

# TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate no.:  
**MERB00001MZ**  
Revision no.:  
**1**

This Certificate is issued by DNV UK Limited based on authorisation of the Maritime & Coast Guard Agency (MCA) as an UK Approved Body to undertake conformity assessments on marine equipment in accordance with the requirements of the Merchant Shipping (Marine Equipment) Regulations 2016 as amended.

## This is to certify:

that the **Track control system (working at ship's speed from minimum manoeuvring speed up to 30 knots)**

with type designation(s)  
**K-Bridge Track Control System**

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

is found to comply with the Regulation **(UK) MSN 1874 Amendment 10** for  
Item no. **UK/4.33 (Row 2 of 2)**  
according to the following requirements:  
**SOLAS 74 Reg. V/19, IMO Res. A.694(17), IMO Res. MSC.74(69), IMO Res. MSC.191(79), 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: **2025-03-17**

Expiry date: **2030-03-16**

DNV local unit:  
**Sandefjord**

Approval Engineer:  
**Steinar Kristensen**



Approved Body No.: **0097**



for **DNV UK Ltd.**

Digitally Signed By:  
**Elter, Frederik Tore**  
on behalf of

**Christine Mydlak-Röder**  
**MER Service Responsible**



**Maritime &  
Coastguard  
Agency**

UK Approved Body Authorised  
by the MCA

This certificate will not be valid if the manufacturer makes any changes or modifications to the approved type of equipment, which have not been notified to, and agreed with the approved body named on this certificate.  
During the period of validity of this certificate the applicable regulations (international conventions and the relevant resolutions and circulars of the IMO) and testing standards may change, therefore the product conformity may need to be re-assessed by the Approved Body.  
"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-control phase module (D, E or F) of Schedule 2 of the Merchant Shipping (Marine Equipment) Regulations 2016, as amended is fully complied with and controlled by a written inspection agreement with an approved body. In case limitations of use apply, these should be indicated in the Annex.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to USD 300 000.

## Product description

Please see Appendix: Product Description

## Application/Limitation

- The installation shall be installed and tested on board according manufacturers manuals.  
See Type Examination documentation below for details. Relevant manuals may also be listed as documentation in certificates for individual sub-systems, including Type Examination Certificate for K-Bridge and K-Nav System Platforms.
- The system complies with the IMO requirement for Category C track control system
- The approval of the track control system is subject to valid type approval certificates for the individual sub-systems, documenting compliance with pertinent IMO performance standards.
- The track control system shall be connected to an alarm transfer system for transfer of “back-up navigator alarms”.
- The K-Bridge Track Control System configured according to Alternative 1 above has been tested as a Multi Function Display (MFD) system with functions for Radar, ECDIS, back-up ECDIS, HCS, TCS and BNWAS.

## Type Examination documentation

Please see Appendix: Type Examination Documentation

## Tests carried out

- |   |   |
|---|---|
| • Performance testing:                    | IEC 62065 (2014)                          |
| • Environmental testing:                  | IEC 60945 (2002) incl. Corr.1 (2008)      |
| • Serial interface testing:               | IEC 61162-1 (2016)                        |
| • Presentation of navigation information: | IEC 62288 (2021)                          |
| • 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.

# APPENDIX

## Type Examination documentation

Certificate no.:  
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Document No.	Rev.	Document type	Title	Date
1042526		REPORT	Report: K-Bridge Track Control, System Test Report IEC 62065	
310864/A		MISC	Manual: K-Bridge TCS, Check List & Guidance for onboard commissioning	
KLM1.0061	KS17 1691 Rev. B	REPORT	Report: Kongsberg Fimas, Environmental test on Aim Safe System	
1042526/A		REPORT	Report: Track Control System Test Report	
1133639/A		MISC	Doc: K-Bridge Ground Avoidance System (GAS) BGP Prospector, FMEA Document	
1133641/B	(Doc Version 1.0)	REPORT	Report: K-Bridge Ground Avoidance System (GAS), BGP Prospector	
402088	A	REPORT	Report: Kongsberg Maritime, Additional tests to verify fall-back when loss of position sensor	
421042	A	REPORT	Report: Kongsberg Maritime, Type Approval Test Report for K-Bridge Track Control System	
TAA00000FJ	Lates t rev.	MISC	Certificate: DNV, K-Bridge and K-Nav system platforms	
MERB000013U	Lates t rev.	MISC	Certificate: DNV, MER-B certificate for K-Bridge and K-Nav Radar	
MERB00001MX	Lates t rev.	MISC	Certificate: DNV, MER-B certificate for K-Bridge Autopilot	
MERB0000013V	Lates t rev.	MISC	Certificate: DNV, MER-B certificate for K-Bridge and K-Nav ECDIS	
477915	C	REPORT	Report: Kongsberg Maritime, K-Bridge and K-Nav CAM BAM Type Approval test report	
448878	A	MISC	Manual: Kongsberg Maritime, K-Bridge Conning, Operator Manual, Release 8.2	
429363	G	MISC	Manual: Kongsberg Maritime, K-Bridge Autopilot Operator Manual, Release 8.2	
463844	A	MISC	Manual: Kongsberg Maritime, Conning Operator Manual Release 9.0	
463840	A	MISC	Manual: Kongsberg Maritime, K-Bridge ECDIS and Planning Station Operator Manual Release 9.0	
468036	A	REPORT	Report: Kongsberg Maritime, Type Approval Test Report-K-Bridge Track Control System with Autopilot M100	
110-0022183	A	MISC	Manual: Kongsberg Maritime, Autopilot M100 Autopilot System, Operator Manual	
MERB00007UR	Lates t rev.	MISC	Certificate: DNV, MER-B certificate for Kongsberg Autopilot M100 HCS	



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## Product Description

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Kongsberg Maritime K-Bridge Track Control system (TCS) may be provided in two alternative configurations, comprising the following sub-systems:

### Alternative 1:

- K-Bridge ECDIS \*)
- K-Bridge Radar \*)
- K-Bridge Conning
- K-Bridge Autopilot \*)

Hardware Modules:

K-Bridge system platform : As defined in TAA00000FJ \*)

Software modules:

K-Bridge ECDIS & Conning : As defined in TAA00000FJ \*)

### Alternative 2:

- K-Bridge ECDIS \*)
- K-Bridge Conning
- Kongsberg Autopilot M100 \*)

Hardware Modules:

- K-Bridge ECDIS & Conning: As defined in MERB000013V \*)
- Kongsberg Autopilot M100: As defined in MERB00007UR \*)

Software Modules:

- K-Bridge ECDIS & Conning: As defined in TAA00000FJ \*)
- Kongsberg Autopilot M100: As defined in MERB00007UR \*)

\*) Certificates MERB000013V for K-Bridge and K-Nav ECDIS, MERB000013U for K-Bridge and K-Nav Radar, MERB00001MX for K-Bridge HCS, MERB00007UR for Kongsberg Autopilot M100 and TAA00000FJ for K-Bridge and K-Nav system platforms (see Type Examination documentation below) in their 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>