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Agricultural tractors — Test procedures —

Part 10: Hydraulic power at tractor/implement interface

Tracteurs agricoles — Modes opératoires d'essai —

Partie 10: Puissance hydraulique disponible à la liaison tracteur/instrument

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. 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.

ISO/OECD 789-10 was prepared by Technical Committee ISO/TC 23, *Tractors and machinery for agriculture and forestry*, Subcommittee SC 2, *Common tests*, in cooperation with the Organisation for Economic Cooperation and Development (OECD).

This first edition of ISO/OECD 789-10 cancels and replaces ISO 789-10:1996, which has been technically revised.

ISO 789 consists of the following parts, under the general title *Agricultural tractors — Test procedures*:

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

— *Part 2: Rear three-point linkage lifting capacity*

— *Part 3: Turning and clearance diameters*

— *Part 4: Measurement of exhaust smoke*

— *Part 5: Partial power PTO — Non-mechanically transmitted power*

— *Part 6: Centre of gravity*

— *Part 7: Axle power determination*

— *Part 8: Engine air cleaner*

— *Part 9: Power tests for drawbar*

— *Part 10: Hydraulic power at tractor/implement interface* [joint publication with OECD]

— *Part 11: Steering capability of wheeled tractors*

— *Part 12: Low temperature starting*

Rear three-point linkage lifting capacity is to form the subject of a future ISO/OECD 789-2.

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Foreword

OECD (the Organisation for Economic Cooperation and Development) is an intergovernmental reference for the certification and standardization of certain agricultural commodities. The work of the OECD in the area of standardization involves both member and non-member economies and focuses on the creation of common criteria in order to facilitate international trade. Participating countries are members of the OECD, the United Nations or the World Trade Organization.

The OECD Tractor Codes provide common performance criteria overseen by the OECD Committee for Agriculture. The Committee is one of the major OECD policy committees and is responsible for implementing the agricultural programme of work. The Codes and their amendments are subject to approval by the OECD Council. They relate to the following tests:

— tractor performance (Code 2);

— strength of protective structures for standard tractors (dynamic test) (Code 3);

— strength of protective structures for standard tractors (static test) (Code 4);

— noise measurement at the driver's position(s) (Code 5);

— strength of front-mounted roll-over protective structures on narrow-track wheeled agricultural and forestry tractors (Code 6);

— strength of rear-mounted roll-over protective structures on narrow-track wheeled agricultural and forestry tractors (Code 7);

— strength of protective structures on track-laying tractors (Code 8);

— strength of protective structures on telehandlers (Code 9).

The OECD Tractor Codes are made available to those countries which are OECD Members, as well as to other countries. To date, 29 countries adhere to the Codes, including three non-OECD Members, China, India and the Russian Federation. Each National Authority designated for implementing the Codes may perform tractor tests according to the common harmonized testing procedures and then submit results to OECD for approval.

Cooperative agreements are established between OECD and certain institutions, such as ISO and the European Community, with the objective of avoiding contradictory requirements. The European Commission participates in the work of the OECD and is represented on the OECD Council (without the right of veto).

A Memorandum of Understanding (MoU) has been signed by ISO and OECD in connection with the TC 23/SC 2 programme of work on tractors.

The OECD test codes are published in French (F) and English (E), and are subject to periodic revision for dealing with the technical progress of agricultural and forestry tractors.

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Agricultural tractors — Test procedures —

Part 10:
Hydraulic power at tractor/implement interface

1 Scope

ISO/OECD 789-10 specifies tests for determining the hydraulic pressure at the external hydraulic service of an agricultural tractor/implement as specified in ISO 10448, as well as companion tests for measuring the maximum hydraulic power available.

2 Normative references

The following referenced documents are indispensable for the application 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 730-1:1994, *Agricultural wheeled tractors — Rear-mounted three-point linkage — Part 1: Categories 1, 2, 3 and 4*

ISO 3448:1992, *Industrial liquid lubricants — ISO viscosity classification*

ISO 5675:1992, *Agricultural tractors and machinery — General purpose quick-action hydraulic couplers*

ISO 6149-1:2006, *Connections for hydraulic fluid power and general use — Ports and stud ends with ISO 261 metric threads and O-ring sealing — Part 1: Ports with truncated housing for O-ring seal*

ISO 6149-2:2006, *Connections for hydraulic fluid power and general use — Ports and stud ends with ISO 261 metric threads and O-ring sealing — Part 2: Dimensions, design, test methods and requirements for heavy-duty (S series) stud ends*

ISO 6149-3:2006, *Connections for hydraulic fluid power and general use — Ports and stud ends with ISO 261 metric threads and O-ring sealing — Part 3: Dimensions, design, test methods and requirements for light-duty (L series) stud ends*

ISO 10448:1994, *Agricultural tractors — Hydraulic pressure for implements*

3 Terms and definitions

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

3.1
agricultural tractor
self-propelled machine, either wheeled and having at least two axles or track-laying, particularly designed to pull, push, carry and operate implements used for agricultural work (including forestry work)

NOTE It may be provided with a detachable loading platform.

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