SLOVENSKI STANDARD
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Varnost premičnih električnih orodij - 2-5. del: Posebne zahteve za tračne žage (IEC 61029-2-5:1993 + A1:2001; spremenjen)

Safety of transportable motor-operated electric tools -- Part 2-5: Particular requirements for band saws

Sicherheit transportabler motorbetriebener Elektrowerkzeuge -- Teil 2-5: Besondere Anforderungen für Bandsägen

Sécurité des machines-outils électriques semi-fixes -- Partie 2-5: Règles particulières pour les scies à ruban

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25.080.60	Strojne žage	Sawing machines
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English version

Safety of transportable motor-operated electric tools
Part 2-5: Particular requirements for band saws
(IEC 61029-2-5:1993 + A1:2001, modified)

Sécurité des machines-outils électriques semi-fixes
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Sicherheit transportabler motorbetriebener Elektrowerkzeuge
Teil 2-5: Besondere Anforderungen für Bandsägen
(IEC 61029-2-5:1993 + A1:2001, modifiziert)

This European Standard was approved by CENELEC on 2002-03-01. CENELEC 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 Central Secretariat or to any CENELEC 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 CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.

CENELEC
European Committee for Electrotechnical Standardization
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Foreword

The text of the International Standard IEC 61029-2-5:1993 and its amendment 1:2001, prepared by SC 61F, Safety of hand-held motor-operated electric tools, of IEC TC 61, Safety of household and similar electrical appliances, together with the common modifications prepared by the Technical Committee CENELEC TC 61F, Hand-held and transportable electric motor-operated tools, was submitted to the Unique Acceptance Procedure and was approved by CENELEC as EN 61029-2-5 on 2002-03-01.

The following dates were fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2003-03-01
- latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2005-03-01

In this document the common modifications to the International Standard are indicated by a vertical line in the left margin of the text.

This standard is divided into two parts:

Part 1 General requirements that are common to most transportable electric motor operated tools (for the purpose of this standard referred to simply as tools) which could come within the scope of this standard;

Part 2 Requirements for particular types of tool which either supplement or modify the requirements given in part 1 to account for the particular hazards and characteristics of these specific tools.

This European Standard has been prepared under a mandate given to CEN/CENELEC by the European Commission and the European Free Trade Association and supports the essential health and safety requirements of the Machinery Directive.

Compliance with the relevant clauses of part 1 together with this part 2 provides one means of conforming with the specified essential requirements of the Directive. The requirements defined in EN 1050 are also dealt with in this standard.

For noise and vibration this standard covers the requirements for their measurement, the provision of information arising from these measurements and the provision of information about the personal protective equipment required. Specific requirements for the reduction of the risk arising from noise and vibration through the design of the tool are not given as this reflects the current state of the art.

Warning: Other requirements arising from other EC Directives can be applicable to the products falling within the scope of this standard.

This part 2-5 is to be used in conjunction with EN 61029-1:2000. This part 2-5 supplements or modifies the corresponding clauses of EN 61029-1, so as to convert it into the European Standard: Safety requirements for transportable band saws.

Where a particular subclause of part 1 is not mentioned in this part 2-5, that subclause applies as far as is reasonable. Where this part 2-5 states "addition", "modification" or "replacement", the relevant text of part 1 is to be adapted accordingly.

Subclauses, tables and figures which are additional to those in part 1 are numbered starting from 101. Subclauses, tables and figures which are additional to those in IEC 61029-2-5 are prefixed "Z".

NOTE In this standard the following print types are used:
- Requirements proper;
- *Test specifications;*
- Explanatory matter.

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1 Scope

This clause of part 1 is applicable except as follows:

1.1 *Addition:*

This European Standard applies to transportable band saws having a saw band not more than 2 700 mm in length and band wheels having a diameter of not more than 350 mm.

1.2 *Addition*

Band saws other than transportable machines are covered by EN 1807-3.

2 Definitions

This clause of part 1 is applicable except as follows:

2.21 *Replacement:*

2.21
normal load
the load to obtain rated input

2.101
band saw
tool designed to cut wood or other materials by means of a revolving endless saw band which is carried on two or more band wheels. It has a fixed or inclinable table to support and position the workpiece that is fed by hand against the saw band

2.Z101
transportable band saw
a bandsaw used on a bench or a table similar to a bench which is intended to carry out work in a stationary position, transportable by hand by one person and designed so that the motor is integral with the machine (see Figure Z101)

3 General requirement

This clause of part 1 is applicable.

4 General notes on tests

This clause of part 1 is applicable.

5 Rating

This clause of part 1 is applicable.

6 Classification

This clause of part 1 is applicable.

7 Marking and information for use

This clause of part 1 is applicable except as follows:

7.1 *Addition:*

Band saws shall be marked with:

- indication of direction of rotation;

- warning stating that the machine shall be disconnected from the supply before maintenance. This warning shall be placed in the vicinity of the door or guard which when open gives access to the sawband.

