



BSI Standards Publication

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

Part 2: Chain-saws for tree service (ISO 11681-2:2011)

National foreword

This British Standard is the UK implementation of EN ISO 11681-2:2011+A1:2017. It is identical to ISO 11681-2:2011, incorporating amendment 1:2017. It supersedes BS EN ISO 11681-2:2011, which is withdrawn.

The start and finish of text introduced or altered by amendment is indicated in the text by tags. Tags indicating changes to ISO text carry the number of the ISO amendment. For example, text altered by ISO amendment 1 is indicated by **A1** **A1**.

The UK participation in its preparation was entrusted to Technical Committee AGE/29, Forestry machinery.

A list of organizations represented on this committee can be obtained on request to its secretary.

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English Version

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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
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European 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of an identical text or by endorsement, at the latest by June 2012, and conflicting national standards shall be withdrawn at the latest by June 2012.

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Endorsement notice

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

Foreword to amendment A1

This document (EN ISO 11681-2:2011/A1:2017) 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 Amendment to the European Standard EN ISO 11681-2:2011 shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by November 2017, and conflicting national standards shall be withdrawn at the latest by November 2017.

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The text of ISO 11681-2:1/Amd 1:2017 has been approved by CEN as EN ISO 11681-2:2011/A1:2017 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.

Contents

Page

Foreword	viii
Introduction	ix
1 Scope	1
2 Normative references	1
3 Terms and definitions	2
4 Safety requirements and/or protective measures	3
4.1 General	3
4.2 Handles	3
4.2.1 Requirements	3
4.2.2 Verification	3
4.3 Hand protection	3
4.3.1 Protection at front handle	3
4.3.2 Protection at rear handle	4
4.4 Balance and holding moment	5
4.4.1 Requirements	5
4.4.2 Verification	5
4.5 Protection against injury by kickback	5
4.5.1 Chain brake	5
4.5.1.1 Requirements	5
4.5.1.2 Verification	5
4.5.2 Non-manual chain brake	5
4.5.2.1 Requirements	5
4.5.2.2 Verification	5
4.5.3 Kickback and chain stop angles	5
4.5.3.1 Requirements	5
4.5.3.2 Verification	5
4.6 Chain catcher	6
4.6.1 Requirements	6
4.6.2 Verification	6
4.7 Spiked bumper	6
4.7.1 Requirements	6
4.7.2 Verification	6
4.8 Chip discharge	6
4.8.1 Requirements	6
4.8.2 Verification	6
4.9 Guide-bar cover	6
4.9.1 Requirements	6
4.9.2 Verification	6
4.10 Engine starting device	6
4.10.1 Requirements	6
4.10.2 Verification	7
4.11 Engine stopping device	7
4.11.1 Requirements	7
4.11.2 Verification	7
4.12 Throttle control	7
4.12.1 Dimensions	7
4.12.1.1 Requirements	7
4.12.1.2 Verification	7
4.12.2 Operation	7

4.12.2.1	Requirements	7
4.12.2.2	Verification	8
4.12.3	Throttle lock	8
4.12.3.1	Requirements	8
4.12.3.2	Verification	8
4.13	Drive sprocket guard	8
4.13.1	Requirements	8
4.13.2	Verification	8
4.14	Clutch	8
4.14.1	Requirements	8
4.14.2	Verification	9
4.15	Protection against contact with parts under high voltage	9
4.15.1	Requirements	9
4.15.2	Verification	9
4.16	Protection against contact with hot parts	9
4.16.1	Requirements	9
4.16.2	Verification	9
4.17	Fuel and oil systems	10
4.17.1	Requirements	10
4.17.2	Verification	10
4.17.2.1	General	10
4.17.2.2	Drop test	10
4.18	Exhaust gases	11
4.18.1	Requirements	11
4.18.2	Verification	11
4.19	Chain lubrication	11
4.19.1	Requirements	11
4.19.2	Verification	11
4.20	Chain tensioning	11
4.20.1	Requirements	11
4.20.2	Verification	11
4.21	Attachment device	11
4.21.1	Requirements	11
4.21.2	Verification	12
4.22	Vibration	12
4.22.1	Reduction by design at source and by protective measures	12
4.22.2	Vibration measurement	12
4.23	Noise	12
4.23.1	Reduction by design at source and by protective measures	12
4.23.2	Noise measurement	12
4.24	Electromagnetic immunity	12
4.24.1	Requirements	12
4.24.2	Verification	13
5	Information for use	13
5.1	Instruction handbook	13
5.1.1	General	13
5.1.2	Technical data	13
5.1.3	Other information	14
5.2	Marking	16
5.3	Warnings	17
5.4	Test of labels	17
5.4.1	Preparation of test specimens and control specimens	17

5.4.2 Wipe resistance test..... 18

5.4.3 Adhesion test..... 18

[A1] 5.5 Warning to be provided at point of sale..... 18

Annex A (informative) Working with tree service chain-saws from rope and harness..... 20

Annex B (informative) List of significant hazards..... 25

Bibliography..... 27

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 11681-2 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 11681-2:2006), which has been technically revised.

ISO 11681 consists of the following parts, under the general title *Machinery for forestry — Portable chain-saw safety requirements and testing*:

- *Part 1: Chain-saws for forest service*
- *Part 2: Chain-saws for tree service*

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.

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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 7010, *Graphical symbols — Safety colours and safety signs — Registered safety signs*

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*