DNV·GL

Certificate No:
TAA0000094

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Alarm Management System

with type designation(s)
Transas BAMS 5000 MFD

Issued to
Transas Marine Limited
Cork, Ireland

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.

This Certificate is valid until **2021-07-11**.

Issued at **Høvik** on **2016-07-12**

for **DNV GL**

DNV GL local station: **Gothenburg**

Approval Engineer: **Roger Lauritsen**

Jan Tore Grimsrud
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:
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Product description

The Transas BAMS 5000 MFD comprises combinations of the following components:

Unit	Location
- Main Processing Unit	Protected
- Operating and control unit	Protected
- Display unit	Protected
- Reset button	Protected
- I/O modules	Protected
- Buzzer	Protected

Hardware modules are described in detail as hardware profile **HW4** in Transas Hardware certificate. See Type examination documentation.

Software version. 3.00.xxx

Operating system: Windows XP, Windows 7

Application/Limitation

- The system shall be installed in accordance with MFD Installation Guide

Additional MFD functions: (functions tested in a MFD environment and found not inferior to the BAMS functions):

- Navi-Radar 4000
- Navi-Sailor 4000 ECDIS/Navi-Sailor 4000 ECDIS MFD/Navi-Sailor 4100 ECDIS MFD/ AlphaChart-T
- BNWAS 5000 MFD
- Navi-Conning 4000 / Navi-conning 5000
- Firewall & Antivirus Protector
- Remote Service Functionality
- Transas Wave application

Tests carried out

- Performance testing, Bridge Alert management, IMO MSC.302(87)
- Performance testing, Bridge Alert management, DNV GL Rules Pt.6 Ch. 3 Sec. 3, 4 and 5.
- Environmental testing, IEC 60945 (2002)
- Serial interface testing, IEC 61162-1 (2010)
- LAN interface testing, IEC61162-450 (2011)
- Performance testing, presentation, IEC 62288 (2014)

Type Approval documentation

DNV GL No	Rev.	Description
8	3.00.340	MFD Additional Functions
7	3.00.340	MFD Installation Guide Part I
6		Test report NS 4000 MFD, Addional IEC61162-1 tests
4		RS6 and DCU IEC61162 compliance test report
2	2015-11-24	BAMS test report
1		IEC 61162-450 report

Marking of product

The Manufacturer and Type Designation to be labelled on the equipment in a clearly visible location and in addition the equipment shall be marked with serial number, safe distance to magnetic compass, power consumption and/ or supply voltage.

Periodical assessment

A retention survey is to be performed at least every second year, and upon renewal of this certificate. The scope of the retention/renewal survey is to verify that the production quality conditions stipulated for the type approval are complied with and that no alterations are made to the product design or its components and/or materials without appraisal by the Society.