

SLOVENSKI STANDARD
SIST EN 16228-2:2014/oprA1:2019

01-julij-2019

Oprema za vrtanje in temeljenje - Varnost - 2. del: Prenosna vrtalna oprema za gradbeništvo in geotehniko, kamnolomstvo in rudarstvo - Dopolnilo A1

Drilling and foundation equipment - Safety - Part 2: Mobile drill rigs for civil and geotechnical engineering, quarrying and mining

Geräte für Bohr- und Gründungsarbeiten - Sicherheit - Teil 2: Mobile Bohrgeräte für Tiefbau, Geotechnik und Gewinnung

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Machines de forage et de fondation - Sécurité - Partie 2. Machines mobiles de forage de génie civil, de géotechnique, de forage d'eau, d'exploration de sol, d'énergie géothermique, de mines et carrières

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Ta slovenski standard je istoveten z: EN 16228-2:2014/prA1

ICS:

25.080.40	Vrtalniki	Drilling machines
53.100	Stroji za zemeljska dela	Earth-moving machinery
93.020	Zemeljska dela. Izkopavanja. Gradnja temeljev. Dela pod zemljo	Earthworks. Excavations. Foundation construction. Underground works

SIST EN 16228-2:2014/oprA1:2019 en,fr,de

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
EN 16228-2:2014
prA1

May 2019

ICS 93.020

English Version

**Drilling and foundation equipment - Safety - Part 2: Mobile
drill rigs for civil and geotechnical engineering, quarrying
and mining**

Machines de forage et de fondation - Sécurité - Partie 2
: Machines mobiles de forage de génie civil, de
géotechnique, de forage d'eau, d'exploration de sol,
d'énergie géothermique, de mines et carrières

Geräte für Bohr- und Gründungsarbeiten - Sicherheit -
Teil 4: Geräte für Gründungsarbeiten

This draft amendment is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 151.

This draft amendment A1, if approved, will modify the European Standard EN 16228-2:2014. If this draft becomes an amendment, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant national standard without any alteration.

This draft amendment was established by CEN 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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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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

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

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EN 16228-2:2014/prA1:2019 (E)**European foreword**

This document (EN 16228-2:2014/prA1:2019) 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 document is currently submitted to the CEN Enquiry.

This document has been prepared under a standardization request 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 tEN 16228-2:2014.

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1 Modification to the whole text

In the entire document, for all instances found:

Replace "EN 16228-1:2014" with "EN 16228-1:2014+prA1:2019".

Replace "EN 16228-4:2014" with "EN 16228-4:2014+prA1:2019".

Replace "EN 16228-5:2014" with "EN 16228-5:2014+prA1:2019".

2 Additions to Clause 2, Normative references

Add the following reference:

"EN ISO 13855:2019, Safety of machinery - Positioning of safeguards with respect to the approach speeds of parts of the human body (ISO 13855:2010)"

3 Modification to Clause 3, Terms and definitions

In the first paragraph, replace "EN 16228-1:2014" with "EN 16228-1:2014+prA1:2019".

*In definition 3.1.1 **drill jumbo**, delete the definition and re-number the subsequent definitions 3.1.2 and 3.1.3 into 3.1.1 and 3.1.2.*

After 3.1.2 "pre-armouring machine", Add the following new definition:

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3.1.2 suspended drill rigs non-self-propelled machine, not mounted on powered undercarriage and with external power system designed to work on steep slopes, near vertical inclines or in very narrow spaces
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NOTE 1 to entry: They are mounted in a fixture which maybe:

- suspended in ropes;
- mounted in a stand;
- suspended by other means e.g. ; hydraulic jacks."

Delete definitions 3.10 to 3.14

Add the following new definition:"

3.10 upper clamps/jaws
 device to hold the drill sting closest from the rotary head"

EN 16228-2:2014/prA1:2019 (E)**4 Modification to Clause 4, List of additional significant hazards**

Replace Table 1 with the following:

Table 1 — List of additional significant hazards and associated requirements

No.	Hazard	Relevant clause(s) in this standard
1	Mechanical hazards	
1.1	Stability	5.3, 5.9
1.2	Crushing	5.5, 5.6, 5.7
1.3	Shearing	5.5, 5.6, 5.7
1.4	Cutting and severing	5.5, 5.6, 5.7
1.5	Entanglement	5.5, 5.6, 5.7, 5.8
1.6	Kinetic energy	5.10, 5.11, Annex B
1.7	Falling or ejected object	5.2
1.8	Uncontrolled loading, overloading	5.2, 5.9
1.9	Lifting of person	5.2
1.10	Insufficient instructions for the driver/operator	7.1, 7.2
2	Thermal hazards	
2.1	Fire	5.4
4	Hazards generated by noise, resulting in: <i>(standards.iteh.ai)</i>	
4.1	Hearing losses and physiological disorders	Annex A
4.2	Accidents due to interference with speech communication and warning signals <small>SIST EN 16228-1:2014/prA1:2019 http://standards.iteh.ai/catalog/standards/sist/e7ab89de-513f-4cee-b9e4-c76884daaf5d/sist-en-16228-2-2014-pra1-2019</small>	Annex A

5 Modification to 5.1, General

Replace “EN 16228-1:2014” with “EN 16228-1:2014+prA1:2019”.

6 Modification to 5.2, Boom mounted working platforms for underground use

In the first paragraph, first sentence replace “Subclause 5.13.2 of EN 16228-1:2014” with “EN 16228-1:2014+prA1:2019, 5.13.2”.

In the first sentence of the fifth, sixth and seventh paragraphs (3 occurrences) delete “Drill jumbo and p” and capitalize “P” when beginning a sentence, to read “Pre-armouring machines”.

7 Modification to 5.3.1, Stability calculation - Tipping angle

In the first paragraph, first sentence, replace “Subclause 5.2.3.5 of EN 16228-1:2014” with “EN 16228-1:2014+prA1:2019, 5.2.3.5”.

8 Modification to 5.3.2.1, Boom mounted working platforms for underground use

In the first paragraph, first sentence, replace “Subclause 5.2.3.6 of EN 16228-1:2014” with “EN 16228-1:2014+prA1:2019, 5.2.3.6”.

9 Modification to 5.4, Fire protection

In the first paragraph, first sentence, replace “Subclause 5.26 of EN 16228-1:2014” with “EN 16228-1:2014+prA1:2019, 5.26”.

10 Modification to 5.5, Guards

Replace the entire clause with the following text:

5.5.1 General

“For drilling machines that do not have significant hazards caused by feed movement of the rotary head, the protective means of the moving parts involved in the drilling process may be restricted to the rotating parts, preventing the operator from inadvertently contacting rotating parts.

Protection means shall be located where access to moving parts directly involved in the drilling process is foreseeable during normal operation of the machinery.

5.5.2 Guards

EN 16228-1:2014+prA1:2019, 5.23.2.2.2 shall apply with the following additions:

- maximum height of the bottom edge of the guard shall be up to 500 mm from the base of mast foot (L1) or not more than 200 mm above the upper clamps/jaws or rod/auger guide (L2);
- the upper level of the guard shall prevent unintentional access to the moving parts up to 1 600 mm (H1) from the base of mast foot;
- if the drill rig is intended to operate with the mast in inclined position respect to the vertical greater than 15°, the guard shall extend up to 1 200 mm above the upper clamps/jaws or rod/auger guide (H2);
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- the design of the guard shall ensure a sufficient visibility of the working area;
- it shall allow manual opening in all positions or be motorized.