This is a free page sample. Access the full version online.

NSAI Standards

Irish Standard
I.S. EN 861:2007+A2:2012

Safety of woodworking machines - Surface planing and thicknessing machines

© NSAI 2012 No copying without NSAI permission except as permitted by copyright law.

This is a free page sample. Access the full version online.

I.S. EN 861:2007+A2:2012

Incorporating amendments/corrigenda/National Annexes issued since publication:

EN 861:2007/A2:2012
EN 861:2007/A1:2009
EN 861:2007/AC:2008

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard – national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation - recommendation based on the consensus of an expert panel and subject to public consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

This document replaces:
EN 861:2007+A1:2009

This document is based on:	*Published:*
EN 861:2007+A2:2012	4 July, 2012
EN 861:2007+A1:2009	12 August, 2009

This document was published under the authority of the NSAI and comes into effect on:

4 July, 2012

ICS number:

79.120.10

NSAI
1 Swift Square,
Northwood, Santry
Dublin 9

T +353 1 807 3800
F +353 1 807 3838
E standards@nsai.ie

W **NSAI.ie**

Sales:
T +353 1 857 6730
F +353 1 857 6729
W standards.ie

Údarás um Chaighdeáin Náisiúnta na hÉireann

This is a free page sample. Access the full version online.

I.S. EN 861:2007+A2:2012

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 861:2007+A2

June 2012

ICS 79.120.10

Supersedes EN 861:2007+A1:2009

English Version

Safety of woodworking machines - Surface planing and thicknessing machines

Sécurité des machines pour le travail du bois - Machines combinées à raboter et à dégauchir

Sicherheit von Holzbearbeitungsmaschinen - Kombinierte Abricht- und Dickenhobelmaschinen

This European Standard was approved by CEN on 10 May 2007 and includes Amendment 1 approved by CEN on 16 July 2009 and Amendment 2 approved by CEN on 20 May 2012.

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-CENELEC 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-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, 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, Turkey and United Kingdom.

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

Management Centre: Avenue Marnix 17, B-1000 Brussels

© 2012 CEN All rights of exploitation in any form and by any means reserved worldwide for CEN national Members.

Ref. No. EN 861:2007+A2:2012: E

This is a free page sample. Access the full version online.

Contents

Page

Foreword 4

Introduction 5

1 Scope 6

2 Normative references 6

3 Terms and definitions 8
3.1 General 8
3.2 Definitions 8
3.3 Terms 11

4 List of significant hazards 13

5 Safety requirements and/or measures 17
5.1 General 17
5.2 Controls 17
5.2.1 Safety and reliability of control systems 17
5.2.2 Position of controls 18
5.2.3 Starting 18
5.2.4 Normal stopping 19
5.2.5 Emergency stop 19
5.2.6 Failure of the power supply 20
5.2.7 Failure of the control circuit 20
5.3 Protection against mechanical hazards 21
5.3.1 Stability 21
5.3.2 Hazard of break up during operation 21
5.3.3 Tool holder and tool design 21
5.3.4 Braking 21
5.3.5 Devices to minimise the possibility or the effect of ejection 23
5.3.6 Work-piece supports and guides 24
5.3.7 Prevention of access to moving parts 28
5.3.8 Guarding of drives 32
5.3.9 Characteristics of A2 cutterblock A2 guards 32
5.3.10 Safety appliances 33
5.3.11 Demountable power feed A2 unit A2 33
5.4 Protection against non-mechanical hazards 33
5.4.1 Fire 33
5.4.2 Noise 33
5.4.3 Emission of chips and dust 34
5.4.4 Electricity 36
5.4.5 Ergonomics and handling 36
5.4.6 Pneumatics 37
5.4.7 Hydraulics 37
5.4.8 Electromagnetic compatibility 37
5.4.9 Supply disconnection (isolation) 37
5.4.10 Static electricity 38
5.4.11 Maintenance 38

6 Information for use 38
6.1 General 38
6.2 Marking 39
6.3 Instruction handbook 39

Annex A (normative) **Tests for bridge type guards for planing machines** 43

This is a free page sample. Access the full version online.

A.1 Compression test 43
A.2 Shock test 43
A.3 Strength test for bridge type guard 43

Annex B (normative) **Table lip resistance test** 45
B.1 General 45
B.2 Work-piece 45
B.3 Measurements 47
B.4 Test 48
B.5 Result 48

Annex C (normative) **Kickback test** 50

Annex D (normative) **Stability test for displaceable machines** 51
D.1 Stability test in the surfacing mode 51
D.2 Stability test in the thicknessing mode 51

Annex E (normative) **Impact test method for guards** 53
E.1 General 53
E.2 Test method 53
E.2.1 Preliminary remarks 53
E.2.2 Testing equipment 53
E.2.3 Projectile for guards 53
E.2.4 Sampling 53
E.2.5 Test procedure 53
E.3 Results 54
E.4 Assessment 54
E.5 Test report 54
E.6 Test equipment for impact test 54

Annex F (normative) **Braking tests** 58
F.1 Conditions for all tests 58
F.2 A2 Un-braked A2 run-down time 58
F.3 Braked run-down time 58

Annex ZA (informative) **A1 Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC A1** 60

Bibliography 64

This is a free page sample. Access the full version online.

