

BS ISO 7112:2017



BSI Standards Publication

Machinery for forestry — Portable brush-cutters and grass-trimmers — Vocabulary

bsi.
British Standards Institution

INTERNATIONAL STANDARD

ISO
7112

Fourth edition
2017-02

Machinery for forestry — Portable brush-cutters and grass-trimmers — Vocabulary

*Matériel forestier — Débroussailleuses et coupe-herbe portatifs —
Vocabulaire*



Reference number
ISO 7112:2017(E)

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Contents

Page

Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
Annex A (informative) Brush-cutter position	6
Bibliography	7

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.

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For an explanation on 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 7112:2008), which has been technically revised, with the following main changes:

- terms and definitions [3.1.4](#), [3.3.1.1](#), [3.3.1.3](#), [3.4.3](#) and [3.5.5](#) have been added.

Machinery for forestry — Portable brush-cutters and grass-trimmers — Vocabulary

1 Scope

This document defines terms relating to portable hand-held brush-cutters and grass-trimmers, their cutting attachments and power sources.

The brush-cutter position is 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 shredding

reduction of bushes, small trees and other growing organic materials to smaller pieces

3.1.3 trimming

cutting of weeds, grass and other similar soft vegetation

3.1.4 cutting means thrust

sudden and uncontrolled motion towards the operator's side or rear that can occur when the rotating *cutting means* ([3.3.1.1](#)) comes in contact with a solid object

3.2 Machine types

3.2.1 brush-cutter

unit using a rotating *cutting means* ([3.3.1.1](#)) made of metal or plastics, intended to cut weed, scrub, brush-wood, and similar vegetation

3.2.2 brush saw

brush-cutter ([3.2.1](#)) fitted with a circular *saw blade* ([3.3.1.1](#)) intended to cut small trees and saplings

3.2.3

grass-trimmer

unit using flexible non-metallic line(s) string(s) or similar non-metallic flexible cutting elements, such as pivoting cutters, intended to cut weed, grass or similar soft vegetation

3.2.4

lawn-trimmer

electric powered grass-cutting machine with a non-metallic, non-rigid *cutting attachment* (3.3.1), of a cutting capacity (kinetic energy) of not more than 10 J, operating in a plane parallel to the ground

3.2.5

lawn edge-trimmer

powered grass-trimming machine where the *cutting attachment* (3.3.1) operates in a plane approximately perpendicular to the ground

3.3 Cutting equipment

3.3.1

cutting attachment

cutting device such as a cutting means, saw blade or a flexible cutting means

3.3.1.1

cutting means

rotating device with cutting edges, designed to cut weed, brush, scrub and similar vegetation

3.3.1.2

saw blade

rotating circular metal blade with peripheral cutting teeth, designed to cut wood, such as small trees and saplings, by continuously removing material

3.3.1.3

flexible cutting means

non-metallic rotating *cutting means* (3.3.1.1) using flexible line(s), string(s) or pivoting cutting elements

3.4 Safety devices

3.4.1

cutting means retainer

saw blade retainer

retainer

mechanism which holds the *cutting means* (3.3.1.1) or *saw blade* (3.3.1.2) to the driving member

3.4.2

cutting attachment guard

device intended to protect the operator from unintentional contact with the *cutting attachment* (3.3.1) and from thrown objects

3.4.3

cutting means cover

transport cover

manually removable device covering the cutting edges of the *cutting means* (3.3.1.1) or *saw blade* (3.3.1.1) during transportation or storage

3.4.4

quick-release mechanism

device enabling the operator to free himself quickly from the unit in case of emergency

3.4.5

barrier

device attached to the unit, designed to maintain a minimum distance between the operator and the *cutting attachment* (3.3.1) when the unit is being operated

3.4.6

harness

adjustable equipment by which the unit is suspended from the operator

3.4.7

hip pad

flexible material attached to the unit or the *harness* (3.4.6), to cushion the operator from impact from the unit and to reduce the transmission of vibrations

3.4.8

suspension point

part of the machine to which the *harness* (3.4.6) can be attached

Note 1 to entry: See [Annex A](#).

