

# SLOVENSKI STANDARD SIST EN 860:2009+A1:2009/kFprA2:2012

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# Varnost lesnoobdelovalnih strojev - Debelinski skobeljniki za enostransko obdelavo - Dopolnilo A2

Safety of woodworking machines - One side thickness planing machines

Sicherheit von Holzbearbeitungsmaschinen - Dickenhobelmaschinen für einseitige Bearbeitung

Sécurité des machines pour le travail du bois - Machines à raboter sur une face

Ta slovenski standard je istoveten z: EN 860:2007+A1:2009/FprA2

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25.080.25 Stroji za ploščinsko obdelavo Planing machines

79.120.10 Lesnoobdelovalni stroji Woodworking machines

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#### **English Version**

# Safety of woodworking machines - One side thickness planing machines

Sécurité des machines pour le travail du bois - Machines à raboter sur une face

Sicherheit von Holzbearbeitungsmaschinen -Dickenhobelmaschinen für einseitige Bearbeitung

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 860:2007+A1:2009. 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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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

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### **Foreword**

This document (EN 860:2007+A1:2009/FprA2:2012) 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 Annex ZA, which is an integral part of this document.

#### 1 Modification to the Foreword

Replace 8<sup>th</sup> paragraph with the following:

"For relationship with EU Directive, see informative Annex ZA, which is an integral part of this document.".

#### 2 Modifications to Clause 1, Scope

Add at the end of 1<sup>st</sup> paragraph: "including reasonably foreseeable misuse".

Add after 1<sup>st</sup> paragraph:

"Machines which are designed to work wood based materials may also be used for working hardened plastic materials with similar physical characteristics as wood.".

#### 3 Modifications to Clause 2, Normative references

Delete reference to EN 982, EN 983, EN 61508-3 and EN 62061:2005.

Add the following reference:

"EN 61800-5-2:2007, Adjustable speed electrical power drive systems — Part 5-2: Safety requirements — Functional (IEC 61800-5-2:2007)",

"EN ISO 4413:2010, Hydraulic fluid power — General rules and safety requirements for systems and their components (ISO 4413:2010)

EN ISO 4414:2010, Pneumatic fluid power — General rules and safety requirements for systems and their components (ISO 4414:2010)".

Replace "EN ISO 3743-1:1995" with "EN ISO 3743-1:2010" and replace the title with "Acoustics — Determination of sound power levels and sound energy levels of noise sources using sound pressure — Engineering methods for small movable sources in reverberant fields — Part 1: Comparison method for a hard-walled test room (ISO 3743-1:2010)."

Replace "EN ISO 3744:1995" with "EN ISO 3744:2010" and replace the title with "Acoustics — Determination of sound power levels and sound energy levels of noise sources using sound pressure — Engineering methods for an essentially free field over a reflecting plane (ISO 3744:2010)".

Replace "EN ISO 3746:1995" with "EN ISO 3746:2010" and replace the title with "Acoustics — Determination of sound power levels and sound energy levels of noise sources using sound pressure — Survey method using an enveloping measurement surface over a reflecting plane (ISO 3746:2010)".

Replace "EN ISO 11202:1995" with "EN ISO 11202:2010" and replace the title with "Acoustics — Noise emitted by machinery and equipment — Determination of emission sound pressure levels at a work station and at other specified positions applying approximate environmental corrections (ISO 11202:2010)".

Replace "EN ISO 11204:1995" with "EN ISO 11204:2010" and replace the title with "Acoustics — Noise emitted by machinery and equipment — Determination of emission sound pressure levels at a work station and at other specified positions applying accurate environmental corrections (ISO 11204:2010)".

Replace "EN ISO 12100-1:2003" and "EN ISO 12100-2:2003" with "EN ISO 12100:2010, Safety of machinery — General principles for design — Risk assessment and risk reduction (ISO 12100:2010)".

