

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Hand-held motor-operated electric tools – Safety –
Part 2-11: Particular requirements for reciprocating saws (jig and sabre saws)

Outils électroportatifs à moteur – Sécurité –
Partie 2-11: Règles particulières pour les scies alternatives (scies sauteuses et
scies sabres)



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HAND-HELD MOTOR-OPERATED ELECTRIC TOOLS – SAFETY –

Part 2-11: Particular requirements for reciprocating saws (jig and sabre saws)

FOREWORD

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International Standard IEC 60745-2-11 has been prepared by subcommittee 61F: Safety of hand-held motor-operated electric tools, of IEC technical committee 61: Safety of household and similar electrical appliances

Main changes include Clause 3: Definitions, introducing detailed definitions for the tools in the scope of this part 2, and Clause 19: Mechanical hazards, introducing requirements for guarding the saw blades. Subclause 2.2.23 has been removed, as the definitions of "normal load" are now generally covered by Part 1.

This consolidated version of IEC 60745-2-11 consists of the second edition (2003) [documents 61F/466/FDIS and 61F/490/RVD] and its amendment 1 (2008) [documents 61F/736/FDIS and 61F/756/RVD].

The technical content is therefore identical to the base edition and its amendment and has been prepared for user convenience.

It bears the edition number 2.1.

A vertical line in the margin shows where the base publication has been modified by amendment 1.

The French version of this standard has not been voted upon.

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

This Part 2-11 is to be used in conjunction with the third edition of IEC 60745-1: Safety of hand-held motor-operated electric tools – Part 1: General requirements. When this standard states “addition”, “modification” or “replacement”, the relevant text in Part 1 is to be adapted accordingly.

With amendment 1, this part 2 is established on the basis of the fourth edition (2006) of IEC 60745-1, *Hand-held motor-operated electric tools – Safety – Part 1: General requirements*.

Main changes include editorial modifications to match with the fourth edition of IEC 60745-1, addition of a new safety warning to Clause 8: Marking and instructions, and clarifications in Annex K.

NOTE In this standard, the following print types are used:

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

Subclauses, tables and figures which are additional to those in Part 1 are numbered starting from 101; additional annexes are lettered AA, BB, etc.

IEC 60745 consists of the following parts, under the general title *Hand-held motor-operated electric tools – Safety*:

- [IEC 60745-2-11:2003+AMD1:2008 CSV](http://standards.iteh.ai/catalog/standards/sist/c53ad5a2-42fe-49c7-81ce-86d9a1576e5a/iec-60745-2-11-2003amd1-2008-csv)
- Part 1: General requirements
 - Part 2-1: Particular requirements for drills and impact drills
 - Part 2-2: Particular requirements for screwdrivers and impact wrenches
 - Part 2-3: Particular requirements for grinders, polishers and disk-type sanders
 - Part 2-4: Particular requirements for sanders and polishers other than disk type
 - Part 2-5: Particular requirements for circular saws and circular knives
 - Part 2-6: Particular requirements for hammers
 - Part 2-7: Particular requirements for spray guns for non-flammable liquids
 - Part 2-8: Particular requirements for shears and nibblers
 - Part 2-9: Particular requirements for tappers
 - Part 2-11: Particular requirements for reciprocating saws (jig and sabre saws)
 - Part 2-12: Particular requirements for concrete vibrators
 - Part 2-13: Particular requirements for chain saws
 - Part 2-14: Particular requirements for planers
 - Part 2-15: Particular requirements for hedge trimmers
 - Part 2-16: Particular requirements for tackers
 - Part 2-17: Particular requirements for routers and trimmers
 - Part 2-18: Particular requirements for strapping tools
 - Part 2-19: Particular requirements for jointers
 - Part 2-20: Particular requirements for band saws
 - Part 2-21: Particular requirements for drain cleaners

The committee has decided that the contents of the base publication and its amendments will remain unchanged until the maintenance result date indicated on the IEC web site 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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HAND-HELD MOTOR-OPERATED ELECTRIC TOOLS – SAFETY –

Part 2-11: Particular requirements for reciprocating saws (jig and sabre saws)

1 Scope

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

Addition:

This standard applies to reciprocating saws such as jig saws and sabre saws.

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:

[IEC 60745-2-11:2003+AMD1:2008 CSV
https://standards.iteh.ai/catalog/standards/sist/c53ad5a2-42fe-49c7-81ce-86d9a1576e5a/iec-60745-2-11-2003amd1-2008-csv](https://standards.iteh.ai/catalog/standards/sist/c53ad5a2-42fe-49c7-81ce-86d9a1576e5a/iec-60745-2-11-2003amd1-2008-csv)

3.101

reciprocating saw

tool intended for cutting various material with a blade or blades acting in a reciprocating or oscillating motion

3.102

jigsaw

reciprocating saw with a base plate that may allow bevel adjustments

NOTE Typical designs of jigsaws are shown in Figure 102.

3.103

sabre saw

reciprocating saw with a guide plate that may allow tilting movements

NOTE Typical designs of sabre saws are shown in Figure 103.

4 General requirements

This clause of Part 1 is applicable.

5 General conditions for the tests

This clause of Part 1 is applicable.

6 Void

7 Classification

This clause of Part 1 is applicable.

8 Marking and instructions

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

8.12.1.1 Addition:

- **Hold power tool by insulated gripping surfaces, when performing an operation where the cutting accessory may contact hidden wiring or its own cord. Cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.**

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 Leakage current

This clause of Part 1 is applicable.

14 Moisture resistance

This clause of Part 1 is applicable.

15 Electric strength

This clause of Part 1 is applicable.

16 Overload protection of transformers and associated circuits

This clause of Part 1 is applicable.

