

Metsatöomasinad. Kaasaskantavate kettsaagide ohutusnõuded ja katsetamine. Osa 2: Puude pügamisel kasutatavad kettsaad (ISO 11681-2:2011)

Machinery for forestry - Portable chain-saw safety requirements and testing - Part 2: Chain-saws for tree service (ISO 11681-2:2011)

EESTI STANDARDI EESSÕNA

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EUROPEAN STANDARD

EN ISO 11681-2

NORME EUROPÉENNE

EUROPÄISCHE NORM

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ICS 65.060.80

Supersedes EN ISO 11681-2:2008

English Version

**Machinery for forestry - Portable chain-saw safety requirements
and testing - Part 2: Chain-saws for tree service (ISO 11681-
2:2011)**

Matériel forestier - Exigences de sécurité et essais des
scies à chaîne portatives - Partie 2: Scies à chaîne pour
l'élagage des arbres (ISO 11681-2:2011)

Forstmaschinen - Sicherheitstechnische Anforderungen
und Prüfungen für tragbare Kettensägen - Teil 2:
Kettensägen für die Baumpflege (ISO 11681-2:2011)

This European Standard was approved by CEN on 30 November 2011.

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COMITÉ EUROPÉEN DE NORMALISATION
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Foreword

This document (EN ISO 11681-2:2011) has been prepared by Technical Committee ISO/TC 23 "Tractors and machinery for agriculture and forestry" in collaboration with 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of an identical text or by endorsement, at the latest by June 2012, and conflicting national standards shall be withdrawn at the latest by June 2012.

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

This document supersedes EN ISO 11681-2:2008.

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.

For relationship with EU Directive, see informative Annex ZA, which is an integral part of this document.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

Endorsement notice

The text of ISO 11681-2:2011 has been approved by CEN as a EN ISO 11681-2:2011 without any modification.

Annex ZA
(informative)

Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association to provide one means of conforming to Essential Requirements of the New Approach Directive 2006/42/EC on machinery.

Once this standard is cited in the Official Journal of the European Union under that Directive and has been implemented as a national standard in at least one Member State, compliance with the normative clauses of this standard confers, within the limits of the scope of this standard, a presumption of conformity with the relevant Essential Requirements of that Directive and associated EFTA regulations.

WARNING — Other requirements and other EU Directives may be applicable to the product(s) falling within the scope of this standard.

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Introduction

This document is a type-C standard as stated in ISO 12100.

The machinery concerned and the extent to which hazards, hazardous situations or hazardous events are covered are indicated in the scope of this document.

When requirements of this type-C standard are different from those which are stated in type-A or type-B standards, the requirements of this type-C standard take precedence over the requirements of the other standards for machines that have been designed and built according to the requirements of this type-C standard.

At the time of publication of this edition, it was not state of the art to require that starting of the machine would be always possible without causing movement of the saw chain. Such a requirement will be considered for inclusion in the next revision of this International Standard.

Machinery for forestry — Portable chain-saw safety requirements and testing —

Part 2: Chain-saws for tree service

1 Scope

This part of ISO 11681 gives safety requirements and measures for their verification for the design and construction for tree service of portable, combustion-engine, hand-held chain-saws having a maximum mass — without guide bar or saw chain and with tanks empty — of 4,3 kg, intended to be used, with the right hand on the rear handle and left hand on the front handle, by a trained operator for pruning and dismantling standing tree crowns, and by persons having read and understood the safety requirements provided in the instruction handbook, using the appropriate personal protective equipment (PPE). Methods for the elimination or reduction of hazards arising from the use of these machines and the type of information on safe working practices to be provided by the manufacturer are specified.

This part of ISO 11681 deals with all significant hazards, hazardous situations and hazardous events relevant to these machines when they are used as intended and under conditions of misuse which are reasonably foreseeable by the manufacturer.

NOTE See Annex B for a list of significant hazards.

This part of ISO 11681 is applicable to chain-saws manufactured after its date of publication.

