

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery – Safety –
Part 3-3: Particular requirements for transportable planers and thicknessers**

**Outils électroportatifs à moteur, outils portables et machines pour jardins et pelouses – Sécurité –
Partie 3-3: Exigences particulières pour les dégauchisseuses et les raboteuses portables**

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**Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery – Safety –
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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**ELECTRIC MOTOR-OPERATED HAND-HELD TOOLS, TRANSPORTABLE
TOOLS AND LAWN AND GARDEN MACHINERY –
SAFETY –**

**Part 3-3: Particular requirements for transportable
planers and thicknessers**

FOREWORD

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IEC 62841-3-3 has been prepared by IEC technical committee 116: Safety of motor-operated electric tools. It is an International Standard.

The text of this International Standard is based on the following documents:

Draft	Report on voting
116/761/FDIS	116/796/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

This document is to be used in conjunction with IEC 62841-1:2014.

This document supplements or modifies the corresponding clauses in IEC 62841-1, so as to convert it into the IEC Standard: Particular requirements for transportable planers and thicknessers.

Where a particular subclause of IEC 62841-1 is not mentioned in this document, that subclause applies as far as reasonable. Where this document states "addition", "modification" or "replacement", the relevant text in IEC 62841-1 is to be adapted accordingly.

The following print types are used:

- requirements: in roman type;
- *test specifications: in italic type;*
- notes: in small roman type.

The terms defined in Clause 3 are printed in **bold typeface**.

Subclauses, notes, tables and figures which are additional to those in IEC 62841-1 are numbered starting from 101.

Subclauses, notes, tables and figures in Annex K and Annex L which are additional to those in the main body of this document are numbered starting from 301.

A list of all parts in the IEC 62841 series, published under the general title: *Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery – Safety*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

ELECTRIC MOTOR-OPERATED HAND-HELD TOOLS, TRANSPORTABLE TOOLS AND LAWN AND GARDEN MACHINERY – SAFETY –

Part 3-3: Particular requirements for transportable planers and thicknessers

1 Scope

IEC 62841-1:2014, Clause 1 is applicable, except as follows:

Addition:

This document applies to transportable **planers**, **thicknessers** and **combined planers and thicknessers** intended for cutting wood and analogous materials with a maximum planing width of 330 mm.

This document does not apply to **planers**, **thicknessers** or **combined planers and thicknessers** other than transportable.

NOTE 101 ISO 19085-7:2019 gives requirements for **planers**, **thicknessers** or **combined planers and thicknessers** other than transportable.

2 Normative references

IEC 62841-1:2014, Clause 2 is applicable, except as follows:

Addition: <https://standards.iteh.ai/catalog/standards/iec/648f1f14-078a-44be-93d9-00fe8a47b20a/iec-62841-3-3-2024>

IEC 62841-1:2014, *Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery – Safety – Part 1: General requirements*

ISO 180:2023, *Plastics – Determination of Izod impact strength*

3 Terms and definitions

IEC 62841-1:2014, Clause 3 is applicable, except as follows:

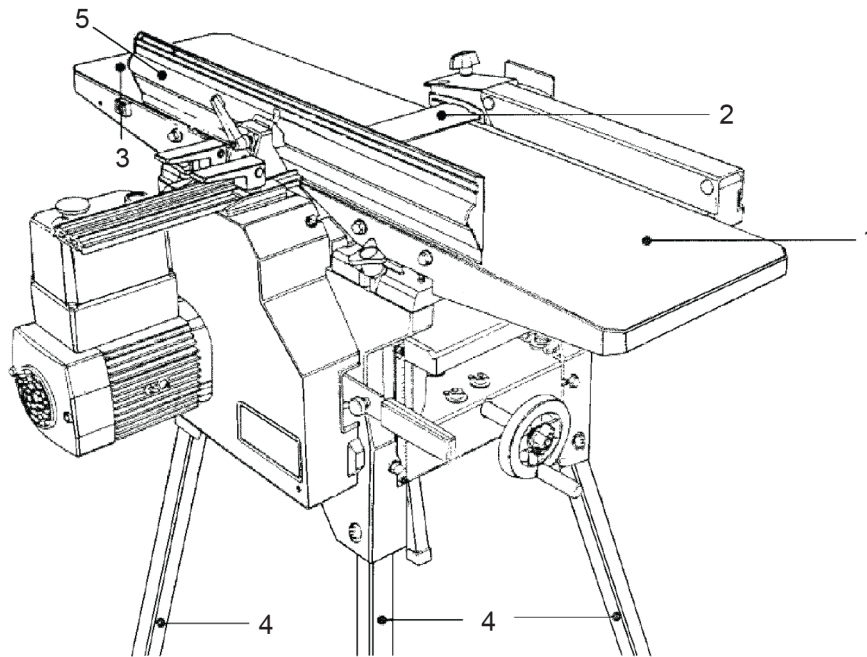
Addition:

