



62841-3-1

STANDARD FOR SAFETY

Electric Motor-Operated Hand-Held Tools,
Transportable Tools And Lawn And Garden
Machinery – Safety – Part 3-1: Particular
Requirements For Transportable Table Saws

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UL Standard for Safety for Electric Motor-Operated Hand-Held Tools, Transportable Tools And Lawn And Garden Machinery – Part 3-1: Particular Requirements For Transportable Table Saws, UL 62841-3-1

First Edition, Dated August 29, 2016

Summary of Topics

1. The revisions dated September 29, 2017 are being issued to incorporate changes to Clause 23 to align with changes to IEC 62841-3-1 in IEC Corrigendum 1 of IEC 62841-3-1 and to reflect the latest ANSI approval of the Standard.

This standard is an adoption of IEC 62841-3-1, Edition 1, published by the IEC June 2014. Please note that the National Difference document incorporates all of the U.S. national differences for UL 62841-3-1.

The new requirements are substantially in accordance with Proposal(s) on this subject dated June 30, 2017..

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(IEC 62841-3-1:2014, MOD)



Underwriters Laboratories Inc.
UL 62841-3-1
First Edition

Electric Motor-Operated Hand-Held Tools, Transportable Tools And Lawn And Garden Machinery – Safety – Part 3-1: Particular Requirements For Transportable Table Saws

August 29, 2016

(Title Page Reprinted: September 29, 2017)

This national standard is based on publication IEC 62841-3-1, First Edition (2014).



ANSI/UL 62841-3-1-2017

Approved by



Standards Council of Canada
Conseil canadien des normes

Commitment for Amendments

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This ANSI/UL Standard for Safety consists of the First Edition including revisions through September 29, 2017. The most recent designation of ANSI/UL 62841-3-1 as an American National Standard (ANSI) occurred on September 29, 2017. The ANSI approval for this standard does not include the Cover Page, Transmittal Pages, Title Page, Preface Page, National Difference Page or IEC Foreword.

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Preface

This is the harmonized CSA Group and UL Standard for Electric Motor-Operated Hand-Held Tools, Transportable Tools And Lawn And Garden Machinery – Safety – Part 3-1: Particular Requirements For Transportable Table Saws. It is the First edition of CAN/CSA-C22.2 No. 62841-3-1 and the First edition of UL 62841-3-1. This harmonized Standard has been jointly revised on September 29, 2017. For this purpose, CSA Group and UL are issuing revision pages dated September 29, 2017.

This harmonized standard is based on IEC Publication 62841-3-1: First edition, Electric Motor-Operated Hand-Held Tools, Transportable Tools And Lawn And Garden Machinery – Safety – Part 3-1: Particular Requirements For Transportable Table Saws issued June 2014. IEC publication 62841-3-1 is copyrighted by the IEC.

This harmonized standard was prepared by CSA Group and Underwriters Laboratories Inc. (UL). The efforts and support of the International Harmonization Committee (IHC) for the adoption of the IEC series of standards for Hand-Held, Motor-Operated, and Transportable Tools and Lawn and Garden Machinery UL are gratefully acknowledged.

This standard is considered suitable for use for conformity assessment within the stated scope of the standard.

This standard was reviewed by the CSA Subcommittee on Safety of Hand-Held Motor-Operated Electric Tools, under the jurisdiction of the CSA Technical Committee on Consumer and Commercial Products and the CSA Strategic Steering Committee on Requirements for Electrical Safety, and has been formally approved by the CSA Technical Committee.

This standard has been approved as a National Standard of Canada by the Standards Council of Canada (SCC).

This standard has been approved by the American National Standards Institute (ANSI) as an American National Standard.

Application of Standard

Where reference is made to a specific number of samples to be tested, the specified number is to be considered a minimum quantity.

Note: Although the intended primary application of this standard is stated in its scope, it is important to note that it remains the responsibility of the users of the standard to judge its suitability for their particular purpose.

This CAN/CSA-C22.2 No. 62841-3-1, Standard for Electric Motor-Operated Hand-Held Tools, Transportable Tools And Lawn And Garden Machinery – Safety – Part 3-1: Particular Requirements For Transportable Table Saws is to be used in conjunction with the First edition of CAN/CSA-C22.2 No. 62841-1. The requirements for transportable table saws are contained in this Part 3 Standard and CAN/CSA-C22.2 No. 62841-1. Requirements of this Part 3 Standard, where stated, amend the requirements of CAN/CSA-C22.2 No. 62841-1. Where a particular subclause of CAN/CSA-C22.2 No. 62841-1 is not mentioned in CAN/CSA-C22.2 No. 62841-3-1, the CAN/CSA-C22.2 No. 62841-1 subclause applies.

This UL 62841-3-1, Standard for Safety for Electric Motor-Operated Hand-Held Tools, Transportable Tools And Lawn And Garden Machinery – Safety – Part 3-1: Particular Requirements For Transportable Table Saws, is to be used in conjunction with the First edition of UL 62841-1. The requirements for

transportable table saws are contained in this Part 3 Standard and UL 62841-1. Requirements of this Part 3 Standard, where stated, amend the requirements of UL 62841-1. Where a particular subclause of UL 62841-1 is not mentioned in UL 62841-3-1, the UL 62841-1 subclause applies.

Level of harmonization

This standard adopts the IEC text with national differences.

This standard is published as an equivalent standard for CSA Group and UL.

An equivalent standard is a standard that is substantially the same in technical content, except as follows: Technical national differences are allowed for codes and governmental regulations as well as those recognized as being in accordance with NAFTA Article 905, for example, because of fundamental climatic, geographical, technological, or infrastructural factors, scientific justification, or the level of protection that the country considers appropriate. Presentation is word for word except for editorial changes.

