



SLOVENSKI STANDARD

SIST EN 703:1996

01-januar-1996

Kmetijski stroji - Odjemalnik silaže - Varnost

Agricultural machinery - Silage cutters - Safety

Landmaschinen - Siloentnahmegeräte - Sicherheit

Matériel agricole - Désileuses - Sécurité

Ta slovenski standard je istoveten z: EN 703:1995

<https://standards.iteh.ai/catalog/standards/sist/f0837bf3-f43d-45cf-a0ef-e98e600d447d/sist-en-703-1996>

ICS:

65.040.20	Poslopja in naprave za predelavo in skladiščenje kmetijskih pridelkov	Buildings and installations for processing and storage of agricultural produce
-----------	---	--

SIST EN 703:1996

en

iTeh STANDARD PREVIEW **(standards.iteh.ai)**

SIST EN 703:1996

<https://standards.iteh.ai/catalog/standards/sist/f0837bf3-f43d-45cf-a0ef-e98e600d447d/sist-en-703-1996>

EUROPEAN STANDARD

EN 703

NORME EUROPÉENNE

EUROPÄISCHE NORM

June 1995

ICS 65.040.20

Descriptors: agricultural machinery, silage unloaders, safety of machine, accident prevention, safety requirements, specifications, design, inspection, hazards, technical notices, utilization, marking

English version

Agricultural machinery - Silage cutters - Safety

Matériel agricole - Désileuses - Sécurité

Landmaschinen - Siloentnahmegerate - Sicherheit

STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 703:1996

<https://standards.iteh.ai/catalog/standards/sist/f0837bf3-f43d-45cf-a0ef-e98e600d447d/sist-en-703-1996>

This European Standard was approved by CEN on 1995-04-04. 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 Central Secretariat or to any CEN member.

The European Standards exist 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

© 1995

All rights of reproduction and communication in any form and by any means reserved in all countries to CEN and its members.

Ref. No. EN 703:1995 E

Contents

Page

Foreword	3
0 Introduction	4
1 Scope	4
2 Normative references	4
3 Safety requirements and/or measures	5
3.1 General	5
3.2 Location of the manual controls	5
3.3 Distributor cylinder	5
3.4 Powered loading and cutting tools	6
3.5 Safeguarding of the cutting and loading tools	6
when not in use	
3.6 Emptying	6
3.7 Mixing device	7
4 Verification of safety requirements and/or measures	7
5 Information for use	7
5.1 Instruction handbook	7
5.2 Marking.....	8
Annex A (normative) List of hazards	10

<https://standards.itech.ai/catalog/standards/sist/f0837bf3-f43d-45cf-a0ef-e98e600d447d/sist-en-703-1996>

Foreword

This European Standard has been prepared by the Technical Committee CEN/TC 144 "Tractors and machinery for agricultural and forestry", of which the secretariat is held by AFNOR.

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

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 December 1995, and conflicting national standards shall be withdrawn at the latest by December 1995.

According to the CEN/CENELEC Internal Regulations, the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 703:1996

<https://standards.iteh.ai/catalog/standards/sist/f0837bf3-f43d-45cf-a0ef-e98e600d447d/sist-en-703-1996>

0 Introduction

The extent to which hazards are covered is indicated in the scope of this standard. These hazards are specific to silage cutters. The hazards that are common to all the agricultural and forestry machines will be dealt with in a general standard currently in preparation.

Until the publication of this general standard on common requirements, machines shall comply as appropriate with EN 292 for hazards which are not dealt with and especially with annex A of EN 292-2:1991 when EN 292 does not give precise requirements.

1 Scope

This standard specifies safety requirements and their verification for design and construction of the different types of mounted, trailed or self-propelled silage cutters for one operator only, including the mixing and distributor silage cutters.

It describes methods for the elimination or reduction of risks which need specific requirements for silage cutters. It does not deal with general hazards particularly general hazards related to the mobility, including those specific to self-propelled machines. These aspects will be dealt with in another standard produced by CEN/TC 144 (see introduction).

In addition, it specifies the type of information on safe working practices to be provided by the manufacturer.

The list of significant hazards dealt with in this standard is given in annex A. Annex A also indicates the hazards which have not been dealt with.

NOTE 1 : The safety measures for the locking device for the raised parts of the machine and the safeguarding for the PTO drive shaft are dealt with in the "Common requirements" standard being prepared by CEN/TC 144.

NOTE 2 : A future revision of the standard will include :

- additional requirements related to the safeguarding of the discharge chute ;
- additional information on the procedure for clearing blockages.

Environmental aspects have not been considered in this standard.

This standard applies primarily to machines which are manufactured after the date of issue of the standard.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to applies.

EN 292-1 : 1991	Safety of machinery - Basic concepts, general principles for design - Part 1 : Basic terminology, methodology
EN 292-2 : 1991	Safety of machinery - Basic concepts, general principles for design - Part 2 : Technical principles and specifications
EN 294 : 1992	Safety of machinery - Safety distances to prevent danger zones being reached by the upper limbs

3 Safety requirements and/or measures

3.1 General

Unless otherwise specified in this standard, the machine shall comply with the requirements of tables 1, 3, 4 and 6 of EN 294:1992.

3.2 Location of the manual controls

It shall not be possible for the operator to reach the manual controls when he is inside the compartment.

Manual controls shall be located outside the hazardous zones of the machine.

NOTE: Detailed requirements on the location of the manual controls and in particular of the hold-to-run controls provided for in 3.3, 3.4, 3.7.1 and 3.7.2 will be added in the revision of the standard.