2 Normative references

The following referenced documents are indispensable for the application 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 6531:2008, *Machinery for forestry — Portable chain-saws — Vocabulary*

ISO 6533, *Forestry machinery — Portable chain-saw front hand-guard — Dimensions and clearances*

ISO 6534, *Forestry machinery — Portable chain-saw hand guards — Mechanical strength*

ISO 6535, *Portable chain-saws — Chain brake performance*

ISO 7293, *Forestry machinery — Portable chain-saws — Engine performance and fuel consumption*

ISO 7914:2002, *Forestry machinery — Portable chain-saws — Minimum handle clearance and sizes*

ISO 7915, *Forestry machinery — Portable chain-saws — Determination of handle strength*

ISO 8334, *Forestry machinery — Portable chain-saws — Determination of balance and maximum holding moment*

ISO 9518, *Forestry machinery — Portable chain-saws — Kickback test*

ISO 10726, *Portable chain-saws — Chain catcher — Dimensions and mechanical strength*

ISO 12100:2010, *Safety of machinery — General principles for design — Risk assessment and risk reduction*

ISO 13772, *Forestry machinery — Portable chain-saws — Non-manually actuated chain brake performance*

ISO 13849-1:2006, *Safety of machinery — Safety-related parts of control systems — Part 1: General principles for design*

ISO 13849-2, *Safety of machinery — Safety-related parts of control systems — Part 2: Validation*

ISO 13857:2008, *Safety of machinery — Safety distances to prevent hazard zones being reached by upper and lower limbs*

ISO 14982:1998, *Agricultural and forestry machinery — Electromagnetic compatibility — Test methods and acceptance criteria*

ISO 22867, *Forestry and gardening machinery — Vibration test code for portable hand-held machines with internal combustion engine — Vibration at the handles*

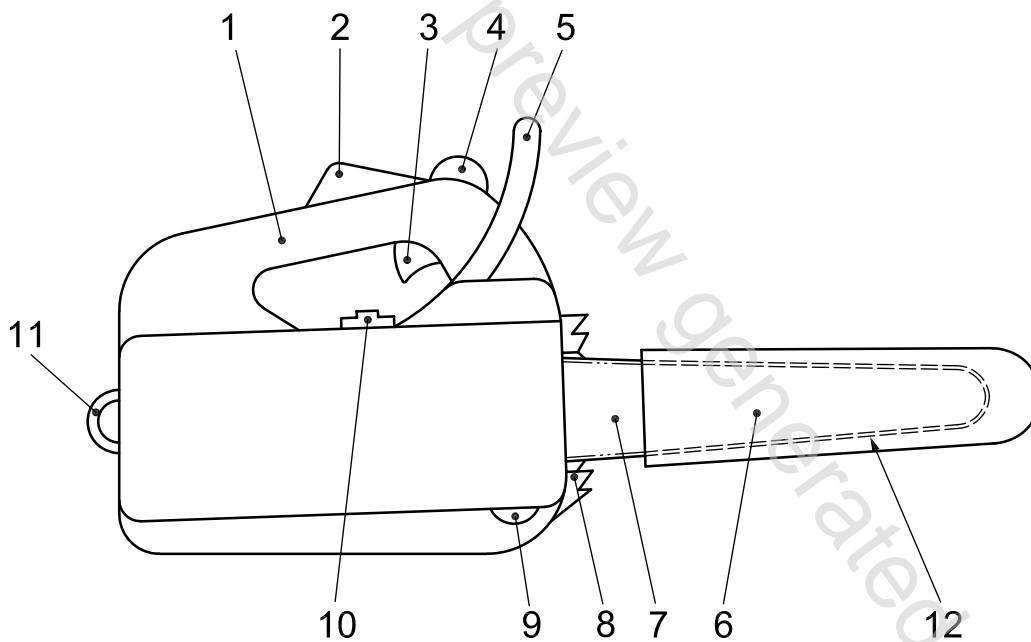
ISO 22868, *Forestry and gardening machinery — Noise test code for portable hand-held machines with internal combustion engine — Engineering method (Grade 2 accuracy)*

IEC 60745-1:2006, *Hand-held motor-operated electric tools — Safety — Part 1: General requirements*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 6531 and ISO 12100 and the following apply.

NOTE Figure 1 shows an example of a chain-saw within the scope of this part of ISO 11681.



Key

- | | |
|-----------------------------|---------------------|
| 1 rear handle | 7 guide bar |
| 2 throttle trigger lock-out | 8 spiked bumper |
| 3 throttle trigger | 9 chain catcher |
| 4 front handle | 10 stopping device |
| 5 front hand guard | 11 attachment point |
| 6 guide-bar cover | 12 saw chain |

Figure 1 — Example of chain-saw