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**Machinery for forestry — Mobile and  
self-propelled machinery — Terms,  
definitions and classification**

*Matériel forestier — Machines mobiles et automotrices — Termes,  
définitions et classification*

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## Foreword

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International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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.

ISO 6814 was prepared by Technical Committee ISO/TC 23, *Tractors and machinery for agriculture and forestry*, Subcommittee SC 15, *Machinery for forestry*.

This third edition cancels and replaces the second edition (ISO 6814:2000), which has been technically revised.

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# Machinery for forestry — Mobile and self-propelled machinery — Terms, definitions and classification

## 1 Scope

This International Standard defines terms corresponding to, and gives guidance for the classification of, mobile and self-propelled machinery used in forestry and related operations. Both the definitions and the classification have been determined according to the end use of the machines as intended by the manufacturer. The terms and definitions do not cover all possible forestry and related operations or machinery, nor do they describe specific machines, but are given as an aid to nomenclature.

This International Standard is applicable to machines designed for use in forestry for site preparation, planting, harvesting, processing, and the transport of wood and wood fibre. It is not applicable to machines designed to be used exclusively in sawmills or wood yards, to on-highway transport vehicles, or to aerial vehicles.

## 2 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

### 2.1 Site preparation, planting and maintenance operations

#### 2.1.1

##### **ground preparation bedding**

preparation of the soil surface to provide a location for planting

#### 2.1.2

##### **chopping**

breaking down material into shorter pieces

#### 2.1.3

##### **cleaning**

selective removal of unwanted shrubs and trees without use of the wood

#### 2.1.4

##### **clearing**

removing unwanted residues (logging waste), shrubs, trees and stumps

#### 2.1.5

##### **grubbing**

removing trees and stumps from an area by severing below the ground surface, lifting, and pushing into piles

#### 2.1.6

##### **mulching**

reduction of trees, brush or parts of trees on site with a grinding or shredding action, leaving the resulting material on the forest floor

**2.1.7**

**planting**

putting trees or seedlings into the ground at their growing positions

**2.1.8**

**ploughing**

shearing and turning mineral soil with a linear motion

**2.1.9**

**pruning**

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

**2.1.10**

**raking**

moving loose material using a toothed or comb-like device

**2.1.11**

**scarifying**

preparing the ground surface for planting or regeneration by lightly cultivating the surface

**2.2 Forest harvesting operations**

**2.2.1**

**bunching**

gathering and arranging trees or parts of trees in bunches

**2.2.2**

**bundling**

baling

collecting trees or parts of trees and compressing and binding them into a denser form

**2.2.3**

**cable yarding**

transporting trees or parts of trees by means of a cable system partially or fully elevated above the forest floor

**2.2.4**

**chipping**

breaking down/slicing trees into small pieces of specified dimensions

**2.2.5**

**crushing**

reduction of trees or parts of trees by compression or impacting

**2.2.6**

**debarking**

removing bark from trees or parts of trees

**2.2.7**

**delimiting**

removing branches from trees or parts of trees

**2.2.8**

**felling**

severing trees from the stump

**2.2.9**

**forwarding**

transporting trees or parts of trees by carrying them

**2.2.10****grinding**

reduction of trees, brush or parts of trees by tearing, shredding, impacting or shearing to a uniform particle size

**2.2.11****harvesting**

felling combined with other processing functions

**2.2.12****loading**

picking up trees or parts of trees from the ground, or from a vehicle, and piling them on a vehicle

**2.2.13****stacking**

depositing trees or parts of trees in orderly piles

**2.2.14****processing**

function or combination of functions other than felling that change the form of the material

**2.2.15****skidding**

transporting trees or parts of trees by trailing or dragging

**2.2.16****cross-cutting**

cutting felled or uprooted trees or parts of trees into lengths

**2.2.16.1****slashing**

cross-cutting to approximate lengths

**2.2.16.2****bucking**

cross-cutting to measured lengths

**2.2.17****sorting**

separating trees or parts of trees into groups based on particular attributes

**2.2.18****splitting**

dividing trees or parts of trees longitudinally into pieces

**2.2.19****thinning**

selective felling in immature stands to promote the growth or condition of the remaining trees

**2.2.20****topping**

cutting off the tops of trees at a predetermined point

**2.2.21****uprooting**

removal of trees, complete with root ball, by severing or breaking roots below the soil surface

## 2.3 Forestry machinery

### 2.3.1 Single-function machines

#### 2.3.1.1

##### **bundler**

machine designed to collect trees or parts of trees, compact the collected material and bind it together to create a denser collection of material

#### 2.3.1.2

##### **cable yarder**

machine designed to provide the power to transport trees or parts of trees by means of a cable system, usually with the use of a tower that may be integral to the machine or a separate structure

#### 2.3.1.3

##### **chipper**

machine designed to chip whole trees or parts of trees

#### 2.3.1.4

##### **cleaner**

machine designed to selectively remove unwanted shrubs and trees

#### 2.3.1.5

##### **crusher**

machine designed to reduce trees or parts of trees by rolling or impacting

#### 2.3.1.6

##### **debarker**

machine designed to remove the bark from trees or parts of trees

#### 2.3.1.7

##### **delimber**

machine designed to remove limbs from trees or parts of trees

#### 2.3.1.8

##### **feller**

self-propelled machine designed to fell standing trees

#### 2.3.1.9

##### **forwarder**

self-propelled machine designed to move trees or parts of trees by carrying them

#### 2.3.1.10

##### **grinder**

self-propelled or portable machine designed to reduce trees, brush or parts of trees by tearing, shredding, impacting or shearing to a uniform particle size

#### 2.3.1.11

##### **log loader**

machine designed to pick up and discharge trees or parts of trees for the purpose of stacking or loading

#### 2.3.1.12

##### **mulcher**

self-propelled machine designed for on-site reduction of standing or downed trees, brush, or parts of trees through a grinding or shredding action into coarse residue that is left on the forest floor

#### 2.3.1.13

##### **regeneration equipment**

machines used in reforestation

**2.3.1.14****site preparation equipment**

machines used to prepare forest sites for planting or seeding

**2.3.1.15****skidder**

self-propelled machine designed to transport trees or parts of trees by trailing or dragging

**2.3.1.16****slasher**

machine designed to cut felled trees into separate parts without measurement for length

**2.3.2 Multi-function machines****2.3.2.1****delimber-buncher**

machine designed to delimit trees and arrange logs in bunches

**2.3.2.2****feller-buncher**

self-propelled machine designed to fell standing trees and arrange them in bunches

**2.3.2.3****feller-forwarder**

self-propelled, self-loading machine designed to fell standing trees and transport them by carrying

**2.3.2.4****feller-skidder**

self-propelled, self-loading machine designed to fell standing trees and transport them by skidding

**2.3.2.5****harvester**

self-propelled machine that combines felling with other processing functions

**2.3.2.6****harwarder**

self-propelled machine that combines felling with other processing functions and forwarding

**2.3.2.7****processor**

machine that does not fell trees but which performs two or more subsequent functions that change the form of the material

**3 Classification guidelines****3.1 Classification by general technical concept****3.1.1 General**

The following common criteria should be used to classify forestry machines, each according to its general technical concept. The examples given do not include all possible classifications of machines.

Only those subclassifications necessary for identifying machines in their context of use need be listed, e.g. wheeled grapple skidder or tracked swing-to-load knuckleboom log loader.