All national differences from the IEC text are included in the CSA Group and UL versions of the standard. While the technical content is the same in each organization's version, the format and presentation may differ.

Reasons for Differences From IEC

National Differences from the IEC are being added in order to address safety and regulatory situations present in the US and Canada.

Interpretations

The interpretation by the standards development organization of an identical or equivalent standard is based on the literal text to determine compliance with the standard in accordance with the procedural rules of the standards development organization. If more than one interpretation of the literal text has been identified, a revision is to be proposed as soon as possible to each of the standards development organizations to more accurately reflect the intent.

IEC Copyright

For CSA Group, the text, figures, and tables of International Electrotechnical Commission Publication IEC 62841-3-1 Electric Motor-Operated Hand-Held Tools, Transportable Tools And Lawn And Garden Machinery – Safety – Part 3-1: Particular Requirements For Transportable Table Saws, copyright 2014, are used in this standard with the consent of the International Electrotechnical Commission. The IEC Foreword is not a part of the requirements of this standard but is included for information purposes only.

For UL, the text, figures and tables of IEC publication IEC 62841-3-1, Electric Motor-Operated Hand-Held Tools, Transportable Tools And Lawn And Garden Machinery – Safety – Part 3-1: Particular Requirements For Transportable Table Saws, copyright 2014 are used in this standard with the consent of the IEC and the American National Standards Institute (ANSI). The IEC copyrighted material has been reproduced with permission from ANSI. ANSI should be contacted regarding the reproduction of any portion of the IEC material. The IEC Foreword is not a part of the requirements of this standard but is included for information purposes only. Copies of IEC Publication IEC 62841-3-1 may be purchased from ANSI, 25 West 43rd Street, 4th Floor, New York, New York, 10036, (212) 642- 4900.

NATIONAL DIFFERENCES

National Differences from the text of the International Electrotechnical Commission (IEC) publication 62841-3-1 (Electric Motor-Operated Hand-Held Tools, Transportable Tools And Lawn And Garden Machinery – Safety – Part 3-1: Particular Requirements For Transportable Table Saws) copyright 2014 are indicated by notations (differences) and are presented in bold text. The national difference type is included in the body.

There are five types of National Differences as noted below. The difference type is noted on the first line of the National Difference in the standard. The standard may not include all types of these National Differences.

DR – These are National Differences based on the **national regulatory requirements**.

D1 – These are National Differences which are based on **basic safety principles and requirements**, elimination of which would compromise safety for consumers and users of products.

D2 – These are National Differences from IEC requirements based on existing **safety practices**. These requirements reflect national safety practices, where empirical substantiation (for the IEC or national requirement) is not available or the text has not been included in the IEC standard.

DC – These are National Differences based on the **component standards** and will not be deleted until a particular component standard is harmonized with the IEC component standard.

DE – These are National Differences based on **editorial comments or corrections**.

Each national difference contains a description of what the national difference entails. Typically one of the following words is used to explain how the text of the national difference is to be applied to the base IEC text:

Addition / Add - An addition entails adding a complete new numbered clause, subclause, table, figure, or annex. Addition is not meant to include adding select words to the base IEC text.

Modification / Modify - A modification is an altering of the existing base IEC text such as the addition, replacement or deletion of certain words or the replacement of an entire clause, subclause, table, figure, or annex of the base IEC text.

Deletion / Delete - A deletion entails complete deletion of an entire numbered clause, subclause, table, figure, or annex without any replacement text.

INTERNATIONAL ELECTROTECHNICAL COMMISSION

ELECTRIC MOTOR-OPERATED HAND-HELD TOOLS, TRANSPORTABLE TOOLS AND LAWN AND GARDEN MACHINERY – SAFETY – PART 3-1: PARTICULAR REQUIREMENTS FOR TRANSPORTABLE TABLE SAWS

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 nongovernmental 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.

2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.

3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.

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5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.

6) All users should ensure that they have the latest edition of this publication.

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8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.

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 62841-3-1 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
116/168/FDIS	116/182/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 3-1 is to be used in conjunction with the first edition of IEC 62841-1:2014.

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

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

101DV DE Modification: Add the following to the IEC Foreword:

The numbering system in the standard uses a space instead of a comma to indicate thousands and uses a comma instead of a period to indicate a decimal point. For example, 1 000 means 1,000 and 1,01 means 1.01.

102DV DE Modification: Add the following to the IEC Foreword:

For this Standard, all references to “Part 1” refer to CAN/CSA-C22.2 No. 62841-1 and UL 62841-1.

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ELECTRIC MOTOR-OPERATED HAND-HELD TOOLS, TRANSPORTABLE TOOLS AND LAWN AND GARDEN MACHINERY – SAFETY – PART 3-1: PARTICULAR REQUIREMENTS FOR TRANSPORTABLE TABLE SAWS

1 Scope

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

Addition:

This part of IEC 62841 applies to transportable **table saws** with

- a toothed single blade; or
- stacked blades that cut a single groove or slot; or
- a moulding head cutter

intended for cutting wood and analogous materials, plastics and nonferrous metals except magnesium with a saw blade diameter between 105 mm and 315 mm, which hereinafter may simply be referred to as saw or tool.

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

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

NOTE 101 Saws designed for use with abrasive wheels as cut-off machines are covered by IEC 62841-3-10.

This standard does not apply to **table saws** with more than one spindle such as for a scoring blade.

NOTE 102 In Europe (EN 62841-3-1), the following conditions apply:

This standard applies to **table 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 **table saws**.

2 Normative references

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

Addition:

ISO 180

Plastics – Determination of Izod impact strength