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**Agricultural tractors — Test  
procedures —**

**Part 1:  
Power tests for power take-off**

*Tracteurs agricoles — Méthodes d'essai —*

*Partie 1: Essais de puissance à la prise de force*





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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 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 the following URL: [www.iso.org/iso/foreword.html](http://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 third edition cancels and replaces the second edition (ISO 789-1:1990), which has been technically revised for the technical harmonization with OECD Code 2: February 2017.

A list of all the parts in the ISO 789 series can be found on the ISO website.

# Agricultural tractors — Test procedures —

## Part 1: Power tests for power take-off

### 1 Scope

This document specifies test procedures for determining the power available at the power take-off (PTO) on agricultural tractors of the wheeled, track-laying or semi-track-laying type.

### 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 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*

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*

ISO 500-3, *Agricultural tractors — Rear-mounted power take-off types 1, 2, 3 and 4 — Part 3: Main PTO dimensions and spline dimensions, location of PTO*

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

ISO 8759-1, *Agricultural wheeled tractors — Front-mounted equipment — Part 1: Power take-off and three-point linkage*

### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 789-13 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/>

### 4 Measurement units and tolerances

The following units and tolerances apply to the maximum value measured:

- rotational frequency, in revolutions per minute (r/min):  $\pm 0,5 \%$ ;
- time, in seconds (s):  $\pm 0,2 \%$ ;
- distance, in metres or millimetres (m or mm):  $\pm 0,5 \%$ ;
- force, in newtons (N):  $\pm 1 \%$ ;
- torque, in newton metres (N·m):  $\pm 1 \%$ ;