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**Logging industry — Technology —
Vocabulary**

Exploitation forestière — Techniques — Vocabulaire

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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.

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 documents 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).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of user and does not constitute an endorsement.

For an explanation of 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 www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC²¹⁸, *Timber*.

This third edition cancels and replaces the second edition (ISO 8965:2013), which has been technically revised.

The main changes are as follows:

- updated, corrected and clarified definitions;
- re-ordering of term categories and terms within categories to match the subject matter.

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.

Introduction

The main purpose of this document is to establish international terms and their definitions used in contemporary technological processes of the logging industry, to provide terminological unity and comparability of scientific and technical information.

This is addressed not only to the standardizers and terminologists in forestry, but to anyone involved in terminology work, as well as to the users of different terminologies.

The terms established in this document are listed in a systematic order, reflecting a system concept in the field of logging industry standardization.

For each concept, one standardized term has been established.

Admissible terms/synonyms are given as informative data and are not standardized.

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Logging industry — Technology — Vocabulary

1 Scope

This document defines terms relating to technological operations in the logging industry.

NOTE See ISO 6814 for terms and definitions related to mobile and self-propelled machinery used in forestry.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

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/>

3.1 General terms

3.1.1 logging harvesting

set of consecutive operations to convert standing trees to desired products for further processing at manufacturing facilities

Note 1 to entry: Includes *cutting unit works* (3.3.1), *post-cutting activities* (3.3.44), transportation and partial processing of *round timber* (3.4.5)

3.1.2 logging industry

sector of the forest industry engaged in *logging* (3.1.1)

3.1.3 forest tract timber supply block

area of forest land designated for *logging* (3.1.1)

3.1.4 forest inventory

stock of standing timber available for *logging* (3.1.1)

3.1.5 allowable cut

volume of annual timber supply available for *logging* (3.1.1) from a specified forest area

Note 1 to entry: In some countries, applies only to *main cut* (3.2.4).

3.1.6 cutting plan

document specifying the method of *logging* (3.1.1), characteristics and layout of the *forest tract* (3.1.3), as well as its performance requirements

3.1.7

cutting allotment

part of the public forest area, assigned to a logging enterprise for a specified term

3.2 Terms relating to cut block design and layout

3.2.1

cut block

cutting unit

part of the *forest tract* (3.1.3), that is specified in size and location

3.2.2

cut block construction elements

areas of *forest tract* (3.1.3) used for *hauling roads* (3.5.1), *landings* (3.2.6), logging equipment maintenance and fuel and lubricant storage

3.2.3

arrangement of headmaster site

provisioning of a job site with fire extinguishing equipment, their position on the *cut block* (3.2.1), installation of a communication facilities and arranging of the fire prevention mineralized zone

3.2.4

main cut

final *felling* (3.3.12) of mature trees

3.2.5

buffer strip

green strip

leave strip

strip of forest land where *cutting* (3.3.11) is restricted or prohibited

Note 1 to entry: Refers to strips located between *forest tracts* (3.1.3) or adjacent to another resource (lake, river, park, road, etc.). When located near water features, also named streamside or riparian management zones.

3.2.6

landing

site near the *hauling road* (3.5.1) for temporary timber storage before additional processing or *loading* (3.3.42) for transportation

3.2.6.1

transfer yard

permanent or temporary site for storage and reloading of timber from one vehicle to another

3.2.7

skid trail

haul path

logging trail

skid road

snig track

hauling route

path

temporary trail used in a *cut block* (3.2.1) to transfer *felled trees* (3.4.3), *tree-lengths* (3.4.3.1) and *round timber* (3.4.5) by *skidding* (3.3.21) from the stump to the *landing* (3.2.6)

Note 1 to entry: Auxiliary skid trails can merge into a main skid trail.

Note 2 to entry: Including skid trails restricted to a *cutting strip* (3.2.8).

Note 3 to entry: Trails may terminate at the side of a *hauling road* (3.5.1).

