DNV

TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate no.:
MERB000008G
Revision no.:
1

This Certificate is issued by DNV UK Limited, UKAS accredited certification body no. 6086, based on authorisation of the Maritime & Coast Guard Agency (MCA) as an UK Approved Body (no. 0097) to undertake conformity assessments on marine equipment in accordance with the requirements of the Merchant Shipping (Marine Equipment) Regulations 2025.

This is to certify:

that the **Heading control system (HCS)**

with type designation(s)
K-Pos Heading Control System

issued to
Kongsberg Maritime AS
Kongsberg, **Norway**

is found to comply with the Regulation **(UK) MSN 1874 Amendment 11** for
Item no. **UK/4.16** (Row **2 of 3**)
according to the following requirements:
SOLAS 74 Reg. V/19, IMO Res. A.342(IX), IMO Res. A.694(17), IMO Res. MSC.191(79), IMO Res. MSC.64(67) Annex 3, IMO Res. MSC.302(87), SOLAS 74 Reg. V/18.

Further details of the equipment and conditions for certification are given overleaf.

Date of issue: **2026-02-19**

Expiry date: **2028-09-23**

DNV local unit:
Sandefjord

Approval Engineer:
Steinar Kristensen

Approved Body No:: 0097

for **DNV UK Ltd.**

Digitally Signed By:
Christine Mydlak-Röder

Christine Mydlak-Röder
MER Service Responsible

Product description

Please see Appendix: Product Description

Application/Limitation
• The Operating system is MS Windows 10.
• The equipment is tested according to requirements for environmental category "protected" as defined in IEC 60945.
• The K-Pos Heading Control System are to be installed according to manufacturer's installation manuals.
• This certification is limited to Autopilot - Heading mode

Type Examination documentation

Please see Appendix: Type Examination Documentation

Tests carried out
• Performance testing: ISO 11674 (2019)
• Environmental testing: IEC 60945 (2002) Inc. Corr.1 (2008)
• Serial interface testing: IEC 61162-1 (2016)
• Presentation of information: IEC 62288 (2021) +Amd1 (2024)
• Bridge Alert Management: IEC 62923-1 (2018) and IEC 62923-2 (2018)

Marking of product
The type designation and name and contact address of the manufacturer shall be affixed visibly, legibly and indelibly to the product. In addition the product shall be marked with serial number, safe distance to magnetic compass, power consumption and/or supply voltage.

Document No.	Rev.	Title
174026	D_FTR	Report: KM, DP Autopilot, I/O Test report
3000-14-015548	2014-03-12	Report: TI, Environmental test report for K-Master Pilot Chair, KM Doc. No. 391780/A
3000-14-016067	2014-03-12	Report: TI, Environmental test report for KMX Pedestall 300, KM Doc. No. 391796/A
3010-09-0221	2010-01-21	Report: TI, Vibration test of K-Master Chair, KM Doc. No 368683/A
2011-3416	01	Report: DNV, EMC and environmental test report of HD13T21 KMD-DR1-CORP, KM Doc. No 368647/A
E12059.00	00	Report: Nemko no. E12059.00 (K-Master Bridge Chair), KM Doc. No 370398/A
E11024.03	03	Report: Nemko, EMC and environmental test report for K-Master Panel System, KM Doc. No 357261/B
368822	B	Statement: KM, K-Master Workstation, Vibration Test Statement
387155	C	Maintenance Manual: KM, K-Master Pilot Chair
391204	A	Hardware Module Description: KM, USB Extender VL-66199-T/R
348019	B	Hardware Module Description: KM, K-Master Alarm Panel
348024	A	Hardware Module Description: KM, K-Master Heading Wheel
348031	A	Hardware Module Description: KM, K-Master DP and IJS Joystick
349793	D	Hardware Module Description: KM, K-Master Touch Control Panel 13.3" HD 13T21 KMD-DR1-CORx
391995	B	Statement: KM, K-Master Pilot Chair test statement (K-Master Pilot Chairs)
391778	A	Statement: KM, K-Master console test statement (KMX FWD Centre Console)
394658	A	Statement: KM, K-Master joystick test statement (K-Master 1 and 3 button joystick)
391976	B_FTR	Report: KM, K-Master FWD Bridge Fallback Modes and Effects, Test Report
391978	B_FTR	Report: KM, K-Pos HCS with K-Master Chair/Workstation, Test Report
350434	B	Product Description: KM, Kongsberg K-Master Work Station
416664	A	Report: KM, BAM interface (SW, BAM interface support)
423725	A	Maintenance Manual: KM, K-Master Workstation MK2
100984-1	18	Statement: Hatteland, IEC 60945 compliance for K-Master 13,3" and 8" TCP's, KM Doc no 368641/D
348029	C	Hardware Module Description: KM, K-Master I/O Controller
348032	C	Hardware Module Description: KM, K-Master DP Joystick
E17254.00	00	Report: Nemko, EMC emission tests for KM18, KM Doc. No 428578/A
E19179.01	01	Report: Nemko, EMC and environmental test report for computer adapters (DisplayPort 1.2 to 3-Port video splitter, EX-1330M Ethernet adapter, EX-1163HM USB Hub, EX-1339HMVS USB to 8-port RS-232/422/485)
3000-14-016343	2014-03-20	Report: TI, Environmental tes report for KMX Medium-800 Console, KM Doc. No. 391795/A

