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Tractors and machinery for agriculture and forestry — Basic types — Vocabulary

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National foreword

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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.

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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/TC 23, *Tractors and machinery for agriculture and forestry*, Subcommittee SC 2, *Common tests*.

This second edition cancels and replaces the first edition (ISO 12934:2013), which has been technically revised.

The main changes compared to the previous edition are as follows:

— definitions for on-road towed implement, agricultural unoccupied aerial vehicle, portable auger, portable conveyor, and numerous self-propelled harvesters have been added;

— definitions for specific self-propelled cotton harvesters have been added;

— the definitions of several tractor terms have been updated.

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Introduction

This document provides definitions and terms for types of agricultural machinery and tractors used in agriculture and forestry. It establishes uniformity in definitions for ISO/TC 23 published standards.

The list provided in 3.2 is not comprehensive and, therefore, does not represent all the machine types that exist. One or more definitions may apply to a certain machine configuration.

NOTE Other terms commonly used for "agricultural field equipment" are "farm machinery", "farm implements", "implements of husbandry" and "agricultural machinery".

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INTERNATIONAL STANDARD ISO 12934:2021

Tractors and machinery for agriculture and forestry — Basic types — Vocabulary

1 Scope

This document provides terms and definitions for agricultural field equipment designed primarily for use in agricultural operations for the production of food and fibre.

This document also applies to agricultural tractors used in forestry applications. Purpose-built forestry machines, as defined by ISO 6814, are not included.

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:

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

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

3.1 Basic terms and definitions

3.1.1
machine
machinery
assembly, fitted with or intended to be fitted with a drive system consisting of linked parts or components, at least one of which moves, and which are joined together for a specific application

Note 1 to entry: The terms "machinery" and "machine" also cover an assembly of machines which, in order to achieve the same end, are arranged and controlled so that they function as an integral whole.

[SOURCE: ISO 12100:2010, 3.1, modified — "and machine" has been added to Note 1; Note 2 has been omitted.]

3.1.2
agricultural field equipment
agricultural vehicle
agricultural tractors (3.2.1), *self-propelled machines* (3.2.2), *implements* (3.2.3 to 3.2.4), *interchangeable towed machinery* (3.1.3), *trailers* (3.2.6), and combinations thereof designed primarily for agricultural field operations and occasional road travel

3.1.3
interchangeable towed machinery
machine which is designed to be towed by an *agricultural tractor* (3.2.1) or *self-propelled machine* (3.2.2) and changes or adds to its functions

Note 1 to entry: It may include a load platform designed and constructed to receive any tools and appliances needed for those purposes, and to store temporarily any materials produced or needed during work.

Note 2 to entry: Any vehicle intended to be towed by a tractor and

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Note 1 to entry: This term is not to be confused with track (see ISO 789-13:2018, 3.3) that measures vertical planes through the centreline of the tyres.

3.2 Specific terms and definitions

3.2.1
agricultural tractor
self-propelled *agricultural vehicle* (3.1.2) having at least two axles and wheels, endless tracks, or a combination of wheels and endless tracks, particularly designed to pull, push, carry or provide power to operate implements or pull agricultural trailers and implements, or any combination of these functions used for agricultural work (including forestry work), which may be provided with a load platform

Note 1 to entry: The *agricultural vehicle* (3.1.2) has a *maximum design ground speed* (3.1.4) of not less than 6 km/h and may be equipped with more than one seat.

3.2.1.1
standard agricultural tractor
agricultural tractor (3.2.1) having a minimum wheel track width of 1 150 mm or greater, the overall width not exceeding 2,55 m with at least one permissible tyre or endless track combination, an unladen mass, in running order, of 400 kg or greater, and a ground clearance of 1 000 mm or less

3.2.1.2
two-wheel drive tractor
agricultural tractor (3.2.1) with traction power provided only through the rear tyres

Note 1 to entry: The front tyres are smaller than the rear and typically use a profile type with no traction capability.

3.2.1.3
all-wheel drive tractor
agricultural tractor (3.2.1) with two axles or more, having power to all axles

Note 1 to entry: The drive of one or more axles may be disengageable.