3.101

combined planer and thicknesser

tool designed to carry out the functions of both a **planer** and a **thicknesser**

Note 101 to entry: See Figure 101.



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Key

- 1 outfeed table
- 2 bridge type **guard**
- 3 infeed table
- 4 detachable working stand
- 5 parallel guide

Figure 101 – Example of a combined planer and thicknesser**3.102
cutter block**

rotating assembly consisting of the drum, the blades, the blade fixing systems and the spindle

**3.103
planer**

tool designed to plane the surface of wood by means of a horizontally rotating **cutter block** located between two frames used to position and support the workpiece

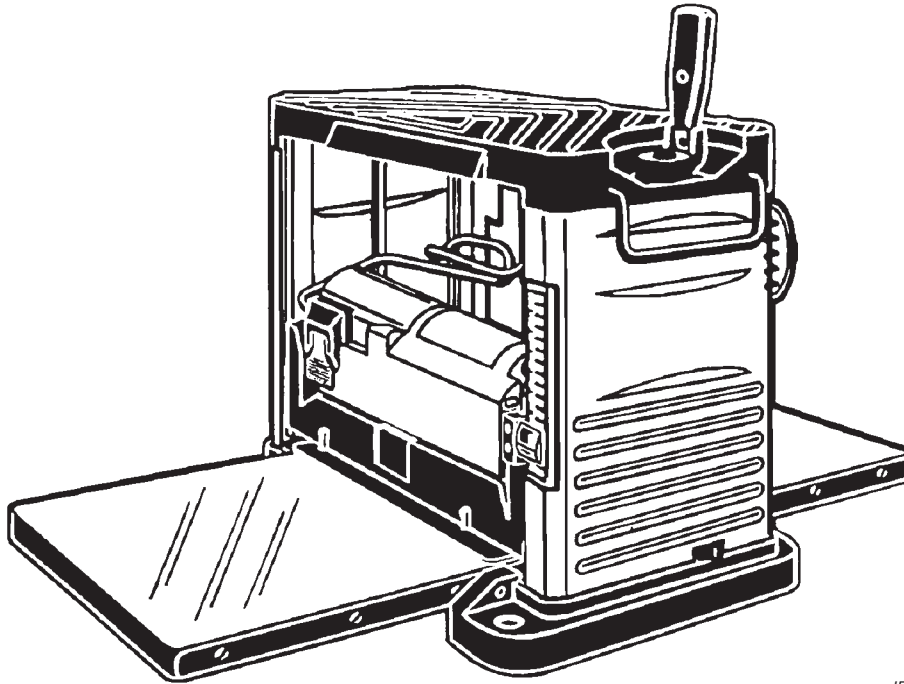
Note 101 to entry: The lower surface of the workpiece is planed.

**3.104
thicknesser**

tool designed to plane wood to a set thickness by means of a horizontally rotating **cutter block**, the distance between the knives and the surface of the table supporting the workpiece being adjustable

Note 101 to entry: The upper surface of the workpiece is planed.

Note 102 to entry: See Figure 102.



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Figure 102 – Example of a thicknesser

4 General requirements

IEC 62841-1:2014, Clause 4 is applicable.

5 General conditions for the tests

<https://standards.iteh.ai>
IEC 62841-1:2014, Clause 5 is applicable, except as follows:

5.17 Addition:

The mass of the tool includes the cutter block.

6 Radiation, toxicity and similar hazards

IEC 62841-1:2014, Clause 6 is applicable.

