

## Type Approval Certificate

*This is to certify that the undernoted product has been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.*

This certificate is issued to:

<b>PRODUCER</b>	Kongsberg Maritime AS P.O. Box 483 NO-3601 Kongsberg Norway	
<b>PLACES OF PRODUCTION</b>	Kongsberg Maritime AS Kirkegårdsveien 45 NO-3616 Kongsberg Norway	Kongsberg Maritime AS Bekkajordet 8 NO-3189 Horten Norway
	Kongsberg Maritime AS Søndre Kullerød 1 NO-3241 Sandefjord Norway	
<b>DESCRIPTION</b>	Dynamic Positioning Control System, Position Mooring Control System and Independent Joystick Control System	
<b>TYPE</b>	KONGSBERG K-Pos DP, K-Pos PM, K-Pos DPM, cJoy	
<b>APPLICATION</b>	Marine dynamic positioning systems	

<b>Certificate No.</b>	13/00047
<b>Issue Date</b>	12 June 2013
<b>Expiry Date</b>	11 June 2018
<b>Sheet</b>	1 of 3

P.A. Huntley-Hawkins  
London Design Support Office  
Lloyd's Register EMEA

Lloyd's Register EMEA  
71 Fenchurch Street, London EC3M 4BS

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## TECHNICAL DETAILS

System incorporates the following:

The K-Pos OS (Operator Station) and operation peripheral devices including; display monitors, computer and printer  
The cJoy DP-OT (Remote DP Operator Terminal)  
The cJoy OT (Operator Terminal for cJoy)  
The cWing (Remote Wing Terminal)  
The K-Pos DPC (DP Controller)  
Main processor  
I/O bus  
I/O units  
Serial lines  
Network switch

## SPECIFIED STANDARD

Marine, offshore and industrial use in environmental categories ENV2, ENV3 and ENV5 as described in Lloyd's Register Test Specification No. 1: 2002

## ADDITIONAL TESTS

EN 60945 (2002) Acoustic Noise <60dBA at a distance of 1m  
EN 60945 (2002), EN 60533 (1999), EN ISO 694 (2001) Compass Safe Distance  
IEC 60529 (2001-02) IP22 – KM-05 Deepline and Slimline operator stations  
IEC 60529 (2001) Ed. 2.1 IP42 – KM-MOD joystick  
IEC 60529: 1989-11 + A1:1999 IP22 – COP ALC, COP ALC-NAV & COP UTILITY operator panels  
EN 60529 (1991) and EN 60529/A1 (1991) IP22 – heading wheel 6200461  
EN 60529 (1991) and EN 60529/A1 (2000) IP22 – tracker ball 6200463  
EN 60529 (2001) IP2X – tracker ball standalone panel  
IEC 60529 (2001) IP2X – ISIC Displays DuraMON 22 WS, DuraMON 24 WS & DuraMON 27 WS

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**ADDITIONAL TESTS**  
(Continued)

IEC 60529 (2001) IP2X – ISIC Displays MD 27 KM-05  
IEC 60529 (2001) Ed. 2.1 IP2X – Multi Display type HD13T21 KMD-DR1-CORP  
IEC 60529 (2001) Ed. 2.1 IP2X – Display Computer, type HD 08T21 KMC-DQ1-CORP  
IEC 60529 (2001) Ed. 2.1 IP2X – Maritime Computer, type MXE-5104  
IEC 60529 (2001) Ed. 2.1 – K-Master Panel System:  
Complete K-Master without levers, with blind covers IPX3  
The armrests and the upper surfaces of the parts intended to be flush mounted in the bridge deck IP2X  
The section under the chair seat IP1X  
IEC 60529 (2001) Ed. 2.1 IP44 – DPC-3 cabinet  
IEC 60529 (2001-02) IP2X – RIO's RCU501, RSER200-4, RHUB200-5 & RMP200-8, RCU502  
EN 60529 (1991) + A1:2000 IP44 – cJoy (front face)  
EN 60529 (1991) + A1:2000 IP56 – cWing (complete unit)

**OTHER CONDITIONS**

The Lloyd's Register Rules and Regulations are to be complied with when installed on Lloyd's Register classed vessels.