3.2.1.3.1
four-wheel drive tractor with unequal sized wheels
all-wheel drive tractor (3.2.1.3) with primary power provided through the rear tyres and disengageable power through the front tyres

Note 1 to entry: The front tyres are generally larger in rolling radius than those of a two-wheel drive tractor and use a tyre profile that will transmit traction capability.

3.2.1.3.2
four-wheel drive tractor with equal sized wheels
all-wheel drive tractor (3.2.1.3) with equal sized wheels and having power to both axles

3.2.1.3.3
all-wheel drive tractor with more than 2 axles
all-wheel drive tractor (3.2.1.3) with more than two axles having power to all axles

3.2.1.4
track-laying tractor
agricultural tractor (3.2.1) propelled by belted or linked endless tracks or by a combination of wheels and endless tracks

Note 1 to entry: Belted units in this definition may have a positive, friction, or combination positive-friction drive. Belts that fit over regular tractor tyres are not included in this definition.

3.2.1.5
articulated tractor
agricultural tractor (3.2.1) that is steered by means of a centre pivot articulation system

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3.2.1.6
small tractor
agricultural tractor (3.2.1) having an unladen mass, in running order, of less than 400 kg

3.2.1.7
compact utility tractor
agricultural tractor (3.2.1) equipped with a 540 r/min rear PTO and a three-point hitch designed for Category I implements only

Note 1 to entry: These tractors generally have a mass less than 1 800 kg; have less than 30 PTO kW, and are primarily designed and advertised for use with mowers and light-duty material handling equipment. The rear PTO and hitch categories are defined by ISO 500-1 or ISO 500-2 and ISO 730, respectively.

3.2.1.8
extra wide tractor
agricultural tractor (3.2.1) characterised by their large dimensions, primarily intended for working large areas of farmland

Note 1 to entry: Tractors with large tread width are covered by this definition.

3.2.1.9
high speed tractor
agricultural tractor (3.2.1) having a maximum design ground speed greater than 40 km/h

3.2.1.10
specialized tractor
agricultural tractor (3.2.1) designed to operate in special field conditions (e.g. in vineyards, orchards, speciality row crops), and that requires unique design configurations (e.g. low clearance, high clearance, narrow profile,) for functional operation

3.2.1.10.1
boat tractor
agricultural tractor (3.2.1) supported by a boat body and propelled by the wheels of the tractor

3.2.1.10.2
high clearance tractor
agricultural tractor (3.2.1) having clearance under the front and rear axles greater than the *standard agricultural tractor* (3.2.1.1)

Note 1 to entry: High-clearance tractors are typically designed for operation in vegetables, cotton, rice, tobacco or other speciality row crops requiring high clearance to avoid crop damage and are characterized by the addition of extended length axle spindles for front axles with rear axle modifications that provide an axle output significantly below the centreline of the rear axle trumpets. They are normally equipped with large diameter, narrow width tyres to minimize crop damage.

3.2.1.10.2.1
mudder tractor
specialized *high-clearance tractor* (3.2.1.10.2), designed for adverse field conditions, and usually equipped with front wheel drive assist

Note 1 to entry: Mudder tractors are typically equipped with four equal sized large diameter, narrow width tyres.

3.2.1.10.3
low clearance tractor
agricultural tractor (3.2.1) having clearance under the front and rear axles less than the *standard agricultural tractor* (3.2.1.1) and typically having low profile body work and foldable ROPS

Note 1 to entry: Low clearance tractor are typically designed for operation in orchards or low clearance buildings.

Note 2 to entry: These tractors are characterized by having a technically permissible mass no greater than 10 t, and for which the ratio of this mass to the maximum unladen mass in running order is less than 2,5. These tractors are equipped with one or more power take-offs and may have a supporting frame.

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3.2.1.10.4
low profile tractor
agricultural tractor (3.2.1) optimized for low clearance operation for use in orchards and low headroom applications, usually configured such that the highest point of the hood does not exceed 1 525 mm

Note 1 to entry: Low profile tractors are typically designed for operation in orchards and low clearance buildings.

