

# SLOVENSKI STANDARD SIST EN 1870-3:2002/kprA1:2008

01-oktober-2008

Varnost lesnoobdelovalnih strojev - Krožne žage - 3. del: Čelilne žage za rezanje od zgoraj navzdol in kombinirane čelilne in krožne žage z delovno mizo

Safety of woodworking machines - Circular sawing machines - Part 3: Down cutting cross-cut saws and dual purpose down cutting cross-cut saws/circular saw benches

Sicherheit von Holzbearbeitungsmaschinen - Kreissägemaschinen - Teil 3: Von oben schneidende Kappsägemaschinen und kombinierte Kapp- und Tischkreissägemaschinen

Sécurité des machines pour le travail du bois - Machines à scier circulaires - Partie 3: Tronçonneuses à coupe descendante et tronçonneuses mixtes à coupe descendante et scies à table

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## ICS:

25.080.60 Strojne žage Sawing machines

79.120.10 Lesnoobdelovalni stroji Woodworking machines

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#### **English Version**

Safety of woodworking machines - Circular sawing machines - Part 3: Down cutting cross-cut saws and dual purpose down cutting cross-cut saws/circular saw benches

Sécurité des machines pour le travail du bois - Machines à scier circulaires - Partie 3: Tronçonneuses à coupe descendante et tronçonneuses mixtes à coupe descendante et scies à table

Sicherheit von Holzbearbeitungsmaschinen -Kreissägemaschinen - Teil 3: Von oben schneidende Kappsägemaschinen und kombinierte Kapp- und Tischkreissägemaschinen

This draft amendment is submitted to CEN members for unique acceptance procedure. It has been drawn up by the Technical Committee CEN/TC 142.

This draft amendment A1, if approved, will modify the European Standard EN 1870-3:2001. 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.

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## **Foreword**

This document (EN 1870-3:2001/prA1:2008) has been prepared by Technical Committee CEN/TC 142 "Woodworking machines - Safety", the secretariat of which is held by UNI.

This document is currently submitted to the Unique Acceptance Procedure.

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 the Machinery Directive.

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

#### 1 Modification to the Foreword

Replace the fifth paragraph with the following:

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

## 2 Modification to Clause 1, Scope

Replace the first paragraph with the following "This European Standard deals with the significant hazards, hazardous situations and events as listed in Clause 4 which are relevant to down cutting cross-cut saws and dual purpose down cutting cross-cut saws/circular saw benches, herein after referred to as "machines", designed to cut solid wood, chipboard, fibreboard, plywood and also these materials where they are covered with plastic edging and/or plastic/light alloy laminates.".

After the first paragraph, add the following NOTE "NOTE 1 For the definition of down cutting cross-cut saws and dual purpose down cutting cross-cut saws/circular saw benches see 3.2, 3.3 and 3.4 and for the definition of displaceable machine see 3.8.".

In the second paragraph, replace the second list item with the following: "- hand-held motor-operated electric tools or any adaptation permitting their use in a different mode, i.e. bench mounting;".

After the second list item, add the following NOTE: "NOTE 2 Hand-held motor-operated electric tools and saw benches to form an integrated whole with a hand-held motor-operated electric tools are covered by EN 60745-1:2003 together with EN 60745-2-5:2003."

In the second paragraph, replace the third list item with the following: "- transportable machines set up on a bench or a table similar to a bench, which are intended to carry out work in a stationary position, capable of being lifted by one person by hand.".

After the third list item, add the following NOTE: "NOTE 3 Transportable motor-operated electric tools are covered by the requirements of EN 61029-1:2000 together with EN 61029-2-1:2002."

## 3 Modification to Clause 2, Normative references

Replace the standard paragraph with the following: "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.".

Delete reference EN 292-1:1991 in Clause 2 and replace "EN 292-1:1991" with "EN ISO 12100-1:2003" throughout the document.

Delete references EN 292-2:1991 and EN 292/A1:1995.

