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Machinery for forestry — Portable chain-saws — Vocabulary

Matériel forestier — Scies à chaîne portatives — Vocabulaire

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Foreword

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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 fourth edition cancels and replaces the third edition (ISO 6531:2008), which has been technically revised, with the following main changes:

— terms and definitions 3.1.7, 3.3.1, 3.4.1.1, 3.5.7, 3.9.10, 3.9.10.1, 3.9.10.2, 3.9.10.3 and 3.9.11 have been added.

Machinery for forestry — Portable chain-saws — Vocabulary

1 Scope

This document defines terms relating to the mechanical aspects of portable chain-saws, saw-chain and guide bars.

The chain-saw positions are shown in Annex A.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions 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 Work functions

3.1.1
felling
separation of a standing tree from its root system

3.1.2
delimbing
removal of branches from trees or parts of trees

3.1.3
bucking
slashing
cutting of felled or uprooted trees, or parts of trees, into lengths

3.1.4
splitting
dividing of trees or parts of trees longitudinally into pieces

3.1.5
boring
process of cutting with the *saw-chain* (3.3.1) at the nose (tip) of the *guide bar* (3.3.5) in order to make a hole

3.1.6
kickback
rapid upward and backward motion of the saw which can occur when the moving *saw-chain* (3.3.1) near the upper portion of the tip of the *guide bar* (3.3.5) contacts an object such as a log or branch

3.1.7
pinch kickback
rapid pushback of the chain saw that can occur when the wood closes in and pinches the moving *saw-chain* (3.3.1) in the cut along the top of the *guide bar* (3.3.5)

3.1.8
pruning
removal of live or dead branches, or of multiple leaders of shoots, from standing trees

3.2 Types of chain-saws

3.2.1
chain-saw
power-driven tool designed to cut wood with a *saw-chain* (3.3.1) and consisting of an integrated compact unit of handles, power source, *guide bar* (3.3.5) and saw-chain, designed to be supported with two hands

3.2.1.1
chain-saw for forest service
chain-saw designed for forest work such as *felling* (3.1.1), *delimbing* (3.1.2) and *bucking* (3.1.3)

Note 1 to entry: See Figure 1.

3.2.1.2
chain-saw for tree service
specialized chain-saw of limited mass, designed for use by a trained operator for *pruning* (3.1.8) and dismantling standing tree crowns

Note 1 to entry: See Figure 2.

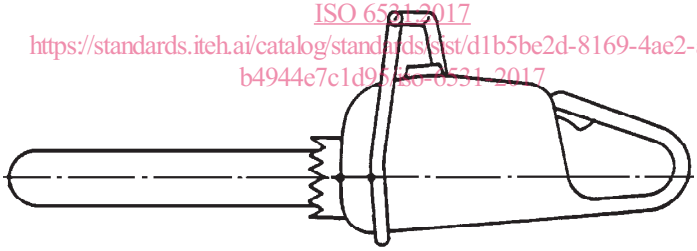


Figure 1 — Chain-saw for forest service

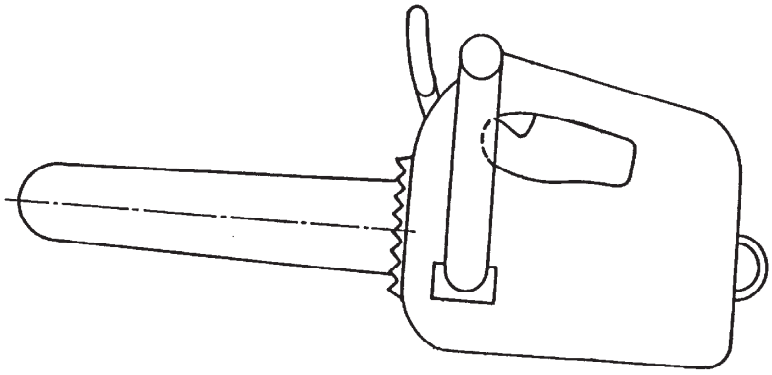


Figure 2 — Chain-saw for tree service

3.3 Cutting equipment

3.3.1
saw-chain
chain serving as a cutting tool, consisting of drive links, cutters and side links held together by rivets

Note 1 to entry: See Figure 3 and Figure 4.

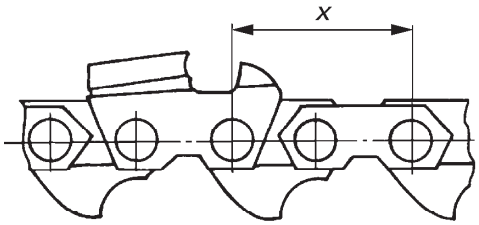
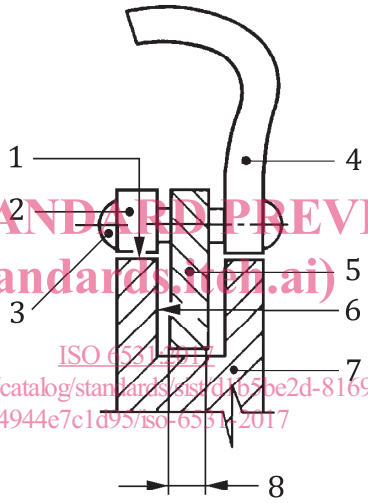