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17 Endurance

This clause of Part 1 is applicable.

18 Abnormal operation

This clause of Part 1 is applicable.

19 Mechanical hazards

This clause of Part 1 is applicable except as follows:

19.1 Replacement:

a) For jig saws

A guard shall be provided to prevent inadvertent contact with the cutting edge of the saw blade above the base plate.

Compliance is checked by inspection and the following test.

The jig saw is set for the right-angled cut. The test probe of Figure 101a) is positioned above the base plate as shown in Figure 101b) and Figure 101c). The longitudinal axis of the test probe shall be perpendicular to the toothed edge of the saw blade. The test probe shall be equally shared about the central plane of the saw blade. When the test probe is moved towards the saw blade, it shall not be able to touch its toothed edge.

b) For other types of reciprocating saws

If a reciprocating saw is designed with a grip zone adjacent and behind the reciprocating saw blade, a barrier shall be provided to prevent inadvertent contact with the saw blade. The barrier shall have a minimum height of 6 mm as measured from the grip surface and be located between the grip zone and the saw blade. A barrier is not required if the tool is supplied with an auxiliary front handle.

Compliance is checked by inspection and measurement.

20 Mechanical strength

This clause of Part 1 is applicable.

21 Construction

This clause of Part 1 is applicable.

22 Internal wiring

This clause of Part 1 is applicable.

23 Components

This clause of Part 1 is applicable.

24 Supply connection and external flexible cords

This clause of Part 1 is applicable.

25 Terminals for external conductors

This clause of Part 1 is applicable.

26 Provision for earthing

This clause of Part 1 is applicable.

27 Screws and connections

This clause of Part 1 is applicable.

28 Creepage distances, clearances and distances through insulation

This clause of Part 1 is applicable.

29 Resistance to heat, fire and tracking

This clause of Part 1 is applicable.

30 Resistance to rusting

This clause of Part 1 is applicable.

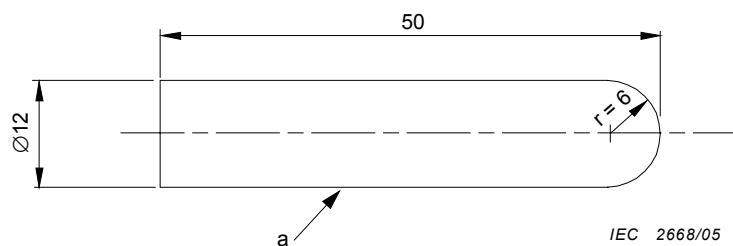
31 Radiation, toxicity and similar hazards

This clause of Part 1 is applicable.

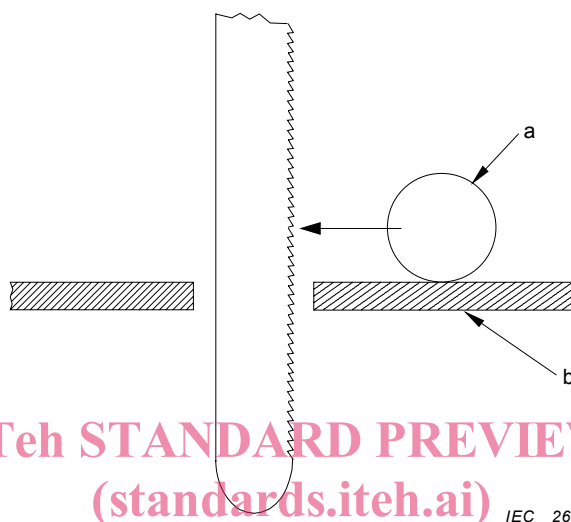
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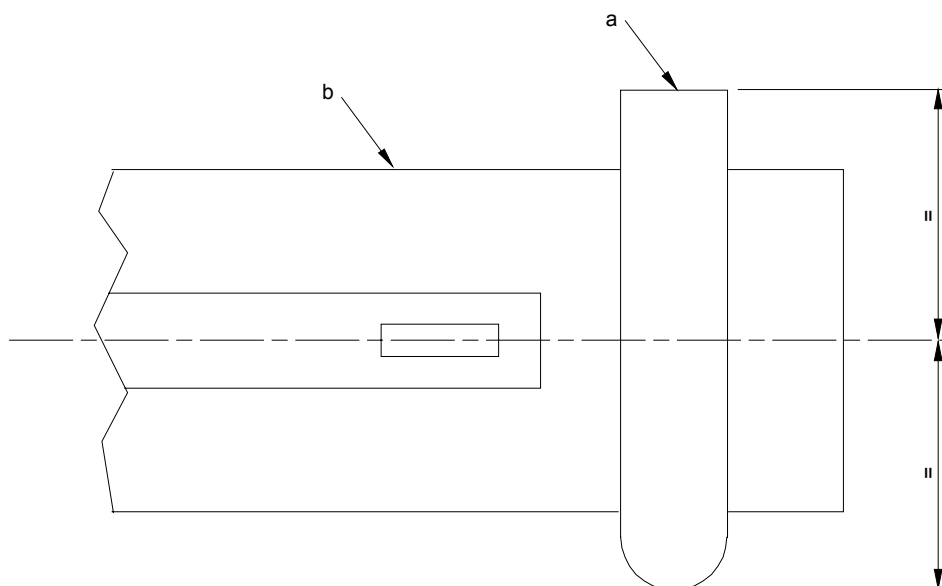


a) Details of test probe



NOTE Upper structure of saw, which should prevent the test probe touching the saw blade, omitted for simplicity.

b) Side section showing position and direction of movement of test probe



a = Test probe
b = Guide plate

NOTE Upper structure of saw omitted for simplicity.

c) Plan view of guide plate showing position of test probe

Figure 101 – Test probe