3.2.1.10.5
mountain tractor
all-wheel drive tractor (3.2.1.3) whose interchangeable equipment is intended for agricultural or forestry use and which is characterized by a supporting frame, one or more power take-offs, a technically permissible mass not greater than 10 t at a ratio to the maximum unladen mass in running order of less than 2,5, and which has a centre of gravity less than 850 mm

Note 1 to entry: The height of the centre of gravity is in accordance with ISO 789-6 and is measured relative to the ground using the tyres that are normally fitted.

Note 2 to entry: Mountain tractors are typically designed for operation in mountainous areas or on steep roadside banks.

3.2.1.10.6
narrow tractor
agricultural tractor (3.2.1) having a fixed or adjustable track width less than 1 150 mm with at least one tyre set; an unladen mass, in running order, of 400 kg or more; and a ground clearance of 600 mm or less

Note 1 to entry: It is assumed that the axle mounted with the wider tyres is set at a track width of not more than 1 150 mm. It shall be possible to set the track width of the other axle in such a way that the outer edges of the narrower tyres do not protrude beyond the outer edges of the tyres of the other axle. Where the two axles are fitted with tyres and rims of the same size, the fixed or adjustable track width of the two axles shall be less than 1 150 mm.

3.2.1.10.6.1
vineyard tractor
narrow tractor (3.2.1.10.6) with a fixed or adjustable track width not more than 950 mm

3.2.1.10.6.2
orchard tractor
narrow tractor (3.2.1.10.6) with a fixed or adjustable track width not less than 950 mm and not more than 1 150 mm

3.2.1.10.7
scraper tractor
agricultural tractor (3.2.1) adapted primarily to pull one or more towed scrapers

Note 1 to entry: Towed scraper is defined in ISO 6165:2012, 4.7.1.

3.2.1.10.8
utility transport tractor
agricultural tractor (3.2.1) that combines the primary functions with the capability to transport materials in conditions requiring greater maneuverability of equipment.

Note 1 to entry: For transport functions, in addition to offering the feature of a drawbar or three-point hitch, this tractor can utilize load-carrying devices to transmit portions of a towed load onto the tractor chassis. This provides for closer coupling of the tractor and trailed implement for improved maneuverability. Configurations may include mounted boxes or tanks for transport of materials.

3.2.1.10.8.1
utility transport tractor (Type 1)
utility transport tractor (3.2.1.10.8) with the provision for only the operator

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3.2.1.10.8.2
utility transport tractor (Type 2)
utility transport tractor (3.2.1.10.8) with the provision for an operator and an additional personnel

3.2.2
self-propelled machine
self-propelled machinery
agricultural vehicle (3.1.2) having at least two axles and wheels, endless tracks, or a combination of wheels and endless tracks, primarily designed for use in agriculture and which, according to its design and the permanently mounted devices provides its own means of tractive movement and is suitable and intended to perform work

Note 1 to entry: Additionally, there may be transport facilities which are suitable and intended to carry instruments and auxiliaries required for the performance of work as well as materials resulting from and necessary for the work for intermediate storage.

Note 2 to entry: Agricultural tractors are specifically defined in 3.2.1.

3.2.2.1
self-propelled beet harvester
self-propelled machine (3.2.2) that digs and conveys sugar beets to an attached bin or into an accompanying truck or wagon

3.2.2.2
self-propelled combine harvester
self-propelled machine (3.2.2) for harvesting a wide variety of grain and seed crops

3.2.2.3
self-propelled cotton harvester
self-propelled machine (3.2.2) for harvesting cotton

3.2.2.3.1
self-propelled cotton picker
self-propelled machine (3.2.2) for selection and collecting cotton from open bolls on cotton stalks consisting of picking heads equipped with revolving bared spindles, a conveying means, and a method of on-board storage the picked seed cotton

3.2.2.3.2
self-propelled cotton stripper
self-propelled machine (3.2.2) for non-selective collecting of cotton bolls from cotton stalks consisting of rotating brush rolls or flexible finger heads, a conveying means, optionally an on-board field cleaner for removing burrs and sticks, and a method of on-board storage the harvested seed cotton

3.2.2.4
self-propelled forage harvester
self-propelled machine (3.2.2) that gather and chop forage crops

Note 1 to entry: The machine usually has a discharge that loads the chopped material into an accompanying wagon or truck.

