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AMERICAN NATIONAL STANDARD

Guide for the Measurement, Reporting, and Evaluation of Hull and Superstructure Vibration in Ships

ANSI S2.25-2004

Accredited Standards Committee S2, Mechanical Vibration and Shock

Standards Secretariat
Acoustical Society of America
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ANSI S2.25- 2004
(Revision of ANSI S2.25-2001)

AMERICAN NATIONAL STANDARD

**Guide for the Measurement, Reporting,
and Evaluation of Hull and Superstructure
Vibration in Ships**

Secretariat

Acoustical Society of America

Approved March 11, 2004

American National Standards Institute, Inc.

Abstract

This standard contains guidelines for limiting the hull and superstructure vibration of ships for the purposes of habitability and mechanical suitability. The mechanical suitability guidelines result in a suitable environment for installed equipment and preclude many major vibration problems, such as unbalance, misalignment, and other damage to the propulsion system. To obtain data to compare with the guidelines, this standard also specifies data acquisition and processing procedures.

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Foreword

[This Foreword is for information only, and is not a part of the American National Standard ANSI S2.25 - 2004 American National Standard Guide for the Measurement, Reporting, and Evaluation of Hull and Superstructure Vibration in Ships].

This standard comprises a part of a group of definitions, standards, and specifications for use in mechanical vibration and shock. It was developed and approved by Accredited Standards Committee S2 Mechanical Vibration and Shock, under its approved operating procedures. Those procedures have been accredited by the American National Standards Institute (ANSI). The Scope of Accredited Standards Committee S2 is as follows:

Standards, specification, methods of measurement and test, and terminology in the field of mechanical vibration and shock, and condition monitoring and diagnostics of machines, but excluding those aspects which pertain to biological safety, tolerance and comfort.

This standard is a revision of ANSI S2.25-2001, which has been technically revised. Updated values of accelerations and velocities in categories of spaces are recommended and are in line with those of ISO 6954:2000. Also, more accurate weightings for acceleration and velocity measurements for habitability are incorporated, which are consistent with ANSI S3.18-2002 Part 1/ISO 2631-1:1997.

This standard is not comparable to any existing ISO Standard.

At the time this Standard was submitted to Accredited Standards Committee S2, Mechanical Vibration and Shock for approval, the membership was as follows:

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