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Earth-moving machinery - Rubber-tyred machines - Steering requirements (ISO 5010:1992 modified)

EESTI STANDARDIKESKUS
ESTONIAN CENTRE FOR STANDARDISATION

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 12643:2014 sisaldab Euroopa standardi EN 12643:2014 inglisekeelset teksti.	This Estonian standard EVS-EN 12643:2014 consists of the English text of the European standard EN 12643:2014.
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 19.02.2014.	Date of Availability of the European standard is . 19.02.2014.
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.

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English Version

Earth-moving machinery - Rubber-tyred machines - Steering requirements (ISO 5010:1992 modified)

Engins de terrassement - Engins équipés de pneumatiques - Systèmes de direction (ISO 5010:1992 modifié)

Erdbaumaschinen - Radfahrzeuge - Lenkvermögen (ISO 5010:1992 modifiziert)

This European Standard was approved by CEN on 30 November 2013.

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

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Contents

Page

Foreword

This document (EN 12643:2014) 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of an identical text or by endorsement, at the latest by August 2014, and conflicting national standards shall be withdrawn at the latest by August 2014.

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.

Modifications to the ISO 5010:1992 text are indicated by a vertical line in the left margin of the text.

This document supersedes EN 12643:1997+A1:2008.

The main changes with respect to the previous edition are listed below:

— update of normative references;

— content list added;

— error correction in 10.3.4;

— update of Annex ZA.

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(s), 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, 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.

1 Scope

This European Standard specifies steering system tests and performance criteria for evaluating the steering capability of rubber-tyred self-propelled earth-moving machines having a machine speed, determined in accordance with ISO 6014:1986, greater than 20 km/h.

It applies to tractors, loaders, backhoe loaders, excavators, dumpers, tractor-scrapers and graders equipped with either manual (unassisted) steering, power-assisted steering of fully powered steering as defined in ISO 6165:2006.

This European Standard excludes rollers, compactors and pipelayers.

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

ISO 6014:1986, *Earth-moving machinery – Determination of ground speed*

EN ISO 6165:2006, *Earth-moving machinery – Basic types – Identification and terms and definitions (ISO 6165:2006)*

ISO 7457:1997, *Earth-moving machinery – Determination of turning dimensions of wheeled machines*

3 Terms and definitions

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

3.1
steering system
system including all machine elements between the operator and the ground-contacting wheels participating in steering the machine

3.1.1
manual steering system
system depending exclusively on the muscular power of the operator to effect normal steering of the machine

3.1.2
power-assisted steering system
system employing auxiliary power source(s) to supplement the muscular power of the operator to effect steering of the machine. Without steering auxiliary power source(s), the machine can be steered with muscle power only (see 6.2.1)

3.1.3
fully powered steering system
system in which steering is provided by steering power source(s). Without the power source(s), the machine cannot reasonably be steered with muscle power only (see 6.2.1)

3.1.4
emergency steering system
system used to steer the machine in the event of a failure of the normal steering power source(s) or engine stoppage