*"This Certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid certificate."*

*The Design Appraisal Document No. 13/00047 and its supplementary Type Approval Terms and Conditions form part of this Certificate.*

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**LLOYD'S REGISTER TYPE APPROVAL SYSTEM, 2002.**

**Issued to: KONGSBERG MARITIME AS**

**for: DYNAMIC POSITIONING CONTROL SYSTEM, POSITION MOORING CONTROL SYSTEM AND INDEPENDENT JOYSTICK CONTROL SYSTEM**

**Type: KONGSBERG K-Pos DP, K-Pos PM, K-Pos DPM, cJoy  
TYPE APPROVAL CERTIFICATE No. 13/00047**

The undernoted documents have been reviewed for compliance with the requirements of the Lloyd's Register Type Approval System, 2002 and this Design Appraisal Document forms part of the Certificate.

**APPROVAL DOCUMENTATION**

LR Approval Services – Request for Quotation	07.Feb.2007
LR Request for Marine Services	04.May.2007
Kongsberg Request for Marine Services; Type Approval of "DP" SvSo/LR-K-Pos, QA-ark. 441	04.May.2007fibre
Email from LR Oslo, Helga Roed regarding use of 2010 production survey report.	25.Apr.2013 14:20
Inspection and Surveillance of Production Facilities report	21.Oct.2010
CDQM-0010 - TA-KPOS-2006 - PUBLISHING HISTORY Rev. F	17.Apr.2013
Kongsberg Maritime - Web User Documentation Project Number: 1001-F Vessel Name: CDQM-0010 Rev F - TA-KPOS-2006	18.Apr.2013

**DATA SHEETS**

K-Pos, cPos and cJoy Maintenance Manual, TA-KPOS-2006, Cover and Contents TA-KPOS-2006-MM-CC_P	Apr.2013
K-Pos DP and cJoy Maintenance Information TA-KPOS-2006-MI_A	Dec.2006
cPos and cJoy Maintenance Information TA-CPOS-2006-MI_A	Dec.2006
cJoy System Maintenance Information 308634B	Jul.2010
MP8200 Maintenance Manual 366813c	Apr.2013
COP05 OS-555 Built-in WS Mk2, Maintenance Manual 371472d	Jan.2013
Desktop, Maintenance Manual 371981a	May.2012
KM05 OS-650 SL WS Mk2, Maintenance Manual 371471b	May.2012
KM05 OS-650 DL WS Mk2, Maintenance Manual 371469c	Jan.2013
MP8200 Computer Backup/Restore, and XP Installation Procedures 365841b	Oct.2012
cC-1 Maintenance Manual 303999j	Mar.2013
DPC-1 Maintenance Manual 303996e	Mar.2013
DPC-2 Maintenance Manual 303997h	Apr.2013
DPC-3 Maintenance Manual 303998h	Apr.2013
Environmental Specification 161011d	21.Jun.2013
CAN2DP, Hardware Module Description 301505a	Dec.2006
Eicon, Diva ISDN USB Adapter Hardware Module Description 308385a	Dec.2006
cJoy Operator Terminal, Hardware Module Description 178004d	02.Jul.2010
cJoy Wing Terminal (cWing) Hardware Module Description 178006e	06.Jan.2012
COP-05 ALC Panel Hardware Module Description 300977b	Oct.2006
COP-05 BU-DP Panel Hardware Module Description 300983b	Jan.2007
COP-05 BU-TC Panel Hardware Module Description 301025b	Jun.2007
COP-05 Input Panel Hardware Module Description 300984d	Oct.2009

