ICS 13.160, 17.160 TECHNICKÁ NORMALIZAČNÁ INFORMÁCIA Máj 2019

TNI	**Vplyv kmitania na človeka Pokyny a terminológia pre meracie prístroje a zariadenia pri posudzovaní dennej expozície kmitania na pracovnom mieste podľa požiadaviek na zdravie a bezpečnosť človeka (ISO/TR 19664: 2017)**	**TNI CEN ISO/TR 19664** 01 1421

Human response to vibration - Guidance and terminology for instrumentation and equipment for the assessment of daily vibration exposure at the workplace according to the requirements of health and safety (ISO/TR 19664:2017)

Táto technická normalizačná informácia obsahuje anglickú verziu CEN ISO/TR 19664:2018, ISO/TR 19664:2017.
This Technical standard information includes the English version of CEN ISO/TR 19664:2018, ISO/TR 19664:2017.

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Human response to vibration - Guidance and terminology for instrumentation and equipment for the assessment of daily vibration exposure at the workplace according to the requirements of health and safety (ISO/TR 19664:2017)

Réponse des individus aux vibrations - Lignes directrices et terminologie pour l'instrumentation et l'équipement d'évaluation de l'exposition journalière aux vibrations sur le lieu de travail selon les exigences de santé et de sécurité (ISO/TR 19664:2017)

Schwingungseinwirkung auf den Menschen - Anleitung und Fachausdrücke für Messgeräte und Hilfseinrichtungen zur Beurteilung der Tages-Schwingungsbelastung am Arbeitsplatz entsprechend den Gesundheits- und Sicherheitsanforderungen (ISO/TR 19664:2017)

This Technical Report was approved by CEN on 9 November 2018. It has been drawn up by the Technical Committee CEN/TC 231.

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European foreword

The text of ISO/TR 19664:2017 has been prepared by Technical Committee ISO/TC 108 "Mechanical vibration, shock and condition monitoring" of the International Organization for Standardization (ISO) and has been taken over as CEN ISO/TR 19664:2018 by Technical Committee CEN/TC 231 "Mechanical vibration and shock" the secretariat of which is held by DIN.

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The text of ISO/TR 19664:2017 has been approved by CEN as CEN ISO/TR 19664:2018 without any modification.

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Human response to vibration — Guidance and terminology for instrumentation and equipment for the assessment of daily vibration exposure at the workplace according to the requirements of health and safety

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Foreword

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This document was prepared by Technical Committee ISO/TC 108, *Mechanical vibration, shock and condition monitoring*.

Introduction

Several kinds of device can be used to measure or estimate the vibration magnitude and exposure duration needed for the assessment of daily vibration exposure at the workplace.

Measuring instrumentation conforming to the requirements of ISO 8041-1 allows the user to perform good quality repeatable measurements. Measurements using a general-purpose vibration meter are typically undertaken when equipment (like a hand-held machine or a fork-lift truck) is in operation allowing attended, direct readings to be taken providing information regarding possible errors and transient acceleration artefacts. Unattended measurements can be taken using a personal vibration exposure meter, logging readings taken, for example, over a full working day to provide information regarding work patterns including transient acceleration artefacts. Using such instrumentation, the result is always a vibration value or a vibration dose based on vibration readings as taken by the instrumentation.

In addition, there exists auxiliary equipment which can support risk assessment. Such equipment might measure the duration of exposure or estimate the instantaneous vibration dose, using, for example, the information given by the manufacturer on the vibration emission of the machinery used, and might give information when vibration limits are approached or exceeded. Even though such auxiliary equipment does not constitute measuring instrumentation conforming to ISO 8041-1, it is currently used and can be advantageous for keeping occupational vibration limits and for systematic health and safety monitoring. When using such equipment, usually vibration is not really measured.

However, the differences between the instrumentation and equipment features lead to results of varying reliability. By giving guidance and explaining terminology, this document provides clarity regarding the limitations that can be expected when using different instrumentation and equipment for the assessment of daily vibration exposure at the workplace.

TECHNICAL REPORT **ISO/TR 19664:2017(E)**

Human response to vibration — Guidance and terminology for instrumentation and equipment for the assessment of daily vibration exposure at the workplace according to the requirements of health and safety

1 Scope

The assessment of human exposure to vibration, to both the hand-arm system and the whole body, at the workplace relies on the combined evaluation of both vibration magnitudes and exposure times. Determining these values can employ various instrumentation types and data sources. This document provides guidance and explanation of concepts used for the following:

— measurement processes;

— instrumentation types;

— vibration magnitude source.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 2041, *Mechanical vibration, shock and condition monitoring — Vocabulary*

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

ISO 5349-1, *Mechanical vibration — Measurement and evaluation of human exposure to hand-transmitted vibration — Part 1: General requirements*

ISO 8041-1, *Human response to vibration — Measuring instrumentation — Part 1: General-purpose vibration meters*

