DNV·GL

Certificate No:
TAA00000JU

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Separator Discharge Controller

with type designation(s)
EPC 60 Bilge

Issued to
Alfa Laval Tumba AB
TUMBA, Sweden

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:

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

This Certificate is valid until **2017-12-31**.

Issued at **Høvik** on **2016-08-05**

for **DNV GL**

DNV GL local station: **Stockholm**

Approval Engineer: **Geir Bjørn Alnes**

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

EPC 60 Bilge – Control unit for bilge water separator, consisting of:

590111 80 Control Cabinet steam and thermal oil heaters		9003900 80 Control Cabinet electric heater	
Unit Number	Name	Unit number	Name
590114 80	Control Cabinet	9003905 80	Control Cabinet
590114 81	Vibration Transmitter kit	590114 81	Vibration Transmitter kit
590114 82	Chemical Dosing kit	590114 82	Chemical Dosing kit
590114 85	Space Heating kit	590114 85	Space Heating kit
590114 86	GPS kit	590114 86	GPS kit
590114 87	ESD kit	590114 87	ESD kit
590114 88	Transformer kit	590114 88	Transformer kit

Software version: 581058-04 Ver. 02.14

Application/Limitation

The following documentation of the actual application is to be submitted for approval in each case:
- Reference to this Type Approval Certificate
- System block diagram
- Power supply arrangement (may be part of the System block diagram)

The Type Approval covers hardware and software listed under Product description.
When the type approved software is revised (affecting all future deliveries) DNV GL is to be informed by forwarding updated software 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 software version.

As long as the units are covered by the Type Approval, a product certificate according to Pt.4 Ch.9 Sec.1 [1.2.3] will not be required. Correct configuration and set up for each delivery to be tested during commissioning after installation.

Starters are not part of this Type Approval and shall be handled as required in DNV GL Rules Pt.4 Ch.8.

Type Approval documentation

Tests carried out

Applicable tests according to class guideline DNVGL-CG-0339, November 2015.
Environmental tests according to MEPC.177(49) part 3.

Place of manufacture

PC Project, Via Bergamo 83
23 807 Merate (LC)
Italy

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