Foreword

This document (EN 861:2007+A2:2012) has been prepared by Technical Committee CEN/TC 142 “Woodworking machines - Safety”, the secretariat of which is held by UNI.

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 December 2012, and conflicting national standards shall be withdrawn at the latest by December 2012.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document includes Amendment 1, approved by CEN on 2009-07-16, Corrigendum 1, issued by CEN on 2008-10-29 and Amendment 2, issued by CEN on 2012-05-20.

This document supersedes [A2⟩ EN 861:2007+A1:2009 ⟨A2].

The start and finish of text introduced or altered by amendment is indicated in the text by tags [A1⟩ ⟨A1] and [A2⟩ ⟨A2].

The modifications of the related CEN Corrigendum have been implemented at the appropriate places in the text and are indicated by the tags [AC⟩ ⟨AC].

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.

[A2⟩ For relationship with EU Directive(s), see informative Annexes ZA, which is an integral part of this document. ⟨A2]

Organisation contributing to the preparation of the European Standard include the European Association of Manufacturer of Woodworking Machines "EUMABOIS".

The European Standards produced by CEN/TC 142 are particular to woodworking machines and complement the relevant A and B standards on the subject of general safety (see introduction of [A2⟩ EN ISO 12100:2010 ⟨A2] for a description of A, B and C standards).

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, Croatia, 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, Turkey and the United Kingdom.

This is a free page sample. Access the full version online.

Introduction

This document has been prepared to be a harmonised standard to provide one means of conforming to the essential safety requirements of the Machinery Directive, and associated EFTA regulations.

This document is a type “C” standard as stated in ⟦A2⟩ EN ISO 12100:2010 ⟨A2⟧.

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

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 requirements of this document are directed to manufacturers and their authorised representatives of surface planing and thicknessing machines. They are also useful for designers and importers.

This document also includes provision and examples of information to be provided by the manufacturer to the user.

Common requirements for tooling are given in ⟦A2⟩ EN 847-1:2005+A1:2007 ⟨A2⟧.

This is a free page sample. Access the full version online.

1 Scope

This document [A1] specifies all significant [A1] hazards, hazardous situation and events as listed in Clause 4 relevant to stationary and displaceable surface planing and thicknessing machines with an integrated feed in thicknessing mode, (with or without demountable power feed unit in planning mode) and with manual loading and unloading of the work-piece, hereinafter referred to as "machines". The cutterblock is fixed in position and for thicknessing an integrated feed is provided. The machines are designed to cut solid wood, chipboard, fibreboard and plywood when they are used as intended and under the conditions foreseen by the manufacturer [A2] including reasonably foreseeable misuse [A2].

[A2] Machines which are designed to work wood based materials may also be used for thicknessing hardened plastic materials with similar physical characteristics as wood. [A2]

This document does not deal with any hazards which result from the attachment of an optional mortising unit. These hazards are covered by [A2] EN 940:2009+A1:2012 [A2].

This document does not apply to:

a) 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;

NOTE 1 Transportable motor-operated electric tools are covered by the requirements of [A2] EN 61029-1:2009 [A2] together with [A2] EN 61029-2-3:2011 [A2].

b) surface planing and thicknessing machines where the cutterblock is adjustable for depth of cut setting in thicknessing mode;

c) machines where the conversion from planing to thicknessing mode or vice versa is achieved by mounting or demounting parts/units;

d) machines where surfacing and thicknessing can be performed at the same time.

This document is not applicable to surface planing and thicknessing machines which are manufactured before the date of its publication as EN.

NOTE 2 Machines covered by this document are listed under A.5 of Annex IV of the Machinery Directive.

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.

[A1] *deleted text* [A1]

[A2] EN 847-1:2005+A1:2007 [A2], *Tools for woodworking — Safety requirements — Part 1: Milling tools, circular saw blades*

[A2] *deleted text* [A2]

[A2] EN 1005-2:2003+A1:2008 [A2], *Safety of machinery — Human physical performance — Part 2: Manual handling of machinery and component parts of machinery*

[A2] EN 1005-4:2005+A1:2008 [A2], *Safety of machinery — Human physical performance — Part 4: Evaluation of working postures and movements in relation to machinery*

SAI GLOBAL

This is a free preview. Purchase the entire publication at the link below:

Product Page

Looking for additional Standards? Visit Intertek Inform Infostore

Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation