



UL 62841-4-1

STANDARD FOR SAFETY

Electric Motor-Operated Hand-Held Tools, Transportable Tools And Lawn And Garden Machinery – Safety – Part 4-1: Particular Requirements For Chain Saws

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UL Standard for Safety for Electric Motor-Operated Hand-Held Tools, Transportable Tools And Lawn And Garden Machinery – Safety – Part 4-1: Particular Requirements For Chain Saws, UL 62841-4-1

First Edition, Dated March 6, 2020

Summary of Topics

This revision of ANSI/UL 62841-4-1 dated May 5, 2021 includes the following changes in requirements:

- **Revisions To Clause [101.DVA.1.14](#) To Correct The Longitudinal Balance Test Method For Top-Handle Saws**
- **Addition Of National Difference To Clause K.1 To Delete Reference To Chain Saws As Not Applicable; [K.1DV](#)**
- **Editorial correction to title of Clause [K.14.301](#) to match IEC document**

This standard is an adoption of IEC 62841-4-1, Edition 1, published by the IEC October 2017. The national difference document incorporates all of the U.S. national differences for UL 60745-4-1.

Text that has been changed in any manner or impacted by UL's electronic publishing system is marked with a vertical line in the margin.

The new and revised requirements are substantially in accordance with Proposal(s) on this subject dated January 15, 2021.

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CSA Group
CSA C22.2 No. 62841-4-1:20
First Edition
(IEC 62841-4-1:2017, MOD)



Underwriters Laboratories Inc.
UL 62841-4-1
First Edition

Electric Motor-Operated Hand-Held Tools, Transportable Tools And Lawn And Garden Machinery – Safety – Part 4-1: Particular Requirements For Chain Saws

March 6, 2020

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ANSI/UL 62841-4-1-2021



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This ANSI/UL Standard for Safety consists of the First Edition including revisions through May 5, 2021. The most recent designation of ANSI/UL 62841-4-1 as an American National Standard (ANSI) occurred on May 5, 2021. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, Title Page (front and back), or the Preface. The National Difference Page and IEC Foreword are also excluded from the ANSI approval of IEC-based standards.

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CONTENTS

Preface	7
NATIONAL DIFFERENCES	9
FOREWORD	11
1 Scope	15
1DV Modification: Add the following to Clause 1 of the Part 4:.....	15
2 Normative references	15
2DV Modification: Add the following reference standards to Clause 2 of the Part 4:.....	16
3 Terms and definitions.....	16
4 General requirements.....	18
5 General conditions for the tests	18
6 Radiation, toxicity and similar hazards	18
7 Classification	18
8 Marking and instructions	18
9 Protection against access to live parts	22
10 Starting.....	22
11 Input and current	22
12 Heating.....	22
13 Resistance to heat and fire.....	23
14 Moisture resistance	23
15 Resistance to rusting	23
16 Overload protection of transformers and associated circuits.....	23
17 Endurance	23
18 Abnormal operation	23
19 Mechanical hazards	24
19.101 Handles	25
19.102 Front hand guard	25
19.103 Rear hand guard.....	25
19.104 Drive sprocket cover.....	26
19.105 Chain catcher.....	26
19.106 Void	26
19.107 Protection against injury by kickback	26
19.108 Guide bar cover	28
19.109 Saw chain tension.....	29
19.110 Saw chain lubrication.....	29
19.111 Balance	29
19.112 Run down time.....	29
20 Mechanical strength	30
20.101 Handles	30
20.102 Front and rear hand guard	30
21 Construction	31
21.18.102DV Modification: Replace the second paragraph of Clause 21.18.102 of the Part 4 with the following:	32
21.101 Determination of cutting length.....	32
21.102 Operator presence sensor	32
21.103 Spiked bumper	33
21.104 Bar tip guard.....	33
22 Internal wiring	33
23 Components	33
24 Supply connection and external flexible cords.....	34
25 Terminals for external conductors	35