Replace throughout the standard reference to:

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"EN 847-1:2005" with "EN 847-1:2005+A1:2007",
"EN 982:1996" with "EN ISO 4413:2010",
"EN 983:1996" with "EN ISO 4414:2010",
"EN 1005-4:2005" with "EN 1005-4:2005+A1:2009",
"EN 1037:1995" with "EN 1037:1995+A1:2008",
"EN 1088:1995" with "EN 1088:1995+A2:2008".
"EN 60439-1:1999" with "EN 60439-1:1999 and EN 60439-1:1991/A1:2004" in the text excluding Clause 2,
"EN 60529:1991" with "EN 60529:1991 and EN 60529:1991/A1 2000" in the text excluding Clause 2,
"EN ISO 3743-1:1995" with "EN ISO 3743-1:2010",
"EN ISO 3743-2:1996" with "EN ISO 3743-2:2009",
"EN ISO 3744:1995" with "EN ISO 3744:2010",
"EN ISO 3745:2003" with "EN ISO 3745:2009".
"EN ISO 3746:1995" with "EN ISO 3746:2010",
"EN ISO 4871:1996" with "EN ISO 4871:2009".
"EN ISO 9614-1:1995" with "EN ISO 9614-1:2009",
"EN ISO 11202:1995" with "EN ISO 11202:2010",
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### 4 Modifications to 3.2, Definitions

"EN ISO 11204:1995" with "EN ISO 11204:2010",

Delete term and definition 3.2.15 and renumber accordingly.

"EN ISO 11688-1:1998" with "EN ISO 11688-1:2009" and

"EN 12100-1:2003" and "EN 12100-2:2003" with "EN ISO 12100:2010".

Replace existing definition 3.2.16 and NOTE 1 with:

"software that is part of the system supplied by the control manufacturer and which is not accessible for modification by the user of the machinery.

NOTE 1 Firmware or system software are examples of embedded software (3.1.37 of EN ISO 13849-1:2008).".

Replace existing definition 3.2.17 and Notes with:

"software specific to the application, implemented by the machine manufacturer, and generally containing logic sequences, limits and expressions that control the appropriate inputs, outputs, calculations and decisions necessary to meet the SRP/CS requirements

[3.1.36 of EN ISO 13849-1:2008]".

Add the following term and definition:

#### "3.2.18

#### performance level PL

discrete level used to specify the ability of safety-related parts of control systems to perform a safety function under foreseeable conditions

[3.1.23 of EN ISO 13849-1:2008]".

## 5 Modifications to Clause 4, List of significant hazards

Replace in 1<sup>st</sup> paragraph reference to EN 1050:1996 with EN ISO 12100:2010.

Delete in 1<sup>st</sup> paragraph the words: "as far as they are dealt with in this document,".

Replace 2<sup>nd</sup> paragraph with: "These hazards are listed in Table 1:".

Replace Table 1 with:

"Table 1 — List of significant hazards

No	Hazards, hazardous situations and hazardous events	EN ISO 12100:2010	Relevant clause of this document
1	Mechanical hazards related to:		
	- machine parts or work-pieces due to:		
	a) shape;	6.2.2.1, 6.2.2.2, 6.3	5.3.1, 5.3.2, 5.3.3
	b) relative location;		5.3.3, 5.3.5
	c) mass and stability (potential energy of elements which may move under the effect of gravity);		5.3.1
	d) mass and velocity (kinetic energy of elements in controlled or uncontrolled motion);		5.3.7
	e) mechanical strength;		5.3.2, 5.3.3, 5.3.7, Annex A
	- accumulation of energy inside the machinery by:		
	f) liquids and gases under pressure.	6.2.10, 6.3.5.4	5.4.5, 5.4.6, 5.4.7
1.1	Crushing hazard		5.3.7
1.2	Shearing hazard		5.3.7
1.3	Cutting or severing hazard		5.3.7, 6.3
1.4	Entanglement hazard		5.3.3,
1.5	Drawing-in or trapping hazard		5.3.7
1.6	Impact hazard		5.3.7
1.9	High pressure air ejection hazard	6.2.10	5.4.6
2	Electrical hazards due to:		
2.1	Contact of persons with live parts (direct contact)	6.2.9, 6.3.5.4	5.4.4
2.2	Contact of persons with parts which have become live under faulty conditions (indirect contact)	6.2.9	5.4.4
4	Hazards generated by noise, resulting in:		
4.1	Hearing loss (deafness), other physiological disorders (loss of balance, loss of awareness)	6.2.2.2, 6.3	5.4.2
4.2	Interference with speech communication, acoustic signals		5.4.2
			to be continued