HH, 37758 - 12 HH
4991	Gyrocompass System NAVIGAT X MK 2	
4911 + 5000	Gyrosphere	
4991-2000	Gyrosphere and Container Mod 10/2	94416 - 10 HH, 94417 - 10 HH 94418 - 10 HH, 94419 - 10 HH 94420 - 10 HH, 94421 - 10 HH 37757 - 12 HH, 37758 - 12 HH
4991-4000	Gyrosphere and Container Mod 10/3	
4926	Gyrocompass Control Unit	
4923	Compass Monitor NAVITWIN III	94416 - 10 HH, 94417 - 10 HH 94418 - 10 HH, 94419 - 10 HH 94420 - 10 HH, 94421 - 10 HH 37757 - 12 HH, 37758 - 12 HH
4994	Heading Management System NAVITWIN IV	
4863	Fluxgate Coil For Magnetic Compass	
4881, 4881 AA, 5016 AA	Steering Repeater (Console Mounted)	94416 - 10 HH, 94417 - 10 HH 94418 - 10 HH, 94419 - 10 HH 94420 - 10 HH, 94421 - 10 HH 37757 - 12 HH, 37758 - 12 HH
4881 AB, 4881 AM, 5016	Bearing Repeater	
4881 AC, 4881 AK, 5016 AC	Repeater (Bulkhead Mounted)	
4881 AD, 5016 AB	Steering Repeater (Console Mounted) (Magnetic Heading)	94416 - 10 HH, 94417 - 10 HH 94418 - 10 HH, 94419 - 10 HH 94420 - 10 HH, 94421 - 10 HH 37757 - 12 HH, 37758 - 12 HH
4622 AB, 4622 AC, 4622 AD	Bearing Repeater Stand	
1812783	Bearing Repeater Stand	
4890, 4905	Bearing Repeater Bracket with Terminal Box	94416 - 10 HH, 94417 - 10 HH 94418 - 10 HH, 94419 - 10 HH 94420 - 10 HH, 94421 - 10 HH 37757 - 12 HH, 37758 - 12 HH
4884, 4894	Terminal box	
2535	Prismatic Azimuth Device PV 23	
4805	Voyage Data Printer NAVIPRINT	94416 - 10 HH, 94417 - 10 HH 94418 - 10 HH, 94419 - 10 HH 94420 - 10 HH, 94421 - 10 HH 37757 - 12 HH, 37758 - 12 HH
4806 AC, 4806 AD, 4806 AE	Multifunction Display NAVIDATA	
4932	Switch-Over Box	
4891	Universal Digital Repeater	94416 - 10 HH, 94417 - 10 HH 94418 - 10 HH, 94419 - 10 HH 94420 - 10 HH, 94421 - 10 HH 37757 - 12 HH, 37758 - 12 HH
DTR600	Digital Tape Repeater	
4992	Splitter Box	
4936	Splitter Box	94416 - 10 HH, 94417 - 10 HH 94418 - 10 HH, 94419 - 10 HH 94420 - 10 HH, 94421 - 10 HH 37757 - 12 HH, 37758 - 12 HH
2568	Power Supply Unit	
55555	Opto Isolator	



Speed and Distance Measuring Equipment (SDME) (A.1/4.7)

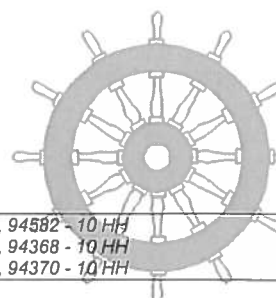
Type No.	Designation	EC TYPE EXAMINATION (B) Cert. No.:
5001, 5002	NAVIKNOT 350E, 350EE, 450D, 450DD, 550DD, 600S, 600SD, 600SDD, 600SDT, 600SE and SRD500A Control and Display Unit	60963 - 13 HH, 60967 - 13 HH
5003, 5004	Electronics Unit	
1982770	Electronics Unit	
4801387-1, 4801387-2, 5008, 5008-AA, 5008-AB	Satellite Antenna Unit	
2863-AA, 5005	Preamplifier	
2829, 4040, 4077, 4120, 4726, 4874, 4910, 4979, 4983, 5020, 0718-013, 1976121, 1981337, 1981337-VAR, 1982769-VAR, 1982809-VAR	Transducer	
4978-5000	Adaptor flange	
60381	Speed Indicator (-5 to 25 kn)	
60382	Speed Indicator (-5 to 40 kn)	
60383	Speed Indicator (-5 to 60 kn)	
60384	Speed Indicator (-5 to 25 kn)	
60385	Speed Indicator (-5 to 40 kn)	
60386	Speed Indicator (-5 to 25 kn)	
60387	Speed Indicator (-5 to 25 kn)	
4891	Universal Digital Repeater UDR	

