



Confirmation of Product Type Approval

Company Name: KONGSBERG MARITIME AS, MERCHANT MARINE DIVISION

Address: POSTBOKS 1009 N-3194 Norway

Product: Shaft Revolution Indicator System

Model(s): KM EPL / KM ShaPoLi

Endorsements:

Certificate Type	Certificate Number	Issue Date	Expiry Date
Product Design Assessment (PDA)	23-2401912-PDA	23-MAY-2023	22-MAY-2028
Manufacturing Assessment (MA)	22-5381092	29-JUL-2022	03-SEP-2027
Product Quality Assurance (PQA)	NA	NA	NA

Tier

3 - Type Approved, unit certification not required

Intended Service

Marine and Offshore Applications, providing monitoring, alarming, logging and limitation on engine power and shaft power in relation with Energy Efficiency. Acceptable for vessels with DPS, ACC & ACCU notations.

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 can be implemented in existing and/or new hardware modules.

The available functions are as per in table 1 of the attachment "KM EPL / KM ShaPoLi Additional Information".

Ratings

Power Limitation Panel:

Supply voltage: 24 VDC

Degree of protection: IP2X

Software versions:

AC 600 DGS - SW release support for 12.14 and 12.16

AC-C20 DGS - SW release support for 10.01 to 10.07

Service Restrictions

1. Where the product is used in a Category II or III Computer Based System as described in Section 4-9-3/Table 1 of the 2023 Marine Vessel Rules, the complete assembly unit or subassembly unit is to be tested at the manufacturer's shop in the presence of the Surveyor to verify compliance with the tests in 4-9-9/15.7 Table 2. Otherwise, unit certification is not required.
2. If the manufacturer or purchaser requests an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.
3. The vessel's interacting engine(s), machinery and equipment will remain operational within the design parameters, characteristics, capacities and conditions as approved and specified. Otherwise, the engine(s), machinery and equipment manufacturer should approve any interface with EPL/ShaPoli system.
4. The use of the product is subject to the Flag Administration acceptance.
5. EPL/ShaPoLi functionality as covered by this PDA certificate may be implemented in AutoChief C20/600 systems on ABS classed vessels subject to EEXI power limitation.

Comments

1. The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
2. The Manufacturer has provided confirmation that the installation and operation of the unit does not violate designers'/makers' IP rights of any interacting machinery & equipment already fitted on board a vessel.
3. A Power Limitation panel "PL" for installation on the bridge is covered by this PDA certificate, including: a lid protected switch for activating override, an indicator for "Override active" and an indicator (audible and visual) for "Power exceeded".
4. The torque meter for use in EPL/ShaPoLi-arrangement is not covered by this PDA certificate.
5. A separate data recording device of an approved type is to be provided for AutoChief C20.
6. This PDA certificate is complementary to the certificate for AutoChief C20/600, reference 22-2274357-PDA.
7. Each installation of the system is to be separately approved along with each ship's specific Onboard Management Manual (OMM).

Notes, Drawings and Documentation

Drawing No. 110-0000686, PL Outline Drawing, Revision: A, dated 03-Mar-2022

Drawing No. 110-0008544, Power Limitation, Revision: B, dated 24-Aug-2022

Drawing No. 488025, FMEA, Revision: B, dated 25-Apr-2022

Drawing No. 488026, FDD, Revision: C, dated 30-Aug-2022

Drawing No. 488027, Tag description, Revision: C, dated 25-Apr-2022

Drawing No. 488028, EPL Vessel Specification, Revision: B, dated 25-Apr-2022

Drawing No. 488029, EPL HAT SAT, Revision: E, dated 23-Jan-2023

Drawing No. 488030, EPL Product sheet, Revision: C

Drawing No. 491199, Operator Manual, Revision: B, dated 25-Apr-2022

Drawing No. 495512, EPL-ShaPoLi FAT, Revision: D, dated 30-Aug-2022

Drawing No. Nemko REP0081142, Testreport for PI Panel, Revision: A, issued by Nemko Group, dated 28-Mar-2023

Drawing No. 74079-A0-BV, BV Certificate, Revision: A, dated 30-Jan-2023

Drawing No. LR2359171TA, Lloyds Certificate, Revision: A, dated 17-Apr-2023

Drawing No. TAA000035F, DNV Certificate, Revision: A, dated 02-Sep-2022

Term of Validity

This Product Design Assessment (PDA) Certificate remains valid until 22/May/2028 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

ABS Rules

2023 Rules for Building and Classing Marine Vessel Rules: 1-1-4/7.7, 1-1-A3 and 1-1-A4, 4-8-3/1.7, 4-8-3/1.9, 4-8-3/1.11.1, 4-8-3/1.17, 4-9-9/13.1 and 4-9-9/15.7 Table 1 (Tests No. 3, 4, 5, 7, 8 and 9)

International Standards

IEC/EN 60945:2002 + Cor1:2008

IMO Resolution MEPC.335(76): 2021 Guidelines on the Shaft / Engine Power Limitation System To Comply With The EEXI Requirements and use of a Power Reserve, Section 2.1.1, 2.1.2, 2.1.3, 2.2.1, 2.2.2, 2.2.3, 2.2.4 and 2.2.5

EU-MED Standards

NA

National Standards

NA

Government Standards

NA

Other Standards

IACS UR E10 Rev8 Corr1, Tests No. 1, 2, 5, 6, 7, 9, 10 and 11

IACS Rec. 172 EEXI Implementation Guidelines of June 2022, Section 6.6



A handwritten signature in black ink, appearing to read "James W. White".

ABS has used due diligence in the preparation of this certificate, and it represents the information on the product in the ABS Records as of the date and time the certificate is printed.

If the Rules and/or standards used in the PDA evaluation are revised or if there is a design modification (whichever occurs first), a PDA revalidation may be necessary.

The continued validity of the MA is dependent on completion of satisfactory audits as required by the ABS Rules. The validity of both PDA and MA entitles the product to receive a **Confirmation of Product Type Approval**.

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or prior to the effective date of the ABS Rules and standards applied at the time of PDA issuance. ABS makes no representations regarding Type Approval of the Product for use on vessels, MODUs or facilities built after the date of the ABS Rules used for this evaluation.

Type Approval requires Drawing Assessment, Prototype Testing and assessment of the manufacturer's quality assurance and quality control arrangements. The manufacturer is responsible to maintain compliance with all specifications applicable to the product design assessment. Unless specifically indicated in the description of the product, certification under type approval does not waive requirements for witnessed inspection or additional survey for product use on a vessel, MODU or facility intended to be ABS classed or that is presently in class with ABS.

Due to wide variety of specifications used in the products ABS has evaluated for Type Approval, it is part of our contract that; whether the standard is an ABS Rule or a non-ABS Rule, the Client has full responsibility for continued compliance with the standard.

Questions regarding the validity of ABS Rules or the need for supplemental testing or inspection of such products should, in all cases, be addressed to ABS.