



Marine & Offshore

Certificate number: 74079/A0 BV

File number: MPA2204292

Product code: 0243H

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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TYPE APPROVAL CERTIFICATE

This certificate is issued to

Kongsberg Maritime AS

Horten - NORWAY

for the type of product

OVERRIDABLE POWER LIMITATION SYSTEMS (ELECTRONIC)

KM EPL / KM ShaPoLi

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships
IMO MEPC 335(76)

This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 30 Jan 2028

For Bureau Veritas Marine & Offshore,

At BV OSLO, on 30 Jan 2023,

Rune MARSTEIN

This certificate was created electronically and is valid without signature



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

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BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION :

The **KM EPL / KM Shapoli** is the solution from **Kongsberg Maritime AS** to be implemented in AutoChief C20 and AutoChief 600, to provide EPL or ShaPoLi functionality.

This functionality will be implemented in existing and/or new hardware modules.

The available functions are as per following table :

| Function | AutoChief C20 | AutoChief 600 |
|---|--|---------------|
| EPL - power limitation | yes | yes |
| ShaPoLi - power limitation | yes | yes |
| Override power limitation | yes | yes |
| System failures alarms | yes | yes |
| Indication at the bridge of activation of un-limiting mode | yes | yes |
| Indication at the bridge of power limit exceeded (visual and audible) | yes | yes |
| Indication of shaft speed, torque and power (for ShaPoLi only) | yes | yes |
| Recording of shaft speed, torque and power in un-limiting mode (for ShaPoLi only) | yes but a separate external recorder is required | yes |
| Recording of power limit exceeded | yes but a separate external recorder is required | yes |
| Recording of activation of override | yes but a separate external recorder is required | yes |

This certificate is complementary to the Type Approval Certificate for AutoChief C20/600, reference 09413/xx BV.

The different configurations of EPL and ShaPoLi covered by this certificate are detailed in function diagram 110-0008544 rev B.

This certificate does not cover the torque meter which has to be used for ShaPoli.

In case of ShaPoLi implemented in AutoChief C20, a separate external recorder for power reserve use recording is to be installed.

2. DOCUMENTS AND DRAWINGS :

- Vessel parameters 488028 rev B dated 2022-04-25
- Operator manual 491199 rev B dated 2022-04-25
- FMEA 488025 rev B dated 2022-04-25
- HAT & SAT 488029 rev C dated 2022-04-25
- Function diagram 110-0008544 rev B dated 24.08.2022
- Function description 488026 rev C dated 2022-08-30
- Tag description 488027 rev B dated 2022-04-25
- Power limitation panel outline drawing 110-0000686 rev A dated 2022-03-03
- FAT 495512 rev D dated 2022-08-30

3. TEST REPORTS :

n.a.

4. APPLICATION / LIMITATION :

- 4.1 - Bureau Veritas Rules for the Classification of Steel Ships
- 4.2 - Equipment covered by this Type Approval certificate has been tested according to requirements of IACS UR E10 rev8
- 4.3 - The equipment, once installed on board ship, is to be tested in accordance with the above referred Rules and Regulations under the supervision of a Society's Surveyor.
- 4.4 - Each application and configuration is to be submitted to the Society's examination prior to fitting on board.
- 4.5 - Only Hardware and Firmware / Software successfully tested together in compliance with the Rules and Regulations as referred to in cover page, according to the declaration of the manufacturer are covered by this certificate.
- 4.6 - Any modification of the hardware, firmware or software having an impact on the product performance or functionality has to be validated with type testing.
- 4.7 - The system is categorized as Category I computer-based system.
- 4.8 - Scope of this certificate is limited to the technical requirements on the front page.
- 4.9 - Use of the system on board always require the vessel's Flag Administration acceptance.

5. PRODUCTION SURVEY REQUIREMENTS :

5.1 - The **KM EPL / KM Shapoli** to be supplied by **Kongsberg Maritime AS** in compliance with the type described in this certificate.

5.2 - This type of product is within the category HBV of Bureau Veritas Rule Note NR320 and as such does not require a BV product certificate.

5.3 - **Kongsberg Maritime AS** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products.

5.4 - For information, **Kongsberg Maritime AS** has declared to Bureau Veritas the following production site :

Kongsberg Maritime AS
P.O.Box 1009
3194 Horten
NORWAY

5.5 - The components listed in § 1 have to be covered by a valid type approval certificate, issued by the Society.

6. MARKING OF PRODUCT :

- Trade name.

- Date of manufacture and serial number.

- Equipment type number or model identification under which it was type-tested.

7. OTHERS :

7.1 - It is **Kongsberg Maritime AS** responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

***** END OF CERTIFICATE *****