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

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

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



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## Foreword

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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 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* (3.3.1.2) 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**

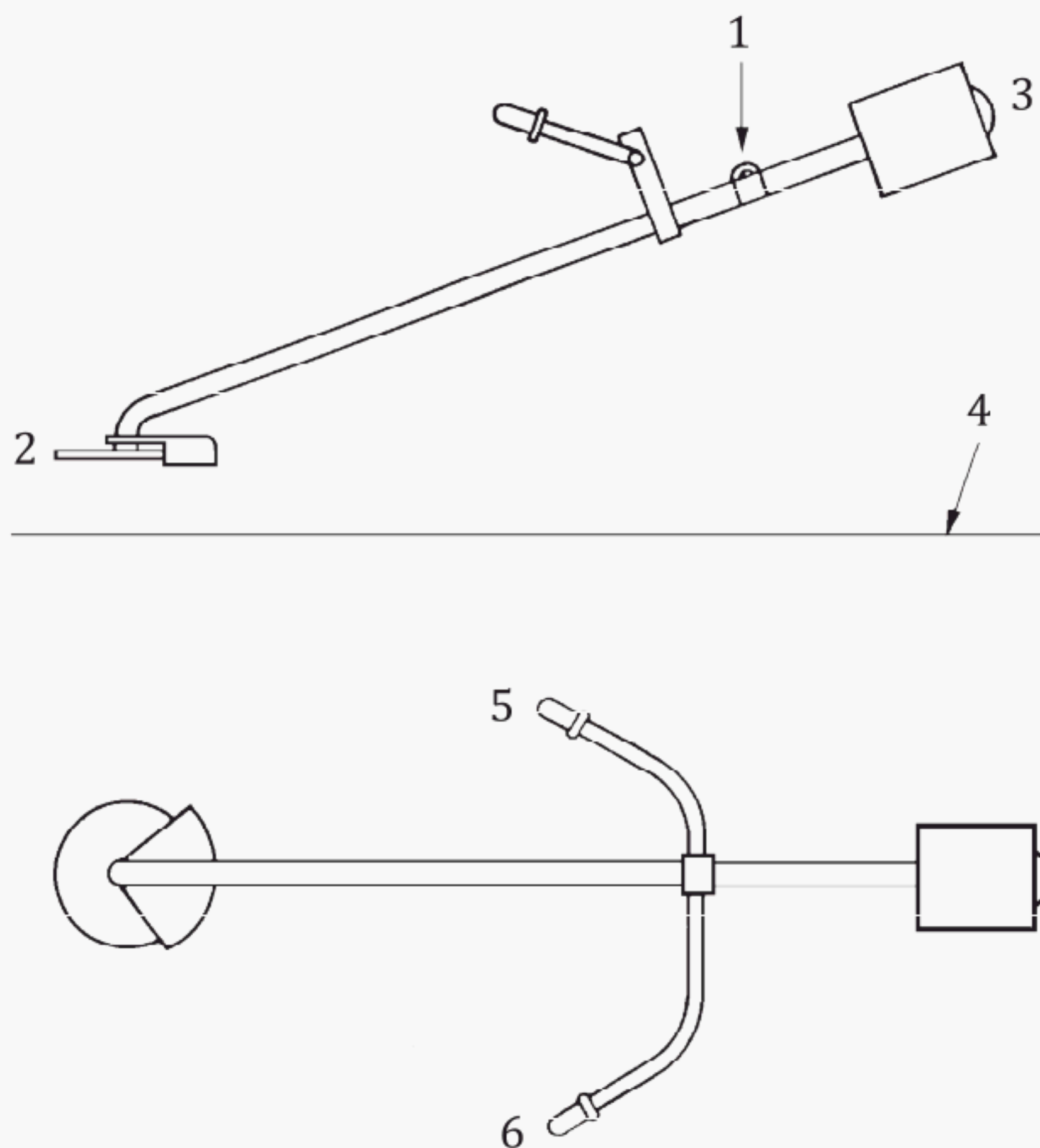
total unit mass/weight without fuel, and *cutting attachment* (3.3.1) or *harness* (3.4.6)



## 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*









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