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Forestry machinery — Portable chain-saws — Non-manually actuated chain brake performance

Matériel forestier — Scies à chaîne portatives — Performance du frein de chaîne automatique

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Foreword

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For an explanation of the voluntary nature of the standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html

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

This fourth edition cancels and replaces the third edition (ISO 13772:2009), which has been technically revised. Numerous improvements have been introduced for increased accuracy and reproducibility:

— electric-powered chain-saws have been added to the scope and requirements have been included accordingly;

— a maximum length has been stated for guide bars to be used;

— new low-pass filter characteristics have been specified;

— material of rocker spacer has been changed;

— a requirement that the throttle trigger or activation power switch (for electric chain-saws) be fixed in the fully activated position during the test has been added;

— the pulse length of the initial impulse has been specified and related instructions have been added.

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Forestry machinery — Portable chain-saws — Non-manually actuated chain brake performance

1 Scope

This document specifies a method for checking the functioning and performance of the non-manually actuated chain brake on an electric or gasoline engine powered, portable hand-held chain-saw.

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 6531, *Machinery for forestry — Portable chain-saws — Vocabulary*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 6531 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— IEC Electropedia: available at https://www.electropedia.org/

— ISO Online browsing platform: available at https://www.iso.org/obp

4 Performance requirements

The non-manually actuated chain brake function shall be checked on a new normal production saw equipped with the shortest and longest guide bars specified in the instruction handbook, but no longer than 500 mm. Battery-powered chain-saws shall be checked with the lightest and heaviest battery packs.

When tested in accordance with Clause 8, the performance of the actuation function of a non-manually actuated chain brake is considered acceptable if each of the horizontal and vertical acceleration levels (a_x and a_y) at which the chain brake actuates is below the appropriate threshold level as shown in Figure 1 a), b) or c) for different chain-saw types and sizes.

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