TYPE APPROVAL CERTIFICATE
No. **ELE099226XP**

This is to certify that the product below is found to be in compliance with the applicable requirement of the RINA type approval system.

Description	**Monitoring and control system**
Type	**AutoChief 600 and K-Steering**
Applicant	**KONGSBERG MARITIME AS-NORWAY** **P.O BOX 1009,N-3194 HORTEN HORTEN** **NORWAY**
Manufacturer	**KONGSBERG MARITIME AS-NORWAY**
Place of manufacture	**P.O Box 1024,N-3194 Horten Horten** **Norway (1)**
Reference standards	**Rules for the Classification of Ships - Part C - Machinery Systems and Fire Protection; Ch. 3; Sec. 8, Table 1; Pt C; Ch. 3; Sec. 3 (IACS UR E22 "On Board use and Applicaiton of Computer based Systems"); Pt C; Ch. 3; Sec. 5 (IACS UR E27 "Cyber resilience of onboard systems and equipment")**

Issued in **Gdańsk** on **October 14, 2026**. *This Certificate is valid until* **October 14, 2031**

B. Hoch on Behalf of

RINA Services S.p.A.
Anna Maria Baranska

This certificate consists of this page and 1 enclosure

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No. **ELE099226XP**
Enclosure - Page 1 of 1
AutoChief 600 and K-Steering

The **AutoChief 600** propulsion control system is a complete control and safety systems suitable for 2 and 4 strokes engines, both fixed and controllable pitch propellers.

Main features
- Speed order inputs from all control positions
- Automatic fuel limiter functions according to main engine builders specifications (scavenge air, torque limiter etc.)
- Manual fuel and RPM limiter adjustable from the control panel (chief limiter)
- Redundant speed measuring system using inductive speed pick-ups
- Limiters can be cancelled from each control position
- Self-check functions

The **K-Steering 600** system provides a unified control system for the vessel's rudder or rudders, allowing th eopertor to take control of the steering gear instantly at any of several control positions on the bridge or to transfer control to the autopilot, dynamic postitioning system depending on the systems installed.

Main Features
- Linked discrete controller units for steering gear and bridge control
- Bus-based communication for reliability and reduced installation cost
- Single- or twin-rudder control from a choice of steering wheels and devices (standard-wheel, mini-wheel, NFU/FU control handle)
- Control panel for operation (mode selection) and steering system monitoring
- Command control from multiple steering locations

The **AutoChief 600 and K-Steering 600** system comprises the following modules:

	Components	Part No.
Components for navigation bridge	Lever Telegraph -LTU II	364330
	Lever Telegraph -LTU II ME	389505
	ABE II - 3-buttons	355146
	KBE15	401892
Touch Control Panel	CP12 W/KBE15 + ABE 11	402586, 401892
Pushbutton Telegraph	PBT Flat Version Black	8100318
Bridge Wing Control Unit	BWU21 Left version	486233
	BWU21 Right version	486200
Controller unit	Segment Controller unit - SCU	329785
Distributed Processing Units (DPU)	Remote Analog input Module - RAi-16xe	329714
	Remote Digital output Module - RDo-16xe	329699
	Remote Digital input Module - RDi-32xe	
	Remote Analog TC input Module - RAi-10tc	8100161

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The **AutoChief 600 and K-Steering 600 system comprises the following modules:**

Components		Part No.
Distributed Processing Units (DPU)	Remote Digital input Module - RDi-32xe	333523
	Remote Analog output Module - RAo-8xe	333824
	Remote Digital I/O Module - RIO-C2xe	333346
Digital Governor Unit	DGU	8100272
RPM Units	RPME	8100289, 8100278
Main Engine Interface Unit	MEI	8100276
Engine Safety Unit	ESU	8100275
	ESU12	366666
Electric Shaft System	ESS	8100282
Multi Purpose Panel	MPP Flush-Mount Black	8100290
Multi Purpose Display	MPD Flush	8100292
	CPP Backup Panel - PB4	400992
LAN to 2 CAN gateway	L2C	404654, 406381
Common Thruster Lever	Lever K-Thrust Dual	416532
	Lever K-Thrust single	416533
	Lever K-Thrust Display	416534
	Lever K-Thrust Dual w/Display	405844
	Lever K-Thrust single w/Display	405842
	Mini Wheel K-Thrust w/Display	412364
	Mini Wheel K-Thrust	417835
	KM Mini Wheel	
	KM Helmsman Wheel	
Electrical Fuel Actuator	ELACT 3812	468750
	DSU 38	468770
Push button for cancelling overridable limit	PB4	457658
	PB6	110-0060620
Network Devices	EDS 408A	467615
Touch Screens	Touch panel: 15" FHD XT MK1	469945
	Touch panel: 10" FHD XT MK1	469944
Computer	MC340 i3 LAN PC (Based on Windows 10) MC360 i3 LAN PC (Based on Windows 10) MC380 u5 LAN PC (Based on Windows 11)	
Software Version	12.16.133	

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Documentation:

