

# TYPE APPROVAL CERTIFICATE

**This is to certify:**

**That the Sound Reception System**

with type designation(s)  
**VSS-V2**

Issued to

**Zenitel Norway AS**  
**HORTEN, Norway**

is found to comply with

**DNV GL rules for classification – Ships**

**IMO Res. MSC 86(70) Annex 1 Recommendation on Performance Standards for Sound Reception Systems**

**IMO Res. A.694(17) General requirements for shipborne radio equipment forming part of the global maritime distress and safety system (GMDSS) and for electronic navigational aids**

**MSC.191(79) Performance standards for presentation of navigation-related information on shipborne navigational displays**

**Application :**

**See page 2.**

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

This Certificate is valid until **2022-01-12**.

Issued at **Høvik** on **2017-01-13**

DNV GL local station: **Sandefjord**

Approval Engineer: **Frederik Tore Elter**

for **DNV GL**

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**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.

Job Id: **262.1-013329-2**  
Certificate No: **TAA000010C**

## Product description

VSS-V2 Sound Reception System consisting of the following modules :

Module	Type	Item no.	Installation
VSS Master Panel - V2	VSS-MP	1021001100	Protected
VSS Slave Panel - V2	VSS-SP	1021001200	Protected
VSS Microphone Unit - V2	VSS-MU	1021002100	Exposed

## Application/Limitation

- VSS-V2 shall be installed and tested according to the manufacturers Installation & User Manual
- VSS-V2 is found to comply with requirements for Sound Reception Systems for the additional class notations NAUT(OC) and NAUT (AW) as specified in the DNV GL Rules Pt.6, Ch.3, Sec.3 (January 2017).

## Tests carried out

- Performance testing, sound reception systems: ISO 14859 (2012) and DNV GL TA programme A.1/4.58
- Presentation of navigation information: IEC 62288 (2014)
- EMC and environmental testing: IEC 60945 (2002)

## Type Approval documentation

Doc. Id	Description
SRS2012-VSS DNV Type Approval	Report: Zenitel, VSS-V2 Performance test report
A100K11209	Manual: Zenitel, Sound Reception System VSS-V2 Installation & User Manual
E12067.00	Report: Nemko, EMC rapport incl environmental tests

## Marking of product

The manufacturer and Type Designation is to be applied to 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.

## Certificate Retention Survey

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

The scope of the periodical/renewal assessment 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