

INTERNATIONAL STANDARD

**Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery – Safety –
Part 2-14: Particular requirements for hand-held planers**

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CONTENTS

FOREWORD.....	3
1 Scope.....	5
2 Normative references.....	5
3 Terms and definitions	5
4 General requirements	5
5 General conditions for the tests.....	5
6 Radiation, toxicity and similar hazards	6
7 Classification.....	6
8 Marking and instructions	6
9 Protection against access to live parts	6
10 Starting	6
11 Input and current	7
12 Heating	7
13 Resistance to heat and fire	7
14 Moisture resistance	7
15 Resistance to rusting	7
16 Overload protection of transformers and associated circuits.....	7
17 Endurance.....	7
18 Abnormal operation	7
19 Mechanical hazards.....	8
20 Mechanical strength.....	10
21 Construction.....	10
22 Internal wiring.....	11
23 Components.....	11
24 Supply connection and external flexible cords	11
25 Terminals for external conductors	11
26 Provision for earthing.....	11
27 Screws and connections	11
28 Creepage distances, clearances and distances through insulation	11
Annexes	14
Annex I (informative) Measurement of noise and vibration emissions	14
Annex K (normative) Battery tools and battery packs	18
Annex L (normative) Battery tools and battery packs provided with mains connection or non-isolated sources.....	19
Bibliography	20
Figure 101 – Examples of cutting heads with basic dimensions.....	12
Figure 102 – Test probe.....	13
Figure I.101 – Test set-up for planers.....	16
Figure I.102 – Positions of transducers	17
Table 4 – Required performance levels	8
Table I.101 – Test conditions	14

INTERNATIONAL ELECTROTECHNICAL COMMISSION

ELECTRIC MOTOR-OPERATED HAND-HELD TOOLS, TRANSPORTABLE TOOLS AND LAWN AND GARDEN MACHINERY – SAFETY –**Part 2-14: Particular requirements for hand-held planers**

FOREWORD

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International Standard IEC 62841-2-14 has been prepared by IEC technical committee 116: Safety of motor-operated electric tools.

The text of this standard is based on the following documents:

FDIS	Report on voting
116/222/FDIS	116/236/RVD

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

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

This Part 2-14 is to be used in conjunction with the first edition of IEC 62841-1 (2014).

This Part 2-14 supplements or modifies the corresponding clauses in IEC 62841-1, so as to convert it into the IEC standard: Particular requirements for hand-held planers.

Where a particular subclause of Part 1 is not mentioned in this Part 2-14, that subclause applies as far as relevant. Where this standard states “addition”, “modification” or “replacement”, the relevant text in Part 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 and figures which are additional to those in Part 1 are numbered starting from 101.

A list of all parts of the IEC 62841 series, 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 publication will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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NOTE The attention of National Committees is drawn to the fact that equipment manufacturers and testing organizations may need a transitional period following publication of a new, amended or revised IEC publication in which to make products in accordance with the new requirements and to equip themselves for conducting new or revised tests.

It is the recommendation of the committee that the content of this publication be adopted for implementation nationally not earlier than 36 months from the date of publication.

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

Part 2-14: Particular requirements for hand-held planers

1 Scope

This clause of Part 1 is applicable, except as follows:

Addition:

This part of IEC 62841 applies to **planers**.

2 Normative references

This clause of Part 1 is applicable.

3 Terms and definitions

This clause of Part 1 is applicable, except as follows:

Additional definitions:

3.101

planer

tool intended for removing surface material, equipped with a rotating **cutting head** where the axis of rotation of the **cutting head** is parallel to the plane of the base plate, which is the part supporting the **planer** on the workpiece

Note 1 to entry: The base plate consists of a fixed shoe and an adjustable shoe that determines the depth of cut.

3.102

lift-off device

device which keeps the blade(s) from making contact with a flat surface when the base plate of the **planer** is attempted to be placed on the flat surface

3.103

cutting head

assembly of blades, cutter block, blade fixing elements, relevant screws and spindle, the whole being ready for working

4 General requirements

This clause of Part 1 is applicable.

5 General conditions for the tests

This clause of Part 1 is applicable, except as follows:

5.17 *Addition:*

*The mass of the tool includes the **cutting head** including blades and the dust extraction adapter, if any.*

6 Radiation, toxicity and similar hazards

This clause of Part 1 is applicable.