Rate of Turn Indicator (A.1/4.9)

Type No.	Designation	EC TYPE EXAMINATION (B) Cert. No.:
4913	Gyrocompass / Rate-of-turn Indicator NAVIGAT 2100	94422 - 10 HH, 94423 - 10 HH
4902	Interface and Power Supply Unit	
4892	Compass Monitor Control and Display Unit	
4995	Control and Display Unit NAVIGAT 2100	37959 - 12 HH, 37960 - 12 HH
5021	Gyrocompass / Rate-of-turn Indicator NAVIGAT 3000	
4902	Interface and Power Supply Unit	
4995	Control and Display Unit	94424 - 10 HH, 94425 - 10 HH
4914, 4914 AA, 4914 BA, 4914 BB, 4914 CA	Gyrocompass / Rate-of-turn Indicator NAVIGAT X MK 1	
4911, 4911 AA, 5000, 5000 AA	Gyrosphere	
4991-2000	Gyrosphere and Container Mod 10/2	
4991-3000	Gyrosphere and Container Mod 7/2	
4991-4000	Gyrosphere and Container Mod 10/3	94422 - 10 HH, 94423 - 10 HH 94424 - 10 HH, 94425 - 10 HH 37959 - 12 HH, 37960 - 12 HH
60368, 60369, 60370, 60393	Rate-of-turn Indicator (144)	
60372, 60379, 60380, 60421	Rate-of-turn Indicator (192)	

Heading control system (HCS) (A.1/4.16)

Type No.	Designation	EC TYPE EXAMINATION (B) Cert. No.:
4960	Control and Display Unit NAVIPILOT 4000	94581 - 10 HH, 94582 - 10 HH
4961	Steering Control Interface Unit	
4960-7000, 4960-7100	NAVIPILOT 4000, NAVIPILOT 4000 Track	
20040, 20041	Solenoid Board AC (4961-1083, 4961-1084)	
20042, 20043	Solenoid Board DC (4961-1085, 4961-1086)	
20044	Isolated Proportional Output Board (4961-1087)	
750-841	Program Fieldbus Controller Ethernet	
750-341	Program Fieldbus Controller Ethernet	
750-626	Power Supply Filter 24V DC	
750-624	Field Supply Filter 24V DC	
750-602	Power Supply Module 24V DC	
750-610	Power Supply Module 24V DC, fuse	
750-612	Power Supply Module 24V DC	
750-514	2 DO, 125V AC	
750-430	8 DI, 24V DC, 3.0ms	
750-530	8 DO, 24V DC, 0.5A	
750-536	8 DO, 24V DC, 0.5A	
750-557	4 AO, +/-10V DC, 12 Bit	94581 - 10 HH, 94582 - 10 HH 94367 - 10 HH, 94368 - 10 HH 94369 - 10 HH, 94370 - 10 HH
750-457	4 AI, +/-10V DC, s.e.	
PLC-OSP	Solid State Relay	
750-653	Interface Serial, RS485	
750-600	End Module	
4136, 4137, 4968, 4132, 4134	Rudder Angle Feedback Unit	
4863, 4772	Magnetic Compass JUPITER with Fluxgate	



Rudder angle indicator (A.1/4.20)

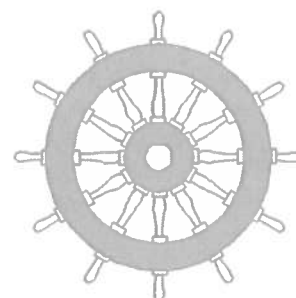
Type No.	Designation	EC TYPE EXAMINATION (B) Cert. No.:
5014	Rudder Angle calibrator	EC QUALITY SYSTEM (D) Cert. No.:
4136, 4968, 4132, 4134, 4137	Feedback unit	47252 - 12 HH, 47253 - 12 HH

Compass for lifeboats and rescue boats (A.1/4.23)

Type No.	Designation	EC TYPE EXAMINATION (B) Cert. No.:
2623	Magnetic Compass MARS, T 12 A	EC QUALITY SYSTEM (D) Cert. No.:
2795, 2795-AA	Magnetic Compass VENUS	94444 - 10 HH, 94445 - 10 HH
4220, 4221, 2069, 2074	Magnetic Compass MERKUR S + VZ	94446 - 10 HH, 94447 - 10 HH
		94448 - 10 HH, 94449 - 10 HH

