

# INTERNATIONAL STANDARD

**ISO**  
**5673**

Second edition  
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## **Agricultural tractors and machinery — Power take-off drive shafts and position of power-input connection**

*Tracteurs et matériels agricoles — Arbres de transmission à cardans de  
prise de force et position de l'arbre récepteur sur la machine*



Reference number  
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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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 5673 was prepared by Technical Committee ISO/TC 23, *Tractors and machinery for agriculture and forestry*, Subcommittee SC 4, *Tractors*.

This second edition cancels and replaces the first edition (ISO 5673:1980), of which it constitutes a technical revision.

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# Agricultural tractors and machinery — Power take-off drive shafts and position of power-input connection

## 1 Scope

This International Standard specifies a system to classify power take-off (PTO) drive shafts. It also specifies the position of the power-input connection (PIC) and provides application guidelines and alternative recommended requirements for yoke bores.

It applies to PTO drive shafts and PIC required for the connection of agricultural tractors to agricultural implements and machines.

This International Standard therefore provides the best possible matching conditions between different types of agricultural tractors and implements to ensure interchangeability.

## 2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 500:1991, *Agricultural tractors — Rear-mounted power take-off — Types 1, 2 and 3.*

ISO 730-1:1990, *Agricultural wheeled tractors — Rear-mounted three-point linkage — Part 1: Categories 1, 2 and 3.*

ISO 6489-1:1991, *Agricultural vehicles — Mechanical connections on towing vehicles — Part 1: Hook type.*

ISO 6489-3:1992, *Agricultural vehicles — Mechanical connections on towing vehicles — Part 3: Tractor drawbar.*

## 3 Definitions

For the purposes of this International Standard, the following definitions apply.

**3.1 implement drive line:** Line through the shafts, universal joints, guards, connectors and fasteners provided with the implement to transmit rotational power from tractor PTO to implement PIC.

**3.2 PTO drive shaft:** Shaft with universal joints that connects the tractor PTO to the first implement PIC. (See figure 1.)

**3.3 PTO drive shaft, form A:** Drive shaft with two universal joints. (See figure 2, and detail 9 in figure 1.)

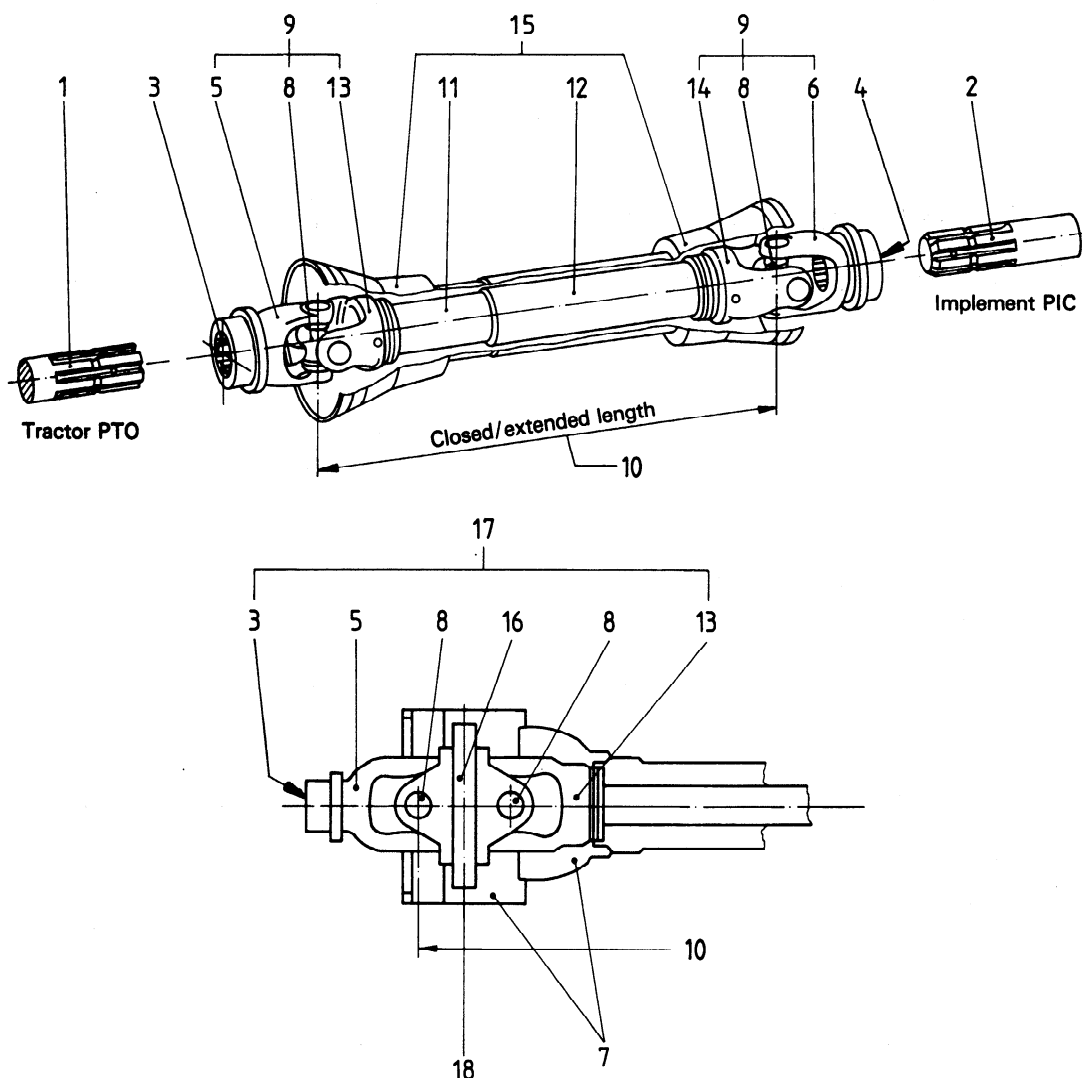
**3.4 PTO drive shaft, form B:** Drive shaft with one universal joint and one centred double universal joint. (See figure 3, and details 9 and 17 in figure 1.)

**3.5 PTO drive shaft, form C:** Drive shaft with two centred double universal joints. (See figure 4, and detail 17 in figure 1.)

**3.6 closed length:** Distance between the centres of the outermost journal cross-assemblies, when the PTO drive shaft is fully closed. (See figure 1.)

**3.7 extended length:** Distance between the centres of the outermost cross-assemblies, when the PTO drive shaft is extended to the maximum length recommended by the manufacturer. (See figure 1.)

**3.8 Z-bend:** Joint where the axes of PTO and PIC are parallel to each other, forming two equal-bend angles in relation to the central part of the shaft. (See figure 5.)



# Key

- 1 PTO
- 2 PIC
- 3 PTO yoke bore
- 4 PIC yoke bore
- 5 PTO yoke
- 6 PIC yoke
- 7 Centred double universal joint guard
- 8 Journal cross-assembly
- 9 Universal joint
- 10 PTO drive shaft, closed and extended length
- 11 Inner shaft
- 12 Outer shaft
- 13 Inner shaft yoke
- 14 Outer shaft yoke
- 15 PTO drive shaft guard
- 16 Double yoke
- 17 Centred double universal joint
- 18 Centre of articulation of centred double universal joint

Figure 1 — Designation of PTO drive shaft details