3.2.2.5
self-propelled forage baler
self-propelled machine (3.2.2) that picks up and compress loose forage into compact secured bales.

Note 1 to entry: Bales are discharged to ground surface or to an accompanying conveyance.

3.2.2.6
self-propelled sprayer
self-propelled machine (3.2.2) that carries a supply tank, pump and spray heads for spraying crops

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3.2.2.6.1
self-propelled high clearance sprayer
self-propelled sprayer (3.2.2.6) having the crop clearance of the machine greater than 1 220 mm

3.2.2.7
self-propelled windrower or mower conditioner
self-propelled machine (3.2.2) that cuts and gathers standing forage, grain crops, or seed crops into windrows for drying and pickup. In forage operations, the machine normally includes a crop conditioning attachment

3.2.2.8
variable-reach truck
telescopic handler
telehandler
lift truck fitted with one or more articulated arms, telescopic or not, non-slewing or having a slewing movement of not more than 5° either side of the longitudinal axis of the truck used for stacking loads

Note 1 to entry: A drawbar may also be provided for light towing applications.

[SOURCE: ISO 5053-1:2020, 3.20]

3.2.2.9
self-propelled bale accumulator
self-propelled machine (3.2.2) that pick up, accumulate, stack and deposit bales of forage that have been deposited on the ground

3.2.2.10
self-propelled berry harvester
self-propelled machine (3.2.2) for selectively harvesting ripe blueberry, raspberry, blackberry or other berry that grows in a hedge row, then capturing, conveying, cleaning and storing the picked fruit

3.2.2.11
self-propelled coffee harvester
self-propelled machine (3.2.2) for harvesting coffee cherry from coffee grown in hedge row, then capturing, conveying, cleaning and storing the picked fruit

3.2.2.12
self-propelled grape harvester
self-propelled machine (3.2.2) for harvesting a wide variety of grapes from trellised vines, then capturing, conveying, cleaning and storing the picked fruit

3.2.2.13
self-propelled pea/bean harvester
self-propelled machine (3.2.2) that strips soft crop pods from the plants, conveys material into threshing drum, opens and separates peas and beans from pods and straw, cleans crop and stores the harvested crop

3.2.2.14
self-propelled root vegetable harvester
self-propelled machine (3.2.2) that removes root vegetables from the ground or a soil bed, cleans and conveys the vegetables to a bin or an accompanying truck or wagon

3.2.2.15
self-propelled sugar cane harvester
self-propelled machine (3.2.2) that cuts sugar cane stalks at the base, strips the leaves off, cuts the stalk into a specified length, ejects waste material onto the field and either deposits the cane sections into an on-board storage bin or an accompanying truck or wagon

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3.2.2.16
self-propelled sweet corn harvester
self-propelled machine (3.2.2) for harvesting fresh sweet corn from the stalk and consisting of a picking head, a conveying means and either a bin for carrying the picked ears or an elevator for discharging the picked ears into an accompanying truck or wagon

3.2.3
mounted implement
device or machine that performs a specific operation and which is normally attached to a tractor or a self-propelled machine and fully carried by the tractor or *self-propelled machine* (3.2.2)

Note 1 to entry: Implements can be mounted on the front, the rear, the load platform (if any) and/or between the axles of the *agricultural tractor* (3.2.1) or self-propelled machine.

