INTERNATIONAL STANDARD

ISO 7914

Fourth edition
2023-04

Forestry machinery — Portable chain-saws — Minimum handle clearance and sizes

Machines forestières — Scies à chaîne portatives — Dimensions minimales des poignées et des espaces libres autour des poignées

Reference number
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Foreword

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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 document 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).

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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*.

This fourth edition cancels and replaces the third edition (ISO 7914:2002), which has been technically revised. It also incorporates the Amendment ISO 7914:2002/AMD 1:2012.

The main changes are as follows:

— determination of reference points X_0 and X_1 has been clarified;

— determination of dimensions *D, E,* F_1, F_2, G_1 and G_2 has been clarified;

— measuring values on front handle, with spiked bumper provided, has been clarified.

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.

Forestry machinery — Portable chain-saws — Minimum handle clearance and sizes

1 Scope

This document specifies the minimum clearances and related dimensions for the front and rear handles of portable, hand-held chain-saws.

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

3 Terms and definitions

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

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

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

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

4 General requirements

4.1 Front handle

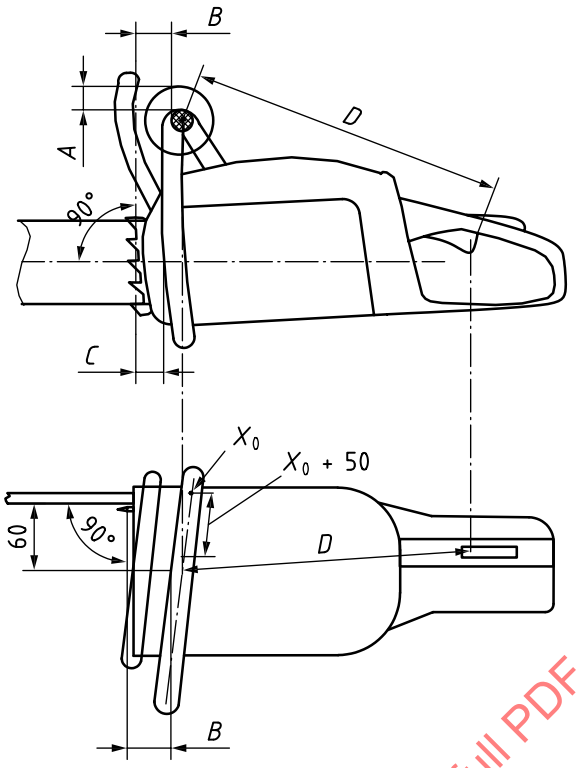
The front handle shall be designed and positioned such that it provides an unobstructed surface throughout the grip area for a gloved hand operating the chain-saw. See Figures 1 to 3.

The length of the grip area shall be limited by the reference points X_0 and X_1, shown in Figure 2. The reference point X_0 shall be determined in accordance with ISO 6533.

Reference point X_1 shall be determined by using a type A gauge (in accordance with ISO 6533) furthest down to the left side, as shown in Figure 2.

The gauge shall be kept parallel with and directly to the side of the centreline of the front handle, and in contact with the handle. It shall be moved until it comes into contact with the housing of the machine or any obstruction. X_1 is located where a plane on the lower circular area of the gauge intersects the handle.

When the machine design is such that a type A gauge cannot be inserted between the handle and the housing, the gauge shall be shortened, but by no more than needed.

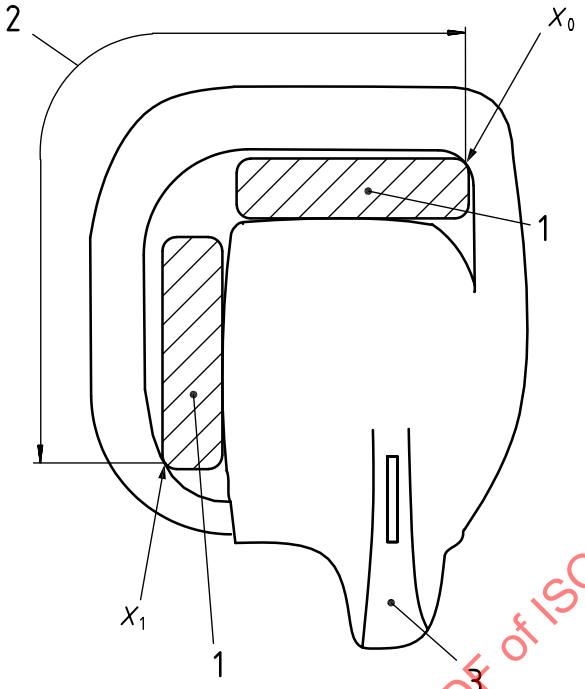


Key

X_0 reference point according to ISO 6533

NOTE For *A*, *B*, *C*, *D*, see Table 1.

