SLOVENSKI STANDARD
SIST EN 1218-4:2004/kprA2:2009

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Varnost lesnoobdelovalnih strojev - Stroji za izdelovanje ļepov in utorov - 4. del: Stroji za upogibanje z verigńim podajanjem

Safety of woodworking machines - Tenoning machines - Part 4: Edge banding machines fed by chain(s)

Sicherheit von Holzbearbeitungsmaschinen - Zapfenschneid- und Schlitzmaschinen - Teil 4: Kantenanleimmaschinen mit Kettenbandvorschub

Sécurité des machines pour le travail du bois - Tenonneuses - Partie 4: Machines à plaquer sur chant à chaîne(s)

Ta slovenski standard je istoveten z: **EN 1218-4:2004/prA2**

ICS:

79.120.10	Lesnoobdelovalni stroji	Woodworking machines

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EUROPEAN STANDARD

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Safety of woodworking machines - Tenoning machines - Part 4: Edge banding machines fed by chain(s)

Sécurité des machines pour le travail du bois - Tenonneuses - Partie 4: Machines à plaquer sur chant à chaîne(s)

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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 A2, if approved, will modify the European Standard EN 1218-4:2004. 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 Management Centre has the same status as the official versions.

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

Management Centre: rue de Stassart, 36 B-1050 Brussels

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Foreword

This document (EN 1218-4:2004/prA2:2008) 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, see informative Annexes ZA and ZB, which are integral parts of this document.

This document includes Amendment A.2, approved by CEN on *XXXX-XX-XX*.

The main changes compared to the previous version are:
- Addition of Annex ZB
- Editorial modification of Annex ZA
- “Minor” changes of sub-clauses 1, 2, 3.3, 4, 5.2.1, 5.2.3, 5.2.4.1, 5.2.4.2, 5.2.5, 5.2.7.2, 5.2.8, 5.2.10, 5.2.11, 5.3.1, 5.3.2, 5.3.3.2, 5.3.3.6, 5.4.1, 5.4.4, 5.4.6, 5.4.14, 5.4.15, 6.2, 6.3, Annex A, Annex C, Bibliography
- Technical changes of sub-clauses 5.4.5, 5.4.11

1 Modification to the Foreword

Replace the fourth 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 1st paragraph with the following: "This document deals with the significant hazards, hazardous situations and events as listed in Clause 4 which are relevant to edge banding machines fed by chain(s) where the loading and unloading is manual and where the maximum work-piece height capacity is 75 mm. The machine is designed to process in one pass, one end (single end machine) or both ends (double end machine) of solid wood, chipboard, fibreboard or plywood and also these materials where they are covered with plastic laminate or edgings. The work-piece is fed through the processing units by an integrated feed. For the purpose of this document an edge banding machine fed by chain(s) is hereinafter referred to as the machine."

Delete the 2nd paragraph.

3 Modification to Clause 2, Normative references

Delete reference to EN 294:1992.

Replace reference to EN 418:1992 with: "EN ISO 13850:2008, *Safety of machinery — Emergency stop — Principles for design (ISO 13850:2006)*" *and replace* "EN 418:1992" *in 5.2.5, 1st paragraph, with* "EN ISO 13850:2008".

Replace "EN 847-1:1997, *Tools for woodworking - Safety requirements – Part 1: Milling tools and circular sawblades*" *with* "EN 847-1:2005, *Tools for woodworking - Safety requirements - Part 1: Milling tools, circular saw blades*" *and* "EN 847-1:1997" *with* "EN 847-1:2005" *throughout the document.*

*Replace "*EN 954:1996" *with* "EN ISO 13849-1:2008 *Safety of machinery — Safety-related parts of control systems — Part 1: General principles for design (ISO 13849-1:2006)" throughout the document.*

*Delete "*EN 1070:1998" *and replace it with* "EN ISO 12100-1:2003" *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 60947-4-1:2001" *throughout the document and replace in the title* "*(IEC 60947-4-1:1990)" with "(IEC 60947-4-1:2000)".*

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

Replace "CEN/TS 61496-2:2003" *with* "CLC/TS 61496-2:2006" *in Clause 2 and* "prEN 61496-2" *with* "CLC/TS 61496-2:2006" *throughout the document and the 3rd 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 "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.*

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 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 61310-1:2008, *Safety of machinery — Indication, marking and actuation — Part 1: Requirements for visual, acoustic and tactile signals (IEC 61310-1:2007)*"

4 Modification to 3.3, Definitions

Definition 3.3.11, replace the term with "displaceable machine".

Definition 3.3.12, replace the term with "information from the supplier".

