

norm**NEN-EN 703**

Landbouwmachines - Veiligheid - Machines om kuilvoer te laden, te mengen en/of te verdelen

Publicatie uitsluitend voor commentaar

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

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Voorbeeld
Preview

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
prEN 703

August 2018

ICS 65.060.99

Will supersede EN 703:2004+A1:2009

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

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If this draft becomes a European Standard, 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.

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Preview

European foreword

This document (prEN 703:2018) 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 document is currently submitted to the CEN Enquiry.

This document will supersede 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 main following 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.

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 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, 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; or
- mixing, chopping and distributing functions; or
- loading, mixing and distributing functions; or
- loading, mixing, chopping and distributing functions; or
- 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.

NOTE 1 Loading cranes are dealt with in EN 12999.

NOTE 2 Autonomous silage loading, mixing and/or chopping and distributing machines (robotic feed systems) are to be dealt with in a separate standard (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 ISO 4254-1:2015, *Agricultural machinery — Safety — Part 1: General requirements (ISO 4254-1:2013)*

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

EN ISO 13857:2008, *Safety of machinery — Safety distances to prevent hazard zones being reached by upper and lower limbs (ISO 13857:2008)*

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

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

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN ISO 12100:2010 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

Note 1 to entry: Examples of machines and components, illustrating the following definitions are given in Annex A.

3.1 machines

3.1.1

silage block cutter

machine mounted on the rear 3-point linkage of a tractor that consists of a main guiding frame, equipped with a set of horizontal tines, carrying the cutting frame equipped with one or more cutting knives, intended to cut out a silage block, to take it from the silo and to discharge or distribute it (this machine can be equipped with a distribution device)

3.1.2

silage bucket

bucket intended to be fitted as an attachment on a front loader or a self-propelled variable reach truck and which carries out at least loading and distributing functions

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