3.2.8**cutting strip**

part of *cut block* (3.2.1) from which *felled trees* (3.4.3), *tree-lengths* (3.4.3.1) or *round timber* (3.4.5) are transported via a single *skid trail* (3.2.7)

3.2.9**processing yard**

area designated for *primary processing* (3.3.2) of wood raw material, storage of *round timber* (3.4.5) or *tree-lengths* (3.4.3.1) and processing of wood residues

3.2.9.1**waterside processing yard**

processing yard (3.2.9) located near a waterway

3.2.9.2**upper processing yard**

processing yard (3.2.9) located at the *cut block* (3.2.1) near a *skid trail* (3.2.7)

3.2.9.3**lower processing yard**

processing yard (3.2.9) located at the junction of a *hauling road* (3.5.1) and public road

3.2.9.4**railroad processing yard**

processing yard (3.2.9) located near a railroad

3.2.9.5**intermediate processing yard**

processing yard (3.2.9) located at the *hauling road* (3.5.1) outside the *cut block* (3.2.1)

3.2.10**capacity of processing yard**

amount of timber that can be stored in a *processing yard* (3.2.9)

3.3 Terms relating to logging methods, activities and machinery**3.3.1****cut block works****cutting unit works**

preparatory, regular, and auxiliary operations at the *forest tract* (3.1.3)

Note 1 to entry: Preparatory operations include removal of *danger trees* (3.3.48), marking and construction of tracks, *landings* (3.2.6), and workshop sites, which are necessary for carrying out of regular operations.

Note 2 to entry: Regular operations may include *felling* (3.3.12), *skidding* (3.3.21), *delimiting* (3.3.32), *bucking* (3.3.33) and *loading* (3.3.42), but also *grading* (3.4.12), *stacking* (3.3.41), and sometimes *chipping* (3.3.45).

Note 3 to entry: Auxiliary operations include maintenance and repair of harvesting machines, supply of fuel and lubricants, as well as utility services for forest workers.

3.3.2**primary processing**

subset of operations, other than transportation, including *delimiting* (3.3.32), *bucking* (3.3.33) and *grading* (3.4.12) to prepare *felled trees* (3.4.3), *tree-lengths* (3.4.3.1) or *round timber* (3.4.5) for further manufacture

3.3.3**operating reserve**

storage of *round timber* (3.4.5), at a *processing yard* (3.2.9), sufficient to maintain an uninterrupted workflow of a logging enterprise

3.3.4

full-tree logging **whole-tree logging** **total-tree logging**

method of *logging* (3.1.1) in which *felled trees* (3.4.3) are transported from the *felling* (3.3.12) site to the *landing* (3.2.6) or roadside before any processing such as topping, *delimiting* (3.3.32) and usually *bucking* (3.3.33) takes place

3.3.4.1

tree-length logging

method of *logging* (3.1.1) in which *tree-lengths* (3.4.3.1) are transported from the *felling* (3.3.12) site to the *landing* (3.2.6) or roadside

3.3.5

cut-to-length logging

method of *logging* (3.1.1) in which *felled trees* (3.4.3) are processed at the *felling* (3.3.12) site by *delimiting* (3.3.32), topping and *bucking* (3.3.33) and are placed in a *pile* (3.4.8) prior to subsequent *skidding* (3.3.21) to the *landing* (3.2.6) or roadside

3.3.6

machine logging

method of *logging* (3.1.1) that employs power-driven mobile equipment

Note 1 to entry: Includes operations using feller-bunchers, *skidders* (3.3.22), *forwarders* (3.3.20) and cable yarders.

3.3.7

aerial logging

method of *machine logging* (3.3.6) where *felled trees* (3.4.3), *tree-lengths* (3.4.3.1) or *round timber* (3.4.5) are transported by aerial equipment from the *felling* (3.3.12) site to the *landing* (3.2.6) or roadside

3.3.8

horse logging

method of *logging* (3.1.1) where *felled trees* (3.4.3), *tree-lengths* (3.4.3.1) or *round timbers* (3.4.5) are transported by large draft horses from the *felling* (3.3.12) site to the *landing* (3.2.6) or roadside

3.3.9

logging residue processing

set of operations to utilize *logging residues* (3.4.17)

3.3.10

whole tree drying

moderate drying of *stems* (3.4.1) of freshly cut or standing trees

Note 1 to entry: This operation is carried out in the warm season: freshly cut trees are temporarily left in the *cut block* (3.2.1); or for standing trees, it is carried out by girdling the stem above the root level.