110-0051790L AutoChief Cyber Secure System Asset Inventory. - 15.04.2026
110-0056695B AutoChief - System Topology. - 07.05.2024
110-056696G AutoChief- Description of Security Capabilities. - 17.04.2026
110-0056704B AutoChief- Configuration Guideline. - 07.05.2024
110-0056698G AutoChief- Cyber Security Test Program. - 15.04.2026
110-0076351E Cyber Secure Configuration Guideline AutoChief, K-Steering.
110-0062446C K-Steering - System Topology. - 13.10.2026
110-0164990A Cyber Security Configuration Checklist
110-0166322A OS Cybersecurity Changes C600 System
482250A KM module Declaration o Identity (DoI) with statements for ENV test report.
386083G SW Revision History for C600.pdf
HW list AC600 & K-Steering
366198E AutoChief Product description
367938D LTU11 Datasheet
389143B 7" Marine Touch Panel PC Hardware Module Description
367938D LTU11 Datasheet
355197C1 ABE11 Outline Drawing
402348A1 KBE15 Outline Drawing.
330199B PBT Datasheet
110-0001301A BWU21 Datasheet
339779E1 SCU Module Outline Drawing
341333C RAi-16xe Datasheet
341336C RDo-16xe Datasheet
330186A RAi-10tc Datasheet
341334B RAo-8xe Datasheet
341338B C2xe DPU Datasheet
330136C DGU Datasheet
HA461974C1 RPME Assembly drawing
330153A MEI Datasheet
330152A ESU Datasheet
372127A ESU 12 datasheet
330179A ESS Datasheet
HA461755A MPP Assembly drawing
HA461761B MPD Assembly drawing
405886A PB4 Datasheet
404663A L2C Outline Drawing
419579B K-Thrust dual lever Datasheet
419578A K-Thrust single lever Datasheet
419577A K-Thrust display Datasheet
419579B K-Thrust Dual lever w/Display Datasheet
419578A K-Thrust single lever w/Display Datasheet
425396A K-Thrust Mini Wheel Data Sheet
477386C Actuator ELACT 3812 & DSU38 Datasheet
ELE108425XL ThinkStation P3 Tiny Gen2 (Model 30K4) and P3 Ultra Gen2 (Model 30J4) Type Approval Certificate
468845B DSU 38 Assembly drawing
110-0101045A KM Mini Wheel Datasheet
110-0140928A KM Helmsman wheel
110-0134498A DS - MC380 u5 Basic datasheet
110-0134499A DS - MC380 u5 LAN datasheet
110-0134500A DS - MC380 u7 LAN datasheet
110-0134501B DS - MC380 u7 LAN Extra datasheet
110-0134503A DS - MC380 u7 Ultra datasheet
110-0150717A DS MC380 U5 Basic Extra datasheet

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TYPE APPROVAL CERTIFICATE
No. **ELE099226XP**
Enclosure - Page 4 of 4
AutoChief 600 and K-Steering

Test Reports:

Nemko E21017.03 Actuator ELACT 3812 & DSU38 - Dated 2021-11-23.
Nemko E16203.00 K-Thrust Modules - Dated 2017-03-29.
Nemko E16268 Lever unit LTU11 - Dated 2017-05-05.
Nemko E21088.03 Upgrade all HW to IACS E10 Rev.8:2021 - Dated 2021-10-28
Nemko E21239.03 BWU21 Left version and BWU21 Right version - Dated 2022-07-06.
DANAK 1916085 Test for Marine Type Approval of L2C - Dated 15 February 2016
DANAK 1911809 Test for Marine Type Approval of LTU11 - Dated 30 January 2012
DANAK 1913963 Test for Marine Type Approval of LTU11ME - Dated 03 April 2014
DANAK 1911471 Test for Marine Type Approval of ABE11 and KBE15 - Dated 15 Jully 2011
DANAK 197724 Low frequency immunity testing of AC-C20 Units - Dated 07 December 2004
DANAK 197561 Testing of AC-C20 Units - Dated 09 August 2004
DANAK 197329 Type approval testing of ACP. PBT, MPP and MPD- Dated 30 January 200
DANAK 1910922 Test for Marine Type Approval of SCU - Dated 11 June 2010
DANAK 1910740 Test for Marine Type Approval of new Xe modules - Dated 18 December 2009
DANAK 194157 Test for Marine Type Approval of DPUs - Dated 03 November 1998
DANAK 197536 Test for Marine Type Approval of DPUs - Dated 06 July 2004
DANAK 1912063 Test for Marine Type Approval of ESU-12 - Dated 02 May 2012
DANAK 197836 Type approval testing of ESS-me, LTU-me and ESU-ext. - Dated 04 February 2005
DANAK 1915862 Test for Marine Type Approval of PB4 - Dated 03 December 2015
DANAK 1916085 Test for Marine Type Approval of L2C- Dated 15 February 2016
NEMKO 110-0028810 KM Mini wheel Test Report REP029184 dated 2024-05-03
NEMKO 110-0098993 Helmsman Wheel Test Report REP121803 dated 2025-11-04

Test Carried OUT:

Minute of Meeting - Function test K-Chief 600 March 9th 2010
110-0165159B- Type Approval Renewal MC380/ Windows 11

Alternative manufacturers:

Kongsberg Maritime Korea Ltd, 1058-7, Dalsan-ri, Jungkwan-myeon, Gijang-gun, 619-961, Busan, Korea
Kongsberg Maritime China Ltd - Kongsberg Maritime China Waigaoqiao Ltd., 136 North Fute Road , China (Shanghai), Pilot Free Trade Zone, 200131 Shanghai, China
Kongsberg Maritime China Jiangsu Ltd, 1-2F No 711 Changjiang Road, Runzhoud district, Jiangsu Province, P.C. 212002 Zhenjiang, China

Remarks:

The control system is approved without connections to untrusted networks including remote support capabilities, data export capabilities and automatic malware definition updates. These features will require installation of additional system(s) such as Kongsberg Remote Services, Kongsberg Information Management System (K-IMS and Malware Protection System (MPS) on dedicated certificate(s).
The validity of the Type Approval is maintained if any implementations / modifications are reported, including changing in Hardware and Software; moreover tests are to be provided in order to:

- Make sure that such modifications do not affect the functionality of the system,
- Verify that no major modifications are introduced in the system structure (HW/SW)

Traceability of Hardware and Software version/release is to be ensured for each installation/application

This certificate annuls and replaces the previous one n° ELE016024XP.

Gdańsk October 14, 2026

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