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OSADE FIKSEERITUD JA BLOKEERINGUGA KAITSED
LUKUSTUSEGA VÕI ILMA

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

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 15811:2014 sisaldab Euroopa standardi EN 15811:2014 ingliskeelset teksti.	This Estonian standard EVS-EN 15811:2014 consists of the English text of the European standard EN 15811:2014.
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.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 03.12.2014.	Date of Availability of the European standard is 03.12.2014.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

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English Version

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

Matériel agricole - Protecteurs fixes et protecteurs avec
dispositif de verrouillage ou d'interverrouillage pour
éléments mobiles de transmission de puissance (ISO/TS
28923:2012 modifiée)

Landmaschinen - Feststehende trennende
Schutzeinrichtungen und trennende Schutzeinrichtungen
mit Verriegelung mit oder ohne Verriegelungseinrichtung für
bewegliche Teile der Kraftübertragung (ISO/TS
28923:2012, modifiziert)

This European Standard was approved by CEN on 18 October 2014.

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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Foreword

This document (EN 15811:2014) 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 June 2015 and conflicting national standards shall be withdrawn at the latest by June 2015.

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

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 2006/42/EC.

For relationship with EU Directives, see informative Annex ZA, which is an integral part of this document.

This European Standard specifies safety requirements for fixed guards and interlocked guards with or without guard locking for moving parts of mechanical power transmission and should be used with EN ISO 4254-1:2013.

This European Standard is also applicable to “access doors” when used as a guard.

This document supersedes EN 15811:2009.

The following changes were introduced compared to EN 15811:2009:

- modification of the title to indicate the scope of the standard;
- reference to the procedure of risk assessment was introduced in Clause 4;
- requirements for interlocking guards with or without guard locking were added in 5.3;
- editorial modifications were made.

The following changes were introduced compared to ISO/TS 28923:2012:

- modification of the title to indicate the scope of the standard;
- reference to the procedure of risk assessment was introduced in Clause 4;
- editorial modifications were made;
- modification of Table A.1;
- addition of Annex ZA.

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

Introduction

The structure of safety standards in the field of machinery is as follows.

- a) Type-A standards (basic safety standards) give basic concepts, principles for design, and general aspects that can be applied to machinery;
- b) Type-B standards (generic safety standards) deal with one or more safety aspect(s) or one or more type(s) of safeguards that can be used across a wide range of machinery:
 - type-B1 standards on particular safety aspects (e.g. safety distances, surface temperature, noise);
 - type-B2 standards on safeguards (e.g. two-hands controls, interlocking devices, pressure sensitive devices, guards);
- c) Type-C standards (machinery safety standards) deal with detailed safety requirements for a particular machine or group of machines.

This European Standard is a type-C standard as stated in EN ISO 12100.

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.

1 Scope

This European Standard specifies the safety requirements and their verification for the design and construction of fixed guards to be opened or removed by the use of a tool and interlocking guards with or without guard locking for moving parts of the power transmission on self-propelled ride-on machines and mounted, semi-mounted or trailed machines used in agriculture. In addition, it specifies the type of information on safe working practices (including residual risks) to be provided by the manufacturer.

It deals with the significant hazards (as listed in Annex A), hazardous situations and events relevant for fixed guards to be opened or removed by the use of a tool and interlocking movable guards of moving parts of power transmission used as intended and under the conditions reasonably foreseeable by the manufacturer (see Clause 4 and Clause 5).

It is not applicable to guards of moving parts of the power transmission of:

- agricultural and forestry tractors,
- aircraft and air cushion vehicles used in agriculture,
- lawn and garden equipment, or
- PTO drive shafts between agricultural and forestry tractors and mounted or towed implements.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN ISO 4254-1:2013, *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)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN ISO 12100:2010 and EN ISO 4254-1:2013 apply.

4 General

The exact choice of a guard for a particular machine shall be made on the basis of the risk assessment for that machine.

Selection of appropriate measures shall take into consideration the complete strategy for risk reduction specified in EN ISO 12100:2010, Clause 5, and shall consider both normal operation and service operations as specified in the operator's manual.

When guarding is shown to be an appropriate means for risk reduction, the selection of an appropriate guard for a particular type of machine or hazard zone, shall take into account that: