



BSI Standards Publication

Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery – Safety

Part 3-9: Particular requirements for transportable mitre saws (IEC 62841-3-9:2014, modified + COR1:2015)

National foreword

This British Standard is the UK implementation of EN 62841-3-9:2015+A11:2017. It is derived from IEC 62841-3-9:2014, incorporating corrigenda October 2015 and August 2016. It supersedes [BS EN 62841-3-9:2015](#), which will be withdrawn on 19 October 2019.

NOTE: The BS EN 62841 series supersedes the BS EN 60745 series, the BS EN 61029 series and parts of the BS EN 60335 series (for lawn and garden machinery). BS EN 62841-1:2015 supersedes BS EN 60745-1:2009 and BS EN 61029-1:2009. A withdrawal date for BS EN 60745-1:2009 and BS EN 61029-1:2009 will be fixed upon publication of all standards in the BS EN 62841-2 and BS EN 62841-3 series.

The start and finish of text introduced or altered by amendment is indicated in the text by tags. Tags indicating changes to CENELEC text carry the number of the CENELEC amendment. For example, text altered by CENELEC amendment A11 is indicated by A11 A11.

The CENELEC common modifications have been implemented at the appropriate places in the text. The start and finish of each common modification is indicated in the text by tags C C.

IEC corrigendum October 2015 replaces Table 4.

The UK participation in its preparation was entrusted to Technical Committee CPL/116, Safety of motor-operated electric tools.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Amendments/corrigenda issued since publication

Date	Text affected
31 October 2016	Implementation of IEC corrigendum August 2016: Subclause 8.3 modified
31 May 2018	Implementation of CENELEC amendment A11:2017

English Version

Electric motor-operated hand-held tools, transportable
tools and lawn and garden machinery – Safety – Part 3-9:
Particular requirements for transportable mitre saws
(IEC 62841-3-9:2014, modified + COR1:2015)

Outils électroportatifs à moteur, outils portables
et machines pour jardins et pelouses – Sécurité –
Partie 3-9: Exigences particulières pour les
scies à onglets transportables (IEC 62841-
3-9:2014, modifiée + COR1:2015)

Elektrische motorbetriebene handgeführte
Werkzeuge, transportable Werkzeuge und Rasen-
und Gartenmaschinen – Sicherheit – Teil 3-9:
Besondere Anforderungen für Gehrungsskappsägen
(IEC 62841-3-9:2014, modifiziert + COR1:2015)

This European Standard was approved by CENELEC on 2014-07-21. 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 CEN-CENELEC Management Centre or to any CENELEC member.

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CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.



European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

European foreword

The text of document 116/181/FDIS, future edition 1 of IEC 62841-3-9, prepared by IEC/TC 116 "Safety of motor-operated electric tools" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62841-3-9:2015.

A draft amendment, which covers common modifications to IEC 62841-3-9:2014, was prepared by CLC/TC 116 "Safety of motor-operated electric tools" and approved by CENELEC.

The following dates are fixed:

- latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2016-06-18
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2019-11-15

EN 62841-3-9:2015 supersedes EN 61029-2-9:2012 + A11:2013.

This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and supports essential requirements of EU Directive(s).

For the relationship with EU Directive(s) see informative [Annex ZZ](#), which is an integral part of this document.

This European Standard is divided into four parts:

- Part 1: General requirements which are common to most 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, 3 or 4: Requirements for particular types of tools which either supplement or modify the requirements given in Part 1 to account for the particular hazards and characteristics of these specific tools.

This Part 3-9 is to be used in conjunction with [EN 62841-1:2015](#). This Part 3-9 supplements or modifies the corresponding clauses in [EN 62841-1:2015](#), so as to convert it into the European Standard: Particular requirements for transportable mitre saws.

Where a particular subclause of Part 1 is not mentioned in this Part 3-9, 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.

Compliance with the clauses of Part 1 together with this Part 3 provides one means of conforming with the essential health and safety requirements of the Directive concerned.

WARNING — Other requirements and other EU Directives can be applicable to the products falling within the scope of this standard.

This European Standard follows the overall requirements of EN ISO 12100.

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 Part 1 are numbered starting from 101.

Clauses, subclauses, notes, tables, figures and annexes which are additional to those in IEC 62841-3-9:2014 are prefixed "Z".

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

Endorsement notice

The text of the International Standard IEC 62841-3-9:2014 and COR1:2015 was approved by CENELEC as a European Standard with agreed common modifications.

European foreword to amendment A11

This document (EN 62841-3-9:2015/A11:2017) has been prepared by CLC/TC 116 "Safety of motor-operated electric tools".

The following dates are fixed:

- latest date by which this document has to be implemented at national level (dop) 2018-10-19
by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting with this document (dow) 2019-10-19
have to be withdrawn

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

This amendment was developed to delete the requirement for the declaration of vibration for transportable tools, since the vibration for transportable tools is not required to be measured.