7 Classification

IEC 62841-1:2014, Clause 7 is applicable.

8 Marking and instructions

IEC 62841-1:2014, Clause 8 is applicable, except as follows:

8.1 Addition:

Tools shall also be marked with the planing width.

8.3 Addition:

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

8.14.2 a) Addition:

- 101) Instruction how to check the **guard** adjusting arrangements and return springs, when fitted, for faultless condition before use;
- 102) Instruction to use blades which are well sharpened and maintained. If blades are re-sharpenable, information about the limits of re-sharpening;
- 103) Instruction to use only cutting blades designed for this tool;
- 104) Instruction how the blades shall be assembled and adjusted, if applicable;
- 105) Instruction that any portion of the **cutter block** not being used for planing shall be adjusted to be guarded;
- 106) Instruction how to inspect the anti-kickback devices and feed speed spindles to ensure safe operation;
- 107) Instruction to wear suitable personal protective equipment (PPE). This could include
 - hearing protection, to reduce the risk of induced hearing loss;
 - respiratory protection, to reduce the risk of inhalation of harmful dust; and
 - gloves for handling the **cutter block** and rough material, to reduce injuries from sharp edges;
- 108) For cutting wood, instruction on the correct assembly of a dust-collecting device;
- 109) Instructions how to adjust the **guards** and parallel guide in relation to the different work.

8.14.2 b) Addition:

- 101) Information what kind of work can be performed safely;
- 102) For those tools designed for rabbeting: instruction for the safe operation;
- 103) Information about the location where the push-stick shall be stored when not in use;
- 104) Instruction on the situations in which the push-stick is to be used;
- 105) Information about the effects caused by metal parts penetrated into the workpiece and splintery workpieces;
- 106) Instruction how correctly to use roller tables when cutting long workpieces;
- 107) A warning not to do the following operations:
 - stopped work (i.e. any cut which does not involve the full workpiece length);
 - recesses, tenons or moulds; and
 - planing of badly bowed wood where there is inadequate contact on the infeed table.

9 Protection against access to live parts

IEC 62841-1:2014, Clause 9 is applicable.

10 Starting

IEC 62841-1:2014, Clause 10 is applicable.

11 Input and current

IEC 62841-1:2014, Clause 11 is applicable.

12 Heating

IEC 62841-1:2014, Clause 12 is applicable.

13 Resistance to heat and fire

IEC 62841-1:2014, Clause 13 is applicable.

14 Moisture resistance

IEC 62841-1:2014, Clause 14 is applicable.

15 Resistance to rusting

IEC 62841-1:2014, Clause 15 is applicable.

16 Overload protection of transformers and associated circuits

IEC 62841-1:2014, Clause 16 is applicable.

17 Endurance

IEC 62841-1:2014, Clause 17 is applicable.

18 Abnormal operation

IEC 62841-1:2014, Clause 18 is applicable, except as follows:

18.8 Replacement of Table 4:

Table 4 – Required performance levels

Type and purpose of SCF	Minimum Performance Level (PL)
Power switch – prevent unwanted switch-on	b
Power switch – provide desired switch-off	c
Provide desired direction of rotation	b
Any electronic control to pass the test of 18.3	a
Prevent exceeding thermal limits as in 18.4 and 18.5.3	a
Prevent output speed of the cutter block from exceeding 130 % of n_0 as in 19.101.5	Not an SCF
Provide stopping time as required by 19.105	a
Restart prevention as required by 21.18.2.1	b
Prevent self-resetting as required in 23.3	b

19 Mechanical hazards

IEC 62841-1:2014, Clause 19 is applicable, except as follows:

19.4 Addition:

The handles or positions for lifting and transportation shall be identified clearly on the tool.

19.6 This subclause of IEC 62841-1:2014 is not applicable.

19.7 Replacement:

Tools shall be provided with means to fix the tool to a table or a similar support.

Compliance is checked by inspection.

Tools shall have a sufficient stability.

Compliance is checked by the following test.

The tool is not fixed to a table or a similar support and placed on a horizontal fixed chipboard with smooth surface.