3.4.9

throttle trigger lockout

device that prevents operation of the *throttle trigger* (3.5.6) without intentional manual intervention

3.5 Control system

3.5.1

choke

device for enriching the fuel/air mixture in the carburettor to aid starting

3.5.2

stop switch

device which initiates the stopping of the power source

3.5.3

starter

device that rotates the engine crank shaft for starting

3.5.3.1

recoil starter

device for starting the engine by pulling a rewind rope which automatically rewinds when released

3.5.3.2

electric starter

device that rotates the engine crank shaft using external power, such as battery or mains, for starting

3.5.4

primer

device for supplying fuel to the pump of the carburettor to aid starting

3.5.5

throttle control latch

device to temporarily set the throttle in a partially open position to aid in starting

3.5.6

throttle trigger

device, usually a lever, activated by the operator's hand or finger, for controlling the engine speed and/or power

3.5.7

throttle linkage

device that transmits motion from the *throttle trigger* ([3.5.6](#)) to the throttle

3.5.8

decompression valve

device for lowering the compression in the cylinder to aid starting

3.6 Carburettor setting

3.6.1

idle-speed adjuster

T
device, normally a screw, acting on the throttle, for adjusting the *idling speed* ([3.9.8](#))

3.6.2

low-speed mixture adjuster

L
device, normally a screw, for adjusting the fuel delivery at idling/low speed

3.6.3

high-speed mixture adjuster

H
device, normally a screw, for adjusting the fuel delivery at full throttle

3.7 Handles

3.7.1

handle

support device fitted to the unit to enable the operator to hold and manipulate the unit

3.7.2

handgrip

surface or structure specifically designed for the operator's hand to grasp to enable manoeuvring of the *backpack power unit* ([3.5.6](#))

3.8 Exhaust system

3.8.1

exhaust system

part(s) used to contain and direct gas from the cylinder exhaust port to the atmosphere, including all directly attached shields for hot surface contact prevention

3.8.1.1

muffler

silencer

device for reducing engine exhaust noise and directing the exhaust gases

3.8.1.2

spark arrester

device through which the exhaust gases pass, intended to stop smouldering/burning particles

3.9 Miscellaneous

3.9.1

angle transmission

device for transmitting the power from the *power transmission shaft* ([3.9.4](#)) to the *cutting attachment* ([3.3.1](#))

3.9.2

backpack power unit

power source which is designed to be carried on the operator's body by means of a supporting device

3.9.3

clutch

device for connecting and disconnecting a driven member to and from a rotating source of power

3.9.4

power transmission shaft

shaft inside the *shaft tube* (3.9.6) for transmitting power from the engine to the *angle transmission* (3.9.1) or *cutting attachment* (3.3.1)

3.9.5

output shaft

shaft to which the *cutting attachment* (3.3.1) is connected

3.9.6

shaft tube

part of the machine that provides a casing for the *power transmission shaft* (3.9.4)

3.9.7

governor

device that limits the maximum engine speed

3.9.8

idling speed

engine speed at which the *cutting attachment* (3.3.1) does not move

Note 1 to entry: A range of idling speeds is normally identified by the machine manufacturer and stated in the instruction handbook.

3.9.9

maximum power speed

full-load speed

engine speed at which maximum corrected brake power is obtained

Note 1 to entry: The maximum power speed is obtained in accordance with ISO 8893[1].