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Date	Quote this reference on all future communications
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COP-05 Heading Wheel Panel Hardware Module Description 300985b	Jan.2007
COP-05 Joystick Panel (Kwant Controls) Hardware Module Description 307003b	Jul.2011
COP-05 Standalone Trackball Hardware Module Description 338386a	Sep.2009
Monitor 20.1" TFT, JH20T06 Hardware Module Description 301642b	15.Feb.2007
Monitor 20.1" TFT, JH20T17 MMD-AA1-AABA Hardware Module Description 340313a	Oct.2009
Monitor 23.1" TFT, JH23T14 MMD-MA1-AABA Hardware Module Description 349736a	Jul.2010
Monitor 23.1" TFT, JH23T14 KMD-CAX-SALA KM05 Hardware Module Description 358483a	Feb.2012
Monitor 27.0" TFT, JH27T11 MMD-AA1-XXXX Hardware Module Description 340315c	Sep.2012
Display ISIC MD27 KM05 WS Hardware Module Description 360890b	Jun.2012
Display ISIC MD22/24/27 WS Hardware Module Description 361554c	Sep.2012
cJoy OT Junction Box Hardware Module Description 178005e	Feb.2013
cJoy WT Junction Box Hardware Module Description 178007e	Apr.2011
Moxa EtherDevice Switch EDS-316 Hardware Module Description 352676a	Nov.2010
Moxa 5-Port Unmanaged Ethernet Switch EDS-205A Hardware Module Description 343879a	Feb.2010
Telesafe Mini Patch Boxes Hardware Module Description 177936a	03.Jun.2004
AT-8000S Switch, Hardware Module Description 308717a	Jan.2007
HP 3600-24 v2 El Switch Hardware Module Description 376528a	Feb.2013
HP 3600-24-SFP v2 El Switch Hardware Module Description 376529a	Feb.2013
Filter Schaffner, FN 2080 Hardware Module Description 303533a	Nov.2006
Meanwell DC/DC Converter SD-350B 24V/24V, 245W Hardware Module Description 178577a	22.Nov.2004
Phoenix Contact QUINT-PS/1AC/24DC/10 Hardware Module Description 326403b	Jun.2009
RCU501 Hardware Module Description 300991d	Apr.2013
RCU502 Hardware Module Description 358190d	Apr.2013
RHUB200-5 Hardware Module Description 300994b	Nov.2010
RMP200-8 Hardware Module Description 300992b	Jun.2007
RMP201-8 Hardware Module Description 330111c	Oct.2011
RSER200-4 Hardware Module Description 300993d	Nov.2012
SN96 K-Pos Mk2 OS Upgrade Kit for SN96 OS Mounting Procedure 372405a	Jun.2012
SN96 K-Pos Mk2 Operator Station Maintenance Manual 372348a	Jun.2012
SN96 K-Pos Built-in Mk2 OS Upgrade Kit for SN96 Built-in OS Mounting Procedure 372406a	Jun.2012
SN96 K-Pos Built-in Mk2 Operator Station Maintenance Manual 372349a	Jun.2012
KS-01 K-Pos Mk2 OS Upgrade Kit for KS-01 OS Mounting Procedure 372301a	Jun.2012
KS-01 K-Pos Mk2 Operator Station Maintenance Manual 371542a	May.2012
KS-03 K-Pos Mk2 OS Upgrade Kit for KS-03 OS Mounting Procedure 372303a	Jun.2012
KS-03 K-Pos Mk2 Operator Station Maintenance Manual 371544a	May.2012
KM-04 K-Pos Mk2 OS Upgrade Kit for KM-04 OS Mounting Procedure 372304a	Jun.2012
KM-04 K-Pos Mk2 Operator Station Maintenance Manual 371546a	May.2012
KS-01/KS-03/KM-04 K-Pos Built-in Mk2 OS Upgrade Kit for KS-01/KS-03/KM-04 Built-in OS Mounting Procedure 372306a	Jun.2012
KS-01/KS-03/KM-04 K-Pos Built-in Mk2 Operator Station Maintenance Manual 371548a	May.2012
KNC-620 K-Pos OS Upgrade Kit for KNC-620 OS Mounting Procedure 365893a	Jan.2012
KNC-620 K-Pos Operator Station Maintenance Manual 365894b	Jun.2012
ADP701 K-Pos OS Upgrade Kit for ADP-701 OS Mounting Procedure 335695b	Mar.2012
ADP701 K-Pos Operator Station Maintenance Manual 335551c	Jun.2012
ADP702 K-Pos OS Upgrade Kit for ADP-702 OS Mounting Procedure 330614c	Mar.2012
ADP702 K-Pos Operator Station Maintenance Manual 331274e	Jun.2012
DPC-11 K-Pos Upgrade Kit for DPC-11 Mounting Procedure 320343b	Jun.2012

