SLOVENSKI STANDARD
SIST EN ISO 3450:2012

01-januar-2012

Nadomešča:
SIST EN ISO 3450:2008

Stroji za zemeljska dela - Stroji s kolesi ali gumijastimi gosenicami za velike hitrosti - Zahteve za zmogljivost in preskusni postopki zavornih sistemov (ISO 3450:2011)

Earth-moving machinery - Wheeled or high-speed rubber-tracked machines - Performance requirements and test procedures for brake systems (ISO 3450:2011)

Erdbaumaschinen - Bremsanlagen von gummibereiften Maschinen - Systeme, Anforderungen und Prüfungen (ISO 3450:2011)

Engins de terrassement - Engins sur pneumatiques ou sur chenilles caoutchouc à grande vitesse - Exigences de performance et modes opératoires d'essai des systèmes de freinage (ISO 3450:2011)

Ta slovenski standard je istoveten z: **EN ISO 3450:2011**

ICS:

53.100	Stroji za zemeljska dela	Earth-moving machinery

SIST EN ISO 3450:2012 **en,fr**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 3450

November 2011

ICS 53.100

Supersedes EN ISO 3450:2008

English Version

Earth-moving machinery - Wheeled or high-speed rubber-tracked machines - Performance requirements and test procedures for brake systems (ISO 3450:2011)

Engins de terrassement - Engins sur pneumatiques ou sur chenilles caoutchouc à grande vitesse - Exigences de performance et modes opératoires d'essai des systèmes de freinage (ISO 3450:2011)

Erdbaumaschinen - Maschinen auf Rädern oder schnelllaufende gummigleiskettenbereifte Maschinen - Anforderungen und Prüfungen für Bremssysteme (ISO 3450:2011)

This European Standard was approved by CEN on 15 October 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.

CEN members are the national standards bodies of 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.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Foreword

This document (EN ISO 3450:2011) has been prepared by Technical Committee ISO/TC 127 "Earth-moving machinery" in collaboration with 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 May 2012, and conflicting national standards shall be withdrawn at the latest by May 2012.

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 supersedes EN ISO 3450:2008.

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).

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

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.

Endorsement notice

The text of ISO 3450:2011 has been approved by CEN as a EN ISO 3450:2011 without any modification.

Annex ZA
(informative)

Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association to provide one means of conforming to Essential Requirements of the New Approach Directive 2006/42/EC on machinery.

Once this standard is cited in the Official Journal of the European Union under that Directive and has been implemented as a national standard in at least one Member State, compliance with the normative clauses of this standard confers, within the limits of the scope of this standard, a presumption of conformity with the relevant Essential Requirements of that Directive and associated EFTA regulations.

WARNING — Other requirements and other EU Directives may be applicable to the product(s) falling within the scope of this Standard.

INTERNATIONAL STANDARD

ISO 3450

Fourth edition
2011-11-01

Earth-moving machinery — Wheeled or high-speed rubber-tracked machines — Performance requirements and test procedures for brake systems

Engins de terrassement — Engins sur pneumatiques ou sur chenilles en caoutchouc à grande vitesse — Exigences de performance et modes opératoires d'essai des systèmes de freinage

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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

ISO 3450 was prepared by Technical Committee ISO/TC 127, *Earth-moving machinery*, Subcommittee SC 2, *Safety, ergonomics and general requirements*.

This fourth edition cancels and replaces the third edition (ISO 3450:1996), which has been technically revised.

Earth-moving machinery — Wheeled or high-speed rubber-tracked machines — Performance requirements and test procedures for brake systems

1 Scope

This International Standard specifies minimum performance requirements and test procedures for the service, secondary and parking brake systems of wheeled and high-speed rubber-tracked earth-moving machines, for the uniform assessment of those brake systems.

It is applicable to the following earth-moving machinery, operating on work sites or in mining, or travelling on public roads:

— self-propelled, rubber-tyred earth-moving machines, as defined in ISO 6165;

— self-propelled rollers and landfill compactors, as defined in ISO 6165 and ISO 8811;

— self-propelled scrapers, as defined in ISO 7133;

— remote-control machines, as defined in ISO 6165, wheeled or rubber-tracked;

— derivative earth-moving machines with rubber tyres;

— earth-moving machines with rubber tracks and a maximum machine speed ≥20 km/h.

It is not applicable to pedestrian-controlled earth-moving machinery (see ISO 17063) or crawler earth-moving machines with steel or rubber tracks that travel at <20 km/h (see ISO 10265). While purpose-built underground mining machines are not within the scope of this International Standard, its provisions can generally be applied to those machines with some braking performance modifications and additions (see Annex A).

NOTE At the time of publication, no International Standard dedicated to purpose-built underground mining machines had been developed.

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.

ISO 6014, *Earth-moving machinery — Determination of ground speed*

ISO 6016, *Earth-moving machinery — Methods of measuring the masses of whole machines, their equipment and components*

ISO 6165, *Earth-moving machinery — Basic types — Identification and terms and definitions*

ISO 7133, *Earth-moving machinery — Tractor-scrapers — Terminology and commercial specifications*

ISO 8811, *Earth-moving machinery — Rollers and compactors — Terminology and commercial specifications*

ISO 9248, *Earth-moving machinery — Units for dimensions, performance and capacities, and their measurement accuracies*

ISO 10968, *Earth-moving machinery — Operator's controls*

ISO 15998, *Earth-moving machinery — Machine-control systems (MCS) using electronic components — Performance criteria and tests for functional safety*

3 Terms and definitions

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

3.1
brake system
braking system
all components which combine together to stop and/or hold the machine, including the brake control(s), brake actuation system, the brake(s) themselves and, if the machine is so equipped, the retarder .

3.1.1
service brake system
primary system used for stopping and holding the machine

3.1.2
secondary brake system
system used to stop the machine in the event of any single failure in the service brake system

3.1.3
parking brake system
system used to hold a stopped machine in a stationary position and which, if applicable, may also be part of secondary brake system

3.1.4
hydrostatic brake system
hydrostatic or other similar propel drive system used to meet one or more of the brake system requirements

3.1.5 Braking system components

3.1.5.1
brake control
component directly activated by the operator to cause a force to be transmitted to the brake(s)

3.1.5.2
brake actuation system
all components between the brake control and the brake(s) which connect them functionally

3.1.5.3
brake
brakes
component which directly applies a force to oppose movement of the machine

NOTE The different types of brake include friction, mechanical, electrical, regenerative devices and hydrostatic or other fluid types.

3.1.5.4
common component
component that performs a function in two or more brake systems

EXAMPLE Pedal, valve.

3.1.5.5
retarder
energy-absorption device normally used to control machine speed

3.2
hydrostatic drive system
hydraulic system where hydraulic motors form a direct drive to the wheels or track to propel the machine and slow machine movement