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AMERICAN NATIONAL STANDARD

Mechanical vibration and shock – Evaluation of human exposure to whole-body vibration – Part 1: General requirements

A Nationally Adopted International Standard

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ISO 2631-1: 1997

Accredited Standards Committee S2, Mechanical Vibration and Shock

Standards Secretariat
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Approved 13 May 2002

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Abstract

This part of ANSI S2.72 / ISO 2631 defines methods for the measurement of periodic, random and transient whole-body vibration. It indicates the principal factors that combine to determine the degree to which a vibration exposure will be acceptable. Informative annexes indicate current opinion and provide guidance on the possible effects of vibration on health, comfort and perception and motion sickness. The frequency range considered is

- 0.5 Hz to 80 Hz for health, comfort and perception and
- 0.1 Hz to 0.5 Hz for motion sickness.

Although the potential effects on human performance are not covered, most of the guidance on whole-body vibration measurement also applies to this area. This part of ANSI S2.72 / ISO 2631 also defines the principles of preferred methods of mounting transducers for determining human exposure. It does not apply to the evaluation of extreme-magnitude single shocks such as occur in vehicle accidents.

This part of ANSI S2.72 / ISO 2631 is applicable to motions transmitted to the human body as a whole through the supporting surfaces: the feet of a standing person, the buttocks, back and feet of a seated person or the supporting area of a recumbent person. This type of vibration is found in vehicles, in machinery, in buildings and in the vicinity of working machinery.

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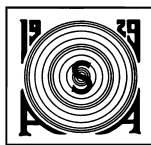
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