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DPC-11 K-Pos DP Controller Maintenance Manual 324151e	Jun.2012
DPC-21 K-Pos Upgrade Kit for DPC-21 Mounting Procedure 320371b	Jun.2012
DPC-21 K-Pos DP Controller Maintenance Manual 324150e	Jun.2012
K-Master Server Cabinet (600x1600x600) Maintenance Manual 359344c	Nov.2012
Fibre Splice Box, 8ports, MX-WFR-00024-02 Hardware Module Description 176717a	29.Aug.2003
Rittal Fan w/ Filter SK333X.XXX Hardware Module Description 323480a	Jun.2008
Rittal Fan w/ Filter SK3239.1XX Hardware Module Description 323480b	Feb.2013
MP7900 Maintenance Manual 328925j	Feb.2013
MP7900 Backup/Restore and XP Installation Procedures 330249b	Sep.2010
BlueStorm Universal PCI Hardware Module Description 362669a	Oct.2011
K-Master Workstation Maintenance Manual 349893c	Feb.2013
K-Master Alarm Panel Hardware Module Description 348019b	Feb.2012
K-Master Chair Control Panel Hardware Module Description 348023b	Mar.2012
K-Master I/O Controller Hardware Module Description 348029a	Jan.2011
K-Master Matrix MXE-5104 Computer Hardware Module Description 349892a	Feb.2011
K-Master Touch Control Panel 13.3" HD 13T21 KMD-DR1-CORx Hardware Module Description 349793d	Jun.2012
K-Master DP and IJS Joystick Hardware Module Description 348031a	Feb.2011
K-Master DP Joystick Hardware Module Description 348032b	Mar.2011
K-Master Heading Wheel Hardware Module Description 348024a	Jan.2011
K-Master IJS Joystick Hardware Module Description 358656a	Sep.2011
K-Master Touch Control Panel 8.0" HD 08T21 KMC-DQ1-CORx Hardware Module Description 349791c	Jun.2012
K-Pos DP (OS) Operator Manual (Release 8.1, Update 1) 358760b	Aug.2012
K-Pos PM (OS) Operator Manual (Release 8.1, Update 1) 358762b	Aug.2012
K-Pos DPM (OS) Operator Manual (Release 8.1, Update 1) 358761b	Aug.2012
K-Master Operator Manual Release 1.3.2 (intended for DP Release 8.1.1) 366138b	Feb.2013
K-Pos Auto Track Mode Operator Manual (Release 8.1, Update 1) 358769b	Jun.2012
K-Pos Seismic Track Mode Operator Manual (Release 8.1, Update 1) 358772b	Jun.2012
K-Pos Follow Target Mode Operator Manual (Release 8.1, Update 1) 358771b	Jun.2012
K-Pos Track Line Mode Operator Manual (Release 8.1, Update 1) 358774b	Jun.2012
K-Pos DP Capability and Motion Prediction Analysis Operator Manual (Release 8.1, Update 1) 358778b	Jun.2012
K-Pos Chart Server Application Operator Manual (Release 8.1) 358776a	May.2012
K-Pos DP Recorder Operator Manual (Release 8.1) 358780a	Apr.2012
K-Pos Backup System Operator Manual (Release 8.1) 358777a	Apr.2012
K-Pos Stand-alone Simulator Operator Manual (Release 8.1) 368205a	Apr.2012
K-Pos Built-in Simulator Operator Manual (Release 8.1) 368204a	Apr.2012
cJoy OT Operator Manual (Release 8.1, Update 1) 358765b	Jun.2012
cJoy OT Seismic Track Mode Operator Manual (Release 8.1, Update 1) 358773b	Jun.2012
cJoy DP-OT Operator Manual (Release 8.1, Update 1) 358764b	Jun.2012
cJoy WT (cWing) Operator Manual (Release 8.1) 358767a	Apr.2012
K-Pos Interface Manual, Cover and Contents 300967B	Jan.2007
K-Pos Serial Lines, Interface Specification 300966A	Dec.2006
RIO200 Based Systems, Interface Requirement 300968B	Jan.2007
Standard RIO200 Loop Typicals 300970A	Dec.2006
Kongsberg K-Pos DP, Dynamic Positioning System Product Description 301093b	Feb.2006
Kongsberg cJoy and cPos, Compact Joystick and DP Control Systems Product Description 177332f	May.2010

