DNV·GL

Certificate No:
TAA00000Z5

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Engine Safety, Control and Alarm System

with type designation(s)
RP 210, RP 210E, DCU 210, DCU 210E, SDU 410, System MarinePro and 200 series for DNV GL Type Approved Scania engines

Issued to
Auto-Maskin AS
Skjetten, Norway

is found to comply with
DNV GL 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 GL.

Location classes:
(For reference see also information's under Product description on page 2)

Type	Temperature	Humidity	Vibration	EMC	Enclosure
RP 210	B	B	A	B	Required protection according to DNV GL Rules shall be provided upon installation on board
RP 210E	B	B	A	B	
DCU 210	B	B	A	B	
DCU 210E	B	B	A	B	
SDU 410	B	B	A	A	

This Certificate is valid until **2019-03-31**.

Issued at **Høvik** on **2017-03-29**
DNV GL local station: **Oslo Maritime and CAP** for **DNV GL**

Approval Engineer: **Sergey Gilmiyarov**

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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Job Id:
Certificate No: **TAA00000Z5**

Product description

Auto-Maskin MarinePro Control System Scania 200 Series is a safety, control and monitoring system for diesel engines series **DI09 M, DI13 M, DI16 M** made by Scania CV AB. System is intended for use with Scania CV AB made **EMS-S6** engine control system for electronic control of fuel injection, speed governing and extra I/O modules for engine management.

Auto-Maskin Marine Pro Control System Scania 200 Series consists:

Unit name	**Unit description**
RP 210 and RP 201E	Remote panel with display
DCU 210 and DCU 210E	Alarm and monitoring system with display
SDU 410	Safety system

List of firmware (application software)	
Unit name	**Firmware (application software) version**
RP 210	2.12P2
RP 210E	3.5P1
DCU 210	2.12P2
DCU 210E	3.5P1
SDU 410	1.43

Software update notification
When the type approved firmware is revised (affecting all future deliveries) DNV GL is to be informed by forwarding updated firmware version documentation. If the changes are judged to affect functionality for which rule requirements apply a new functional type test may be required and the certificate may have to be renewed to identify the new firmware version.
Firmware (application software) for classed installations can be verified in display, through the sub menu "Version Information".

Place of manufacture

Auto-Maskin AS
Hvamsvingen 22
2013 Skjetten
Norway

Application/Limitation

1. This certificate is valid only for systems made by Auto-Maskin AS, Skjetten, Norway for Scania CV AB, Södertälje, Sweden made engines series **DI09 M, DI13 M, DI16 M** provided they hold a valid DNV GL Type Approval Certificate
2. System is intended to use with Scania CV AB made **EMS-S6** engine control system for electronic control of fuel injection, speed governing and engine management.
3. Engines maximum output power < 1000 kW
4. System is suitable to be used as engine safety, control and monitoring system for emergency, auxiliary and propulsion engines in multi-engine propulsion plants.
5. Not suitable for propulsion engines for Category B craft with respect to HSC 2000 Code.
6. System shall be equipped with dual power supply. Safety system and control and monitoring system shall be separately fused.
7. List of controlled and monitored points (with defined alarm, load reduction and shutdowns, including identification of which automatic safety actions can be overridden) shall comply with vessel main class and relevant class notations requirements from DNV GL Rules.
8. Case-by-case approval and system certification may be requested if the Approval conditions are not met or the system configuration is found not to be in alignment with the requirements from DNV GL Rules.

The Type Approval covers hardware and software 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 by Auto-Maskin AS Norway for DNV GL Type Approved diesel engines made by Scania CV AB Sweden. Correct configuration and set up for each delivery to be tested during commissioning after installation.

The following documentation of the actual application is to be submitted for approval in each case:
- Reference to this Type Approval Certificate
- Reference to valid DNV GL Type Approval Certificate for engine
- Reference to valid DNV GL Type Approval Certificate for SDU 410
- Reference to valid DNV GL Type Approval Certificate for EMS-S6
- System block diagram
- Power supply arrangement (may be part of the System block diagram)
- List of control and monitored points (list covering alarms, safety functions)

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.
A Certification of Application Functions may be required for the particular vessel.

Tests carried out
Functional type test together with an engine at Scania facilities, Södertälje, Kingdom of Sweden, 2012-07-18.
Applicable tests according to Standard for Certification No. 2.4, April 2006.

Marking of product

Manufacturer: Auto-Maskin AS
Model number: Unit name as listed under Product description
Serial number: Unique for each delievered item

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

A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE