Second edition 2020-03

# Tractors and self-propelled machinery for agriculture — Operator controls — Actuating forces, displacement, location and method of operation

Tracteurs et machines agricoles automotrices — Commandes de l'opérateur — Forces de manoeuvre, déplacements, emplacements et modes de fonctionnement



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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 <a href="https://www.iso.org/directives">www.iso.org/directives</a>).

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 <a href="https://www.iso.org/patents">www.iso.org/patents</a>).

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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 3, *Safety and comfort*.

This second edition cancels and replaces the first edition (ISO 15077:2008), which has been technically revised.

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

- In <u>Clause 3</u>:
  - the definition for hybrid power source has been added;
  - the definition for critical VT operator control has been revised.
- In <u>Clause 4</u>:
  - multiple new general requirements have been added;
  - a new subclause (4.2) specifically for identification has been added;
  - additional requirements for stopping and starting has been added in <u>Table 1</u>;
  - provisions for new technologies have been introduced into <u>Table 1</u>;
  - requirements for speed selection pattern in <u>Table 1</u> related to manual/nonlinear transmission shifting patterns have been clarified;
  - new requirements for remote engine starting have been added in <u>Table 1</u>.
- In <u>Annex A</u>:
  - the annex has been reorganized for clarity and flow;
  - torque values have been added to <u>Table A.1</u> for rotational controls;

- a new Figure A.1 has been added for clarity;
- Figure A.2 (former Figure A.1) has been revised to correct the operator's position.
- In <u>Annex B</u>:
  - reference to AEF 006 has been added.
- In <u>Annex C</u>:
  - colour identification numbers have been added to <u>Table C.1</u>.

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 <u>www.iso.org/members.html</u>.

## Introduction

This document has been developed to provide guidance on methods of operation and requirements for operator controls. These provisions were derived from experience, current practice, human factors literature and existing standards. Specific operating requirements are given for controls common to many tractors and self-propelled agricultural machinery.