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Kongsberg K-Pos DPM, Combined Dynamic Positioning and Position Mooring System Product Description 301094b	Feb.2006
Kongsberg K-Master Work Station Product Description 350434b	Apr.2012
512MB DDR1 – SDRAM SO-DIMM Swissbit SDN06464K1BE1HY 512MB RoHS 1.1	22.02.2010
DDR SDRAM Unbuffered SODIMM 200pin Unbuffered SODIMM based on 512Mb G-die 66 TSOP-II with Lead-Free and Halogen-Free (RoHS compliant) Samsung M470L6524GL0-CB3 1	Oct.2009
DDR SDRAM Unbuffered SODIMM 200 pin Unbuffered SODIMM based on 512Mb D-die 66 TSOP-II & 54 sTSOP-II with Pb-Free (RoHS compliant) Samsung M470L6524DU0-CB3 1.01	Jan.2008

**DRAWINGS**

Layout Drawing OS-650 Console Complete OS-650 (KM-05) 1004153 Rev A	25.Apr.2005
General Arrangement, DPC-1/2 Cabinet 302199B	24.Oct.2006
General Arrangement, DPC-3 Cabinet 302152B	25.Oct.2006
Environmental Test, cJoy, cPos, cWing, Cable Layout drawing 508490A	16.Mar.2005

**TEST REPORTS**

I/O Test Report 174026d_FTR	11.Jan.2007
K-Pos Type Approval, System Test Report, RBUS and RSER IO TA_FAT_DpIoSwTest_A	03.Jan.2007
Verification Test of KM-05 Operator Station - 650, TI Report No. 3010-05-0052 1010383A	02.May.2002
DELTA Test Report DANAK-198574, Project no.: A504273-2 307745A	04.Dec.2006
DELTA Test Report DANAK-198637, Project no.: A504352-1	30.Jan.2007
DELTA Test Report DANAK-198575, Project no.: A504273-3 307741A	04.Dec.2006
DELTA Test Report DANAK-198577, Project no.: A504327-2 308039A	04.Dec.2006
Declaration of Conformity for JH20T06KMD and JH23T02KMD KMD series	22.May.2006
JH20T06 KMD versus MMD "figures" JH20T06-KMDvsMMD	10.May.2006
JH23T02 KMD versus MMD "figures" JH23T02-KMDvsMMD	10.May.2006
JH20T06 MMD: DNV report 2005-3125 2005-3125	02.Dec.2005
JH23T02 MMD: Delta report Danak-196393, project E500508 500508-kp-jhd	04.Sep.2002
JH23T02 KMD-E3: DNV Confirmation of Tests (Vibration and Climatic Test)	22.Nov.2006
DELTA Test Report DANAK-198195, Project no.: A503298-1, Rev1	15.Jun.2007
Environmental Testing of Joystick Type KM-MOD, Lilaas AS, Tech. Report DNV Certification 2006-3293 Rev. 01	19.Oct.2006
Joystick KC 06, Environmental Test Report, Thales Doc. Ident. 9501 029 033XX 001	22.Nov.2006
NEMKO Test Report no. 69187 (IP22 test of COP-05 units: ALC, BU-NAV, Utility)	31.Aug.2006
DNV report 2006-3459 (IP22 test of COP-05 unit: Heading Wheel)	13.Oct.2006
DNV report 2006-3460 (IP22 test of COP-05 unit: Input Panel with Tracker Ball)	01.Nov.2006
DELTA Test Report DANAK-1910612 Revision B, Project no.: A506311-1 Rev B	15.Sep.2009
Bureau Veritas Certificate SMS.LI/30582/A.0 BV Test Lab Recognition	28.Feb.2010
Kongsberg MP7900 Personal Computer, Mariner Systems (UK) Ltd., Test File No. TL1306 TL1306	31.Mar.2009
Test Report: Kongsberg MP8200 Personal Computer, Mariner Systems (UK) Ltd., TL1582-ENV Issue 01	16.Dec.2011
Test Report: Kongsberg MP8200 Personal Computer, Mariner Systems (UK) Ltd., TL1582-EMC	16.Dec.2011
Test Report: Kongsberg MP8200 Personal Computer, Mariner Systems (UK) Ltd., TL1583-ENV Issue 01	16.Dec.2011
Test Report: Kongsberg MP8200 Personal Computer, Mariner Systems (UK) Ltd., TL1583-EMC	16.Dec.2011



