Südamikpuurimismasinad alusel. Ohutus

Core drilling machines on stand - Safety



EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 12348:2000+A1:2009 sisaldab Euroopa standardi EN 12348:2000+A1:2009 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 29.05.2009 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 01.04.2009.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 12348:2000+A1:2009 consists of the English text of the European standard EN 12348:2000+A1:2009.

This standard is ratified with the order of Estonian Centre for Standardisation dated 29.05.2009 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

Date of Availability of the European standard text 01.04.2009.

The standard is available from Estonian standardisation organisation.

ICS 25.080.40

Võtmesõnad:

Standardite reprodutseerimis- ja levitamisõigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonilisse süsteemi või edastamine ükskõik millises vormis või millisel teel on keelatud ilma Eesti Standardikeskuse poolt antud kirjaliku loata.

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

April 2009

EN 12348:2000+A1

ICS 25.080.40

Supersedes EN 12348:2000

English Version

Core drilling machines on stand - Safety

Foreuses à béton (carotteuses) sur colonne - Sécurité

Kernbohrmaschinen auf Ständer - Sicherheit

This European Standard was approved by CEN on 26 June 2000 and includes Amendment 1 approved by CEN on 1 March 2009.

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 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, 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

Management Centre: Avenue Marnix 17, B-1000 Brussels

COIII	ents	Page
Forew	ord	3
	uction	
1	Scope	
	Normative references	
2	Terms and definitions	
4		•
4	List of significant hazards	
5 5.1	Safety requirements and/or measures Mechanical hazards	10
5.1 5.2	Electrical hazards	
5.2 5.3	Ergonomics	
5.4	Thermal hazards	
5.5	Exhaust fumes (internal combustion engine machines) and exhaust compressed air	
	(pneumatic machines)	14
5.6	Hydraulic and pneumatic machines	
5.7	Fluid containers	
5.8 5.9	Water supply and dust emission Rotational speed	
5.9 5.10	Noise	
5.10 5.11	নি) Vibration	15 15
5.12	Maintenance	15
6	Verification of safety requirements and/or measures	15
7	Information for use	15
7.1	Marking	
7.2	Accompanying documents	
Annex	A (normative) Noise test code - Grade 2 of accuracy	20
	B (normative) Pictograms	
Annex	C (normative) Verification of surface temperature	24
Annex	D (normative) Nibration test code	25
Annex	ZA (informative) A Relationship between this European Standard and the Essential Requirements of EU Directive 98/37/EC 4	29
	ZB (informative) A Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC 4	
Bibliod	graphy	31

Foreword

This document (EN 12348:2000+A1:2009) 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 October 2009, and conflicting national standards shall be withdrawn at the latest by December 2009.

This document includes Amendment 1, approved by CEN on 2009-03-01.

This document supersedes EN 12348:2000.

The start and finish of text introduced or altered by amendment is indicated in the text by tags [A].

This European Standard 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 Directives, see informative Annexes ZA and ZB, which are integral parts of this document. (A)

The annex A is normative and contains "Noise test code - Grade 2 of accuracy", annex B is normative and contains "Pictograms", annex C is normative and contains "Verification of surface temperature", and the annex ZA is informative and contains "Relationship of this European Standard with EU Directives".

This European Standard also contains a Bibliography.

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, 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 stated in A EN ISO 12100-1 4.

The machinery concerned and the extent to which hazards are covered are indicated in the scope of this standard.

This European standard has been prepared by taking into account the safety requirements of EN 791:1995 which are applicable to core drilling machines on a stand.

1 Scope

This European Standard applies to core drilling machines on transportable stands equipped with a diamond core drill bit, usually with a water supply connection device, and intended to drill holes into stone, concrete and similar mineral materials in a stationary position where the power for the tool rotation is supplied by an electrical, hydraulic, pneumatic or internal combustion prime motor.

The feed movement of the drill head and core drill bit may be effected by manual, mechanical or hydraulic means.

This European Standard deals with all significant hazards pertinent to core drilling machines on a stand when used as intended and under the conditions foreseen by the manufacturer (see clause 4). This standard specifies the appropriate technical measures to eliminate or reduce risks arising from the significant hazards.