Replace reference to EN 418:1992 with: "EN ISO 13850:2006, Safety of machinery — Emergency stop — Principles for design (ISO 13850:2006)" and replace "EN 418:1992" in 5.1.5, 1<sup>st</sup> paragraph, with "EN ISO 13850".

Replace "EN 847-1:1997" with "EN 847-1:2005" throughout the document.

Replace "EN 1870-1:1999" with "EN 1870-1:2007" throughout the document.

Replace "EN 60204-1:1992" with "EN 60204-1:2006" and replace in the title "(IEC 60204-1:1992, modified)" with "(IEC 60204-1:2005, modified)".

Replace "EN 60947-4-1:1992" with "EN 60497-4-1:2001" throughout the document and replace in the title "(IEC 60947-4-1:1990)" with "(IEC 60947-5-1:2000)".

Replace "EN 60947-5-1:1997" with "EN 60497-5-1:2004" throughout the document and replace in the title "(IEC 60947-5-1:1997)" with "(IEC 60947-5-1:2003)".

Replace "EN 61029-1:1996" with "EN 61029-1:2000" throughout the document and replace in the title "(IEC 1029-1:1990, modified)" with "(IEC 61029-1:1990, modified)".

Replace "prEN 61029-2-9" with "EN 61029-2-9" throughout the document.

Replace "prEN 61029-2-11" with "EN 61029-2-11" throughout the document and the 2<sup>nd</sup> element of the title with "Part 2-11: Particular requirements for combined mitre and bench saws (IEC 61029-2-11:2001, modified)".

Replace "prEN 61496-2" with "CLC/TS 61496-2:2006" in Clause 2 and "prEN 61496-2" with "CLC/TS 61496-2" throughout the document and the 3<sup>rd</sup> element of the title with "Part 2: Particular requirements for equipment using active opto-electronic protective devices (AOPDs) (IEC 61496-2:2006)".

Replace reference to "ISO 3745:1997" with "EN ISO 3745:2003, Acoustics — Determination of sound power levels of noise sources using sound pressure — Precision methods for anechoic and semi-anechoic rooms (ISO 3745:2003)" and replace "ISO 3745:1997" with "EN ISO 3745:2003" throughout the document.

Replace reference to "HD 21.1 S3:1997" with "HD 21.1 S4:2002, Cables of rated voltages up to and including 450/750 V and having thermoplastic insulation — Part 1: General requirements" and replace "HD 21.1 S3:1997" with "HD 21.1 S4:2002" throughout the document.

Replace reference to "HD 22.1 S3:1997" with "HD 22.1 S4:2002, Cables of rated voltages up to and including 450/750 V and having cross-linked insulation — Part 1: General requirements" and replace "HD 22.1 S3:1997" with "HD 22.1 S4:2002" throughout the document.

Replace reference to "HD 22.4 S3:1995" with "HD 22.4 S4:2004, Cables of rated voltages up to and including 450/750 V and having crosslinked insulation — Part 4: Cords and flexible cables" and replace "HD 22.4 S3:1995" with "HD 22.4 S4:2004" throughout the document.

Add the following references:

"EN 614-1:2006, Safety of machinery — Ergonomic design principles — Part 1: Terminology and general principles",

"EN 894-1:1997, Safety of machinery — Ergonomics requirements for the design of displays and control actuators — Part 1: General principles for human interactions with displays and control actuators

EN 894-2:1997, Safety of machinery — Ergonomics requirements for the design of displays and control actuators — Part 2: Displays

EN 894-3:2000, Safety of machinery — Ergonomics requirements for the design of displays and control actuators — Part 3: Control actuators",

"EN 1005-1:2001, Safety of machinery — Human physical performance — Part 1: Terms and definitions

EN 1005-2:2003, Safety of machinery — Human physical performance — Part 2: Manual handling of machinery and component parts of machinery