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Mariner Systems statement (for TL1583 and TL1582) related to static and dynamic inclination test	undated
Test Report: DELTA DANAK-1911187, Rev.A Project No. A507378	03.Feb.2011
Test Report: DELTA DANAK-1911379, Project no. T200108	13.Apr.2011
Test Report: DELTA DANAK-1911425, Project no. T200216	15.Jun.2011
Test Report: TI 3010-09-0221 (Vibration Test Of K-Master Chair) 368683a	21.Jan.2010
KM Statement, K-Master Workstation, Vibration Test Statement 368822b	13.Mar.2012
Hatteland Statement 100984-3 for K-Master 13.3" and 8" TCPs 368641a	13.Dec.2011
Test Report: DNV Report No. 2011-3416 (HD13T21 KMD-DR1-CORP) 368647a	14.Oct.2011
Test Report: DNV Report No. 2011-3438 (HD 08T21 KMC-DQ1-CORP) 368645a	14.Oct.2011
Test Report: DNV Report No. 2010-3409 Data Response Norway, (MXE-5104 Maritime PC) 351381a	10.Sep.2010
Test Report: Nemko no. E11024.03 (K-Master Panel System) 357261b	07.May.2012
Test Report: Nemko no. E12059.00 (K-Master Bridge Chair) 370398a	07.May.2012
DELTA Test Report DANAK-198523, Project no.: A503547-3	31.Oct.2006
Declaration of Technical Similarities between Diva ISDN USB Rev. 2 and Rev. 4	19.Sep.2006
DELTA Test Report DANAK-198307, Project no.: A503711-1	03.Apr.2006
Verification Test of FS120, NDU and NDU Mini, TI Report No. 310-03-0319, Rev. No. A 1001823b	28.Oct.2004
DELTA Test Report DANAK-198508, Project no.: A503547-1 Rev1	17.Oct.2006
DELTA Test Report DANAK-1911523, Project no.: A507567	19.Aug.2011
KM clarification to Delta test report DANAK-1911523 related to "Topic: Insulation resistance test omitted on RCU502"	20.Mar.2013
Environmental tests for RMP201-8 based upon RMP200-8 332991a	16.Apr.2009
Environmental Verification Test, cWing and cJoy, TI Report No. 310-04-0125, Rev. A	16.Mar.2005
NEMKO Test Report - EN 60945, Corrosion Test (cWing), NEMKO Order No. 32743-Rev 1	06.Apr.2005
Compass Safe Distance Test of Joystick and DP Equipment, Test Report DNV Certification 2005-3115	01.Mar.2005
Environmental Test, cJoy, cPos & cWing, Functional Test Procedure 179130b	11.Apr.2005
Environmental Verification Test, Additional Tests on cWing, cJoy, cPos, TI Rpt No. 3010-05-0121	13.Apr.2005
NEMKO Test Report - Electromagnetic Compatibility (cJoy/ cPos/ cWing) 41813-1	12.Apr.2005
Environmental Test Report, Re-Temperature Test of cJoy, TI Report No. 3010-06-0407	24.Jan.2007
NEMKO Test Report (cJoy) NEMKO Order no. 80319	26.Jan.2007
Information about cJoy CPU board SBC84620	undated
Information about cJoy CPU board SBC84510 (used prior to SBC84620)	undated
DELTA Test Report DANAK-198632, Project no.: A503547-4 309493a	26.Jan.2007
Test Report: NEMKO Order No. 140487 Rev 3 (cJoy / cWing)	30.Aug.2010
cJoy with Compact Flash 4GB – cart: Silicon Drive SSD-C04GI-4600 Certificate CF	15.Sep.2011
cJoy with SO-DIMM: Swissbit SDN06464K1BE1HY-60IR / Samsung M470L6524GLO-CB3	04.May.2011
HP LaserJet P2055 Data Sheet LJP2055 datasheet 4AA2-1750EEE	undated
HP LaserJet P2055 Declaration of Conformity (BOISB-0801-00) LJP2055 D of C c01587325	05.May.2008
HP LaserJet P2055 TÜV Certificate - S 72080460 (BOISB-0801-00) LJP2055 TUV cert c01587337	01.Sep.2010
NEMKO Test Report - EMC (HP LaserJet P2055dn) NEMKO Order No. 125450	31.Mar.2009
NEMKO Test Report – EMC (HP LaserJet Pro M401dn) NEMKO Order No. 229613	25.Jan.2013
HP LaserJet P2015n Data Sheet LJP2015 datasheet English final	undated
HP LaserJet P2015n Product environmental attributes - IT Eco Declaration 2003 iteco laserj 2015	12.Oct.2006
HP LaserJet P2015n Product Vibration Test Specifications	undated
NEMKO Test Report - EMC (HP LaserJet 2015n) NEMKO Order No. 75728	31.Oct.2006
NEMKO Test Report - Electromagnetic Compatibility (HP LaserJet 1320n) NEMKO Order No. 33869 1004152A	30.Nov.2004



