Railway applications - Track - Railbound construction and maintenance machines - Part 2: Technical requirements for working CONSOLIDATED TEXT

EESTI STANDARDIKESKUS
ESTONIAN CENTRE FOR STANDARDISATION

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 14033-2:2008+A1:2011 sisaldab Euroopa standardi EN 14033-2:2008+A1:2011 ingliskeelset teksti.	This Estonian standard EVS-EN 14033-2:2008+A1:2011 consists of the English text of the European standard EN 14033-2:2008+A1:2011.
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 15.12.2011.	Date of Availability of the European standard is 15.12.2011.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 45.120, 93.100

EUROPEAN STANDARD

NORME EUROPÉENNE

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EN 14033-2:2008+A1

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English Version

Railway applications - Track - Railbound construction and maintenance machines - Part 2: Technical requirements for working

Applications ferroviaires - Voie - Machines de construction et de maintenance empruntant exclusivement les voies ferrées - Partie 2: Prescriptions techniques pour le travail

Bahnanwendungen - Oberbau - Schienengebundene Bau- und Instandhaltungsmaschinen - Teil 2: Technische Anforderungen an den Arbeitseinsatz

This European Standard was approved by CEN on 11 August 2007 and includes Amendment 1 approved by CEN on 8 November 2011.

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 14033-2:2008+A1:2011) has been prepared by Technical Committee CEN/TC 256 “Railway applications”, the secretariat of which is held by DIN.

This document shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by June 2012 and conflicting national standards shall be withdrawn at the latest by June 2012.

This document includes Amendment 1, approved by CEN on 2011-11-08.

This document supersedes EN 14033-2:2008.

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

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.

Special National Conditions are given in Annex A.

This series of standards EN 14033 *Railway applications — Track — Railbound construction and maintenance machines* consists of the following parts:

— *Part 1: Technical requirements for running*

— *Part 2: Technical requirements for working*

— *Part 3: General safety requirements*

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

Introduction

This European Standard (EN) was prepared to meet the basic requirements of EU Directives to facilitate an open market for goods and services.

Railway machines used for construction and maintenance form the object of this European Standard.

This European Standard deals with railway specific risks of the machines, as specified in 1.1, when working on railway infrastructures.

For safety requirements in relation to the Machinery Directive, see ▌A1⟩ EN 14033-3 ⟨A1▌.

For deviations or special national conditions, see Annex A.

The risks which exist in all mechanical, electrical, hydraulic, pneumatic and other components of machines and which are dealt with in the relevant European Standards are not within the scope of this European Standard. If necessary, references are made to appropriate standards of this type.

If the provisions of this type C standard are different from those which are stated in type A or B standards, the provision of this type C standard take precedence.

1 Scope

1.1 General

This European Standard defines the specific technical railway requirements for working with machines and other vehicles used for construction, maintenance and inspection of track, structures, track formation and fixed electric traction equipment as specified in EN 14033-1.

This European Standard applies to all railbound machines and other vehicles - referred to as machines - working exclusively on the railway (utilising adhesion between the rail and rail wheels) and used for construction, maintenance and inspection of track, structures, infrastructure and fixed electric traction equipment.

This European Standard applies to machines that are intended to operate signalling and control systems. Other similar machines are dealt with in other European Standards, see Annex M.

Additional requirements can apply for working on infrastructures with narrow gauge or broad gauge lines, lines of tramways, railways utilising other than adhesion between the rail and rail wheels and underground infrastructures.

This European Standard is applicable to 1 435 mm nominal track gauge. Some requirements may be applicable for working on infrastructures with nominal narrow track gauge or nominal broad track gauge lines, lines of tramways, railways utilising other than adhesion between the rail and rail wheels and underground infrastructures.

This European Standard covers the safety requirements for the railway specific problems for working on different infrastructures. The application of these requirements is the object of a verification procedure, which does not form part of this European Standard, but an Annex J is included for information. In all cases an authorisation to work is required to access the infrastructure.