3.9.10

racing speed

maximum engine speed achieved at full open throttle or the engine speed at 133 % of the *maximum power speed* (3.9.9), whichever is lesser

3.9.11

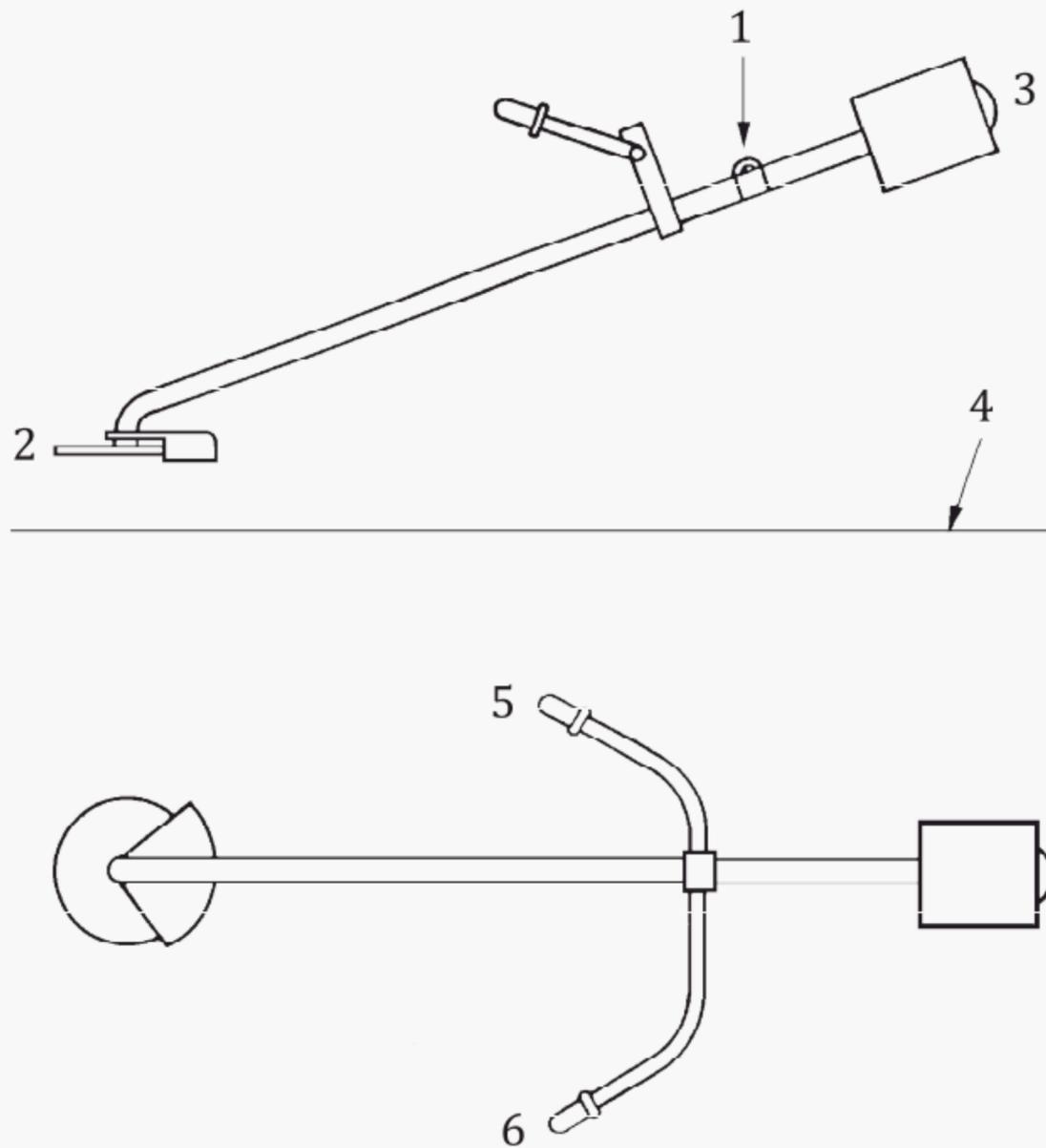
dry mass/weight

total unit mass/weight without fuel, and *cutting attachment* (3.3.1) or *harness* (3.4.6)

Annex A (informative)

Brush-cutter position

See [Figure A.1](#).



Key

- 1 suspension point (eyelet)
- 2 front
- 3 rear
- 4 ground
- 5 right-hand side
- 6 left-hand side

Figure A.1 — Brush-cutter position

Bibliography

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

ICS 65.060.80; 01.040.65

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