3.3 Distributor cylinder

SIST EN 703:1996

<https://standards.iteh.ai/catalog/standards/sist/f0837bf3-f43d-45cf-a0ef-e98e600d447d/sist-en-703-1996>

3.3.1 General

A distance a according to 3.3.1.1, 3.3.1.2 or 3.3.1.3 shall be provided from any point of the distributor cylinder to the cover (see figure 1).

3.3.1.1 If the distance between the ground and the lower edge of the cover is $h \leq 800$ mm, a shall be a minimum of 550 mm.

3.3.1.2 If the distance h between the ground and the lower edge of the cover is $h > 800$ mm, a shall be a minimum of 850 mm.

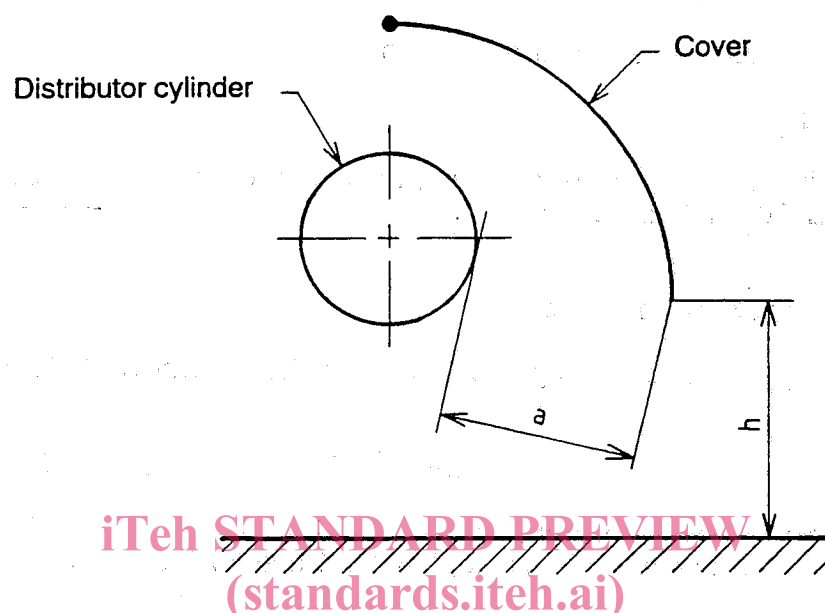
3.3.1.3 When the distance a is less than the values given in 3.3.1.1 and 3.3.1.2, then a shall never be less than 230 mm and

- the control of the cylinder shall be the hold-to-run control,

NOTE : Requirements on the stopping time of the distributor cylinder will be added in the revision of the standard.

or

- the cover shall be fitted with a device capable of stopping the cylinder ; this device shall be activated by a maximum force of 150 N applied on the lower edge of the cover, in a plane perpendicular to the axis of the cylinder and in the direction of this axis. The cylinder shall stop rotating after the lower edge of the cover has moved a maximum distance of 75 mm. The cylinder shall not restart unless the manual control is operated intentionally.

**Figure 1**

SIST EN 703:1996

<https://standards.iteh.ai/catalog/standards/sist/f0837bf3-f43d-45cf-a0ef-e98e600d447d/sist-en-703-1996>

3.3.2 Machines with loading arms

For machines with loading arms, it shall be only possible to start the rotation of the cylinder when the loading arm is in the closed or parked position.

3.4 Powered loading and cutting tools

When, for operating reasons, safety distances in accordance with 3.1 cannot be achieved in order to prevent contact with the tools (e.g. rotary cutter or knife), the controls shall be of the hold-to-run type. They shall be designed or shielded so that the tools cannot move without intentional action (e.g. a manual control requiring two different actions to be operational).

NOTE : Requirements on the stopping time of the powered loading and cutting tools will be added in the revision of the standard.

3.5 Safeguarding of the cutting and loading tools when not in use

Tools which can be hazardous when not in use shall be equipped with movable or selfclosing (retractable) guards.

3.6 Emptying

It shall be possible to completely empty the compartment without manual assistance.

3.7 Mixing device

3.7.1 Protection against contact with moving parts

The machine shall be designed to maintain the safety distances according to 3.1 when the loading tools are in low position ; if not, then an hold-to-run control shall be provided, designed or shielded so that the tools cannot move without intentional action.

3.7.2 Checking of the mixing

When the upper edge of the machine is at more than 1,60 m from the ground, a means of access to the upper part of the compartment shall be provided.

When checking is visual, the distance between the upper edge of the compartment and the upper step, or between the upper edge of the compartment and the ground, shall not be less than 1,20 m nor more than 1,60 m. When these distances are not met, the controls of the mixing tools shall be of the hold-to-run type. The controls shall be designed or shielded so that the tools cannot move without intentional action.

NOTE: Requirements on the stopping time of the moving parts of the mixing device will be added in the revision of the standard.

4 Verification of safety requirements and/or measures

Dimensions, where given, shall be verified by measurements. Controls shall be verified by a function test and positional measurements; guards by functional test.

5 Information for use

5.1 Instruction handbook

Comprehensive instructions and information on all aspects of maintenance and the safe use of the machine shall be provided in the instruction handbook. It shall comply with 5.5 of EN 292-2:1991.

In particular the following points shall be emphasized :

- a) the machine shall be operated by one person only. During work, nobody shall be nearby particularly in the ejection zone;
- b) the risk of standing near the discharge chute when the machine is operating ;
- c) the need to use a PTO drive shaft equipped with a guard in good condition ;
- d) for mounted silage cutters, the crushing hazard for the operator if standing between the tractor and the machine during work ;
- e) for silage cutters fitted with an articulated or telescopic arm, the risk of unintentional contact with overhead power lines ;
- f) the hazards involved when climbing into the mixing compartment;