3.3.11

cutting

process of *logging* (3.1.1)

3.3.12

felling **falling**

separating the *stem* (3.4.1) of a tree at the root level and directing it to fall in a given orientation

3.3.13

feller **faller** **cutter**

worker, who executes *felling* (3.3.12) manually

3.3.14**undercut**

wedge-shaped cut, visible at the butt end or a butt log, made at the base of the *stem* (3.4.1) to set the direction of *felling* (3.3.12)

3.3.15**holding bridge**

hinge section of a tree between an *undercut* (3.3.14) and a back cut, that connects the *stump* (3.4.4) and the *stem* (3.4.1) and facilitates *felling* (3.3.12) in the desired direction

3.3.16**directional falling**

assistance for *felling* (3.3.12) a tree in a given direction with the help of special tools or devices

3.3.17**bunching**

gathering and arranging *felled trees* (3.4.3) or *tree-lengths* (3.4.3.1) in *bunches* (3.4.6) for more efficient *skidding* (3.3.21)

3.3.18**harvester**

self-propelled machine that combines mechanical *felling* (3.3.12) with other processing functions such as *delimiting* (3.3.32) and *bucking* (3.3.33)

3.3.19**forwarding**

method of *skidding* (3.3.21) where *round timber* (3.4.5) is transported from the *felling* (3.3.12) site to the *landing* (3.2.6) or roadside so that the pieces are clear of the ground surface

3.3.20**forwarder**

self-loading, self-propelled machine for *forwarding* (3.3.19)

3.3.21**skidding****snigging**

transport of *felled trees* (3.4.3), *tree-lengths* (3.4.3.1) or *round timber* (3.4.5) from the *felling* (3.3.12) site to the *landing* (3.2.6) or roadside

3.3.22**skidder**

self-propelled machine for *skidding* (3.3.21) by dragging over the ground surface

3.3.23**choking**

process of placing a *choker* (3.3.24) around a single or *bunch* (3.4.6) of *felled trees* (3.4.3), *tree-lengths* (3.4.3.1) or *round timber* (3.4.5)

3.3.24**choker**

wire cable which is looped and secured around a *bunch* (3.4.6) or single *felled tree(s)* (3.4.3), *tree-length(s)* (3.4.3.1) or *round timber* (3.4.5) for *skidding* (3.3.21) or *cable yarding* (3.3.28) to the *landing* (3.2.6) or roadside

3.3.25**choker skidding****choker snigging**

skidding (3.3.21) using *chokers* (3.3.24)

3.3.26

choker-less skidding

choker-less snigging

skidding (3.3.21) using a mechanical gripping device mounted on the *skidder* (3.3.22) or yarder

3.3.27

ground skidding

ground snigging

choker skidding (3.3.25) where a single or the bottom pieces of a *bunch* (3.4.6) of *felled tree(s)* (3.4.3), *tree-lengths* (3.4.3.1) or *round timber* (3.4.5) is in full contact with the ground surface

3.3.28

cable yarding

high-lead yarding

method of *skidding* (3.3.21) where *felled trees* (3.4.3), *tree-lengths* (3.4.3.1) or *round timber* (3.4.5) are transported by means of a cable system partially or fully elevated above the ground surface

Note 1 to entry: Cable yarding machines may incorporate *choker* (3.3.24), skyline carriage or grapple systems.

3.3.29

semi-suspended skidding

semi-suspended snigging

method of *skidding* (3.3.21) where one end of a single or *bunch* (3.4.6) of *felled tree(s)* (3.4.3), *tree-lengths* (3.4.3.1) or *round timber* (3.4.5) is positioned above the ground surface

3.3.30

butt-end skidding

butt end snigging

method of *skidding* (3.3.21) where the large ends of *felled trees* (3.4.3), *tree-lengths* (3.4.3.1) or *round timber* (3.4.5) are oriented towards the skidding machine

3.3.31

top-end skidding

top-end snigging

method of *skidding* (3.3.21) where the top ends of *felled trees* (3.4.3), *tree-lengths* (3.4.3.1) or *round timber* (3.4.5) are oriented towards the skidding machine

3.3.32

delimiting

limbing

removing branches from *felled trees* (3.4.3)

