

Forestry machinery — Vibration test code for portable hand-held machines with internal combustion engine — Vibration at the handles

The European Standard EN ISO 22867:2006 has the status of a British Standard

ICS 65.060.80

National foreword

This British Standard is the official English language version of EN ISO 22867:2006 including Technical Corrigendum June 2006. It is identical with ISO 22867:2004. It renumbers BS ISO 22867:2004.

The start and finish of text introduced or altered by corrigendum is indicated in the text by tags **AC** **AC**. Tags indicating changes to CEN text carry the number of the CEN corrigendum. For example, text altered by June 2006 corrigendum is indicated by **AC1** **AC1**.

The UK participation in its preparation was entrusted to Technical Committee AGE/29, Forestry machinery, which has the responsibility to:

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- monitor related international and European developments and promulgate them in the UK.

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Summary of pages

This document comprises a front cover, an inside front cover, the EN ISO title page, the EN ISO foreword page, the ISO title page, pages ii to v, a blank page, pages 1 to 20, an inside back cover and a back cover.

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English Version

Forestry machinery - Vibration test code for portable hand-held
machines with internal combustion engine - Vibration at the
handles (ISO 22867:2004)

Machines forestières - Code d'essai des vibrations pour
machines portatives tenues à la main à moteur à
combustion interne - Vibrations au niveau des poignées
(ISO 22867:2004)

Forstwirtschaftliche Maschinen - Schwingungsmessnorm
für handgehaltene Maschinen mit Verbrennungsmotor -
Schwingungen an den Handgriffen (ISO 22867:2004)

This European Standard was approved by CEN on 21 December 2005.

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Foreword

The text of ISO 22867:2004 has been prepared by Technical Committee ISO/TC 23 “Tractors and machinery for agriculture and forestry” of the International Organization for Standardization (ISO) and has been taken over as EN ISO 22867:2006 by Technical Committee CEN/TC 144 “Tractors and machinery for agriculture and forestry” the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by July 2006, and conflicting national standards shall be withdrawn at the latest by July 2006.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see Annex ZA normative and Annex ZB informative, which is an integral part of this document.

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Endorsement notice

The text of ISO 22867:2004 has been approved by CEN as a EN ISO 22867:2006 without any modification.

INTERNATIONAL STANDARD

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Forestry machinery — Vibration test code for portable hand-held machines with internal combustion engine — Vibration at the handles

*Machines forestières — Code d'essai des vibrations pour machines
portatives tenues à la main à moteur à combustion interne — Vibrations
au niveau des poignées*



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 22867 was prepared by Technical Committee ISO/TC 23, *Tractors and machinery for agriculture and forestry*, Subcommittee SC 17, *Manually portable forest machinery*.

This first edition cancels and replaces ISO 7505:1986 and ISO 7916:1989, of which it constitutes a technical revision.

Introduction

The determination of vibration characteristics is primarily used for

- manufacturer's declarations,
- comparing the data between machines in the family concerned,
- development work at the design stage, and
- the estimation of the vibration risk considering the specific conditions (parameters).

The use of this vibration test code will ensure reproducibility of the determination of the vibration characteristics.

The operating modes are of interest for assessment of the vibration exposure, for example, over a typical working day.

The work cycles chosen for this test code are based on the following considerations of application:

- a) chain-saws with an engine displacement of $< 80 \text{ cm}^3$ are used for various operations, including felling, bucking and delimbing;
- b) chain-saws with an engine displacement of $\geq 80 \text{ cm}^3$ are normally used for felling and bucking.

Delimbing will cause the saw to run at racing speed; therefore, racing is included only for saws with a $< 80 \text{ cm}^3$ engine.

For brush-cutters and grass-trimmers, the cutting mode (full load) is estimated to be valid only for short periods, while racing and idling are the two dominant modes. Moreover, it has also been found to be diverse and not able to be performed under repeatable conditions.

For trimmers, the full load and the racing modes are integrated in one single mode due to the loading effect of the flexible line.

For brush-cutters, it is not possible to simulate the full load mode in a feasible way since there are no constant load conditions comparable to chain-saws. Since the operating mode "racing" is anyhow the worst case, it is used as representative.

In either case, transport and other tasks between operations will cause the machine to run at idling. Experience has lead to the conclusion that equal duration for the different working modes is a good estimation of daily exposure.