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- NEMKO Test Report - Electromagnetic Compatibility (OKI ML280 ELITE) NEMKO Order No. 39760 1005166A 28.Feb.2005
- Test Report NEMKO Order No. 141860 (EMC; HP Officejet Pro 8000) 343560A 14.Jan.2010
- HP OfficeJet Pro 8000 Printer, Product environmental attributes - The Eco Declaration 343502A Mar.2009
- NEMKO Test Report - Electromagnetic Compat. (HP Officejet Pro K5400dn) NEMKO Order No. 106673 09.May.2008
- NEMKO Test Report - Electromagnetic Compatibility (HP Inkjet 2300) NEMKO Order No. 33869001 1004150A 30.Nov.2004
- Test Report: HP A3600 Series Switch JG299A, Mariner Systems, TL1672-ENV 04.Oct.2012
- Test Report: HP A3600 Series Switch JG299A, Mariner Systems, TL1672-(EMC) 02.Oct.2012
- Test Report: HP A3600 Series Switch JG303A and JD102B-HPX115 Fibre transmitter, Mariner Systems, TL1673-ENV 04.Oct.2012
- Test Report: HP A3600 Series Switch JG303A and JD102B-HPX115 Fibre transmitter, Mariner Systems, TL1673-(EMC) 04.Oct.2012
- Env. Verific. Test, Network Switch, AT-8000S/24 & AT-8516F/SC, TI Report No. 3010-06-0389 18.Jan.2007
- Test Report: NEMKO E09662.02 (Order No. 126570) (Ethernet Switch AT-FS716L) 335464B 27.Aug.2009

Supplementary Type Approval Terms and Conditions

Type Approval certifies that a representative sample of the product(s) referred to herein has/have been found to meet the applicable design criteria for the use specified herein. It does not mean or imply approval for any other use, nor approval of any product(s) designed or manufactured otherwise than in strict conformity with the said representative sample.

Type Approval is based on the understanding that the manufacturer's recommendations and instructions and any relevant requirements of the Rules and Regulations are complied with.