3.3.33

bucking

cross-cutting of *tree-lengths* (3.4.3.1) or *round timber* (3.4.5)

3.3.34

bunch bucking

bucking (3.3.33) of a *bunch* (3.4.6) of *tree-lengths* (3.4.3.1) or *round timber* (3.4.5) based on a quality assessment of the entire bunch

3.3.35

piece-by-piece bucking

bucking (3.3.33) of individual pieces of *tree-lengths* (3.4.3.1) or *round timber* (3.4.5) based on a quality assessment of each piece

3.3.36

debarking

removing the bark from *round timber* (3.4.5)

3.3.37**collection of foliage**

separation of needle, foliage, sprouts, buds from freshly cut or standing trees

3.3.38**trimming**

cutting the butt end of *round timber* (3.4.5) to obtain a face perpendicular to the longitudinal axis

3.3.39**log splitting**

mechanical separation of *round timber* (3.4.5) along its length using special equipment or tools

3.3.40**labeling**

placing marks on one end of *round timber* (3.4.5) indicating its grade or other designation

3.3.41**stacking**

placing *felled trees* (3.4.3), *tree-lengths* (3.4.3.1) or *round timber* (3.4.5) in orderly *piles* (3.4.8)

3.3.42**loading**

set of operations to transfer *tree-lengths* (3.4.3.1) or *round timber* (3.4.5) from a *pile* (3.4.8) at the *landing* (3.2.6) or roadside and placing on a transport vehicle

3.3.42.1**bundle loading**

loading (3.3.42) a collection of *tree-lengths* (3.4.3.1) or *round timbers* (3.4.5) in one operation

3.3.43**unloading**

set of operations to transfer *tree-lengths* (3.4.3.1) or *round timber* (3.4.5) from the transport vehicle to a *pile* (3.4.8) after the transportation is complete

3.3.44**post-cutting activities**

removal or dispersal of *cut block* (3.2.1) *logging residues* (3.4.17)

Note 1 to entry: To provide conditions for renewal and growth of wood species, fire prevention, or disease and pest control. May include piling and leaving for decomposition or mulching and spreading.

3.3.45**chipping**

breaking down *tree-lengths* (3.4.3.1) or *round timber* (3.4.5) and wood residues into small wood flakes

3.3.46**hauling****trucking**

transporting *tree-lengths* (3.4.3.1) or *round timber* (3.4.5) by vehicle from the *landing* (3.2.6) or roadside to the place of temporary storage or *processing yard* (3.2.9)

3.3.47**tree hang-up**

stem that is hung up in the crowns of adjacent trees preventing its complete fall to the ground during *felling* (3.3.12)

3.3.48**danger tree****hazardous tree**

rotten, dry, hanging, uprooted or broken tree presenting a hazard to workers and equipment

3.4 Terms relating to round timber

3.4.1

stem

portion of a standing tree above ground, excluding branches

3.4.2

trunk

portion of a *stem* (3.4.1) used to assess the value or utility of a standing tree

Note 1 to entry: Usually specified by the minimum top diameter.

3.4.3

felled tree

tree after *felling* (3.3.12)

3.4.3.1

tree-length

felled tree (3.4.3) after *delimiting* (3.3.12) and topping

3.4.4

stump

portion of a tree that remains in the ground after *felling* (3.3.12)

3.4.5

round timber

product obtained from a *felled tree* (3.4.3) after *delimiting* (3.3.12) and removal of top, that may or may not have been cross-cut

3.4.5.1

long pole

round timber (3.4.5) that has not yet been cross-cut

3.4.5.2

log

cross-cut portion of *round timber* (3.4.5)

[SOURCE: ISO 24294:2021, 4.1.2]

3.4.6

bunch

felled trees (3.4.3), *tree-lengths* (3.4.3.1) or *round timber* (3.4.5) assembled for subsequent *skidding* (3.3.21) or processing

3.4.7

bundle

multiple pieces of *round timber* (3.4.5) held together with strapping or other binding means

3.4.8

pile

stack

round timber (3.4.5) or *tree-lengths* (3.4.3.1) organized in parallel rows

3.4.9

beard

breakaway wood at the end of cross-cut *round timber* (3.4.5)

Note 1 to entry: Generally, results from incomplete *bucking* (3.3.33).