This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

In this European Standard the following print types are used:

- requirements proper: in roman type;
- *test specifications: in italic type;*
- explanatory matter: in smaller roman type.

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

This annex from Part 1 is applicable with the following addition:

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
-	-	Tools for woodworking - Safety requirements Part 1: Milling tools, circular saw blades	EN 847-1	-
ISO 180	-	Plastics - Determination of Izod impact strength	EN ISO 180	- 

Annex ZZ (informative)

Coverage of Essential Requirements of Directive 2006/42/EC

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and within its scope the standard covers all relevant Essential Requirements as given in EU Directive 2006/42/EC (Machinery Directive).

Compliance with this standard provides one means of conformity with the specified essential requirements of the Directives concerned.

WARNING — Other requirements and other EU Directives may be applicable to the products falling within the scope of this standard. 

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FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 62841-3-9 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
116/181/FDIS	116/192/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 3-9 is to be used in conjunction with the IEC 62841-1:2014.

This Part 3-9 supplements or modifies the corresponding clauses in IEC 62841-1, so as to convert it into the IEC Standard: Particular requirements for transportable mitre saws.

Where a particular subclause of Part 1 is not mentioned in this Part 3-9, that subclause applies as far as reasonable. 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 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.

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.

The contents of the corrigendum of October 2015 and August 2016 have been included in this copy.

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Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery – Safety —

Part 3-9:

Particular requirements for transportable mitre saws

1 Scope

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

Addition:

This part of IEC 62841 applies to transportable **mitre saws** intended to be used with a toothed saw blade for cutting wood and analogous materials, plastics and nonferrous metals except magnesium with a saw blade diameter not exceeding 360 mm, which hereinafter might simply be referred to as saw or tool.

Ⓒ This standard applies to **mitre saws** having a mass of:

- maximum 25 kg for tools capable of being lifted by hand by one person;
- maximum 50 kg for tools capable of being lifted by hand by two persons.

This standard does not apply to stationary **mitre saws**.

NOTE [EN 1870-3](#) gives requirements for stationary **mitre saws** and **mitre saws** with a mass greater than indicated above. Ⓒ

This standard does not apply to **mitre saws** intended to cut other metals, such as magnesium, steel and iron. This standard does not apply to **mitre saws** with an automatic feeding device.

NOTE 101 Transportable saws intended to cut ferrous metals will be covered by a future part of IEC 62841-3.

This standard does not apply to saws designed for use with abrasive wheels.

NOTE 102 Transportable tools designed for use with abrasive wheels are covered by IEC 62841-3-10.

This standard does not apply to tools combining the function of a **mitre saw** with the function of a table saw.

NOTE 103 Transportable tools combining the function of a **mitre saw** with the function of a table saw are covered by IEC 62841-3-11.

2 Normative references

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

Addition:

Ⓒ [EN 847-1](#), *Tools for woodworking — Safety requirements — Part 1: Milling tools, circular saw blades* Ⓒ

[ISO 180](#), *Plastics — Determination of Izod impact strength*

3 Terms and definitions

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

Addition:

3.101

bevel angle

angular displacement of the saw blade plane with respect to the **table top** plane, the position of the saw blade plane that is perpendicular to the **table top** being the 0° bevel position

3.102

compound angle

angular displacement of the saw blade plane having a **bevel** and **mitre angle** other than 0°

3.103

cutting edge zone

outer 20 % of the radius of the saw blade

3.104

D

specified diameter of the saw blade

3.105

fence

device to position the workpiece and absorb the horizontal forces from the saw blade during the cutting process

3.105.1

centre workpiece support

device as illustrated in [Figure 109](#) that has a face supporting the workpiece in conjunction with the **fence**

3.106

fully down position

position of the **saw unit** after adjustment of the saw in accordance with [8.14.2 a\) 107\)](#) and any depth-of-cut stop as in [8.14.2 a\) 108\)](#) disengaged or adjusted in order to produce the lowest position of the **saw unit**

3.107

horizontal cutting capacity

largest dimension perpendicular from the plane of the **fence** (width) of a workpiece with rectangular cross section that can be completely cut through with a single pass of the saw blade

Note 1 to entry: [5.101](#) provides a measurement procedure for **horizontal cutting capacity**.

3.108

kerf

distance between two parallel planes that are touching the opposing sides of at least three saw blade tooth tips

3.109

kerf plate

portion of the **table top** on both sides of the saw blade intersect line with the **table top** for the purpose of minimizing the tearing of the wood fibres by the saw blade

Note 1 to entry: Depending on the design, the **kerf plate** is adjustable, replaceable or an integral part of the **table top**.

3.110

mitre angle

angular displacement of the plane of the **fence** with respect to the cutting line, the position of the saw blade plane that is perpendicular to the plane of the **fence** being the 0° mitre position