

## **Liikuvad tee-ehitusmasinad. Ohutus. Osa 1: Üldnõuded**

Mobile road construction machinery - Safety - Part 1:  
Common requirements

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 500-1:2006+A1:2010 sisaldab Euroopa standardi EN 500-1:2006+A1:2009 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 28.02.2010 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 02.12.2009.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 500-1:2006+A1:2010 consists of the English text of the European standard EN 500-1:2006+A1:2009.

This standard is ratified with the order of Estonian Centre for Standardisation dated 28.02.2010 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

Date of Availability of the European standard text 02.12.2009.

The standard is available from Estonian standardisation organisation.

ICS 93.080.10

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English Version

## Mobile road construction machinery - Safety - Part 1: Common requirements

Machines mobiles pour la construction de routes - Sécurité  
- Partie 1: Prescriptions communes

Bewegliche Straßenbaumaschinen - Sicherheit - Teil 1:  
Gemeinsame Anforderungen

This European Standard was approved by CEN on 17 August 2006 and includes Amendment 1 approved by CEN on 1 November 2009.

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




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EUROPÄISCHES KOMITEE FÜR NORMUNG

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## Foreword

This document (EN 500-1:2006+A1:2009) has been prepared by Technical Committee CEN/TC 151 “Construction equipment and building material machines — Safety”, the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by June 2010, and conflicting national standards shall be withdrawn at the latest by June 2010.

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 includes Amendment 1, approved by CEN on 2009-11-01.

This document supersedes A1 EN 500-1:2006 A1.

The start and finish of text introduced or altered by amendment is indicated in the text by tags A1 A1.

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).

A1 For relationship with EU Directive(s), see informative Annexes ZA and ZB, which are integral parts of this document. A1

EN 500 “Mobile road construction machinery — Safety” comprises the following parts:

- Part 1: Common requirements;
- Part 2: Specific requirements for road-milling machines;
- Part 3: Specific requirements for soil-stabilising machines and recycling machines;
- Part 4: Specific requirements for compaction machines;
- Part 6: Specific requirements for paver-finishers.

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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

## Introduction

This European Standard is a type C standard as stated in EN ISO 12100-1.

The machinery concerned and the extent to which hazards, hazardous situations and events are covered are indicated in the scope of this European Standard.

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.

## 1 Scope

**1.1** This part of EN 500 specifies the common safety requirements for mobile road construction machinery<sup>1)</sup>. The EN 500 series is applicable to mobile road construction machinery as listed in Annex A. When no specific standard exists, EN 500-1 applies.

It specifies common requirements for the design and construction of mobile road construction machinery in order to protect workers from accidents and health hazards which could occur during operation, loading, transport and maintenance.

Additional specific requirements for certain types of mobile road construction machinery are given in parts 2 to 4 and 6 of this standard.

This part of this standard gives safety requirements for all types of mobile road construction machinery and shall be used in conjunction with one of the parts 2 to 4 and 6. These machine-specific parts do not repeat the requirements from part 1 but add to or replace the requirements for the type of mobile road construction machinery in question.

Machine-specific requirements in parts 2 to 4 and 6 take precedence over the respective requirements of this standard.

For types of mobile road construction machinery not dealt with in parts 2 to 4 and 6, EN 500-1 applies **A1** and if for those machinery additional derived risks may arise, these risks have to be taken into consideration **A1**.

**1.2** This European Standard deals with all significant hazards, hazardous situations and events relevant to mobile road construction machinery, when they are used as intended and under conditions of misuse which are reasonably foreseeable (see Clause 4).

This European Standard specifies the appropriate technical measures to eliminate or reduce risks arising from the significant hazards as specified in Clause 4.

**1.3** This European Standard applies to machines which are manufactured after the date of publication of this European Standard by CEN.

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1) For travelling on traffic roads, the national traffic regulations apply.



## 2 Normative references

The following referenced documents are indispensable for the application 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.

