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**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**

*Tracteurs agricoles — Prises de force montées à l'arrière des types 1,  
2, 3 et 4 —*

*Partie 1: Spécifications générales, exigences de sécurité, dimensions  
du bouclier protecteur et de la zone de dégagement*



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Tel. + 41 22 749 01 11  
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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](http://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](http://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 on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 23, *Tractors and machinery for agriculture and forestry*, Subcommittee SC 4, *Tractors*.

This second edition cancels and replaces the first edition (ISO 500-1:2004), of which it constitutes a minor revision. It also incorporates the Corrigendum ISO 500-1:2004/Cor. 1:2005.

ISO 500 consists of the following parts, under the general title *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*
- *Part 2: Narrow-track tractors, dimensions for master shield and clearance zone*
- *Part 3: Main PTO dimensions and spline dimensions, location of PTO*

# 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

### 1 Scope

This part of ISO 500 gives general specifications, including speeds, safety requirements, the dimensions for master shield, and clearance zones for rear-mounted power take-offs (PTOs) of types 1, 2, 3, and 4 on agricultural tractors with a track setting of more than 1 150 mm (those with track setting width of 1 150 mm or less are covered in ISO 500-2).

### 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

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 6489 (all parts), *Agricultural vehicles — Mechanical connections between towed and towing vehicles*

### 3 Terms and definitions

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

#### 3.1

#### **power take-off**

#### **PTO**

external shaft on the rear of the tractor to provide rotational power to implements

### 4 Specifications

**4.1** The tractor rear power take-off (PTO) is classified into four types (see [Table 1](#)).

**4.2** The direction of PTO rotation shall be clockwise when viewed from behind the tractor except when a ground-driven PTO is operated with the tractor in reverse direction.

**4.3** The nominal PTO rated rotational frequency can be realized by one or more engine speed ranges.