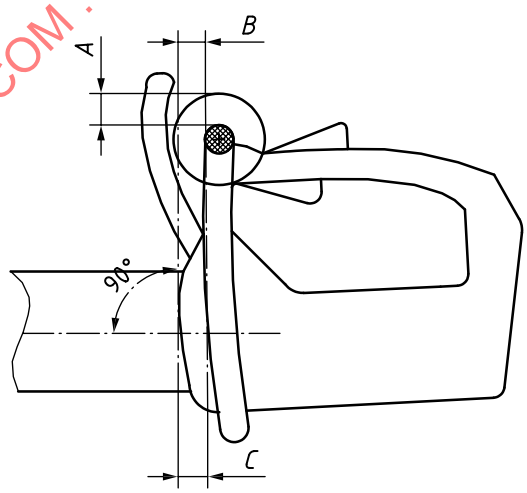
Figure 1 — Clearance and distance between front and rear handles of chain-saw for forest service



Key

X_0 reference point according to ISO 6533
X_1 reference point according to ISO 6533
1 gauge A (see ISO 6533)
2 grip area front handle
3 rear handle

Figure 2 — Front handle grip area



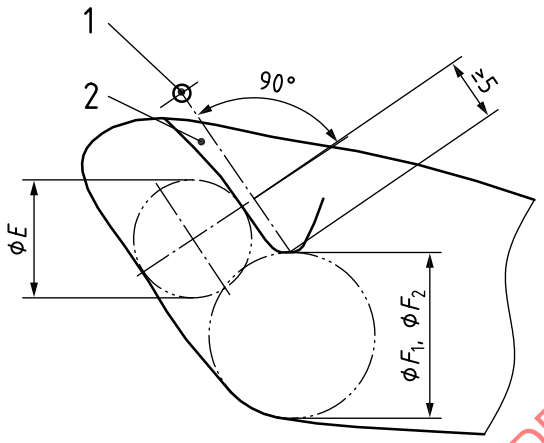
NOTE For *A*, *B*, *C*, see Table 1.

Figure 3 — Front handle clearances for chain-saws for tree service

4.2 Rear handle

The rear handle shall provide enough space behind the throttle trigger for a gloved hand operating the chain-saw and shall not extend in front of the throttle trigger.

Dimensions in millimetres



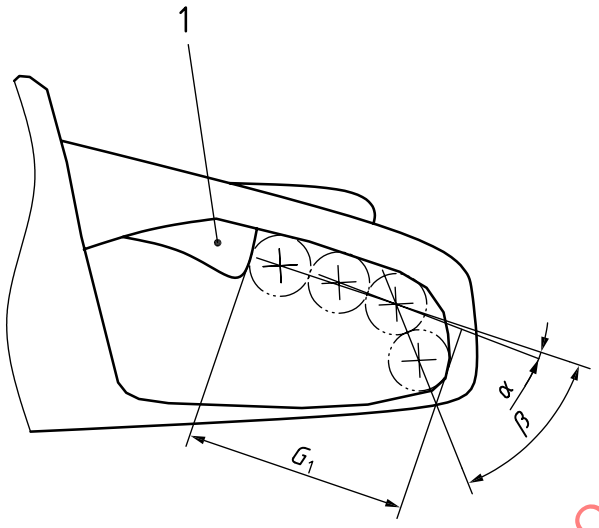
Key

1 pivot point

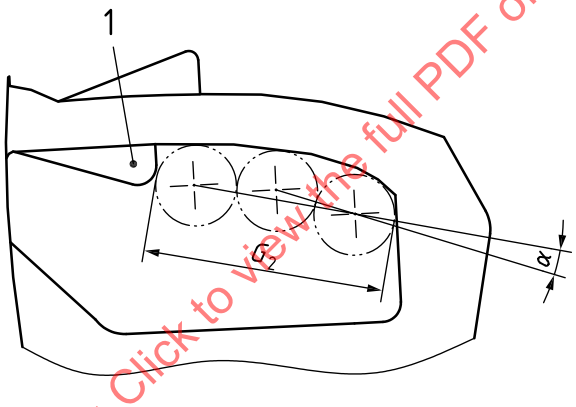
2 throttle trigger

NOTE For F_1, F_2 and E, see Table 1.

Figure 4 — Finger clearances at released throttle trigger



a) Chain-saw for forest service



b) Chain-saw for tree service

Key

1 throttle trigger

α = -15° to +15°

β = -75° to +75°

NOTE For G_1 and G_2, see Table 1.

Figure 5 — Finger clearances behind released throttle trigger