Type Approval does not eliminate the need for normal inspection and survey procedures required by the Rules and Regulations.

Lloyd's Register EMEA reserves the right to cancel or withdraw this Type Approval Certificate in accordance with the Lloyd's Register Type Approval System Procedure.



Peter Huntley-Hawkins  
Electrotechnical Systems  
London Design Support Office

Part 3  
Control Systems (Part 3)

Producer / Licence No.	Item Description	Technical Details	Category / Additional Tests	Remarks	Cert. No.
Kongsberg Maritime AS, P.O. Box 483, NO-3601 Kongsberg, Norway.	Dynamic Positioning Control System, Position Mooring Control System and Independent Joystick Control System  Type KONGSBERG K-Pos DP, K-Pos PM, K-Pos DPM, cJoy	System incorporates the following:  The K-Pos OS (Operator Station) and operation peripheral devices including: display monitors, computer and printer The cJoy DP-OT (Remote DP Operator Terminal)  The cJoy OT (Operator Terminal for cJoy) The cWing (Remote Wing Terminal) The K-Pos DPC (DP Controller) Main processor I/O bus I/O units Serial lines Network switch	ENV2, ENV3 and ENV5 (2002)  EN 60945 (2002) Acoustic Noise <60dBA at a distance of 1m  EN 60945 (2002), EN 60533 (1999), EN ISO 694 (2001) Compass Safe Distance  IEC 60529 (2001-02) IP22 - KM- 05 Deeline and Slimline operator stations  IEC 60529 (2001) Ed. 2.1 IP42 - KM-MOD joystick  IEC 60529: 1989-11 + A1:1999 IP22 - COP ALC, COP ALC- NAV & COP UTILITY operator panels  EN 60529 (1991) and EN 60529 / A1 (1991) IP22 - heading wheel 6200461  EN 60529 (1991) and EN 60529 / A1 (2000) IP22 - tracker ball 6200463  EN 60529 (2001) IP2X - tracker ball standalone panel  IEC 60529 (2001) IP2X - ISIC Displays DuraMON 22 WS, DuraMON 24 WS & DuraMON 27 WS  IEC 60529 (2001) IP2X - ISIC Displays MD 27 KM-05	Expires: 11 June 2018 The Lloyd's Register Rules and Regulations are to be complied with when installed on Lloyd's Register classed vessel.  PLACES OF PRODUCTION Kongsberg Maritime AS Kirkegårdsveien 45 NO-3616 Kongsberg Norway  Kongsberg Maritime AS Bekkajordet 8 NO-3189 Horten Norway  Kongsberg Maritime AS Søndre Kullerød 1 NO-3241 Sandefjord Norway	13/00047

*B. A. Dunderberg*  
12th. June 2013

**Part 3  
Control Systems (Part 3)**

Producer/Licence No.	Item Description	Technical Details	Category/Additional Tests	Remarks	Cert. No.
			<p>IEC 60529 (2001) Ed. 2.1 IP2X – Multi Display type HD13T21 KMD-DR1-CORP</p> <p>IEC 60529 (2001) Ed. 2.1 IP2X – Display Computer, type HD 08T21 KMC-DQ1-CORP</p> <p>IEC 60529 (2001) Ed. 2.1 IP2X – Maritime Computer, type MXE-5104</p> <p>IEC 60529 (2001) Ed. 2.1 – K-Master Panel System:</p> <p>Complete K-Master without levers, with blind covers IPX3</p> <p>The armrests and the upper surfaces of the parts intended to be flush mounted in the bridge deck IP2X</p> <p>The section under the chair seat IP1X</p> <p>IEC 60529 (2001) Ed. 2.1 IP44 – DFC-3 cabinet</p> <p>IEC 60529 (2001-02) IP2X – RIO's RCU501, RSER200-4, RHUB200-5 &amp; RMP200-8, RCU502</p> <p>EN 60529 (1991) + A1:2000 IP44 – cJoy (front face)</p> <p>EN 60529 (1991) + A1:2000 IP56 – cWing (complete unit)</p>		