5 Modification to Clause 4, List of hazards

Replace the heading 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	5.3.3, 5.3.7, 5.4.5, 5.4.9
	b) relative location;			5.2.2, 5.2.5, 5.3.7
	d) mass and velocity (kinetic energy of elements in controlled or uncontrolled motion);			5.2.7, 5.3.7
	e) mechanical strength.			5.3.2, 5.3.3
	- accumulation of energy inside the machinery:			
	g) liquids and gases under pressure;	4.2	4.10, 5.5.4	5.4.7, 5.4 8
1.1	Crushing hazard	4.2.1		5.3.7
1.2	Shearing hazard			5.3.7
1.3	Cutting or severing hazard			5.3.3, 5.3.4, 5.3.7
1.4	Entanglement hazard			5.3.3, 5.3.4, 5.3.6, 5.3.7
1.5	Drawing-in or trapping hazard			5.3.7
1.6	Impact hazard			5.3.7
1.8	Friction or abrasion hazard			5.3.4
1.9	High pressure fluid injection or ejection hazard			5.3.4, 5.4.7, 5.4.8
2	**Electrical hazards** due to:			
2.1	Contact of persons with live parts (direct contact)	4.3	4.9, 5.5.4	5.4.4, 5.4.14
2.2	Contact of persons with parts which have become live under faulty conditions (indirect contact)	4.3	4.9	5.4.4, 5.4.14
2.4	Electrostatic phenomena	4.3	4.9	5.4.12
3	**Thermal hazards** resulting in:			
3.1	Burns, scalds and other injuries by a possible contact of persons with objects or materials with an extreme high or low temperature, by flames or explosions and also by the radiation of heat sources	4.4		5.4.9
3.2	Damage to health by hot or cold working environment	4.4		5.4.9
4	**Hazards generated by noise**, resulting in:			

4.1	Hearing loss (deafness), other physiological disorders (loss of balance, loss of awareness)	4.5	4.2.2, 5	5.4.2
4.2	Interference with speech communication, acoustic signals.			5.4.2
7	**Hazards generated by materials and substances** (and their constituent elements) processed or used by the machinery			
7.1	Hazards from contact with or inhalation of harmful fluids and dusts	4.8	4.3b, 4.4	5.4.3, 5.4.10, 6.3
7.2	Fire hazard	4.8	4.4	5.4.1, 5.4.3
8	**Hazards generated by neglecting ergonomic principles in machinery design** related to:			
8.1	Unhealthy postures or excessive effort	4.9	4.7, 4.8.2, 4.11.12, 5.5.5, 5.5.6	5.2.2, 5.4.5, 6.3
8.2	Hand-arm or foot-leg anatomy	4.9	4.8.3	5.2.2, 5.4.5, 6.3
8.4	Local lighting		4.8.6	5.4.6, 6.3
8.6	Human error, human behaviour		4.8, 4.11.8, 4.11.10, 5.5.2, 6	6.3
8.7	Design, location or identification of manual controls		4.8.7, 4.11.8	5.2.2
8.8	Design or location of visual display units		4.8.8, 6.2	5.2.2
9	**Combination of hazards**	4.11		5.2.6, 5.2.7
10	**Unexpected start up, unexpected overrun/overspeed** (or any similar malfunction) from:			
10.1	Failure/disorder of the control system		4.11, 5.5.4	5.2.1, 5.2.11
10.2	Restoration of energy supply after an interruption		4.11.4	5.2.10, 5.3.3.7, 5.4.7, 5.4.8, 5.4.14
10.3	External influences on electrical equipment		4.11.11	5.4.4, 5.4.11
10.6	Errors made by the operator (due to mismatch of machinery with human characteristics and abilities, see 8.6)	4.9	4.8, 4.11.8, 4.11.10, 5.5.2, 6	5.2.1, 5.4.5, 6.3
11	**Impossibility of stopping the machine in the best possible conditions**		4.11.1, 4.11.3, 5.5.2	5.2.2, 5.2.4, 5.2.9
13	**Failure of the power supply**		4.11.1, 4.11.4	5.2.10
14	**Failure of the control circuit**		4.11, 5.5.4	5.2.11
15	**Errors of fitting**	4.9	4.7, 6.5	5.4.13, 6.3
16	**Break-up during operation**	4.2.2	4.3	5.2.2
17	**Falling or ejected objects or fluids**	4.2.2	4.3, 4.10	5.3.5, 5.4.14
18	**Loss of stability / overturning of machinery**	4.2.2	5.2.6	5.3.1
19	**Slip, trip and fall hazards in relationship with machinery (because of their mechanical nature)**	4.10	5.5.6	6.3

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