



SLOVENSKI STANDARD

kSIST FprEN 1807-1:2012

01-november-2012

Varnost lesnoobdelovalnih strojev - Tračne žage - 1. del: Namizne tračne žage in žage za rezanje desk

Safety of woodworking machines - Band sawing machines - Part 1: Table band saws and band re-saws

Sicherheit von Holzbearbeitungsmaschinen - Bandsägemaschinen - Teil 1: Tischbandsägemaschinen und Trennbandsägemaschinen

Sécurité des machines pour le travail du bois - Machines à scier à ruban - Partie 1 : Scies à table et scies à refendre

Ta slovenski standard je istoveten z: FprEN 1807-1

ICS:

25.080.60	Strojne žage	Sawing machines
79.120.10	Lesnoobdelovalni stroji	Woodworking machines

kSIST FprEN 1807-1:2012

en,fr,de

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

FINAL DRAFT
FprEN 1807-1

July 2012

ICS 79.120.10

Will supersede EN 1807:1999+A1:2009

English Version

Safety of woodworking machines - Band sawing machines - Part 1: Table band saws and band re-saws

Sécurité des machines pour le travail du bois - Machines à
scier à ruban - Partie 1 : Scies à table et scies à refendre

Sicherheit von Holzbearbeitungsmaschinen -
Bandsägemaschinen - Teil 1: Tischbandsägemaschinen
und Trennbandsägemaschinen

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

If this draft becomes a European Standard, 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.

This draft European Standard 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-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, Former Yugoslav Republic of Macedonia, 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.

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.

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.



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

Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

Page

Foreword.....	4
Introduction	5
1 Scope	6
2 Normative references	6
3 Terms, definitions and terminology.....	9
3.1 Terms and definitions	9
3.2 Terminology	11
4 List of significant hazards	16
5 Safety requirements and/or measures	19
5.1 General.....	19
5.2 Controls	20
5.2.1 Safety and reliability of control systems.....	20
5.2.2 Position of controls	21
5.2.3 Starting	21
5.2.4 Normal stopping	22
5.2.5 Emergency stop	22
5.2.6 Tracking mode	23
5.2.7 Mode selection	23
5.2.8 Speed control.....	23
5.2.9 Control duplication	24
5.2.10 Failure of the power supply	24
5.3 Protection against mechanical hazards	25
5.3.1 Stability	25
5.3.2 Risk of break-up during operation	25
5.3.3 Saw blade holder and saw blade design	27
5.3.4 Braking.....	32
5.3.5 Devices to minimise the possibility or the effect of ejection	33
5.3.6 Workpiece supports and guides	33
5.3.7 Prevention of access to moving parts.....	38
5.3.8 Safety appliances for table band saws.....	44
5.4 Protection against non-mechanical hazards	45
5.4.1 Fire	45
5.4.2 Noise	45
5.4.3 Emission of chips and dust.....	46
5.4.4 Electricity.....	47
5.4.5 Ergonomics and handling.....	48
5.4.6 Pneumatics.....	49
5.4.7 Hydraulics.....	49
5.4.8 Vibration	49
5.4.9 Electromagnetic compatibility.....	49
5.4.10 Laser	49
5.4.11 Static electricity	50
5.4.12 Errors of fitting.....	50
5.4.13 Supply disconnection (Isolation)	50
5.4.14 Maintenance	50
6 Information for use	51
6.1 General.....	51
6.2 Marking	51

6.3	Instruction handbook	52
Annex A (normative)	Test for adjustable guard over cutting area of saw blade	57
Annex B (normative)	Operating conditions for noise emission measurement	59
Annex C (normative)	Stability test	60
Annex D (normative)	Impact test method for guards	61
D.1	General	61
D.2	Test method	61
D.2.1	Preliminary remarks	61
D.2.2	Testing equipment	61
D.2.3	Projectile for guards	61
D.2.4	Sampling	61
D.2.5	Test procedure	61
D.3	Results	62
D.4	Assessment	62
D.5	Test report	62
D.6	Test equipment for impact test	62
Annex E (normative)	Braking tests	64
E.1	Conditions for all tests	64
E.2	Tests	64
E.2.1	Unbraked run-down time	64
E.2.2	Run-up time	64
E.2.3	Braked run-down time	64
Annex ZA (informative)	Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC	66
	Bibliography	69

Foreword

This document (FprEN 1807-1:2012) 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, together with FprEN 1807-2:2012, will supersede EN 1807:1999+A1:2009.

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 2006/42/EC.

For relationship with EU Directive 2006/42/EC, see informative Annex ZA which is an integral part of this document.

The following significant technical changes have been made in this new edition:

- for controls, the requirement of Performance Level according to EN ISO 13849-1 instead of categories according to EN 954-1;
- a more complete clause with set of requirements for "Emission of chips and dust";
- reference to PTO driven machines;
- a better definition of dimensional requirements for trip device and AOPD required for "prevention of access to moving parts";
- the stability test is required not only for displaceable machines but also for stationary machines: if not passed, fixing is required;
- requirement for guard-locking on interlocked movable guards to prevent access to moving parts, when the band saw blade run-down time exceeds 10 s.

EN 1807, *Safety of woodworking machines — Band sawing machines* consists of the following parts:

- *Part 1: Table band saws and band re-saws;*
- *Part 2: Log sawing machines.*

Organisations contributing to the preparation of this European Standard include European Committee of Woodworking Machinery Manufacturers Association "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 EN ISO 12100:2010 for a description of A, B and C standards).

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 defined in EN ISO 12100:2010.

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 table band saws and band re-saws. They are also useful for designers.

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

1 Scope

This European Standard deals with all significant hazards, hazardous situations and events as listed in Clause 4 which are relevant to stationary and displaceable table band saws and band re-saws with manual loading and/or unloading, also when mounted to and powered by a motor tractor, hereinafter together referred to as “machines”, designed to cut solid wood, chipboard, fibreboard, plywood, and also these materials covered with plastic edging and/or plastic/light alloy laminates, when they are used as intended and under the conditions foreseen by the manufacturer including reasonably foreseeable misuse.

Machines designed to cut wood based material may also be used to cut rigid plastic materials with similar characteristics as wood.

This European Standard does not apply to:

- a) Transportable machines, i.e. 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; the bench can also be an integrated part of the machine if it consists of hinged legs which can be extended down;

NOTE 1 Transportable electrically driven machines are covered by the requirements of EN 61029-1:2009 together with EN 61029-2-5:2011.

- b) hand held motor-operated electric tools including any adaptation permitting their use in a different mode, i.e. bench mounting;

NOTE 2 Hand-held motor-operated electric tools are covered by the requirements of EN 60745-1:2009 together with EN 60745-2-20:2009.

- c) log band saws.

NOTE 3 Log sawing machines are covered by FprEN 1807-2:2012.

This European Standard does not deal with the specific hazards related to thermal engine and P.T.O. equipment that may be fitted to the machine.

This European Standard is not applicable to machines manufactured before the date of its publication as EN.

NOTE 4 Machines covered by this document are listed under 4 of Annex IV of the Machinery Directive.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 614-1:2006+A1:2009, *Safety of machinery — Ergonomic design principles — Part 1: Terminology and general principles*

EN 894-1:1997+A1:2008, *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+A1:2008, *Safety of machinery — Ergonomics requirements for the design of displays and control actuators — Part 2: Displays*

EN 894-3:2000+A1:2008, *Safety of machinery — Ergonomics requirements for the design of displays and control actuators — Part 3: Control actuators*