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ANSI S2.70-2006
(Revision of ANSI S3.34-1986)

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AMERICAN NATIONAL STANDARD

Guide for the Measurement and Evaluation of Human Exposure to Vibration Transmitted to the Hand

ANSI S2.70-2006
(Revision of ANSI S3.34-1986)

Accredited Standards Committee S2, Mechanical Vibration and Shock

Standards Secretariat
Acoustical Society of America
35 Pinelawn Road, Suite 114 E
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Guide for the Measurement and Evaluation of Human Exposure to Vibration Transmitted to the Hand

Secretariat

Acoustical Society of America

Approved 19 May 2006

American National Standards Institute, Inc.

Abstract

This standard specifies the recommended method for the measurement, data analysis, vibration and health risk assessments, and reporting of human exposure to hand-transmitted vibration. A standard format is established for measurement, data analysis, vibration and health risk assessments, and reporting of hand-transmitted vibration, periodic or random, in three orthogonal axes, in the frequency range from 5.6 Hz to 1,400 Hz. Three normative annexes provide guidance for vibration and health risk assessments, mitigating health risks, training, and medical surveillance related to hand-transmitted vibration.

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Foreword

[*This Foreword is for information only and is not a part of the American National Standard ANSI S2.70-2006 American National Standard Guide for the Measurement and Evaluation of Human Exposure to Vibration Transmitted to the Hand.*]

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, specifications, methods of measurement and test, and terminology in the field of mechanical vibration and shock and condition monitoring and diagnostics of machines, including the effects of exposure to mechanical vibration and shock on humans, including those aspects which pertain to biological safety, tolerance, and comfort.*

This standard is a revision of ANSI S3.34-1986 (R 1997), which has been technically revised. The revisions incorporated into this standard make the measurement and data analysis procedures of the standard compatible with the corresponding procedures specified in ISO 5349 – Part 1 and ISO 5349 – Part 2. Vibration and health risks assessment procedures, methods for mitigating the potential for workers developing symptoms related to hand-arm vibration syndrome (HAVS), and training and medical surveillance guidelines have been added to this standard.

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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