



SLOVENSKI STANDARD SIST EN ISO 5010:2020

01-marec-2019

Nadomešča:
SIST EN 12643:2014

Stroji za zemeljska dela - Stroji s kolesi - Zahteve za krmiljenje (ISO 5010:2019)

Earth-moving machinery - Wheeled machines - Steering requirements (ISO 5010:2019)

Erdbaumaschinen - Bereifte Maschinen - Lenkanlagen (ISO 5010:2019)

Engins de terrassement - Engins équipés de pneumatiques - Systèmes de direction (ISO 5010:2019)

Ta slovenski standard je istoveten z: **EN ISO 5010:2019**

ICS:

53.100	Stroji za zemeljska dela	Earth-moving machinery
--------	--------------------------	------------------------

SIST EN ISO 5010:2020

en,fr,de

iTeh STANDARD PREVIEW
(standards.iteh.ai)

Full standard:
<https://standards.iteh.ai/catalog/standards/sist/35fd0946-5cad-40f-ad57-efea6b557ec/sist-en-iso-5010-2020>

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 5010

December 2019

ICS 53.100

Supersedes EN 12643:2014

English Version

Earth-moving machinery - Wheeled machines - Steering requirements (ISO 5010:2019)

Engins de terrassement - Engins équipés de pneumatiques - Systèmes de direction (ISO 5010:2019)

Erdbaumaschinen - Bereifte Maschinen - Lenkanlagen (ISO 5010:2019)

This European Standard was approved by CEN on 17 November 2019.

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, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Contents	Page
European foreword.....	3
Annex ZA (Informative) Relationship between this European Standard and the essential requirements of Directive 2006/42/EC machinery, and amending Directive 95/16/EC (recast) [2006 L157] aimed to be covered.....	4

iTeh STANDARD PREVIEW
(standards.iteh.ai)
Full standard:
<https://standards.iteh.ai/catalog/standards/sist/35fd0946-5cad-40f-ad57-efea6b557ec/sist-en-iso-5010-2020>

European foreword

This document (EN ISO 5010:2019) 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 June 2020, and conflicting national standards shall be withdrawn at the latest by June 2020.

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

This document supersedes EN 12643:2014.

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

Endorsement notice

The text of ISO 5010:2019 has been approved by CEN as EN ISO 5010:2019 without any modification.

Annex ZA (Informative)

Relationship between this European Standard and the essential requirements of Directive 2006/42/EC machinery, and amending Directive 95/16/EC (recast) [2006 L157] aimed to be covered

This European Standard has been prepared under a Commission's standardization request M/396 to provide one voluntary means of conforming to essential requirements of Directive 2006/42/EC of the European Parliament and of the Council of 17 May 2006 on machinery, and amending Directive 95/16/EC (recast) [2006 L157].

Once this standard is cited in the Official Journal of the European Union under that Directive, compliance with the normative clauses of this standard given in Table ZA.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding essential requirements of that Directive, and associated EFTA regulations.

Table ZA.1 — Correspondence between this European Standard and Directive 2006/42/EC [2006 L157]

Essential Requirements of Directive 2006/42/EC	Clause(s)/sub-clause(s) of this EN	Remarks/Notes
1.1.2. Principles of safety integration	4	
1.1.3. Materials and products	4.7.3	
1.1.6. Ergonomics	4.3.8, 4.5.1, 4.9	
1.2.1. Safety and reliability of control systems	4.2.2, 4.3.1, 4.4	
1.2.2. Control devices	4.3.3, 4.3.7, 5, 6, 7, 8, 9, 10	
1.2.5. Selection of control or operating modes	4.8	
1.3.2. Risk of break-up during operation	4.4.1, 4.7.3	
1.6.1. Machinery maintenance	4.3.5	
1.6.2. Access to operating positions and servicing points	4.3.5	
1.7.1.1. Information and information devices	4.8.3	
1.7.1.2. Warning devices	4.7.1.1	
1.7.4.2. Contents of the instructions	10	
3.3.1. Control devices	4.3.2, 4.3.4, 4.3.6, 4.3.7	
3.3.5. Control circuit failure	4.2.2, 4.3.1, 4.6, 4.7, 4.8	

3.4.5. Means of access	4.3.7, 4.4.1 c)	
------------------------	-----------------	--

WARNING 1 — Presumption of conformity stays valid only as long as a reference to this European Standard is maintained in the list published in the Official Journal of the European Union. Users of this standard should consult frequently the latest list published in the Official Journal of the European Union.

WARNING 2 — Other Union legislation may be applicable to the product(s) falling within the scope of this standard.

iTeh STANDARD PREVIEW
(standards.iteh.ai)
Full standard:
<https://standards.iteh.ai/catalog/standards/sist/35fd0946-5cad-40f-ad57-efea6b557ec/sist-en-iso-5010-2020>

iTeh STANDARD PREVIEW
(standards.iteh.ai)

Full standard:
<https://standards.iteh.ai/catalog/standards/sist/35fd0946-5cad-40f-ad57-efea6b557ec/sist-en-iso-5010-2020>

INTERNATIONAL STANDARD

ISO 5010

Fourth edition
2019-11

Earth-moving machinery — Wheeled machines — Steering requirements

*Engins de terrassement — Engins équipés de pneumatiques —
Systèmes de direction*

iTeh STANDARD PREVIEW
(standards.iteh.ai)
Full standard:
<https://standards.iteh.ai/catalog/standards/sist/35fd0946-5cad-40f-ad57-efea6b557ec/sist-en-iso-5010-2020>



Reference number
ISO 5010:2019(E)

© ISO 2019

iTeh STANDARD PREVIEW
(standards.iteh.ai)
Full standard:
<https://standards.iteh.ai/catalog/standards/sist/35fd0946-5ead-40f-ad57-e4ea6b557ec/sist-en-iso-5010-2020>

**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2019

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Fax: +41 22 749 09 47
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

	Page
Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 General requirements	4
4.1 General.....	4
4.2 Required steering systems.....	5
4.3 All steering systems.....	5
4.4 Tests with all steering systems.....	6
4.5 Primary steering system.....	7
4.6 Secondary steering system.....	7
4.7 Powered steering system.....	7
4.8 Steering systems with principal and alternative steering control elements.....	8
4.9 Ergonomic requirements.....	8
5 Steering test course	9
6 Machine specifications for test	10
7 Wheel circle test procedure	11
8 Steering tests	11
8.1 Tests with primary steering system.....	11
8.2 Tests with secondary steering system.....	12
8.3 Steering test with alternative steering control elements.....	14
9 Test report	15
10 Information for use	16
10.1 General.....	16
10.2 Instruction handbook.....	16
10.2.1 Machines equipped with powered steering system.....	16
10.2.2 Machines equipped with secondary steering system.....	17
10.2.3 Machines equipped with steering systems with alternative steering control element with a controlled or limited speed range.....	17
Bibliography	18