



National Standards Authority of Ireland

IRISH STANDARD

I.S. CEN/TR 15350:2006

ICS 13.160

**MECHANICAL VIBRATION - GUIDELINE FOR  
THE ASSESSMENT OF EXPOSURE TO  
HAND-TRANSMITTED VIBRATION USING  
AVAILABLE INFORMATION INCLUDING THAT  
PROVIDED BY MANUFACTURERS OF  
MACHINERY**

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TECHNICAL REPORT  
RAPPORT TECHNIQUE  
TECHNISCHER BERICHT

**CEN/TR 15350**

May 2006

ICS 13.160

English Version

**Mechanical vibration - Guideline for the assessment of exposure  
to hand-transmitted vibration using available information  
including that provided by manufacturers of machinery**

Vibrations mécaniques - Guide pour l'évaluation de  
l'exposition aux vibrations transmises à la main à partir de  
l'information disponible, y compris l'information fournie par  
les fabricants de machines

Mechanische Schwingungen - Anleitung zur Beurteilung der  
Belastung durch Hand-Arm-Schwingungen aus Angaben zu  
den benutzten Maschinen einschließlich Angaben von den  
Maschinenherstellern

This Technical Report was approved by CEN on 6 January 2006. It has been drawn up by the Technical Committee CEN/TC 231.

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## **Foreword**

This Technical Report (CEN/TR 15350:2006) has been prepared by Technical Committee CEN/TC 231 "Mechanical vibration and shock", the secretariat of which is held by DIN.

## **Introduction**

This Technical Report provides information on how to assess the vibration exposure from hand-held power tools and hand-guided machines. The methods described use existing vibration emission values declared for the machine of interest or information coming from other sources. It should be noted that vibration usually varies a lot over time, with different workstations and different operators. It is therefore not possible to get precise exposure figures from limited investigations. But also the declared values need to be used with great care since they are measured for a limited number of defined work situations. The actual work situation for a specific operator, however, may be very different thus creating different vibration. On the other hand values from real work that can be found in literature are only correct for the specific work situation and time when they were measured. The user of this Technical Report should be aware that the exposure to vibration does not only depend on the machine used but also to a large extent on things like quality of inserted tools, the work situation and operator behaviour. These factors need to be taken into account to make an ideal assessment of vibration exposure.

The daily vibration exposure to be assessed depends on both the average magnitude of vibration at the surface in contact with the hand and the total daily duration for which an employee is in contact with that vibration.

As there is a big difference between a rough estimation of the daily vibration exposure to identify workers at risk and the definition of the state of the art regarding machine vibration emission, vibration total values calculated by applying correction factors are not suitable to determine the state of the art for machine categories. To define the state of the art a high level of accuracy is needed, meaning that this can only be obtained by measurements in all three axes.

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