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jõuseadised KONSOLIDEERITUD TEKST**

Hand-held non-electric power tools - Safety
requirements - Part 1: Assembly power tools for non-
threaded mechanical fasteners CONSOLIDATED
TEXT

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 792-1:2000+A1:2008 sisaldab Euroopa standardi EN 792-1:2000+A1:2008 ingliskeelset teksti.

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This Estonian standard EVS-EN 792-1:2000+A1:2008 consists of the English text of the European standard EN 792-1:2000+A1:2008.

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English Version

Hand-held non-electric power tools - Safety requirements - Part 1: Assembly power tools for non-threaded mechanical fasteners

Machines portatives à moteur non électrique - Prescriptions de sécurité - Partie 1: Machines portatives de pose d'éléments de fixation non-filetés

Handgehaltene nicht-elektrisch betriebene Maschinen - Sicherheitsanforderungen - Teil 1: Maschinen für gewindlose mechanische Befestigungen

This European Standard was approved by CEN on 26 May 2000 and includes Amendment 1 approved by CEN on 26 July 2008.

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.

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Foreword

This document (EN 792-1:2000+A1:2008) has been prepared by Technical Committee CEN/TC 255 "Hand-held, non-electric power tools - Safety", the secretariat of which is held by SIS.

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of an identical text or by endorsement, at the latest by March 2009 and conflicting national standards shall be withdrawn at the latest by December 2009.

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).

A1 For relationship with EU Directive(s), see informative Annexes ZA and ZB, which are integral parts of this document. **A1**

This document includes Amendment 1, approved by CEN on 2008-07-26.

This document supersedes EN 792-1:2000.

The start and finish of text introduced or altered by amendment is indicated in the text by tags **A1** **A1**.

The standard has been created in close co-operation with CENELEC/TC 61F with the aim of achieving requirements for mechanical safety in the EN 50144 series, which are similar for hand-held electric and non-electric power tools.

The annexes to this part of the standard are:

Annex A (informative) Examples of power tools covered by this part

Annex B (informative) Labels, signs and tags

A1 Annexes ZA and ZB **A1** (informative) Clauses of this European Standard addressing essential requirements or other provisions of EU Directives.

This 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 EN 1070.

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

When provisions of this type C standard are different from those which are stated in type A or B standards, the provisions of this type C standard take precedence over the provisions of other standards, for machines that have been designed and built according to the provisions of this type C standard.

The European Standard, EN 792, consists of a number of independent parts for individual types of hand-held non-electric power tools.

Other EN standards deal with safety rules for hand-held power tools used in e. g. the following fields:

- agriculture and forestry such as chain saws, hedge-trimmers, brush cutters, grass trimmers;
- construction and building such as cutting-off power tools, concrete vibrators;
- food industry, such as fowl secateurs, sheep shears.

Endeavours have been made to achieve co-ordination with the relevant Technical Committees so that the safety requirements are compatible.

This standard is divided in the following parts:

Part 1 - Assembly power tools for non-threaded mechanical fasteners (former part 14)

Part 2 - Cutting-off and crimping power tools (former part 15)

Part 3 - Drills and tappers

Part 4 - Non rotary percussive power tools

Part 5 - Rotary, percussive power drills

Part 6 - Assembly power tools for threaded fasteners

Part 7 - Grinders

Part 8 - Sanders and polishers

Part 9 - Die grinders

Part 10 - Compression power tools

Part 11 - Nibblers and shears

Part 12 - Small circular, small oscillating and reciprocating saws

Part 13 - Fastener driving tools

Certain parts of EN 792 cover hand-held non-electric power tools, driven by internal combustion engines powered by gaseous or liquid fuel. In these parts, the safety aspects relating to internal combustion engines are found in a normative annex.

The parts are type C standards and refer to pertinent European Standards of type A and B where such standards are applicable.

1 Scope

The standard EN 792 applies to hand-held non-electric power tools driven by rotary or linear motors, powered by compressed air, hydraulic fluid and intended to be used by one operator and supported by:

- the operator's hand or hands
- a harness
- a suspension, e. g. a balancer.

This part, EN 792-1, applies to hand-held non-electric power tools for the installation, tightening or removal of both break stem and non-break stem rivets, bolts, plugs and fasteners from one side of a workpiece into metals, plastics and other materials.

This part lists the significant hazards caused by such power tools and specifies safety requirements valid for different aspects of safety during their foreseeable lifetime.

Power tools covered by this part of the standard:

- breakstem fastener, rivet or plug tools,
- breakstem lockbolt tools,
- mandrel loaded riveting tools,
- rivet nut setter.

Special requirements and modifications on a hand-held power tool for the purpose of mounting it in a fixture are not covered by this part.

NOTE At the date of publication no power tools driven by internal combustion engines are known.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of the publications referred to in this European Standard are valid only when they are incorporated in this standard by amendment or revision. For undated references the latest edition of the publication referred to, applies (including amendments).

EN 292-1:1991, *Safety of machinery - Basic concepts, general principles for design – Part 1: Basic terminology, methodology*

EN 292-2:1991, *Safety of machinery - Basic concepts, general principles for design – Part 2: Technical principles and specifications*

EN 563, *Safety of machinery - Temperatures of touchable surfaces - Ergonomics data to establish temperature limit values for hot surfaces*

EN 614-1, *Safety of machinery - Ergonomic design principles – Part 1: Terminology and general principles*

EN 1070, *Safety of machinery - Terminology*

EN 12096, *Mechanical vibration - Declaration and verification of vibration emission values*

EN ISO 4871, *Acoustics - Declaration and verification of noise emission values of machinery and equipment (ISO 4871:1996)*

EN ISO 15744:2008, *Hand-held non-electric power tools – Noise measurement code – Engineering method (grade 2) (ISO 15744:2002)*

EN 28662-1, *Hand-held portable power tools - Measurement of vibrations at the handle – Part 1: General (ISO 8662-1:1988)*

ISO 3857-3, *Compressors, pneumatic tools and machines – Vocabulary – Part 3: Pneumatic tools and machines*

ISO 5391, *Pneumatic tools and machines - Vocabulary*

3 Terms and definitions

For the purposes of this part of the standard, the following terms and definitions apply:

3.1 General terms and definitions

3.1.1

hand-held power tool

Machine driven by rotary or linear motors powered by compressed air, hydraulic fluid, gaseous or liquid fuel, electricity or stored energy (e.g. by a spring) to do mechanical work and so designed that the motor and the mechanism form an assembly that can easily be brought to its place of operation. The hand-held power tool is operated by one or two hands.

NOTE Hand-held power tools driven by compressed air or gas are called pneumatic tools.

Hand-held power tools driven by hydraulic liquid are called hydraulic tools.

3.1.2

inserted tool

tool inserted in the hand-held power tool to perform the intended work

3.1.3

service tool

tool intended for performing maintenance or service on the hand-held power tool

3.1.4

control device

device to start and stop the hand-held power tool or to change the direction of the rotation or to control the functional characteristics such as speed and power

3.1.5

maximum operating pressure

maximum pressure that a hand-held power tool may be operated at, as specified by the manufacturer