26	Provision for earthing.....	35
27	Screws and connections	35
28	Creepage distances, clearances and distances through insulation	35

Annexes

Annex I (informative) Measurement of noise and vibration emissions

I.2.2.4	Lawn and garden machinery.....	45
---------	--------------------------------	----

Annex K (normative) Battery tools and battery packs

K.1	Scope	52
K.1DV	Modification: Delete the first dashed item in Clause K.1 of the Part 4 (U.S. Only):	52
K.8.14.1.101	Safety instructions for chain saws.....	52
K.8.14.1.101DV.1	Modification: Replace Item e) of Clause 8.14.1.101 with the following:.....	52
K.8.14.1.101DV.2	Modification: Add Item nDV) to Clause K.8.14.1.101:	53
K.8.14.1.301	General chain saw safety warnings.....	53
K.14	Moisture resistance	53
K.14.301	Battery-powered chain saw moisture resistance.....	53
K.24	Supply connection and external flexible cords	57

Annex L (normative) Battery tools and battery packs provided with mains connection or non-isolated sources

L.1	Scope.....	58
-----	------------	----

Annex AA (normative) Safety signs

Annex BB (informative) Examples of instructions concerning the proper techniques for basic felling, limbing, and cross-cutting

BB.1	Felling a tree	63
BB.2	Notching undercut.....	63
BB.3	Felling back cut.....	63
BB.4	Limbing a tree.....	63
BB.5	Cross-cutting/bucking a log.....	64

Annex CC (informative) Example of a material and construction for fulfilling the requirements for an artificial surface

CC.1	Material	68
CC.2	Construction	68

Annex 101.DVA (normative) (U.S. Only) Additional Requirements for Battery-Operated Top-Handle Chain Saws

101.DVA.1	Add a new Annex 101.DVA as follows:	70
101.DVA.1.3	Apply Clause 2 of the Part 4 and the following:.....	70
101.DVA.1.4	Addition: Add Clause K.3.301DV to Annex K of the Part 4:.....	70
101.DVA.1.5	Addition: Add Figure K.301DV to Annex K of the Part 4:	71
101.DVA.1.6	Addition: Add Clause K.3.302DV to Annex K of the Part 4:.....	71

101.DVA.1.7 Addition: Add Clause K.5.301DV to Annex K of the Part 4:.....	71
101.DVA.1.8 Addition: Add Clause K.5.302DV to Annex K of the Part 4:.....	71
101.DVA.1.9 Modification: Replace 19.101 with the following:	71
101.DVA.1.10 Modification: Apply Clause 19.103 of the Part 4 and add the following:.....	72
101.DVA.1.11 Modification: Apply Clause 19.107.1.1 of the Part 4 and replace the first paragraph with the following:	72
101.DVA.1.12 Modification: Replace Clause 19.107.2 of the Part 4 with the following:	72
101.DVA.1.13 Modification: Apply Clause 19.107.4 of the Part 4 and replace the first paragraph with the following:	72
101.DVA.1.14 Modification: Apply Clause K.19.111 of the Part 4 and replace the fourth and fifth paragraphs with the following:	72
101.DVA.1.15 Addition: Add Clause K.19.301DV to Annex K of the Part 4:.....	72
101.DVA.1.16 Modification: Apply Clause 19.112 of the Part 4 and the following:.....	73
101.DVA.1.17 Addition: Add Clause K.21.302DV to Annex K of the Part 4:.....	73
101.DVA.1.18 Addition: Add Clause K.19.302DV to Annex K of the Part 4:.....	73
101.DVA.1.19 Addition: Add Clause K.21.303DV to Annex K of the Part 4:.....	73

Annex 101.DVB (normative) Additional Requirements For Battery-Operated Pruning Saws