This European Standard is also applicable for machines that in working position are partly supported on the ballast or the formation.

This European Standard does not apply to

— the requirements with regard to the quality of work, including the related measuring methods, and the performance of the machine;[1)]

— the specific requirements established by each railway infrastructure manager for the use of machines which will be the subject of negotiation between the manufacturer and the infrastructure manager.

This European Standard does not deal with the following additional requirements:

— working methods;

— operation in severe working conditions requiring special measures (e.g. work in tunnels or in cuttings, extreme environmental conditions such as freezer applications, high temperatures, corrosive environment, tropical environment, contaminating environments, strong magnetic fields);

— operation subject to special rules (e.g. potentially explosive atmospheres);

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1) Parameters for the measurement of track quality are dealt with in ⟨A1⟩ EN 13848-3 ⟨A1⟩.

— hazards due to errors in software;

— hazards occurring when used to handle suspended loads which may swing freely;

— hazards due to wind pressure greater than normal e.g. pressures caused by the passing of trains at speed in excess of 190 km/h.

1.2 Validity of this European Standard

This European Standard applies to all machines, which are ordered after one year from the publication date of this European Standard.

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.

EN 3-7:2004+A1, *Portable fire extinguishers — Part 7: Characteristics, performance requirements and test methods*

EN 280, *Mobile elevating work platforms — Design calculations — Stability criteria — Construction — Safety — Examinations and tests*

EN 791, *Drill rigs — Safety*

EN 12077-2:1998, *Cranes safety — Requirements for health and safety — Part 2: Limiting and indicating devices*

EN 12999, *Cranes — Loader cranes*

▌A1⟩ EN 14033-1:2011 ⟨A1▌, *Railway applications — Track — Railbound construction and maintenance machines — Part 1: Technical requirements for running*

▌A1⟩ EN 14033-3:2009+A1:2011 ⟨A1▌, *Railway applications — Track — Railbound construction and maintenance machines — Part 3: General safety requirements*

EN 14363:2005, *Railway applications — Testing for the acceptance of running characteristics of railway vehicles — Testing of running behaviour and stationary tests*

EN 50122-1, *Railway applications — Fixed installations — Part 1: Protective provisions relating to electrical safety and earthing*

EN 50153:2002, *Railway applications — Rolling stock — Protective provisions relating to electrical hazards*

EN ISO 7731, *Ergonomics — Danger signals for public and work areas — Auditory danger signals (ISO 7731:2003)*

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

ISO 4305, *Mobile cranes — Determination of stability*

ISO 4310, *Cranes — Test code and procedures*

UIC 505-1:2006, *Railway transport stock — Rolling stock construction gauge*

UIC 505-4:1977, *Effects of the application of the kinematic gauges defined in the 505 series of leaflets on the positioning of structures in relation to the tracks and of the tracks in relation to each other*

[A1] *deleted text* [A1]

UIC 702:2003, *Static loading diagrams to be taken into consideration for the design of rail carrying structures on lines used by international services*

3 Terms and definitions

3.1 General terms and definitions

The terms listed in the relevant railway specific documents and in particular those in the UIC leaflets apply to this European Standard.

Terms and definitions that are used in European and International Standards that are referred to in this European Standard also apply.

3.2 Additional terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.2.1
working configuration
machine is said to be in working configuration as soon as any part of the machine is moved from its travelling position as specified in [A1] EN 14033-1:2011 [A1], 5.2

3.2.2
working place
working places are working cabs, combined working and driving cabs, operators places situated outside cabs and places situated at control or maintenance locations

3.2.3
working limit contour
limit in which a machine can work without interfering with the kinematic envelope of vehicles on adjacent tracks

3.2.4
operating track
track corresponding to the criteria of the infrastructure manager on which vehicles may run under normal signalling arrangements (with or without a speed limit)

3.2.5
working track
track that is being maintained for which the geometrical parameters may reach the limiting values as specified in Annex F and for which special operational restrictions may apply

3.2.6
authorised body
body appointed by the infrastructure manager