7 Classification

This clause of Part 1 is applicable.

8 Marking and instructions

This clause of Part 1 is applicable, except as follows:

8.1 Addition:

- **rated no-load speed.**

8.3 Addition:

- direction of rotation of the working spindle. This shall be indicated by an arrow, raised or sunk, or by other means no less visible and indelible.

8.14.1 Addition:

For **planers**, the additional safety instructions as specified in 8.14.1.101 shall be given. This part may be printed separately from the “General power tool safety warnings”.

8.14.1.101 Safety instructions for planers

- Wait for the cutter to stop before setting the tool down.** *An exposed rotating cutter may engage the surface leading to possible loss of control and serious injury.*
- Hold the power tool by insulated gripping surfaces, because the cutter may contact its own cord.** *Cutting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.*
- Use clamps or another practical way to secure and support the workpiece to a stable platform.** *Holding the workpiece by your hand or against the body leaves it unstable and may lead to loss of control.*

8.14.2 b) Addition:

- 101) instructions on how to adjust the entire range of the depth of cut;
- 102) instruction on the correct use of the dust collection system.

8.14.2 c) Addition:

- 101) information about types of **cutting heads** which can be used, if applicable;
- 102) instructions for the changing of the blades and their adjustment to the correct position;
- 103) instruction on how to properly clean/clear the chip ejection opening.

9 Protection against access to live parts

This clause of Part 1 is applicable.

10 Starting

This clause of Part 1 is applicable.

11 Input and current

This clause of Part 1 is applicable.

12 Heating

This clause of Part 1 is applicable.

13 Resistance to heat and fire

This clause of Part 1 is applicable.

14 Moisture resistance

This clause of Part 1 is applicable.

15 Resistance to rusting

This clause of Part 1 is applicable.

16 Overload protection of transformers and associated circuits

This clause of Part 1 is applicable.

17 Endurance

This clause of Part 1 is applicable, except as follows:

17.101 If a **lift-off device** is provided to meet the requirements of 18.8 or 21.18.1.1, it shall be sufficiently durable.

Compliance is checked by a new tool sample completing the following test.

*The **planer** is to be set in horizontal position. The **lift-off device** is cycled through its intended range of operation for 50 000 cycles. This sequence is repeated at a rate not less than 10 cycles per minute.*

*After completion of the cycling test as specified above, the **planer** shall then comply with 19.111.*

18 Abnormal operation

This clause of Part 1 is applicable, except as follows:

18.8 *Replacement of Table 4 by the following:*

Table 4 – Required performance levels

Type and purpose of SCF	Minimum Performance Level (PL)
Power switch – prevent unwanted switch-on	c
Power switch – provide desired switch-off for planers with lift-off device	a
Power switch – provide desired switch-off for planers without lift-off device	b
Any electronic control to pass the test of 18.3	a
Overspeed prevention to prevent output speed above 130 % of rated no-load speed	b
Provide desired direction of rotation	a
Prevent exceeding thermal limits as in Clause 18	a
Prevent self-resetting as required in 23.3	b
Lock-off function as required by 21.18.1.2	b

19 Mechanical hazards

This clause of Part 1 is applicable, except as follows:

19.1 Addition:

For the requirements given in 19.107, 19.108 and 19.109, only the test probe shown in Figure 102 is used.

19.4.101 Planers with a mass according to 5.17 exceeding 3 kg shall have at least two handles. The auxiliary handle, if any, may also be used for the depth-of-cut setting, provided the adjustment of depth of cut is achieved by a rotary action.

Compliance is checked by inspection and by measurement.

19.101 The **cutting head** shall be cylindrically shaped except for the blades, the gullet and the blade clamping means.

The maximum gullet width s shall be

$$s_{\max} = 0,235 d + 7,2 \text{ mm}$$

where d is the diameter of the rotating circle of the cutting edges. See Figure 101.

Compliance is checked by inspection and by measurement.

19.102 The blades when aligned with the fixed shoe shall not project by more than 1,1 mm radially beyond the cutter block (as per dimension “a” in Figure 101).

Compliance is checked by measurement.

19.103 At any depth of cut, the distance “b” (see Figure 101) between the rotating circle of the cutting edges and the trailing edge on the adjustable shoe shall not exceed 5 mm measured radially.

Compliance is checked by inspection and by measurement.