Where a machine is designed to operate at more than one spindle speed, the following requirements shall apply:

- on machines where a speed change is achieved by changing the position of the drive belts on the drive pulleys, the selected speed shall be indicated on the same side of the machine as the start control by a diagram showing the relevant speed selected for each combination of pulleys.

- on machines where a speed change is achieved by an electronic control circuit, the selected speed shall be indicated on the machine at the selecting device (e.g. variable speed control dial provided with numerical speed settings).

7.6 *Addition:*

The direction of rotation shall be indicated on the tool by an arrow raised or sunk, or by any other means not less visible and indelible.

7.13 *Addition:*

The handbook or instruction sheet shall include the following instructions:

c) Safety precautions

- do not use saw bands which are damaged or deformed;
- replace the table insert when worn;
- connect band saw to a dust-collecting device when sawing wood;
- do not operate the machine when the door or guard protecting the saw band is open;
- take care that the selection of the saw band and the speed depends on the material to be cut;
- do not clean the saw band whilst it is in motion;
- wear suitable personal protective equipment, when necessary, this could include:
  - hearing protection to reduce the risk of induced hearing loss,
  - respiratory protection to reduce the risk of inhalation of harmful dust,
  - gloves for handling the saw band and rough material.

d) Maintenance and servicing

- the operator's instructions in factors influencing exposure to noise (e.g. material to be supported to reduce the emitted noise, selected saw blade);
- correct adjustment and regular maintenance of the saw band and band wheel cleaning equipment and of lubrication system.

e) Safe operation

- when straight cutting against the fence use a push stick;
- during transportation the saw band guard should be fully down and close to the table;
- when bevel-cutting with the table inclined, place the guide on the lower part of the table;
- when cutting round timber use a suitable holding device to prevent twisting of the workpiece;
- lifting and transportation positions shall clearly be indicated on the tool;
- do not use guarding for handling or transportation;
- adjust the adjustable guard as close to the workpiece as practicable;
- how to use holding devices;
- use and correct adjustment of the saw band guards.

NOTE Sketches may be used to illustrate the modes of operation.

The following information shall also be given:

- information regarding the width and length of the saw band what may be used with the machine;
- how to support long workpieces;
- description of residual risks;
- description of the correct method of tensioning, and where necessary the tracking, of the saw band using the means provided;
- indication of store location for the push stick.

8 Protection against electric shock

This clause of part 1 is applicable.

9 Starting

This clause of part 1 is applicable.

10 Input and current

This clause of part 1 is applicable.

11 Heating

This clause of part 1 is applicable.

12 Leakage current

This clause of part 1 is applicable.

13 Environmental requirements

This clause of part 1 is applicable except as follows:

13.1 *Replacement*:

The tests under working conditions, orientation within the cabin (see Figure Z102) and material to be worked shall be in accordance with Table Z101:

Table Z101 - Conditions for dust measurements

Material	Beech - 20 mm x 400 mm x width as required-planed both sides
Feed speed	At a brisk pace without overloading the machine
Depth of cut	20 mm - upper guide set 40 mm above table
Width of cut-off	5 mm minimum at 90° as set by the guide fence
Tool bit	Saw band as recommended by the manufacturer for this material
Orientation	Across the width of the cabin with air flow from left to right of the operator
Test cycle	Two cuts per minute for 10 min., followed by a 2 min. rest period (total 12 min.)
Test period	Five complete cycles (total one hour)

13.2.1 *Addition:*

The most important sources of noise are:

- the workpiece;
- the saw band;
- the motor;
- the band drive;
- the housing.

For general information concerning the reduction of noise see EN ISO 11688-1.

13.2.4 *Replacement of paragraphs 1,2 and 3:*

Band saws are tested under load and under the conditions shown in Table Z102:

Table Z102 - Noise conditions for bench saws

Material	Beech - 20 mm x 400 mm x width as required-planed both sides
Feed speed	At a brisk pace without overloading the machine
Depth of cut	20 mm - upper guide set 40 mm above table
Width of cut-off	5 mm minimum at 90° as set by the guide fence
Tool bit	Saw band as recommended by the manufacturer for this material
Test work cycle	Five cuts quickly following each other

13.3 This subclause is not applicable.

14 Protection against ingress of foreign bodies and moisture resistance

This clause of part 1 is applicable.

15 Insulation resistance and electric strength

This clause of part 1 is applicable.

16 Endurance

This clause of part 1 is applicable.

17 Abnormal operation

This clause of part 1 is applicable except as follows:

17.1 *Addition*:

Band saws shall be considered to be machines in which moving parts are liable to be jammed if equipped with an induction motor.

18 Stability and mechanical hazards

This clause of part 1 is applicable except as follows:

18.1 *Addition*:

The band wheels, the drive mechanism and the whole saw band in the non-cutting area shall be enclosed by fixed and/or interlocked moveable guards.