



**SLOVENSKI STANDARD**  
**SIST EN 706:1996**  
**01-november-1996**

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**Kmetijski stroji - Trgalniki listov na vinski trti - Varnost**

Agricultural machinery - Vine shoot tipping machines - Safety

Landmaschinen - Reblaubschneidegeräte - Sicherheit

Matériel agricole - Rogneuses a vignes - Sécurité

**Ta slovenski standard je istoveten z: EN 706:1996**

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**ICS:**

65.060.60	Vinogradniška in vinarska oprema	Viticultural and wine-making equipment
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EUROPEAN STANDARD

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Descriptors: agricultural machinery, vine shoot tipping machines, safety of machine, accident prevention, safety requirements, specifications, design, inspection, hazards, technical notices, utilization, marking

English version

### Agricultural machinery - Vine shoot tipping machines - Safety

Matériel agricole - Rogneuses à vignes - Landmaschinen - Reblaubschneidegeräte -  
Sécurité - Sicherheit

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## CEN

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

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

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## Foreword

This European Standard 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of an identical text or by endorsement, at the latest by February 1997, and conflicting national standards shall be withdrawn at the latest by February 1997.

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 EU Directive(s).

According to the CEN/CENELEC Internal Regulations, the national standards organizations of 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 and the United Kingdom.

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## 0 Introduction

The extent to which hazards are covered is indicated in the scope of this standard. These hazards are specific to vine shoot tipping machines.

The hazards that are common to all the agricultural and forestry machines will be dealt with in a general standard currently in preparation.

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/A1:1995 when EN 292 does not give precise requirements.

## 1 Scope

This standard specifies safety requirements and their verification for design and construction of self-propelled, mounted or semi-mounted vine shoot tipping machines. These mobile machines are used for trimming vineyard and other fruit trees that grow in the same way (trellising plants) and similar applications. Their cutting tools are either :

- high speed rotative blades (which cut by impact), or
- rotative blade and counter blade (which cut by shearing), or
- reciprocating cutting bar (which cuts by shearing).

This standard does not apply to :

- tipping machines for free standing fruit bushes ,
- walk-behind pedestrian controlled machines,
- machines intended to be mounted on walk-behind pedestrian controlled machines,
- hand-held machines.

NOTE 1 : Machines intended to be mounted on walk-behind pedestrian controlled machines will be dealt with in the next revision of this standard.

This standard describes methods for the elimination or reduction of risks which need specific requirements for vine shoot tipping machines. It does not deal with general hazards particularly general hazards related to 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 2 : This standard does not deal with :

- the location and the operation of the controls ;
- the adaptability and the setting up of mounted machines on tractors or other vehicles.

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 165:1994	Personal eye-protection - Vocabulary
EN 166 : 1994	Personal eye-protection - Specifications
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 (and amendment A1:1995)
EN 294 : 1992	Safety of machinery - Safety distances to prevent danger zones being reached by the upper limbs
EN 10025 : 1990	Hot rolled products of non-alloy structural steels - Technical delivery conditions
EN 25353 : 1988	Earth-moving machinery and tractors and machinery for agriculture and forestry - Seat index point

## 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 Protection whilst handling and during storage

A machine whose mass is lower than 40 kg, which can be manually installed, shall be fitted with handles located in such a way they ensure safe handling and that during this operation the operator does not have any contact with the cutting tools.

A machine whose mass is equal to or greater than 40 kg shall be fitted with hooking points to enable the use of lifting equipment.

A machine shall either have attachments for suspending it when the machine is not being used or shall be designed to be stored on supports supplied by the manufacturer.

Movable or self-closing (retractable) guards for the cutting tools shall be provided by the manufacturer for when the machine is not in use.

### 3.3 Protection against hazards associated with moving power transmission parts

To ensure protection against hazards related to accessible moving power transmission parts, the machine shall be fitted with fixed guards (according to 3.22.1 of EN 292-1:1991).

When frequent access is foreseen, the machine shall be fitted with guards needing a tool for their opening. These guards shall remain attached to the machine when opened (for example by means of hinges) and automatically lock in the closed position without the use of a tool.

If this type of guards is not used, the machine shall be fitted with :

- interlocking movable guards (according to 3.22.4 of EN 292-1:1991) ; or
- movable guards fitted with a device which prevents their opening so long as the parts are moving.

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### 3.4 Protection against unintentional contact with the cutting tools

Cutting tools shall be fitted with rigid deflectors in accordance with figures 1 and 2.

All parts of the cuttings tools not protected against contact with the operator shall be located at more than 850 mm from the reach zone as shown in figure 3.

NOTE : Requirements on the strength of the deflectors will be added by the revision of the standard.



