

SVENSK STANDARD

SS-ISO 6489-3:2021

Lantbruksmaskiner – Kopplingar mellan dragfordon och bogserade maskiner – Del 3: Dragbom (ISO 6489-3:2021, IDT)

Agricultural vehicles — Mechanical connections between towed and towing vehicles — Part 3: Tractor drawbar (ISO 6489-3:2021, IDT)



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Standarden är framtagen av kommittén för Lantbruksmaskiner, SIS/TK 228.

Har du synpunkter på innehållet i den här standarden, vill du delta i ett kommande revideringsarbete eller vara med och ta fram andra standarder inom området? Gå in på www.sis.se - där hittar du mer information.

Den internationella standarden ISO 6489-3:2021 gäller som svensk standard. Detta dokument innehåller den officiella engelska versionen av ISO 6489-3:2021.

Denna standard ersätter SS-ISO 6489-3:2005, utgåva 2

The International Standard ISO 6489-3:2021 has the status of a Swedish Standard. This document contains the official English version of ISO 6489-3:2021.

This standard supersedes the SS-ISO 6489-3:2005, edition 2

LÄSANVISNINGAR FÖR STANDARDER

I dessa anvisningar behandlas huvudprinciperna för hur regler och yttre begränsningar anges i standardiseringsprodukter.

Krav

Ett krav är ett uttryck i ett dokumentets innehåll som anger objektivet verifierbara kriterier som ska uppfyllas och från vilka ingen avvikelse tillåts om efterlevnad av dokumentet ska kunna åberopas. Krav uttrycks med hjälpverbet ska (eller ska inte för förbud).

Rekommendation

En rekommendation är ett uttryck i ett dokumentets innehåll som anger en valmöjlighet eller ett tillvägagångssätt som bedöms vara särskilt lämpligt utan att nödvändigtvis nämna eller utesluta andra. Rekommendationer uttrycks med hjälpverbet bör (eller bör inte för avrådanden).

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Instruktioner anges i imperativ form och används för att ange hur något görs eller utförs. De kan underordnas en annan regel, såsom ett krav eller en rekommendation. De kan även användas självständigt, och är då att betrakta som krav.

Förklaring

En förklaring är ett uttryck i ett dokumentets innehåll som förmedlar information. En förklaring kan uttrycka tillåtelse, möjlighet eller förmåga. Tillåtelse uttrycks med hjälpverbet får (eller motsatsen behöver inte). Möjlighet och förmåga uttrycks med hjälpverbet kan (eller motsatsen kan inte).

READING INSTRUCTIONS FOR STANDARDS

These instructions cover the main principles for the use of provisions and external constraints in standardization deliverables.

Requirement

A requirement is an expression, in the content of a document, that conveys objectively verifiable criteria to be fulfilled, and from which no deviation is permitted if conformance with the document is to be claimed. Requirements are expressed by the auxiliary shall (or shall not for prohibition).

Recommendation

A recommendation is an expression, in the content of a document, that conveys a suggested possible choice or course of action deemed to be particularly suitable, without necessarily mentioning or excluding others. Recommendations are expressed by the auxiliary should (or should not for dissuasion).

Instruction

An instruction is expressed in the imperative mood and is used in order to convey an action to be performed. It can be subordinated to another provision, such as a requirement or a recommendation. It can also be used independently and is then to be regarded as a requirement.

Statement

A statement is an expression, in the content of a document, that conveys information. A statement can express permission, possibility or capability. Permission is expressed by the auxiliary may (its opposite being need not). Possibility and capability are expressed by the auxiliary can (its opposite being cannot).

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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 users 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/TC 23, *Tractors and machinery for agriculture and forestry*, Subcommittee SC 4, *Tractors*.

This third edition cancels and replaces the second edition (ISO 6489-3:2004), which has been technically revised.

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

- addition of specifications for drawbar position dimension T for PTO type 4;
- addition of a new dimension L (distance from hitch pin hole to the tyre OD for wheeled tractors or for tracked tractors to the rear most vertical tangent line with the tracks at their rearmost pivoted position);
- specification of pin diameter as a range;
- addition of requirements for marking.

A list of all parts in the ISO 6489 series can be found on the ISO website.

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.

Agricultural vehicles — Mechanical connections between towed and towing vehicles —

Part 3: Tractor drawbar

1 Scope

This document specifies the dimensional requirements and location for category 0, 1, 2, 3, 4 and 5 drawbars mounted on the rear of agricultural tractors.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 789-1, *Agricultural tractors — Test procedures — Part 1: Power tests for power take-off*

ISO 5673-2, *Agricultural tractors and machinery — Power take-off drive shafts and power-input connection — Part 2: Specification for use of PTO drive shafts, and position and clearance of PTO drive line and PIC for various attachments*

ISO 14396, *Reciprocating internal combustion engines — Determination and method for the measurement of engine power — Additional requirements for exhaust emission tests in accordance with ISO 8178*

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 <http://www.electropedia.org/>

3.1 tractor drawbar drawbar

mechanical connection mounted on the rear of an agricultural tractor for the mechanical coupling of an implement

Note 1 to entry: A tractor drawbar can be non-adjustable or adjustable.

3.1.1 non-adjustable drawbar

fixed drawbar with no possibility for adjustment

3.1.2 adjustable drawbar

adjustable, multiple operating position drawbar providing the regular, short and extended drawbar positions

3.1.3

regular drawbar position

position of the *adjustable drawbar* (3.1.2) and *non-adjustable drawbar* (3.1.1) providing the standard dimension from drawbar pin hole to end of PTO for the type of PTO on the tractor

3.1.4

short drawbar position

position of the adjustable drawbar intended to connect non-PTO driven equipment that applies a high vertical load to the drawbar

3.1.5

extended drawbar position

position of the adjustable drawbar intended for a special PTO drive shaft condition where equal angularity of the drive shaft joints cannot be obtained using the *regular drawbar position* (3.1.3)

3.2

PTO drive shaft clearance plane

imaginary plane which establishes the upper permissible limit of protrusion of the drawbar and clevis

3.3

drawbar hitch point

connection point between *tractor drawbar* (3.1) and implement end

4 Specifications

4.1 Drawbar clevis

The drawbar clevis shall be removable to allow installation of special attachments or connection to implements which have a clevis end (see [Figure 6](#)). It may also be necessary to remove the clevis to provide PTO driveshaft clearance with implements which do not meet the dimensions specified in ISO 5673-2.

4.2 Drawbar hitch point

Provisions shall be made on the tractor for the connection of the tractor drawbar to the implement, in a position with the drawbar hitch point directly in line with the longitudinal centreline of the tractor PTO.

4.3 Drawbar categories

See [Table 1](#).

Table 1 — Drawbar categories

Values in kilowatts

Drawbar category	PTO power ^a at rated engine speed
0	≤ 28
1	≤ 48
2	≤ 115
3	≤ 185
4	≤ 300
5	≤ 500

^a Shall be determined in accordance with ISO 789-1 or OECD code 1 or 2. If PTO power is not available, use 86 % of engine power in accordance with ISO 14396