CR 1030-1:1995, *Hand-arm vibration — Guidelines for vibration hazards reduction — Part 1: Engineering methods by design of machinery*

EN 3-7:2004, *Portable fire extinguishers — Part 7: Characteristics, performance requirements and test methods*

EN 286-2:1992, *Simple unfired pressure vessels designed to contain air or nitrogen — Part 2: Pressure vessels for air braking and auxiliary systems for motor vehicles and their trailers*

**A1** deleted text **A1**

EN 1050:1996, *Safety of machinery — Principles for risk assessment*

EN 12643:1997, *Earth-moving machinery — Rubber-tyred machines — Steering requirements (ISO 5010:1992 modified)*

EN 13309:2000, *Construction machinery — Electromagnetic compatibility of machines with internal electrical power supply*

**A1** EN 60204-1:2006 **A1**, *Safety of machinery — Electrical equipment of machines — Part 1: General requirements* **A1** (IEC 60204-1:2005, modified) **A1**

EN 60529:1991, *Degrees of protection provided by enclosures (IP code) (IEC 60529:1989)*

**A1** EN 61310-1:2008 **A1**, *Safety of machinery — Indication, marking and actuation — Part 1: Requirements for visual, auditory and tactile signals* **A1** (IEC 61310-1:2007) **A1**

**A1** EN ISO 2860:2008 **A1**, *Earth-moving machinery — Minimum access dimensions (ISO 2860:1992)*

**A1** EN ISO 2867:2008 **A1**, *Earth-moving machinery — Access systems* **A1** (ISO 2867:2006, including Cor 1:2008) **A1**

**A1** EN ISO 3411:2007, *Earth-moving machinery — Physical dimensions of operators and minimum operator space envelope (ISO 3411:2007)* **A1**

**A1** EN ISO 3457:2008 **A1**, *Earth-moving machinery — Guards — Definitions and requirements (ISO 3457:2003)*

**A1** deleted text **A1**

**A1** EN ISO 4871:1996, *Acoustics — Declaration and verification of noise emission values of machinery and equipment (ISO 4871:1996)* **A1**

EN ISO 5353:1998, *Earth-moving machinery, and tractors and machinery for agriculture and forestry — Seat index point (ISO 5353:1995)*

**A1** EN ISO 6682:2008 **A1**, *Earth-moving machinery — Zones of comfort and reach for controls (ISO 6682:1986 including Amendment 1:1989)*

**A1** deleted text **A1**

EN ISO 11688-1:1998, *Acoustics — Recommended practice for the design of low-noise machinery and equipment — Part 1: Planning (ISO/TR 11688-1:1995)*

EN ISO 12100-1:2003, *Safety of machinery — Basic concepts, general principles for design — Part 1: Basic terminology, methodology (ISO 12100-1:2003)*

EN ISO 12100-2:2003, *Safety of machinery — Basic concepts, general principles for design — Part 2: Technical principles (ISO 12100-2:2003)*

EN ISO 13850:2008, *Safety of machinery — Emergency stop — Principles for design (ISO 13850:2006)*

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

IEC 60364-4-41:2001, *Low-voltage electrical installations — Part 4- 41: Protection for safety — Protection against electric shock*

IEC 60364-5-55:2001, *Electrical installations of buildings — Part 5-55: Selection and erection of electrical equipment — Other equipment*

ISO 3795:1989, *Road vehicles and tractors and machinery for agriculture and forestry — Determination of burning behaviour of interior materials*

ISO 5006-1:1991, *Earth-moving machinery — Operator's field of view — Part 1: Test method*

ISO 6405-1:2004, *Earth-moving machinery — Symbols for operator controls and other displays — Part 1: Common symbols*

ISO 6750:2005, *Earth-moving machinery — Operator's manual — Content and format*

ISO 9244:1995, *Earth-moving machinery — Safety signs and hazard pictorials — General principles*

ISO 9533:1989, *Earth-moving machinery — Machine-mounted forward and reverse audible warning alarm — Sound test method*

ISO 10261:2002, *Earth-moving machinery — Product identification numbering system*

ISO 10570:2004, *Earth-moving machinery — Articulated frame lock — Performance requirements*

ISO 11112:1995, *Earth-moving machinery — Operator's seat — Dimensions and requirements*

ISO 11862:1993, *Earth-moving machinery — Auxiliary starting aid electrical connector*

ISO 12508:1994, *Earth-moving machinery — Operator station and maintenance areas — Bluntness of edges*

ISO 12509:2004, *Earth-moving machinery — Lighting, signalling and marking lights, and reflex-reflector devices*

ISO 13333:1994, *Earth-moving machinery — Dumper body support and operator's cab tilt support devices*

ISO 14396:2002, *Reciprocating internal combustion engines — Determination and method for the measurement of engine power — Additional requirements for exhaust emission tests in accordance with ISO 8178*

ECE R34, Annex 5, *Uniform provisions concerning the approval of vehicles with regard to the prevention of fire risks. Testing of fuel tanks of a plastic material*