When a push force of 100 N is applied to the front edge of the tool in the direction of the workpiece feed, the tool shall not move or start to tip.

The force is then increased to 300 N or until the tool begins to move horizontally, whichever is achieved first. During this test, the tool shall not tip over.

19.101 Requirements for all tools IEC 62841-3-3:2024

19.101.1 Blades shall be changeable without detachment of the **adjustable guard** specified in 19.102.4.1 over the **cutter block**. The **adjustable guard** shall remain permanently attached to the tool, but it may be moved to enable the changing of the blades.

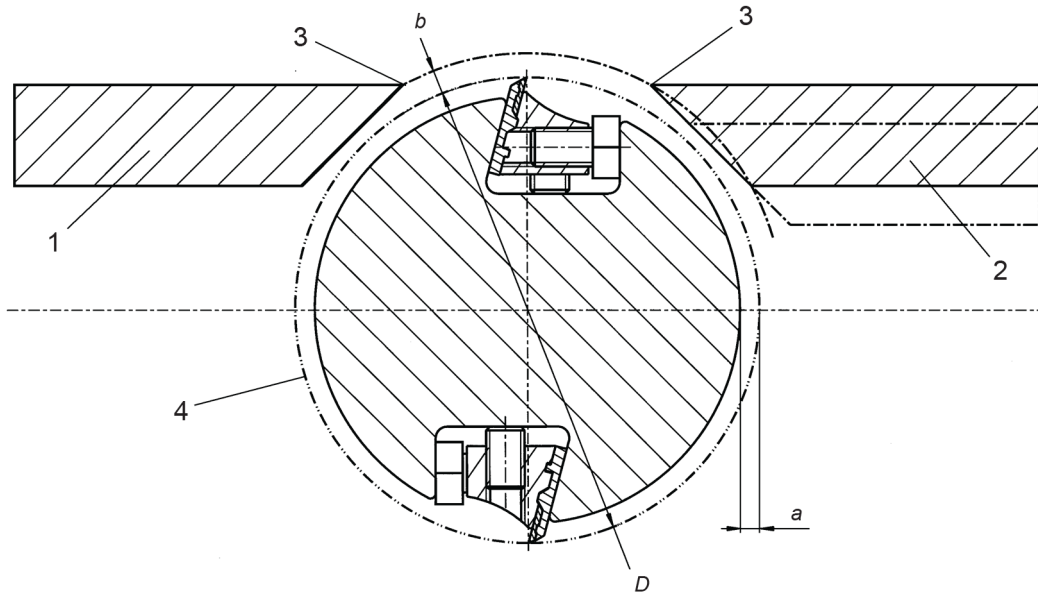
Compliance is checked by inspection.

19.101.2 The **cutter block** shall have a circular shape in any cross section perpendicular to the axis of the **cutter block** which performs the function of chip thickness limitation.

Compliance is checked by inspection.

19.101.3 The cutting edge of the blades shall not extend more than 1,1 mm (see dimension a in Figure 103) past the surface of the **cutter block**.

Compliance is checked by measurement.



Key

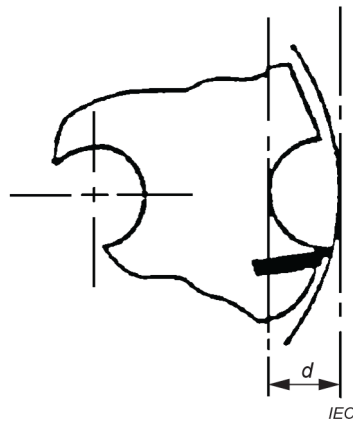
- 1 outfeed table
- 2 infeed table
- 3 table lips
- 4 cutting circle

Figure 103 – Cutter block

19.101.4 There shall be no recess in the **cutter block** except for the cutting blades and their fastening devices (see Figure 103).

The chip groove in front of the blade shall have a maximum depth, d , measured radially to the cutter block in accordance with Figure 104.

Compliance is checked by inspection and by measurement.



Chip groove dimensions		
Cutter block diameter, D , in millimetres	$D \leq 80$	$80 < D \leq 120$
d in millimetres	$\leq 6,00$	$\leq 8,00$

Figure 104 – Measurement of the cutter block chip groove