3.4.10**butt damage**

longitudinal split or other damage at the large end of a *felled tree* (3.4.3)

Note 1 to entry: Generally caused by improper *felling* (3.3.12) procedures.

3.4.11**grade**

measure of *log* (3.4.5.2) quality

Note 1 to entry: Usually expressed by numeric or alphabetic characters.

3.4.12**grading**

classifying *round timber* (3.4.5) by quality, species, dimensions and, if necessary, by end-use

3.4.13 Measurement of round timber volume**3.4.13.1****piece-by-piece measurement of volume**

determination of solid volume based on measurement of the diameter, with or without bark, and the length of each individual piece of *round timber* (3.4.5)

[SOURCE: ISO 24294:2021, 7.11.1]

3.4.13.2**geometric measurement of volume**

measurement of the aggregate volume of a *pile* (3.4.8) of *round timber* (3.4.5) with a fixed form with conversion of piled volume into solid volume

[SOURCE: ISO 24294:2021, 7.11.2]

3.4.13.3**mass measurement of volume**

determination of volume of *round timber* (3.4.5) by weighing with subsequent conversion of mass into solid volume

[SOURCE: ISO 24294:2021, 7.11.3]

3.4.13.4**hydrostatic measurement of volume**

determination of the solid volume of *round timber* (3.4.5) by change in water displacement upon complete immersion in water

[SOURCE: ISO 24294:2021, 7.11.4]

3.4.13.5**photographic determination of volume**

determination of solid volume of *round timber* (3.4.5) by measurement of the size and density of the *pile* (3.4.8) using its photo image and taking into account their lengths

[SOURCE: ISO 24294:2021, 7.11.5]

3.4.13.6**electro-optical determination of volume**

determination of solid volume of *round timber* (3.4.5) volume using scanning devices

[SOURCE: ISO 24294:2021, 7.11.6]

3.4.14

merchantable volume

amount of sound wood in a single tree or a tree stand that is suitable for marketing under given end-use specifications

3.4.15

gross merchantable volume

merchantable volume (3.4.14) of the main *stem* (3.4.1), excluding *stump* (3.4.4) and top, but including defective and decayed wood

3.4.16

net merchantable volume

merchantable volume (3.4.14) of the main *stem* (3.4.1), excluding *stump* (3.4.4), top and decayed or other defective wood

3.4.17

logging residues

forest residues generated by *logging* (3.1.1)

Note 1 to entry: Consist of branches, needles, leaves, treetops, *stumps* (3.4.4), stem cutoffs, etc.

3.5 Terms relating to hauling roads

3.5.1

hauling road

road intended for *hauling* (3.3.46) of timber

Note 1 to entry: By the type and structure of the surfacing, may be classified as dirt roads, paved roads, roads with reusable concrete pads, etc.

3.5.2

main hauling road

main section of the *hauling road* (3.5.1) that connects the *forest tract* (3.1.3) to a *processing yard* (3.2.9), a *shared hauling road* (3.5.5), a public road or a point of utilization

3.5.3

subsidiary hauling road

secondary hauling road

branch of the main *hauling road* (3.5.1) servicing one part of the *cutting allotment* (3.1.7) for at least two years

3.5.4

hauling road feeder

temporary *hauling road* (3.5.1) with a service life of not more than a year, connecting to a *subsidiary hauling road* (3.5.3) or *main hauling road* (3.5.2) and intended for connecting *forest tracts* (3.1.3)

3.5.5

shared hauling road

hauling road (3.5.1) serving several logging enterprises

3.5.6

railway hauling track

track with rails intended for *hauling* (3.3.46) of timber from a *cut block* (3.2.1) to a location where it can be further processed or temporarily stored

3.5.7

all-season road

hauling road (3.5.1) intended for year-round usage

3.5.8**seasonal hauling road**

hauling road (3.5.1) operating during one season of the year

3.5.9**winter hauling road**

hauling road (3.5.1) for use during winter

Note 1 to entry: May have surface or tracks made with compacted snow, ice, or snow treated with water.

3.5.10**hauling road volume**

amount of timber that is transported on a *hauling road* (3.5.1) per period of time

Note 1 to entry: May be expressed in units of volume (such as m³) per day, per month or per year.

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