Gyro compass for high- speed craft (A.1/4.31)

Type No.	Designation	EC TYPE EXAMINATION (B) Cert. No.:
4913	Fiber-Optic Gyrocompass System NAVIGAT 2100	EC QUALITY SYSTEM (D) Cert. No.:
4902	Interface and Power Supply Unit	94426 - 10 HH, 94427 - 10 HH
4892	Control and Display Unit	
4995	Control and Display Unit NAVIGAT 2100	
5021	Fiber-Optic Gyrocompass System NAVIGAT 3000	37957 - 12 HH, 37958 - 12 HH
4902	Interface and Power Supply Unit	
4995	Control and Display Unit	
4914 BA, 4914 BB, 4914 CC	Gyrocompass System NAVIGAT X MK 1 HSC	94428 - 10 HH, 94429 - 10 HH
4911 AA, 5000 AA	Gyrosphere	
4991-4000	Gyrosphere and Container Mod 10/3	
4991-2000	Gyrosphere and Container Mod 10/2	
4991-3000	Gyrosphere and Container Mod 7/2	
4926	Gyrocompass Control Unit	
4923	Compass Monitor NAVITWIN III	94426 - 10 HH, 94427 - 10 HH
4994	Heading Management System NAVITWIN IV	94428 - 10 HH, 94429 - 10 HH
4863	Fluxgate Coil For Magnetic Compass	37957 - 12 HH, 37958 - 12 HH
4881, 4881 AA, 5016 AA	Steering Repeater (Console Mounted)	
4881 AB, 4881 AM, 5016	Bearing Repeater	
4881 AC, 4881 AK, 5016 AC	Repeater (Bulkhead Mounted)	
4881 AD, 5016 AB	Steering Repeater (Console Mounted) (Magnetic Heading)	
4622 AB, 4622 AC, 4622 AD	Bearing Repeater Stand	
1812783	Bearing Repeater Stand	
4890, 4905	Bearing Repeater Bracket with Terminal Box	
4884, 4894	Terminal box	
2535	Prismatic Azimuth Device PV 23	
4805	Voyage Data Printer NAVIPRINT	
4806 AC, 4806 AD, 4806 AE	Multifunction Display NAVIDATA	
4932	Switch-Over Box	
4891	Universal Digital Repeater	
DTR600	Digital Tape Repeater	
4992	Splitter Box	94428 - 10 HH, 94429 - 10 HH
4936	Splitter Box	
2568	Power Supply Unit	
55555	Opto Isolator	



Heading control system for high-speed craft (A.1/4.40)

Type No.	Designation	EC TYPE EXAMINATION (B) Cert. No.:
4960	Control and Display Unit NAVIPILOT 4000	94602 - 10 HH, 94603 - 10 HH
4961	Steering Control Interface Unit	
4960-7200, 4960-7300	NAVIPILOT 4000 HSC, NAVIPILOT 4000 Track HSC	
20040, 20041	Solenoid Board AC (4961-1083, 4961-1084)	
20042, 20043	Solenoid Board DC (4961-1085, 4961-1086)	
20044	Isolated Proportional Output Board (4961-1087)	
4136, 4137, 4968, 4132, 4134	Rudder Angle Feedback Unit	
4863, 4772	Magnetic Compass JUPITER with Fluxgate	
750-841	Program Fieldbus Controller Ethernet	
750-341	Program Fieldbus Controller Ethernet	
750-612	Power Supply Module 24V DC	
750-626	Power Supply Filter 24V DC	
750-624	Field Supply Filter 24V DC	
750-602	Power Supply Module 24V DC	
750-610	Power Supply Module 24V DC, fuse	
750-653	Interface Serial, RS485	
750-514	2 DO, 125V AC	
750-430	8 DI, 24V DC, 3.0ms	
750-530	8 DO, 24V DC, 0.5A	
750-536	8 DO, 24V DC, 0.5A	
750-557	4 AO, +/-10V DC, 12 Bit	
750-457	4 AI, +/-10V DC, s.e.	
PLC-OSP	Solid State Relay	
750-653	Interface Serial, RS485	
750-600	End Module	
		EC QUALITY SYSTEM (D) Cert. No.:



Markus Sellmer

Markus Sellmer, Head of Supply Chain Management

15.07.2015

Date of Issue