This standard does not apply to:

- percussive or rotary-percussive rock drills either mounted or unmounted;
- hand held power drills;
- hydraulic or pneumatic power supply sources;
- mobile undercarriages to which machines can be fitted.

This European Standard does not apply to machinery covered by EN 791:1995.

This European Standard covers electrical hazards by making reference to relevant European Standards (see 5.2).

Those hazards that are relevant for all mechanical, electrical, hydraulic and other equipment of machinery and that are dealt with in standards for common use are not covered by this European Standard. Reference to pertinent standards of this kind is made where such standards are applicable and so far as is necessary.

In this European Standard, core drilling machines on a stand are called "machines" and diamond core drill bits are called "tools".

NOTE The term "diamond" is used as a generic word which covers all varieties of abrasive products such as diamond, borum nitride.

This European Standard applies primarily to machines which are manufactured after the date of approval of the standard by CEN.

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. [41]

A₁) deleted text (A₁

A) EN 206-1:2000, Concrete — Part 1: Specification, performance, production and conformity (4)

EN 294:1992, Safety of machinery - Safety distances to prevent danger zones being reached by the upper limbs

A1) deleted text (A1)

EN 791:1995, Drill rigs - Safety

EN 953 (A), Safety of machinery – Guards - General requirements for the design and construction of fixed and movable guards

A₁) deleted text (A₁

EN 982:1996, Safety of machinery - Safety requirements for fluid power systems and their components - Hydraulics

EN 983:1996, Safety of machinery - Safety requirements for fluid power systems and their components - Pneumatics

A EN 12096, Mechanical vibration — Declaration and verification of vibration emission values (4)

A₁) deleted text (A₁

Prentson in the prentson of sound power levels and sound energy levels of noise sources using sound pressure — Engineering method in an essentially free field over a reflecting plane (ISO/DIS 3744:2006) (A)

EN ISO 5349-2:2001, Mechanical vibration — Measurement and evaluation of human exposure to hand-transmitted vibration — Part 2: Practical guidance for measurement at the workplace (ISO 5349-2:2001)

EN ISO 8041, Human response to vibration — Measuring instrumentation (ISO 8041:2005) (4)

EN ISO 11201:1995, Acoustics — Noise emitted by machinery and equipment — Measurement of emission sound pressure levels at a work station and at other specified positions — Engineering method in an essentially free field over a reflecting plane (ISO 11201:1995) (A)

♠ 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 13732-1:2008, Ergonomics of the thermal environment — Methods for the assessment of human responses to contact with surfaces — Part 1: Hot surfaces (ISO 13732-1:2006)

EN ISO 13849-1:2008, Safety of machinery — Safety-related parts of control systems — Part 1: General principles for design (ISO 13849-1:2006)

EN ISO 13850:2008, Safety of machinery — Emergency stop — Principles for design (ISO 13850:2006)

EN ISO 20643:2008, Mechanical vibration — Hand-held and hand-guided machinery — Principles for evaluation of vibration emission (ISO 20643:2005) [A]

EN 60204-1:2006, Safety of machinery — Electrical equipment of machines — Part 1: General requirements (IEC 60204-1:2005, modified) (A)

(IEC 60335-1:2001, modified) (A)

♠ EN 60335-2-41:2003, Household and similar electrical appliances — Safety — Part 2-41: Particular requirements for pumps (IEC 60335-2-41:2002) ♠

EN 61029-1:2000, Safety of transportable motor operated electric tools – Part 1: General requirements (IEC 61029-1:1990, modified)

Prender of transportable motor-operated electric tools — Part 2-6: Particular requirements for diamond drills with water supply (IEC 61029-2-6:1993, modified)

(A) ISO 5348, Mechanical vibration and shock — Mechanical mounting of accelerometers

ISO 7000:2004, Graphical symbols for use on equipment — Index and synopsis

on and ISO 16063-1, Methods for the calibration of vibration and shock transducers — Part 1: Basic concepts (A)