101.DVB.1 Add a new Annex 101.DVB as follows:	74
101.DVB.1.2 Modification: Apply Clause 2 of the Part 4 and add the following:.....	74
101.DVB.1.3 Modification: Apply Clause 3 of the Part 4 and add the following:.....	74
101.DVB.1.4 Modification: Apply Clause K.8.14.2 b) of the Part 4 and the following:.....	77
101.DVB.1.5 Modification: Replace Clause 8.14.1.101 of the Part 4 with the following and apply:	77
101.DVB.1.6 Modification: Replace Clause 19.101 of the Part 4 with the following:	78
101.DVB.1.7 Modification: Replace Clause 19.102 of the Part 4 with the following:	78
101.DVB.1.8 Modification: Replace Clause 19.107 of the Part 4 with the following:	78
101.DVB.1.9 Modification: Replace Clause 19.111 of the Part 4 with the following:.....	80
101.DVB.1.10 Modification: Apply Clause 19.112 of the Part 4 and replace the fifth paragraph with the following:	80

Bibliography

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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 4-1: Particular Requirements For Chain Saws. It is the First edition of CSA C22.2 No. 62841-4-1 and the First edition of UL 62841-4-1. This harmonized standard has been jointly revised on May 5, 2021. For this purpose, CSA Group and UL are issuing revision pages dated May 5, 2021.

This harmonized standard is based on IEC Publication 62841-4-1: First edition, Electric Motor-Operated Hand-Held Tools, Transportable Tools And Lawn And Garden Machinery – Safety – Part 4-1: Particular Requirements For Chain Saws, issued October 2017. IEC 62841-4-1 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 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 developed in compliance with Standards Council of Canada requirements for National Standards of Canada. It has been published as a National Standard of Canada by CSA Group.

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.

CSA C22.2 No. 62841-4-1 is to be used in conjunction with the First edition of CAN/CSA-C22.2 No. 62841-1. The requirements for chain saws are contained in this Part 4 Standard and CAN/CSA-C22.2 No. 62841-1. Requirements of this Part 4 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 CSA C22.2 No. 62841-4-1, the CAN/CSA-C22.2 No. 62841-1 subclause applies.

UL 62841-4-1 is to be used in conjunction with the First edition of UL 62841-1. The requirements for chain saws are contained in this Part 4 Standard and UL 62841-1. Requirements of this Part 4 Standard, where stated, amend the requirements of UL 62841-1. Where a particular subclause of UL 62841-1 is not mentioned in UL 62841-4-1, 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 62841-4-1, Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery – Safety – Part 4-1: Particular requirements for chain saws, copyright 2017, 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.

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NATIONAL DIFFERENCES

National Differences from the text of International Electrotechnical Commission (IEC) Publication 62841-4-1, Electric Motor-Operated Hand-Held Tools, Transportable Tools And Lawn And Garden Machinery – Safety – Part 4-1: Particular Requirements For Chain Saws, copyright 2017, 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.

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FOREWORD

ELECTRIC MOTOR-OPERATED HAND-HELD TOOLS, TRANSPORTABLE TOOLS AND LAWN AND GARDEN MACHINERY – SAFETY – Part 4-1: Particular requirements for chain saws

- 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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International Standard IEC 62841-4-1 has been prepared by IEC technical committee 116: Safety of motor-operated electric tools.

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

FDIS	Report on voting
116/339/FDIS	116/344/RVD

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

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

This Part 4-1 is to be used in conjunction with the first edition of IEC 62841-1 (2014).

This Part 4-1 supplements or modifies the corresponding clauses in IEC 62841-1, so as to convert it into the IEC Standard: Particular requirements for chain saws.

Where a particular subclause of Part 1 is not mentioned in this Part 4-1, 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.
- **terms defined in Clause 3: in bold typeface.**

Subclauses, notes, tables and figures which are additional to those in Part 1, except as described for Annex K and Annex L below, 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 Part 4-1 as well as Annex K and Annex L of Part 1 are numbered starting from 301.

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 document will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document 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.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

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.

103DV DE Modification: Add the following to the list of dashed items in the IEC Foreword:

– terms defined in Annex [101.DVA](#) and Annex [101.DVB](#) appear in ALL CAPS.

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