Figure 3 — Part of saw-chain



Key
1 guide bar rail
2 side-link
3 rivet
4 cutter
5 drive link
6 guide bar groove
7 guide bar
8 chain gauge

Figure 4 — Saw-chain and guide bar details

3.3.2
chain guides
plates or guides fitted on one or both sides of the *guide bar* (3.3.5) where the *saw-chain* (3.3.1) enters the groove, for assisting in guiding the saw-chain between the *drive sprocket* (3.3.3) and the guide bar

3.3.3
drive sprocket
part that transmits rotational motion from the *chain-saw* (3.2.1) power source to the *saw-chain* (3.3.1)

3.3.3.1
rim sprocket
drive sprocket (3.3.3) with rims on which the side and cutter links run

3.3.3.2
spur sprocket
drive sprocket (3.3.3) in which the drive links run and the side and cutter links are supported

3.3.4
nose sprocket
rotating part at the tip of the *guide bar* (3.3.5) which supports the *saw-chain* (3.3.1) around the tip

3.3.5
guide bar
part that supports and guides the *saw-chain* (3.3.1)

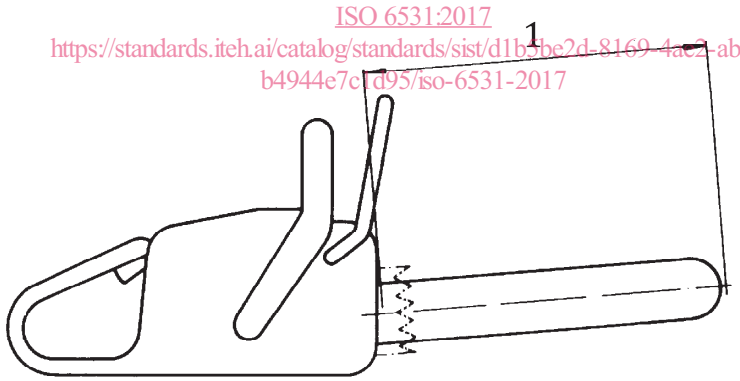
3.3.6
chain pitch
arithmetic mean of the distances between three adjacent rivets

Note 1 to entry: See x in Figure 3.

3.3.7
cutting length
<chain-saw without fixed spiked bumper> approximate length of cut a chain-saw will make with the *chain tension adjuster* (3.5.1) set at mid-position.

Note 1 to entry: The length is generally expressed in terms of the nearest whole unit of measure.

Note 2 to entry: See Figure 5.

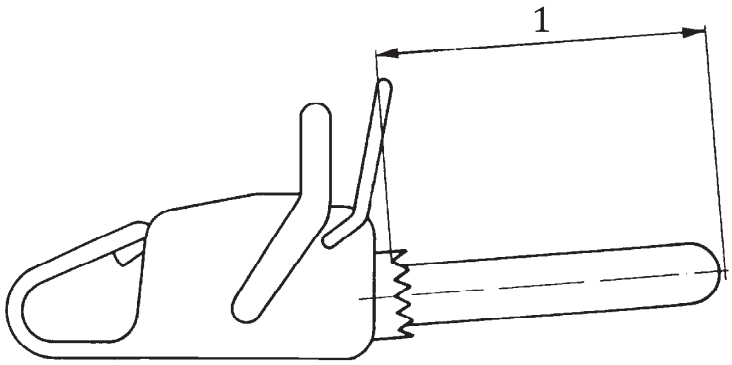


Key
1 cutting length

Figure 5 — Cutting length — Saw with removable or no spiked bumper

3.3.8
cutting length
<chain-saw with permanently fixed spiked bumper> distance from the root (base) of the spiked bumper, along the guide bar axis, to the outside edge of the cutter, or on, if applicable, the inside part of the *bar tip guard* (3.4.3) with the *chain tension adjuster* (3.5.1) set at mid-position

Note 1 to entry: See Figure 6.



Key

1 cutting length

Figure 6 — Cutting length — Saw with fixed spiked bumper

3.4 Safety devices

3.4.1
chain brake
device for stopping or locking the *saw-chain* (3.3.1), activated manually or non-manually when *kickback* (3.1.6) occurs

3.4.1.1
manually activated chain brake
brake which is intended to be actuated by the hand of the operator

3.4.1.2
non-manually activated chain brake
brake which is actuated irrespective of operator intervention when a *kickback* (3.1.6) occurs

3.4.2
chain brake lever
device, usually the front hand-guard used to activate the *chain brake* (3.4.1)

3.4.2.1
front hand-guard
structural barrier between the *front handle* (3.7.1) of the *chain-saw* (3.2.1) and the *saw-chain* (3.3.1) for protecting the hand from injury if the hand slips off the handle, and may also be the device used to activate the *chain brake* (3.4.1)

3.4.3
bar tip guard
shield that prevents contact with the *saw-chain* (3.3.1) at the tip of the *guide bar* (3.3.5), which may be removable and replaceable, for reducing the incidence of rotational *kickback* (3.1.6)

3.4.4
chain catcher
device for restraining the *saw-chain* (3.3.1) if it breaks or comes off the *guide bar* (3.3.5)

3.4.5
clutch cover
protective cover for the *clutch* (3.9.1) and/or the *drive sprocket* (3.3.3)