3.2.3.1
rear mounted implement
mounted implement (3.2.3) attached on the rear and fully carried during transport

3.2.3.2
front mounted implement
mounted implement (3.2.3) attached on the front and fully carried during transport

3.2.3.3
mid-mounted implement
mounted implement (3.2.3) attached between the axles and fully carried during transport

3.2.3.4
platform mounted implement
mounted implement (3.2.3) attached on a load platform and fully carried during transport

3.2.4
semi-mounted implement
rigid drawbar implement
interchangeable towed machinery (3.1.3) with one axle or axle group of land wheels and a coupling device, which cannot move relative to the *agricultural vehicle* (3.1.2) allowing the transmission of vertical forces from the towed agricultural vehicle through the coupling device to the towing agricultural vehicle

Note 1 to entry: Some slight vertical movement may occur at a rigid drawbar, e.g. due to suspension movements. A hydraulically adjustable articulated drawbar is considered to be a rigid drawbar.

Note 2 to entry: Coupling devices for semi-mounted implements include connections described in ISO 22471 and ISO 730.

3.2.5
balanced towed implement
implement with one or more axles positioned to transmit a small static vertical load, not exceeding 10% of that corresponding to the maximum mass of the towed vehicle or a load of 1 000 daN, whichever is less through the hitch to the towing agricultural vehicle

3.2.6
trailer
agricultural vehicle (3.1.2) fitted with wheels or endless tracks, intended mainly to carry loads and designed to be towed by an *agricultural tractor* (3.2.1) or *self-propelled machine* (3.2.2)

Note 1 to entry: Any agricultural vehicle coupled to an agricultural tractor and permanently incorporating an implement is an agricultural or forestry trailer if the ratio of the technically permissible mass to the unladen mass of that agricultural vehicle is equal to or greater than 3,0.

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3.2.6.1
balanced load carrying trailer
trailer (3.2.6) with at least two land wheel axles at least one of which is steerable, and a drawbar towing device that allows vertical movement so that vertical forces cannot be transferred to the towing *agricultural tractor* (3.2.1) or the *self-propelled machine* (3.2.2)

3.2.6.1.1
centre-axle load carrying trailer
trailer (3.2.6) with one or more axles positioned so that they transmit a limited force through the hitch to the towing agricultural vehicle

3.2.6.2
semi-mounted load carrying trailer
rigid drawbar load carrying trailer
trailer (3.2.6) with one axle or axle group of land wheels and a drawbar towing device, which cannot move relative to the *agricultural vehicle* (3.1.2) or the *self-propelled machine* (3.2.2) allowing the transmission of vertical forces from the trailer through the drawbar to the towing *agricultural tractor* (3.2.1) or the self-propelled machine

Note 1 to entry: Some slight vertical movement may occur at a rigid drawbar (e.g. due to suspension movements). A hydraulically adjustable articulated drawbar is considered to be a rigid drawbar.

3.2.7
portable auger
portable conveyor
interchangeable towed machinery (3.1.3) consisting of an auger/conveyor to convey material and whose accessories include a suitable support system which provides mobility

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Bibliography

[1] ISO 500-1, *Agricultural tractors — Rear-mounted power take-off types 1, 2, 3 and 4 — Part 1: General specifications, safety requirements, dimensions for master shield and clearance zone*

[2] ISO 500-2, *Agricultural tractors — Rear-mounted power take-off types 1, 2 and 3 — Part 2: Narrow-track tractors, dimensions for master shield and clearance zone*

[3] ISO 730, *Agricultural wheeled tractors — Rear-mounted three-point linkage — Categories 1N, 1, 2N, 2, 3N, 3, 4N and 4*

[4] ISO 789-6, *Agricultural tractors — Test procedures — Part 6: Centre of gravity*

[5] ISO 789-13:2018, *Agricultural tractors — Test procedures — Part 13: Vocabulary and specimen test report*

[6] ISO 3833:1977, *Road vehicles — Types — Terms and definitions*

[7] ISO 5053-1:2020, *Industrial trucks — Vocabulary — Part 1: Types of industrial trucks*

[8] ISO 6165:2012, *Earth-moving machinery — Basic types — Identification and terms and definitions*

[9] ISO 6814, *Machinery for forestry — Mobile and self-propelled machinery — Terms, definitions and classification*

[10] ISO 12100:2010, *Safety of machinery — General principles for design — Risk assessment and risk reduction*

[11] ISO 22471, *Permissible mechanical connection combinations between towed and towing agricultural vehicles*

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