



Certificate No:
TAA000038Y

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Remote Control System, Propulsion, Thruster and Steering

with type designation(s)
MPC300

Issued to

Caterpillar Inc.
Peoria, IL, USA

is found to comply with

DNV rules for classification – Ships, offshore units, and high speed and light craft

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.

Temperature	D (-40°C - 80°C)
Humidity	B
Vibration	A
EMC	A
Enclosure	B (IP44 */IP46 **)

*) **IPX4** applies to Advanced Control Processor

) **IPX6 applies to Integrated Lever, Control Display, and Palm Beach Lever)

Issued at **Hamburg** on **2023-06-05**

This Certificate is valid until **2028-06-04**.

for **DNV**

DNV local unit: **Houston Offshore Services**

Approval Engineer: **Didier Girardin**

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Joannis Papanuskas
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

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 300,000 USD.



Form code: TA 251

Revision: 2022-12

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Product description

The MCP300 "Marine control processor" controls the engine speed for both single engine and dual engine configurations. Additional controls of transmission gear compatible with different transmission manufacturers are available. The MCP300 allows up to 4 control stations on each datalink to operate the vessel from different manned locations.

- MCP300 processor redundancy main and back up
- Fault monitoring (power supply, datalink, processor fault) and Diagnostic indicators
- Power supply by two 24V DC power sources – primary and secondary
- Possible operational Modes: Slow, Synchronization (dual engine installations only), Trolling Mode

Component Part Number	Type	Pt.N°
Advanced Control Processor	MCP300	595-1172
Advanced Lever	MCL100	595-1181
Control Display HMI	MCD100	595-1189
Palm Beach Lever	MAA100	595-1190

Manufacturing Place(s)

Sturdy Corporation, 1822 Carolina Beach Rd, Wilmington, NC 28401, United States

Application/Limitation

The Type Approval **covers hardware** listed under Product description. When the hardware is used in applications to be classed by DNV, documentation for the actual application is to be submitted for approval by the manufacturer of the application system in each case. The following documentation of the actual application is to be submitted for approval:

- Reference to this Type Approval Certificate
- Reference to valid type approval of connected ECM(s)
- Functional description (if deviating from version as listed under documentation)
- Engine type(s), intended use
- Software version for specific delivery
- List of interfaced control & monitored signals
- Power supply arrangement (may be part of a System block diagram)
- HAT Acceptance Test program (final acceptance on board)
- The Type Approval covers **hardware** listed under Product description.

Product certificate

As long as the units are covered by the Type Approval, a product certificate according to Pt.4 Ch.9 Sec.1 will **not be required** for system applications made and delivered by Caterpillar Inc. production facilities for DNV Type Approved diesel engines series. Correct configuration and set up for each delivery to be tested during commissioning after installation.

A product certificate may be issued if the units undergo testing with the Engine Control System (ECM) for certification, while adhering to the applicable approval conditions specified in the ECM type approval certificate

Clause for application function control

All changes in software are to be recorded as long as the system is in use on board. The records of all changes are to be forwarded to DNV for evaluation and approval. Major changes in the software are to be approved before being installed in the computer. Certification of Application Functions may be required.

Type Approval documentation

See Annex

Tests carried out

Applicable tests according to class guideline DNV-CG-0339, August 2021

Marking of product

The products to be marked with:

- manufacturer name
- model name
- serial number
- power supply ratings

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the assessment are:

- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications
- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer's product type marking and the type approval certificate

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE



ANNEX
Hidden

Job Id: **262.1-037560-1**
Certificate No: **TAA000038Y**