SLOVENSKI STANDARD
oSIST prEN ISO 11680-1:2020

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Gozdarski stroji - Zahteve za varnost in preskušanje motornih žag za obvejevanje z drogom - 1. del: Stroji z integriranim motorjem z notranjim zgorevanjem (ISO/DIS 11680-1:2020)

Machinery for forestry - Safety requirements and testing for pole-mounted powered pruners - Part 1: Machines fitted with an integral combustion engine (ISO/DIS 11680-1:2020)

Forstmaschinen - Sicherheitstechnische Anforderungen und Prüfung für motorbetriebene Hochentaster - Teil 1: Maschinen mit Antrieb durch integrierten Verbrennungsmotor (ISO/DIS 11680-1:2020)

Matériel forestier - Exigences de sécurité et essais pour les perches élagueuses à moteur - Partie 1: Machines équipées d'un moteur à combustion interne intégré (ISO/DIS 11680-1:2020)

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Machinery for forestry — Safety requirements and testing for pole-mounted powered pruners —

Part 1: Machines fitted with an integral combustion engine

Matériel forestier — Exigences de sécurité et essais pour les perches élagueuses à moteur —

Partie 1: Machines équipées d'un moteur à combustion interne intégré

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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of 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 ISO/TC 23, Tractors and machinery for agriculture and forestry, Subcommittee SC 17, Manually portable forest machinery.

This third edition cancels and replaces the second edition (ISO 11680-1:2011), which has been technically revised.

The main changes compared to the previous edition are as follows:

— 1 Scope broadened to include extended and telescopic machines and Figure 1 amended to show different types of pole pruners

— 3 Definitions for "cutting attachment", "dry weight", "extendable", "hand-held" and "telescopic" added

— 4.2 New clause "Protection against contact with power driven components" added

— 4.4 Harness requirements reworded and amended

— 4.5.2 Requirements for circular saw blade securing clearer defined

— 4.7 Distance to the cutting attachment clearer defined

— 4.10.2 Requirement to test the throttle trigger lockout function added

— 4.12 Verification method for fuel tank ventilation system added

— 4.14 Requirements for protection against hot surfaces reworded and amended

— 4.19 Fuel feed line strength and accessibility requirements added

— 4.20 Fuel tank structural integrity requirements added

— 5.1 Requirements for instructions revised

— 5.2 Marking and warning requirements rearranged

A list of all parts in the ISO 11680 series can be found on the ISO website.

Introduction

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

This document is of relevance, in particular, for the following stakeholder groups representing the market players with regard to machinery safety:

— machine manufacturers (small, medium and large enterprises);

— health and safety bodies (regulators, accident prevention organisations, market surveillance etc.)

Others can be affected by the level of machinery safety achieved with the means of the document by the above-mentioned stakeholder groups:

— machine users/employers (small, medium and large enterprises);

— machine users/employees (e.g. trade unions, organizations for people with special needs);

— service providers, e. g. for maintenance (small, medium and large enterprises);

— consumers (in case of machinery intended for use by consumers).

The above-mentioned stakeholder groups have been given the possibility to participate at the drafting process of this document.

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.

Machinery for forestry — Safety requirements and testing for pole-mounted powered pruners —

Part 1: Machines fitted with an integral combustion engine

1 Scope

This part of ISO 11680 gives safety requirements and measures for their verification for the design and construction of portable, hand-held, pole-mounted powered pruners (hereafter named "machine"), including extendable and telescopic machines, having an integral combustion engine as their power source. These machines use a power transmission shaft to transmit power to a cutting attachment consisting of a saw chain and guide bar, a reciprocating saw blade or a single-piece circular saw blade with a 205 mm maximum outside diameter. 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 11680 deals with all significant hazards, hazardous situations or hazardous events with the exception of electric shock from contact with overhead electric lines (apart from warnings and advice for inclusion in the instructions), relevant to these machines when they are used as intended and under conditions of misuse which are reasonably foreseeable by the manufacturer (see Annex A).

This part of ISO 11680 is applicable to portable, hand-held, pole-mounted powered pruners manufactured after its date of publication.

NOTE Brush cutters with a circular saw blade are not included in the scope of this standard. Brush cutter requirements are outlined in ISO 11806-1.

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*

ISO 7112, *Machinery for forestry — Portable brush-cutters and grass-trimmers — Vocabulary*

ISO 7113:1999, *Portable hand-held forestry machines — Cutting attachments for brush cutters — Single-piece metal blades*

ISO 8893, *Forestry machinery — Portable brush-cutters and grass-trimmers — Engine performance and fuel consumption*

ISO 11806-1, *Agricultural and forestry machinery — Safety requirements and testing for portable, hand-held, powered brush-cutters and grass-trimmers — Part 1: Machines fitted with an integral combustion engine*

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

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 61032:1997, *Protection of persons and equipment by enclosures – Probes for verification*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 6531, ISO 7112 and ISO 12100 and the following apply.

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

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

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

3.1
pole-mounted powered pruner
machine whose power source is attached via a long shaft tube (pole) to a cutting attachment, designed to enable an operator to cut branches from a distance

Note 1 to entry: See Figure 1 for examples of pole-mounted powered pruners with integral combustion engine within the Scope of this part of ISO 11680.

3.2
cutting attachment
saw chain and guide bar, a reciprocating saw blade or single-piece circular saw blade, used to cut branches from a standing tree

3.3
dry weight
weight of the machine with empty fuel/oil tank(s) and without cutting attachment

3.4
extendable
shaft feature to extend operational length of the pole pruner by adding shaft extensions

3.5
hand-held
supported and controlled by the operator

Note 1 to entry: A harness may aid in providing support.

3.6
telescopic
shaft feature to extend operational length of the pole pruner by means of a sliding inner shaft and outer shaft