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English Version

**Whole-body vibration - Guidelines for vibration hazards
reduction - Part 2: Management measures at the workplace**

Vibrations globales du corps - Guide pour la réduction des
risques de vibrations - Partie 2: Mesures de prévention sur
le lieu de travail

Ganzkörper-Schwingungen - Leitfaden zur Verringerung der
Gefährdung durch Schwingungen - Teil 2: Organisatorische
Maßnahmen am Arbeitsplatz

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: rue de Stassart, 36 B-1050 Brussels

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Foreword

This Technical Report (CEN/TR 15172-2:2005) has been prepared by Technical Committee CEN/TC 231 "Mechanical vibration and shock", the secretariat of which is held by DIN.

CEN/TR 15172 consists of the following parts:

CEN/TR 15172-1, *Whole-body vibration — Guidelines for vibration hazards reduction — Part 1: Engineering methods by design of machinery*

CEN/TR 15172-2, *Whole-body vibration — Guidelines for vibration hazards reduction — Part 2: Management measures at the workplace*

Introduction

The EU Directive 2002/44/EC on the minimum health and safety requirements regarding the exposure of workers to the risks arising from physical agents (vibration) requires those responsible for workplaces to introduce measures protecting workers from the risks arising from vibration insofar as these affect the health and safety of workers.

This Technical Report reviews measures of value in the efforts of workplace management to protect workers from adverse health effects of whole-body vibration and shock. It is recognised that workplaces are very different and that for a specific workplace only some of the measures are applicable.

Guidelines on engineering methods directed to designers and manufacturers of machinery transmitting vibration to the human body are given in CEN/TR 15172-1.

1 Scope

This Technical Report outlines practicable measures for the reduction and control of exposure to whole-body vibration at workplaces in order to provide a practical professional aid to workplace managers and health and safety officers. It covers identification and reduction of health risks from exposure to hazardous machinery vibration at the particular workplace, corresponding to Articles 4, 5 and 6 in the EU Directive 2002/44/EC, including

- identification of main sources of whole-body vibration at the workplace,
- formulation of a strategy for minimising and control of vibration exposure and
- implementation of the strategy.

NOTE Although the term vibration covers continuous vibration and transient vibration (shocks), in this Technical Report shocks are referred to in special cases where they require special attention.

This Technical Report is not concerned with hand-arm vibration which is covered by CR 1030-2.

2 Normative references

The following referenced documents are indispensable for the application of this Technical Report. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 14253:2003, *Mechanical vibration — Measurement and calculation of occupational exposure to whole-body vibration with reference to health — Practical guidance*

ISO 2631-1:1997, *Mechanical vibration and shock — Evaluation of human exposure to whole-body vibration — Part 1: General requirements*

ISO 2631-5, *Mechanical vibration and shock — Evaluation of human exposure to whole-body vibration — Part 5: Method for evaluation of vibration containing multiple shocks*

3 Abbreviations

In this Technical Report the following abbreviations are used:

r.m.s. acceleration root-mean-square acceleration and

VDV fourth power vibration dose value, both of which are defined in ISO 2631-1.

S_{ed} daily equivalent static compression dose, which is defined in ISO 2531-5.

EAV daily exposure action value and

ELV daily exposure limit value, which both are defined in EU Directive 2002/44/EC.