DNV·GL

Certificate No:
TAA00000RJ

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Position Transmitter

with type designation(s)
Bearing Weardown Gauge

Issued to
Wartsila UK Ltd.
HAVANT, HAMPSHIRE, United Kingdom

is found to comply with
DNV GL rules for classification – Ships

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	**A**
EMC	**B**
Enclosure	**D**

This Certificate is valid until **2018-09-06**.

Issued at **Høvik** on **2016-09-07**

for **DNV GL**

DNV GL local station: **Southampton**

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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Product description

Hardware covered with this Type Approval Certificate:

- Bearing wear down gauge (WDG)
- WDG Cable gland
- WDG Cable assembly

PART DESCRIPTION	PART NUMBER
WEARDOWN GAUGE SENSOR	PAAG247552
10 METRE CABLE	PAAG247553
15 METRE CABLE	PAAG247554
20 METRE CABLE	PAAG247555
25 METRE CABLE	PAAG247556
30 METRE CABLE	PAAG247557

Place of manufacture

Phoenix Dynamics
Unit 5 Century Road, High Carr Business Park,
Newcastle-under-Lyme, Staffordshire, ST5 7UG.

Application/Limitation

- WDG meets requirements towards Electrical slow transient/surge immunity when connected to power supply provided in Digital Display Unit (installation according to Technical Manual TM-WEARDOWN-00003 issue C).
- WDG Cable (cable between Bearing wear down gauge (WDG) and Digital Display Unit) must be installed at minimum 1 m distance from vessel's power cables.

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.

Type Approval documentation

Tests carried out

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

Marking of product

Wear down gauge is marked with identification label 40x60 mm containing following information:
WEAR DOWN GAUGE
Wartsila UK Limited
4 Marples Way
HAVANT
Hampshire
Serial Number:
Date of manufacture:

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 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 components and/or materials used comply with type approved documents and/or referenced component and material specifications
- Review of possible changes in design of 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