475430	A	Maintenance Manual: cC-1 Controller
462729	B	Maintenance Manual: KM, K-Master Server Cabinet MK2 (using MC340)
423726	D	Maintenance Manual: KM, K-Master FWD Bridge Workstation MK2, Built-in
MRA000002D	2	Certificate: DNV, MRA certificate for Hatteland Series E MMC Standard and Compact computers, KM Doc. No. 463254/C
MRA000001B	1	Certificate: DNV, MRA certificate for DuraMON 55 GLASS, KM Doc. No. 426136/B
MRA000000H	5	Certificate: DNV, MRA certificate for DuraMON 19/24/26/27/32 GLASS, KM Doc. No. 429106/E
300967	H	Interface Manual: KM, K-Pos
MRA000000S	3	Certificate: DNV, MRA certificate for ISIC Monitors, KM Doc. No. 421626/C
482685	B	Report: KM, K-Pos Autopilot (HCS) TA Performance Tests
300968	C	Interface Manual: RIO200 Based Systems, Interface Requirements
300970	B	Interface Manual: Standard RIO200, Loop Typicals
300966	F	Interface Manual: K-Pos Serial lines, Interface specification
TAE00003WA		Certificate: DNVGL, TA certicate for enclosure
302196	H	Installation manual: DPC-3 Cabinet
302188	H	Installation manual: DPC-1 and DPC-2 Cabinets
475356	B	Installation manual: cC-1 Controller
177957	D	Installation manual: cWing Junction Box for Wing Terminal
486666	B	Installation manual: cWing Mk3
400361	B	Installation manual: cJoy Operator Terminal Junction Box
302152	E	Drawing: KM, General Arrangement DPC-3 Cabinet
302199	E	Drawing: KM, General Arrangement DPC-1 / 2 Cabinet
467343	A	Manual: KM Power distribution, OS Desktop Maintenance manual
110-0013799	A	Manual: KM cJoy Operator Terminal MK4 Hardware module description
110-0019172	A	Manual: KM cJoy Operator Terminal MK4 Installation manual
110-0041441	A	Drawing: K-Pos DP-2 system Topology
110-0041444	A	Drawing: Independent Joystick System - IJS - topology
110-0044149	A	Report: KM Test Report HCS Compliance Tests cJoy Mk4
110-0059786	B	Doc: Kongsberg, Release Notes DP 8.5.0
110-0107044	A	Doc: Kongsberg, Update Notes DP basic 8.5.3
110-0066721	D	Manual: Kongsberg Dynamic Position System Operator Manual
110-0066726	A	Manual: K-Pos Autopilot Mode Operator Manual
110-0066863	B	Manual: Kongsberg, IJS Independent Joystick System Operator Manual
110-0066864	B	Manual: Kongsberg, cJoy DP-OT DP Operator Terminal Operator Manual
110-0071432	A	Manual: Kongsberg, cWing Remote Wing Terminal Operator Manual
110-0102056	B	Manual: Kongsberg, K-Master Operator Manual
110-0124429	A	Manual: Kongsberg, Display distances Installation Manual
110-0019172	A	Manual: Kongsberg, cJoy Operator Terminal MK4 Installation Manual
110-0021993	A	Manual: Kongsberg, cJoy Operator Terminal MK4 Maintenance Manual
110-0053323	A	Manual: Kongsberg, K-Pos DP Control system Product Description
110-0075666	A	Doc: Kongsberg, Release Notes K-Master 3.1.0 / TCP System 3.1.0
448540	K	Hardware List: K-Pos system

482684	A	Report: KM, TA BAM compliance tests K-Pos Autopilot (HCS)
TAA000003DB	0	Certificate: DNV, Kongsberg K-Pos - Hardware Platform
110-0066744	D	Manual: Kongsberg, K-Pos DPM OPM
110-0121780	B	Report: Kongsberg, Type Approval Presentation tests Test Report

K-Pos Heading Control System consisting of the following components:

Main processing unit (one of the following):

- DPC   Dynamic Positioning Controller with process unit(s) RCU601 or RCU602
- cC   Compact Controller with process unit RCU601 or RCU602

Operating Station/Terminal (at least one of the following):

- K-Pos OS   Operator Station for K-Pos DP/DPM/PM
- K-Thrust OS   Operator Station as part of Thruster Control
- K-Master   Integrated Operator station for K-Pos DP
- cJoy DP-OT   Additional Operator Terminal in K-Pos DP
- cJoy OT   Operator Terminal in cJoy Joystick system

Certificate TAA00003DB for K-Pos systems in its latest revision at the date of placing the system on the market is part of this certificate. For the relevant revision see also https://approvalfinder.dnv.com

Software modules:

- DP basis release 8.5, update 3 onwards
- K-Master release 3.1, update 0 onwards