



CERTIFICATE NUMBER

13-LD1042619-PDA

DATE

24 July 2013

ABS TECHNICAL OFFICE

London Engineering Department

# CERTIFICATE OF DESIGN ASSESSMENT

This is to Certify that a representative of this Bureau did, at the request of  
**ZENITEL MARINE - HORTEN**

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

PRODUCT: **Sound Reception System**

MODEL: **VSS-V2**


This Product Design Assessment (PDA) Certificate 13-LD1042619-PDA, dated 24/Jul/2013 remains valid until 23/Jul/2018 or until the Rules or specifications used in the assessment are revised (whichever occurs first).

This PDA is intended for a product to be installed on an ABS classed vessel, MODU or facility which is in existence or under contract for construction on the date of the ABS Rules or specifications used to evaluate the Product.

Use of the Product on an ABS classed vessel, MODU or facility which is contracted after the validity date of the ABS Rules and specifications used to evaluate the Product, will require re-evaluation of the PDA.

Use of the Product for non ABS classed vessels, MODUs or facilities is to be to an agreement between the manufacturer and intended client.

AMERICAN BUREAU OF SHIPPING

  
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Barry H. Moss  
Engineer

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by the terms and conditions as contained in ABS Rules 1-1-A/3/5 9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010).

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**Product:** Sound Reception System

**Model:** VSS-V2

**Intended Service:**

Sound Reception system required on ships with enclosed bridge.

**Description:**

The VINGTOR Sound System (VSS) is a navigation aid Sound Reception system required on ships with enclosed bridge. The system enables the navigational officer to hear sound signals from outside the vessel and determine their direction. The VSS utilizes DSP technology to improve operation and detection of sound signals. The DSP (digital signal processor) provides active noise cancellation to remove background noises in order to provide better external noise signals and to remove un-wanted noise from the bridge.

The system consists of one microphone unit (VSS-MU) and four integrated directional microphones for mounting on top of the wheelhouse. In the bridge, a VSS main panel (VSS-MP) is installed. The bridge main panel interfaces up to four slave panels (VSS-SP), to the Voyage Data Recorder (VDR) and a relay output for muting the typhoon and public address systems.

**Ratings:**

Operating Voltage: 24 VDC;  
Panel Enclosure: IP 22, Mic. Unit: IP66/67;  
Audio: 70 to 2100 Hz;  
Mic. operating environment: -30 to 55 oC

**Service Restrictions:**

Unit Certification is not required for this product. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

**Comments:**

The system fully conforms to the requirements contained in ISO 14859:2012, which specifically states that background noise must be filtered out and only tone signals (horns and whistles) shall be detected and give audio visual indications on bridge. Accordingly, the volume setting of the sound reception system need not be fully turned off.

**Notes / Drawings / Documentation:**

Test Reports: E12067 and SRS2012-VSS. Technical Description: A100K11050

**Term of Validity:**

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manufacturer and intended client.

**STANDARDS**

**ABS Rules:**

The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product. The Rules applicable to this assessment are: 2011 Steel Vessel Rules 1-1-4/7.7, 4-9-7/13 and B5.6.3 of Guide to Bridge Design and Navigational Equipment/Systems.

**National:**

NA

**International:**

IMO Res. MSC 86(70) Annex 1, MSC. 191(79) and IMO Res. A694(17); ISO 14859, IEC 62288 and 60945.

**Government Authority:**

NA

**EUMED:**

NA

**Others:**

NA

