DNV·GL

Certificate No:
TAA00000DX

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Programmable Controller

with type designation(s)
Cylinder Control Module "CCM-30"

Issued to
Wärtsilä Finland Oy
Vaasa, Finland

is found to comply with
DNV GL rules for classification – Ships and offshore units
DNV GL rules for classification – High speed and light craft

Application :

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

Location classes:

Temperature	**D**
Humidity	**B**
Vibration	**B**
EMC	**A**
Enclosure	**A**

This Certificate is valid until **2021-09-17**.

Issued at **Høvik** on **2016-09-18**

for **DNV GL**

DNV GL local station: **Turku**

Approval Engineer: **Krzysztof Aleksander Jankowski**

Odd Magne Nesvåg
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.

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Product description

Cylinder Control Module "CCM-30" will be a part of UNIC engine automation and control system. The main functionalities include the measuring and controlling tasks on Wärtsilä 2- or 4-stroke engines.

Communication modules "CCM-30"	
Model	**HW revision**
A-board 2036	1X*
B-board 2733	1X*
*) X - minor changes not affecting requirements from DNV GL Rules and guideline DNVGL-CG-0339, November 2015	

Place of manufacture

Scanfil Osaühing
Vana-Sauga 40,
80044, Pärnu linn, Pärnu maakond,
Republic of Estonia

Application/Limitation

When DNV GL Rules requires enclosure protection higher than class A (e.g. machinery spaces) for specific installation then evidence of compliance shall be submitted for every delivery.

Approval conditions

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV GL, documentation for the actual application is to be submitted for approval by the manufacturer of the application system in each case. Reference is made to DNV GL rules for classification of ships Pt.4 Ch.9 Control and monitoring systems.

Product certificate
If specified in the Rules, ref. Pt.4 Ch.9 Sec.1, the control and monitoring system in which the above listed hardware is used shall be delivered with a product certificate. For each such delivery the certification test is to be performed at the manufacturer of the application system before the system is shipped to the yard. The test shall be done according to an approved test program. After the certification the clause for application software control will be put into force.

Clause for application software 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 GL for evaluation and approval. Major changes in the software are to be approved before being installed in the computer.

Type Approval documentation

Tests carried out
Applicable tests according to class guideline DNVGL-CG-0339, November 2015.

Marking of product
CCM-30
Wärtsilä material:
HW rev:

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 at least every second year and at renewal of this certificate.

END OF CERTIFICATE