

**Pidevtoimega teisaldusseadmed ja süsteemid. Pealmaa-
pruunsöekaevetööl kasutatavate pidevtoimega
seadmete üldised ohutusnõuded**

Continuous handling equipment and systems - General
safety requirements for continuous handling equipment for
opencast lignite mining

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

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| <p>Käesolev Eesti standard EVS-EN 14658:2005+A1:2010 sisaldab Euroopa standardi EN 14658:2005+A1:2010 ingliskeelset teksti.</p> <p>Standard on kinnitatud Eesti Standardikeskuse 31.03.2010 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 17.02.2010.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p> | <p>This Estonian standard EVS-EN 14658:2005+A1:2010 consists of the English text of the European standard EN 14658:2005+A1:2010.</p> <p>This standard is ratified with the order of Estonian Centre for Standardisation dated 31.03.2010 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.</p> <p>Date of Availability of the European standard text 17.02.2010.</p> <p>The standard is available from Estonian standardisation organisation.</p> |
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English Version

Continuous handling equipment and systems - General safety requirements for continuous handling equipment for opencast lignite mining

Equipements et systèmes de manutention continue - Prescriptions générales de sécurité aux équipements de manutention continue utilisés dans les mines de lignite à ciel ouvert

Stetigförderer und Systeme - Allgemeine Sicherheitsanforderungen an Stetigförderer im Braunkohlentagebau

This European Standard was approved by CEN on 25 March 2005 and includes Amendment 1 approved by CEN on 11 January 2010.

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Foreword

This document (EN 14658:2005+A1:2010) has been prepared by Technical Committee CEN/TC 196 "Machines for underground mines - 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of an identical text or by endorsement, at the latest by August 2010, and conflicting national standards shall be withdrawn at the latest by August 2010.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 2010-01-11.

This document supersedes EN 14658:2005.

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 Directives, see informative Annexes ZA and ZB, which are integral parts of this document. **A1**

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 United Kingdom.

Introduction

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

The machinery concerned and the hazards covered are indicated in the scope of this European Standard.

In the preparation of this standard, it has been assumed that:

- discussions have taken place between the manufacturer and the user concerning particular conditions for the use and the site of use of the machinery, with regard to health and safety;
- only experts will operate, clean, check, maintain, inspect and repair the machinery and adapt it to the changeable requirements of opencast mining;
- the machinery components are kept in a good state of repair and working order so that the required characteristics related to health and safety are maintained despite wear and tear;
- the place of installation is adequately illuminated;
- the place of installation allows safe use of the machinery;
- the design of the loadbearing elements ensures safe operation of the machinery in the required load range and during testing;
- all parts of the machinery not subject to specific requirements:
 - a) are made from materials of adequate strength and durability and of suitable quality;
 - b) function in a sound manner mechanically;
 - c) have been designed in accordance with standard engineering practice and calculation methods, taking account of all failure modes and appropriate safety factors.

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

This European Standard applies to mechanical continuous handling equipment used in opencast lignite mines and the particular mechanical continuous handling equipment used:

- to convey lignite or overburden from opencast mines;
- to convey residuals and tailings from lignite processing to opencast mines;
- to convey lignite, overburden or lignite treatment processing residuals and tailings from one opencast mine to another.

This standard applies to continuous handling equipment operating in delimited site areas that are off-limits to the public and accessible only to authorized persons.

It specifies the safety requirements for stationary, mobile and shiftable continuous handling equipment designed to transport bulk goods by continuous movement from a loading point to a discharge point.

The standard considers the significant hazards that arise during the use, movement and shifting of continuous handling equipment, as well as the measures for eliminating or reducing these hazards provided the continuous handling equipment is used as intended and the remaining risk is foreseen and taken into account by the manufacturer. A complete list of all the hazards specified in EN 1050 is given in Annex A (normative).

The requirements of this standard do not apply to equipment and systems manufactured and put into operation before the publication date of this standard.

This standard does not cover:

- a) safety requirements of wireless remote control systems;
- b) hazards generated by noise;
- c) hazards generated by vibration;
- d) hazards generated by explosion;
- e) hazards generated by electromagnetic interference (EMC).

NOTE Directive 94/9/EC concerning equipment and protective systems intended for use in potentially explosive atmospheres and Directive 89/336/EEC relating to electromagnetic compatibility may be applicable to equipment or components covered by this European Standard. This Standard is not intended to provide means of complying with the essential health and safety requirements of the above Directives.

2 Normative references

The following referenced documents are indispensable for the application of this European Standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 294, *Safety of machinery — Safety distances to prevent danger zones being reached by the upper limbs*

EN 349, *Safety of machinery — Minimum gaps to avoid crushing of parts of the human body*

EN 418, *Safety of machinery — Emergency stop equipment, functional aspects — Principles for design*

EN 457, *Safety of machinery — Auditory danger signals — General requirements, design and testing (ISO 7731:1986, modified)*

EN 811, *Safety of machinery — Safety distances to prevent danger zones being reached by the lower limbs*

EN 953, *Safety of machinery — Guards — General requirements for the design and construction of fixed and movable guards*

EN 1037, *Safety of machinery — Prevention of unexpected start-up*

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

EN 60204-1, *Safety of machinery — Electrical equipment of machines — Part 1: General requirements (IEC 60204-1:1997)*

EN 60204-11, *Safety of machinery — Electrical equipment of machines — Part 11: General requirements for HV equipment for voltages above 1 000 V a.c. or 1 500 V d.c. and not exceeding 36 kV (IEC 60204-11:2000)*

EN 60947-5-1, *Low-voltage switchgear and controlgear — Part 5-1: Control circuit devices and switching elements - Electromechanical control circuit devices (IEC 60947-5-1:2003)*

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 14122-1, *Safety of machinery — Permanent means of access to machinery — Part 1: Choice of a fixed means of access between two levels (ISO 14122-1:2001)*

EN ISO 14122-2, *Safety of machinery — Permanent means of access to machinery — Part 2: Working platforms and walkways (ISO 14122-2:2001)*

EN ISO 14122-3, *Safety of machinery — Permanent means of access to machinery — Part 3: Stairs, stepladders and guard-rails (ISO 14122-3:2001)*

EN ISO 14122-4, *Safety of machinery — Permanent means of access to machines and industrial plants — Part 4: Fixed ladders (ISO 14122-4: 2004)*

3 Terms and definitions

For the purposes of this European Standard, the terms and definitions given in EN ISO 12100-1:2003, EN ISO 12100-2:2003 and the following terms and definitions apply.

3.1

delimited operating site

area delimited by man-made or natural barriers (embankments, dams, distances, etc.) from public areas and accessible only to authorized persons

3.2

scraper

device used to distribute the material handled or to remove adherent residual materials

3.3

discharge point

unloading point of continuous handling equipment