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

Part 1:
Chain-saws for forest service

*Matériel forestier — Exigences de sécurité et essais des scies à chaîne
portatives —*

Partie 1: Scies à chaîne pour travaux forestiers





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Contents

	Page
Foreword	v
Introduction	vi
1 Scope	1
2 Normative references	2
3 Terms and definitions	3
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.....	4
4.3.1 Protection at front handle.....	4
4.3.2 Protection at the rear handle.....	4
4.4 Balance.....	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
4.5.2 Non-manual chain brake.....	6
4.5.3 Kickback and chain stop angles.....	6
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.....	7
4.8.1 Requirements.....	7
4.8.2 Verification.....	7
4.9 Guide bar cover.....	7
4.9.1 Requirements.....	7
4.9.2 Verification.....	7
4.10 Engine starting device.....	7
4.10.1 Requirements.....	7
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 system.....	8
4.12.1 Dimensions.....	8
4.12.2 Operation.....	8
4.12.3 Throttle control latch.....	9
4.13 Drive sprocket guard.....	10
4.13.1 Requirements.....	10
4.13.2 Verification.....	10
4.14 Clutch.....	11
4.14.1 Requirements.....	11
4.14.2 Verification.....	11
4.15 Protection against contact with parts under high voltage.....	11
4.15.1 Requirements.....	11
4.15.2 Verification.....	11
4.16 Protection against contact with hot parts.....	11
4.16.1 Requirements.....	11

4.16.2	Verification	13
4.17	Fuel and oil systems	14
4.17.1	Requirements	14
4.17.2	Verification	14
4.18	Exhaust gases	15
4.18.1	Requirements	15
4.18.2	Verification	15
4.19	Chain lubrication	15
4.19.1	Requirements	15
4.19.2	Verification	16
4.20	Chain tensioning	16
4.20.1	Requirements	16
4.20.2	Verification	16
4.21	Vibration	16
4.21.1	Reduction by design at source and by protective measures	16
4.21.2	Vibration measurement	16
4.22	Noise	16
4.22.1	Reduction by design at source and by protective measures	16
4.22.2	Noise measurement	17
4.23	Electromagnetic immunity	17
4.23.1	Requirements	17
4.23.2	Verification	17
5	Information for use	17
5.1	Instructions	17
5.1.1	General	17
5.1.2	Technical data	17
5.1.3	Other information	18
5.2	Marking	20
5.3	Warnings	21
5.4	Test of labels	21
5.4.1	Preparation of test specimens and control specimens	21
5.4.2	Wipe resistance test	22
5.4.3	Adhesion test	22
	Annex A (informative) List of significant hazards	23
	Bibliography	25

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 of 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 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 (hand-held) powered lawn and garden equipment and forest machinery*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 144, *Tractors and machinery for agriculture and forestry*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This fourth edition cancels and replaces the third edition (ISO 11681-1:2011), which has been technically revised.

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

- the normative references in [Clause 2](#) have been updated;
- requirements for kickback in [4.5.3.1](#) have been clarified;
- requirements and verification for throttle control system in [4.12](#) have been updated;
- a new subclause, [4.17.2.3](#) “Fuel feed lines strength and accessibility” has been added;
- [5.1.2](#) “Technical data”, has been updated;
- in [5.1.3](#), information on safe starting procedure has been added.

A list of all parts in the ISO 11681 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

This document is a type-C standard as stated in ISO 12100:2010.

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

- machine manufacturers (small, medium and large enterprises);
- health and safety bodies (regulators, accident prevention organizations, 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 — Portable chain-saw safety requirements and testing —

Part 1: Chain-saws for forest service

1 Scope

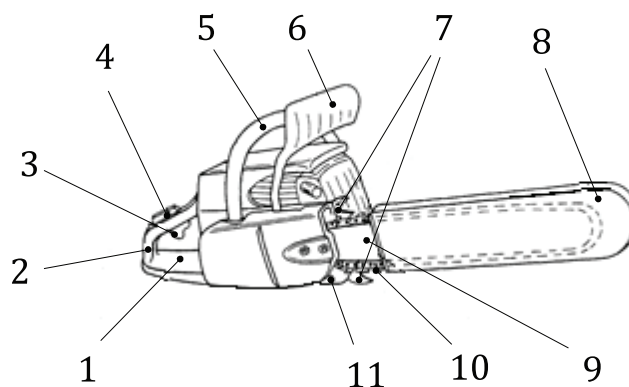
This document specifies safety requirements and measures for verification for the design, construction, transporting and commissioning of portable, combustion-engine, hand-held chain-saws. The chain-saws are intended to be used for forest work by only one operator, with the right hand on the rear handle and left hand on the front handle.

Dismantling and scrapping of the product is not covered by this document. 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 document deals with all significant hazards, hazardous situations and hazardous events, with the exception of kickback and balance for machines with an engine displacement of more than 80 cm³, 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 document is applicable to chain-saws manufactured after its date of publication.

NOTE [Figure 1](#) shows an example of a chain-saw within the scope of this document.



Key

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

Figure 1 — Example of chain-saw