

# Type Approval Certificate



[ Control & Safety System ]

**Initial Approval** 20 December 1999  
**Manufacturer** Kongsberg Maritime AS, Horten  
 Bekkajordet 8, NO-3189 Horten, Norway

**Product Description** Electronic Ship Automation Equipment  
 Type: AutoChief C600 Propulsion Control System  
 K-Steering 600 Steering Control System

\* Manufacturing Place

- Kongsberg Maritime AS(HQ) / Kirkegardsveien 45, 3616 Kongsberg, Norway
- Kongsberg Maritime AS(Horten) / Bekkajordet 8A, NO-3189 Horten, Norway
- Kongsberg Maritime Korea / 9-7 Sandan 3-ro, Jeonggwan-eup, Gijang-gun, Busan, 46027, Republic of Korea
- Kongsberg Maritime China(Shanghai) / No. 136 North Fute Road, China (Shanghai), Pilot Free Trade Zone, 200131, China

" See Appendix 1 "

**Approval Condition** " See Appendix 1 "

**THIS IS TO CERTIFY** that the above-mentioned product has been approved in accordance with the relevant requirement of this Society's Rules and / or of the recognized standards as follows.

Pt. 6, Ch. 2, Art. 301 of the Rules for Classification, Steel Ships.

This Certificate is valid until 19 December 2029

Issued at Busan, Korea on 18 October 2024



This certificate is signed electronically in accordance with IMO FAL.5/Circ.39/Rev.2. Validation and authentication of the certificate can be confirmed from "<http://e-cert.krs.co.kr>" by using the tracking No(ME25001097472) and certificate No.(CPH27937-AC001).



**KOREAN REGISTER**

*General Manager of  
Marine & Ocean Equipment Team*

**Note :** 1. This certificate will be valid subject to complying with the approval conditions described on the certificate and/or on the Rules of this Society.  
 2. This certificate will be invalid from the expiry date aforementioned unless the extension or renewal has been granted to the applicant or the manufacturer.  
 3. Any significant modifications or changes in design or construction to the above product without approval from this Society will render this certificate invalid.  
 4. Should the specified rules, regulations or standards be amended during the validity of this certificate, the product is to be re-approved by this Society in accordance with the requirements as amended.

## Product Description and/or Approval Condition

Date of Issue : 18 October 2024

### A. Product Description

#### 1. Product Specification

##### 1) Product Description

The AutoChief C600 system is designed for the following application functions:

- Main Engine remote control and monitoring
- Safety protection of main engine
- Speed governing of main engine
- Engine telegraph

The K-Steering system is designed for the following application functions:

- Steering gear remote control, monitoring, and alarm
- Interface to autopilot and (optional) dynamic positioning system and independent joystick system

##### 2) Hardware components

AutoChief C600 & K-Steering (Common modules)

Name	Description
DGU	Digital Governor Unit (8100272)
RPME	RPM Units (8100289)
MEI	Main Engine Interface Unit (8100276)
ESU	Engine Safety Unit (8100275)
ESU12	Engine Safety Unit (366666)
LTU11	Lever Telegraph Unit 11 (364330)
LTU11 ME	Lever Telegraph Unit 11 (389505)
ESS	Electric Shaft System (8100282)
MPP	Multi-Purpose Panel (8100290)
MPD	Multi-Purpose Display (8100292)
PBT	Pushbutton Telegraph (8100278)
PBT	Pushbutton Telegraph (8100318)
RFU MK2	Rudder Feedback Unit MK2
PB4	Push Button 4 (400992)
L2C	LAN to CAN Gateway (404654)
ELACT 3812	Electrical Fuel Actuator (468750)
DSU38	Electrical Fuel Actuator (468770)
BWU21R	Bridge Wing Unit Right Version (486200)
BWU21L	Bridge Wing Unit Left Version (486233)
CP12	Control Panel (402586)
KBE15	Button Extension (401892)
ABE11	Button Extension (355146)
SCU	Controller unit Segment Controller unit (329785)

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Name	Description
RMC-ST	Media Converter (321520)
RAi-16xe	Remote Analog input Module (329714)
RDo-16xe	Remote Digital output Module (329699)
RAi-10tc	Remote Analog TC input Module (8100161)
RDi-32xe	Remote Digital input Module (333523)
RAo-8xe	Remote Analog output Module (333505)
RI0-C2xe	Remote Digital I/O Module (333346)
Lever K-Thrust Dual	Common Thruster Lever (416532)
Lever K-Thrust single	Common Thruster Lever (416533)
Lever K-Thrust Display	Common Thruster Lever (416534)
Lever K-Thrust Dual w/Display	Common Thruster Lever (405844)
Lever K-Thrust single w/Display	Common Thruster Lever (405842)
Mini Wheel K-Thrust w/Display	Common Thruster Lever (412364)
Mini Wheel K-Thrust	Common Thruster Lever (417835)
PB6	Push button panel (110-0060620)

### 3) Software components AutoChief C600 & K-Steering (Common software)

Name	Description	Version
C600	Application Software	12.16.94

## 2. Approved Drawings and Documents

### 1) Drawings

- 405842, 405844, 405846, 412364, 412460A, 412948A, 416531, 416532, 416533, 416534, 416535, 419579, 412364, 417835, 413029, 413032, 419577A, 419578A, 419579A, 419580A
- 468844A, 468845A, 469179B, 473083A, 110-0000939A, 442395A, 477386A, 443346A, 355197C1, 372127A, 402348A1, 405149F

## 3. Test Reports, etc.

### 1) Test Reports No.

- DANAK-194157, 194874, 197309, 197316, 197322, 197329, 197536, 197538, 197561, 197941, 198234, 198468, 1910472, 1910496, 1910740, 1910922, 1911137, 1913963, AA-00378-A, 19/11809, 19/14404, 19/14407
- DNV 2010-3604, 2011-3419, 2012-3095, 19/15712, 19/15815, 19/15862, 19/16085
- Nemko E16203.00
- DANAK-1911471, 1912063, 1915434

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- 5F007245 issued by SP Technical Research Institute, dated 2015-07-31
- E21088.03 issued by NEMKO, dated 2021-10-28
- E19116.02 issued by NEMKO, dated 2019-12-18
- E21017.03 issued by NEMKO, dated 2021-11-23
- E21239.03 issued by NEMKO, dated 2022-07-06
- REP043653 issued by NEMKO, dated 2022-08-20

### B. Approval Condition

#### 1. Application & Limitation

- 1) This approval is granted on the basis of the approved documentation and the test reports (IACS UR E10 Rev.8).
- 2) The manufacturer should inform this Society of all kinds of revisions of the equipment including software. If the changes are recognized to affect the functionality of the approved equipment, a type test to confirm the reliability of the revised equipment may be performed in the presence of our surveyor.
- 3) Hardware components which are common for Cert. No. CPH27937-AC003 (K-Chief, K-Chief 700 and K-Safe systems) are listed in this certificate.

#### 2. Individual Product Cert. and Drawing Approval Requirement

- 1) Individual Product Certification is required.
- 2) In the case where this system is installed on board, the system drawings for individual vessel are to be approved by this Society.

#### 3. Marking

- 1) The product or packing is to be marked with the manufacturer's name and type designation on a suitable position.

#### 4. Others

N/A

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