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Agricultural machinery — Safety —

Part 9: Seed drills

Matériel agricole — Sécurité —

Partie 9: Semoirs

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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).

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).

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.

This document was prepared by Technical Committee ISO/TC 23, *Tractors and agricultural and forestry machinery*, Subcommittee SC 3, *Safety and comfort*.

This third edition cancels and replaces the second edition (ISO 4254-9:2008), which has been technically revised.

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

— revision of the 2008 edition under the Vienna Agreement (whole document);

— alignment with ISO 4254-1:2013 and ISO 4254-8:2018;

— addition of terms and definitions (3.5, 3.6 and 3.7);

— modification of control requirements (4.2.2);

— modification of hopper requirements (4.4);

— modification of single seed drills requirements (4.6);

— addition of noise reduction requirements (4.10);

— alignment of the list of significant hazards (Annex A).

A list of all parts in the ISO 4254 series can be found on the ISO website.

Introduction

This document is a type-C standard as stated in ISO 12100.

This document is of relevance, in particular, for the following stakeholder groups representing the market players with regard to machinery safety:

— machine manufacturers (small, medium and large enterprises);

— health and safety bodies (regulators, accident prevention organizations, market surveillance, etc.).

Others can be affected by the level of machinery safety achieved with the means of the document by the above-mentioned stakeholder groups:

— machine users/employers (small, medium and large enterprises);

— machine users/employees (e.g. trade unions, organizations for people with special needs);

— service providers, e.g. for maintenance (small, medium and large enterprises);

— consumers (in case of machinery intended for use by consumers).

The above-mentioned stakeholder groups have been given the possibility to participate at the drafting process of this document.

The machinery concerned and the extent to which hazards, hazardous situations and events are covered are indicated in the scope of this document. These hazards are specific to seed drills.

When provisions of this type-C standard are different from those which are stated in type-A or type-B standards, the provisions of this type-C standard take precedence over the provisions of the other standards for machines that have been designed and built according to the provisions of this type-C standard.

Significant hazards that are common to all the agricultural machines (self-propelled, mounted, semi-mounted and trailed) are dealt with in ISO 4254-1.

Agricultural machinery — Safety —

Part 9: Seed drills

1 Scope

This document, intended to be used together with ISO 4254-1, specifies the safety requirements, and their verification for design and construction of mounted, semi-mounted, trailed or self-propelled seed drills, including the seeding function of combined seed and fertilizer drills, and seed drills with integrated and inseparable powered soil-working tools used in agriculture. In addition, it specifies the type of information on safe working practices (including residual risks) to be provided by the manufacturer.

This document is also applicable to seeding systems where components for seed deposition in the soil, for seed metering and for seed storage are distributed between two or more linked vehicles.

This document deals with all significant hazards (as listed in Annex A), hazardous situations and events relevant to seed drills, when they are used as intended and under the conditions of misuse foreseeable by the manufacturer, excepting the hazards arising from

— electrostatic phenomena,

— external influences on electrical equipment,

— failure of energy supply,

— failure and/or malfunction of the control system,

— inadequate visibility from drivers'/operators' position,

— travelling functions (drive, braking, etc.),

— break down of parts rotating at high speed,

— equipment for loading seeds (and fertilizer), and

— moving parts for power transmission except for strength requirements for guards.

This document is not applicable to

— fertilizer distributors designed only for solid fertilizer application (covered in ISO 4254-8),

— maintenance or repairs carried out by professional service personnel, or

— to environmental hazards (except noise), and

— to seed drills which are manufactured before the date of its publication.

When requirements of this document are different from those which are stated in ISO 4254-1, the requirements of this document take precedence over the requirements of ISO 4254-1 for machines that have been designed and built according to the provisions of this document.