EN 1005-3:2002, Safety of machinery — Human physical performance — Part 3: Recommended force limits for machinery operation

EN 1005-4:2005, Safety of machinery — Human physical performance — Part 4: Evaluation of working postures and movements in relation to machinery

EN 1037:1995, Safety of machinery — Prevention of unexpected start-up",

"EN 50370-1:2005, Electromagnetic compatibility (EMC) — Product family standard for machine-tools — Part 1: Emission

EN 50370-2:2003, Electromagnetic compatibility (EMC) — Product family standard for machine-tools — Part 2: Immunity",

"EN 60439-1:1999, Low-voltage switchgear and controlgear assemblies — Part 1: Type-tested and partially type-tested assemblies (IEC 60439-1:1999)",

"EN 61310-1:1995, Safety of machinery — Indication, marking and actuation — Part 1: Requirements for visual, auditory and tactile signals (IEC 61310-1:1995)" and

"EN ISO 12100-1:2003, Safety of machinery — Basic concepts, general principles for design — Part 1: Basic terminology and 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)".

## 4 Modification to Clause 3, Terms and definitions

Definition 3.8, replace the term with "displaceable machine".

Definition 3.21, replace the term with "information from the supplier".

## 5 Modification to Clause 4, List of hazards

Replace the title of Clause 4 with "List of significant hazards".

Replace the clause content with:

"This clause contains the significant hazards, hazardous situations and events (see EN 1050:1996) as far as they are dealt with in this document, identified by risk assessment as significant for the machines as defined in the scope and which require action to eliminate or reduce the risk. This document deals with these significant hazards by defining safety requirements and/or measures or by reference to relevant standards.

These hazards are listed in Table 1 in accordance with Annex A of EN 1050:1996.

Table 1 — List of significant hazards

No	Hazards, hazardous situations and hazardous events	EN ISO 12100		Relevant sub- clause of this document		
		Part 1: 2003	Part 2: 2003			
1	Mechanical hazards related to:					
	- machine parts or workpieces:					
	a) shape;	4.2	4.2.1, 4.2.2, 5	5.2.3, 5.2.5, 5.2.6, 5.2.7,		
			4.2.2, 3	5.2.8, 5.2.9		
	b) relative location;			5.1.2, 5.2.5, 5.2.6, 5.2.8		
	c) mass and stability (potential energy of elements which may move under the effect of gravity)			5.2.7		
	d) mass and velocity (kinetic energy of elements in controlled or uncontrolled motion);			5.2.7		
	e) mechanical strength.			5.2.2, 5.2.3, 5.2.5, 5.2.6, 5.2.9		
	- accumulation of energy inside the machinery:					
	f) elastic elements (springs), or	4.2	4.10, 5.5.4	5.2.7		
	g) liquids and gases under pressure;	4.2	4.10, 5.5.4	5.2.7		
1.1	Crushing hazard	4.2.1		5.2.7, 5.2.8		
1.2	Shearing hazard			5.2.7, 5.2.8		
1.3	Cutting or severing hazard			5.2.2, 5.2.3, 5.2.4, 5.2.7		
1.4	Entanglement hazard			5.2.7		
1.5	Drawing-in or trapping hazard			5.2.7		
1.9	High pressure fluid injection or ejection hazard			5.2.2, 5.2.3, 5.2.5, 5.2.6, 5.2.8, 5.3.7		
2	Electrical hazards due to:	·				
2.1	Contact of persons with live parts (direct contact)	4.3	4.9, 5.5.4	5.3.4, 5.3.16		
2.2	Contact of persons with parts which have become live under faulty conditions (indirect contact)	4.3	4.9	5.3.4, 5.3.16		
4	Hazards generated by noise, resulting in:		1			
4.1	Hearing loss (deafness), other physiological disorders (loss of balance, loss of awareness)	4.5	4.2.2, 5	5.3.2		
4.2	Interference with speech communication, acoustic signals			5.3.2		