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Mechanical vibration and shock — Human exposure — Biodynamic coordinate systems

AMENDMENT 1

Vibrations et chocs mécaniques — Exposition de l'individu **iTeh ST** *AMENDEMENT 1* **(standards.iteh.ai)**

<u>ISO 8727:1997/Amd 1:2015</u> https://standards.iteh.ai/catalog/standards/sist/59e48820-4b22-41b6-a537-24470da52d2a/iso-8727-1997-amd-1-2015



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Foreword

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 108, Mechanical vibration, shock and condition monitoring, Subcommittee SC 4, Human exposure to mechanical vibration and shock.

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Mechanical vibration and shock — Human exposure — Biodynamic coordinate systems

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Page 1, Clause 2

Replace this clause with the following:

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 1503, Spatial orientation and direction of movement — Ergonomic requirements

ISO 5805, Mechanical vibration and shock — Human exposure — Vocabulary

Page 11, Figure A.6



a) "Handgrip" position (in this position, the hand adopts a standardized grip on a cylindrical bar)



b) "Flat palm" position (in this position, the hand presses down onto a sphere)

Кеу

- biodynamic coordinate system
- – basicentric coordinate system

NOTE The origin of the biodynamic coordinate system is the head of the third metacarpal (distal extremity). The z_h -axis (i.e. hand axis) is defined as the longitudinal axis of the third metacarpal bone and is oriented positively towards the distal end of the finger. The x_h -axis passes through the origin, is perpendicular to the z_h -axis, and is positive in the forwards direction when the hand is in the normal anatomical position (palm facing forwards). The y_h -axis is perpendicular to the other two axes and is positive in the direction towards the fifth finger (thumb). In practice, a basicentric coordinate system is used in which the *y*-axis is commonly parallel to the handle axis, as shown here.

ISO 8727:1997/Amd 1:2015 https://standards.iteb.ai/catalog/standards/sist/59e48820-4b22-41b6-a537-Figure A.6.—Coordinate Systems for the hand 24470da52d2a/iso-8727-1997-amd-1-2015

Page 13, Annex C

Replace this annex with the following:

Bibliography

[1] ISO 2041, Mechanical vibration, shock and condition monitoring — Vocabulary

[2] ISO 2631-1, Mechanical vibration and shock — Evaluation of human exposure to whole-body vibration — Part 1: General requirements

[3] ISO 5349-1, Mechanical vibration — Measurement and evaluation of human exposure to handtransmitted vibration — Part 1: General requirements

[4] ISO 5349-2, Mechanical vibration — Measurement and evaluation of human exposure to handtransmitted vibration — Part 2: Practical guidance for measurement at the workplace

[5] ISO 5353, Earth-moving machinery, and tractors and machinery for agriculture and forestry — Seat index point

[6] ISO 5982, Mechanical vibration and shock — Range of idealized values to characterize seated-body biodynamic response under vertical vibration

[7] ISO 6897, Guidelines for the evaluation of the response of occupants of fixed structures, especially buildings and off-shore structures, to low-frequency horizontal motion (0,063 to 1 Hz)

[8] ISO 7096, Earth-moving machinery — Laboratory evaluation of operator seat vibration

[9] ISO 8041, Human response to vibration — Measuring instrumentation

[10] ISO 9996, Mechanical vibration and shock — Disturbance to human activity and performance — Classification

[11] ISO 10326-1, Mechanical vibration — Laboratory method for evaluating vehicle seat vibration — Part 1: Basic requirements

[12] ISO 20643, Mechanical vibration — Hand-held and hand-guided machinery — Principles for evaluation of vibration emission

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the Naval Biodynamics Laboratory), New Orleans, Louisiana, 6 December 1974 and 19 November 1975, respectively. (Requests for copies of these reports should be addressed to: Commanding Officer, Naval Biodynamics Laboratory, New Orleans, LA 70189-0407, USA.)

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