

ANSI/ASAE S390.6 (ISO 12934:2013) DEC2016
Tractors and machinery for agriculture and forestry — Basic types — Vocabulary



STANDARD

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Proposed by the Engineering Policy Committee of the Farm and Industrial Equipment Institute; approved by the ASAE Power and Machinery Division Standards Committee; adopted by ASAE March 1978; reaffirmed December 1982; revised February 1984; reaffirmed December 1988; December 1993, December 1994, December 1996, December 1997, December 1998; revised January 2001, June 2001, January 2005; approved as an American National Standard February 2005; periodic review extension for two years approved July 2009; revised January 2011; reaffirmed January 2016; revised and approved by ANSI December 2016.

Keywords: Definitions, Equipment, Machinery

0 Foreword

0.1 ANSI/ASAE S390.6 (adoption of ISO 12934:2013), Tractors and machinery for agriculture and forestry — Basic types — Vocabulary, is an adoption with deviations of the identically titled ISO 12934:2013, Tractors and machinery for agriculture and forestry — Basic types — Vocabulary. Deviations noted in the following Foreword sections pertain to those provisions where harmonization could not be achieved between ASABE and the International Standard.

Deviations from the subsequently printed international standard are noted with underscore (addition) or strikethrough (deletions) text. Deviations from the international standard figures and equations are clearly marked.

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

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

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

0.3 Two standards referenced within ISO 12934:2013 have been adopted by ASABE with technical deviations. The responsible ASABE committee has reviewed all references and approved the following deviations:

0.3.1 Replace 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, with ANSI/ASABE AD500-1:2014, 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. Any reference to ISO 500-1 in the printed portion of ISO 12934:2013 shall be replaced by ANSI/ASABE AD500-1:2014.

0.3.2 Replace ISO 730, Agricultural wheeled tractors — Rear-mounted three-point linkage — Categories 1N, 1, 2N, 2, 3N, 3, 4N and 4, with ANSI/ASABE AD730:2009 W/Amd. 1:2014, Agricultural wheeled tractors — Rear-

mounted three-point linkage — Categories 1N, 1, 2N, 2, 3N, 3, 4N and 4. Any reference to ISO 730 in the printed portion of ISO 12934:2013 shall be replaced by ANSI/ASABE AD730:2009 W/Amd. 1:2014.

0.4 This standard has been approved as an American National standard by ANSI (American National Standard Institute). The original content of ISO 12934 was based on ASABE standard ANSI/ASAE S390.

0.5 This standard deviates from ISO 12934:2013 as follows:

0.5.1 See Section 0.3 for reference deviations.

0.5.2 Add two definitions to Section 2 Basic terms and definitions:

0.5.2.1 over the road towed implement: interchangeable towed machinery that has been designed and intended for off-road agricultural use and which is designed to be safely towed on public roadways by a motor vehicle

0.5.2.2 agricultural drone: fixed wing or multiple rotor unmanned aerial vehicle used for the purposes of gathering image based crop data, field surveying, livestock movement, other aerial based information gathering, and other agricultural specific uses

0.5.3 Add eight definitions to Section 3.2 self-propelled machine:

0.5.3.1 self-propelled berry harvester: self-propelled machine (3.2) 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

0.5.3.2 self-propelled coffee harvester: self-propelled machine (3.2) for harvesting coffee cherry from coffee grown in hedge row, then capturing, conveying, cleaning and storing the picked fruit

0.5.3.3 self-propelled cotton stripper: self-propelled machine (3.2) 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 basket or module builder for carrying the harvested seed cotton

0.5.3.4 self-propelled grape harvester: self-propelled machine (3.2) self-propelled machine (3.2) for harvesting a wide variety of grapes from trellised vines, then capturing, conveying, cleaning and storing the picked fruit

0.5.3.5 self-propelled pea harvester: self-propelled machine (3.2) that strips the crop pods from the plants, conveys material into threshing drum, opens and separates peas and beans from pods and straw, cleans crop and stores in on board hopper

0.5.3.6 self-propelled root vegetable harvester: self-propelled machine (3.2) 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

0.5.3.7 self-propelled sugar cane harvester: self-propelled machine (3.2) that cuts sugar cane stalks at the base, strips the leaves off, cuts the stalk into a specified length, ejects waste material into onto the field and either deposits the cane sections into an on-board storage bin or into a separate vehicle traveling alongside

0.5.3.8 self-propelled sweet corn harvester: self-propelled machine (3.2) 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 a trailing wagon

0.5.4 Add one definition to Section 3 Machine terms and definitions:

0.5.4.1 portable auger: over the road towed implement (2.9) auger whose accessories include a suitable support system which provides mobility. [SOURCE: ASAE S374:1975, 4.1.4 , modified — “over the road towed implement (2.9)”] Note 1 to entry: Auger is defined in ASAE S374:1975, 4.1.1.

Text of ISO 12934:2013, Tractors and machinery for agriculture and forestry — Basic types — Vocabulary, with deviations noted, follows.

1 Scope

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

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

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

2 Basic terms and definitions

2.1

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 is not included here.]

2.2

agricultural field equipment

agricultural tractors (3.1), *self-propelled machines* (3.2), implements, and combinations thereof designed primarily for agricultural field operations

2.3

agricultural vehicle

agricultural tractor (3.1), *self-propelled machinery* (3.2), trailer or interchangeable towed machinery which is primarily intended to be used in agriculture including occasional road travel

2.4

interchangeable towed machinery

machine which is designed to be towed by a tractor 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 permanently incorporating an implement or designed to process materials shall be considered interchangeable towed machinery if the ratio of the technically permissible gross mass to the unladen mass of that vehicle is less than 3,0.

2.5

maximum design ground speed

speed based on the nominal design capability of the machine with tyres offered as original equipment

Note 1 to entry: The tyre size will be the largest diameter drive tyres on tractors and *self-propelled machines* (3.2) but not necessarily on towed equipment.

2.6

maximum mass

mass stated by the *agricultural vehicle* (2.3) manufacturer to be technically permissible