PÕLLUMAJANDUSMASINAD. OHUTUS. SILO LAADIMISE, SEGAMISE JA/VÕI TÜKELDUS- JA JAOTUSMASINAD

Agricultural machinery - Safety - Silage loading, mixing and/or chopping and distributing machines

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 703:2021 sisaldab Euroopa standardi EN 703:2021 ingliskeelset teksti.	This Estonian standard EVS-EN 703:2021 consists of the English text of the European standard EN 703:2021.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 14.07.2021.	Date of Availability of the European standard is 14.07.2021.
Standard on kättesaadav Eesti Standardimis- ja Akrediteerimiskeskusest.	The standard is available from the Estonian Centre for Standardisation and Accreditation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

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English Version

Agricultural machinery - Safety - Silage loading, mixing and/or chopping and distributing machines

Matériel agricole - Sécurité - Désileuses chargeuses, mélangeuses et/ou hacheuses et distributrices

Landmaschinen - Sicherheit - Maschinen zum Laden, Mischen und/oder Zerkleinern und Verteilen von Silage

This European Standard was approved by CEN on 12 March 2021.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

This document (EN 703:2021) has been prepared by Technical Committee CEN/TC 144 “Tractors and machinery for agriculture and forestry”, the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by January 2022, and conflicting national standards shall be withdrawn at the latest by January 2022.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 703:2004+A1:2009.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

EN 703:2004+A1:2009 has been technically revised. The following significant changes were introduced:

— update the normative references;

— clarification of the scope (excludes silage buckets);

— improvement of the safety requirements in particular regarding controls, visibility, protection against cutting tools, blockages, loading door, inspection of mixing, access (addition of feedstuffs), conveyors, access to turbines;

— addition of new clauses on: jacking points, brakes, stability and immobilisation, remote control, electro-magnetic compatibility (EMC), completion of instructions, safety signs;

— addition of new subclauses under 4.1 to refer to the relevant clauses of EN ISO 4254-1:2015 that apply without change or exclusion.

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

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

The machinery concerned and the extent to which hazards, hazardous situations and hazardous events are covered are indicated in the scope of this document. These hazards are specific to silage loading, mixing and/or chopping and distributing machines.

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

When provisions of this type-C standard are different from those which are stated in type A or 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.

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.

1 Scope

This document, used together with EN ISO 4254-1:2015, specifies the safety requirements and their verification for the design and construction of mounted, semi-mounted, trailed or self-propelled machines that have a combination of two or more of the following functions: loading, mixing, chopping and distributing silage and/or other feedstuffs or materials used for animal bedding such as straw, to be used by one operator only. It includes those fitted with a built-in loading crane. In addition, it specifies the type of information on safe working practices (including residual risks) to be provided by the manufacturer.

This document applies only to machines that have the following functional combinations:

— mixing and distributing functions;

— mixing, chopping and distributing functions;

— loading, mixing and distributing functions;

— loading, mixing, chopping and distributing functions;

— chopping and distributing functions; or

— loading, chopping and distributing functions.

Silage block cutters, even if they carry out a single function, are covered by this document.

This document does not apply to:

— machines which pick up green fodder directly from the field;

— loading cranes;

— silage buckets;

— round or rectangular unbalers.

NOTE 1 Loading cranes are dealt with in EN 12999:2020.

NOTE 2 Autonomous silage loading, mixing and/or chopping and distributing machines (robotic feed systems) will be dealt with in a separate standard (EN ISO 3991, under preparation).

This document deals with the significant hazards, hazardous situations and events relevant to machines for loading, mixing and/or chopping and distributing silage and/or other feedstuffs, when they are used as intended and under the conditions foreseen by the manufacturer as listed in Clause 4, except for the hazards arising from:

— failure of the control circuit;

— inadequate seating;

— inadequate lighting;

— travelling of machinery;

— break-up of parts rotating at high speed;

— cutting hazard during service on sharp parts (e.g. blades of the mixing and/or chopping device).

It is not applicable to environmental hazards (except noise).

It does not deal with stability when travelling.

This document is not applicable to machines for loading, mixing and/or chopping and distributing silage and/or other feedstuffs which are manufactured before the date of publication of this document by CEN.

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.

EN 15811:2014, *Agricultural machinery - Fixed guards and interlocked guards with or without guard locking for moving transmission parts (ISO/TS 28923:2012 modified)*

EN ISO 13851:2019, *Safety of machinery - Two-hand control devices - Principles for design and selection (ISO 13851:2019)*

EN ISO 4254-1:2015,[1)] *Agricultural machinery - Safety - Part 1: General requirements (ISO 4254-1:2013)*

EN ISO 11688-1:2009, *Acoustics - Recommended practice for the design of low-noise machinery and equipment - Part 1: Planning (ISO/TR 11688-1:1995)*

EN ISO 12100:2010, *Safety of machinery - General principles for design - Risk assessment and risk reduction (ISO 12100:2010)*

EN ISO 13855:2010, *Safety of machinery - Positioning of safeguards with respect to the approach speeds of parts of the human body (ISO 13855:2010)*

EN ISO 13857:2019, *Safety of machinery — Safety distances to prevent hazard zones being reached by upper and lower limbs (ISO 13857:2019)*

ISO 3767-1:2016, *Tractors, machinery for agriculture and forestry, powered lawn and garden equipment — Symbols for operator controls and other displays — Part 1: Common symbols*

ISO 11684:1995, *Tractors, machinery for agriculture and forestry, powered lawn and garden equipment — Safety signs and hazard pictorials — General principles*

ISO 15817:2012, *Earth-moving machinery — Safety requirements for remote operator control systems*

1) An amendment is under preparation.