IEC 62841-2-22

Edition 1.0 2025-06

Corrected version
2026-05

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery – Safety –
Part 2-22: Particular requirements for hand-held cut-off machines

Outils électroportatifs à moteur, outils portables et machines pour jardins et pelouses – Sécurité –
Partie 2-22: Exigences particulières pour les tronçonneuses portatives

ICS 25.140.20

ISBN 978-2-8327-0324-3

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

Part 2-22: Particular requirements for hand-held cut-off machines

FOREWORD

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IEC 62841-2-22 has been prepared by IEC technical committee 116: Safety of motor-operated electric tools. It is an International Standard.

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

Draft	Report on voting
116/870/FDIS	116/887/RVD

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

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

This document is to be used in conjunction with IEC 62841-1:2014.

This document supplements or modifies the corresponding clauses in IEC 62841-1, so as to convert it into the IEC Standard: Particular requirements for hand-held cut-off machines.

Where a particular subclause of IEC 62841-1 is not mentioned in this document, that subclause applies as far as reasonable. Where this document states "addition", "modification" or "replacement", the relevant text in IEC 62841-1 is to be adapted accordingly.

The following print types are used:

– requirements: in roman type;
– *test specifications: in italic type;*
– terms defined in Clause 3: **in bold type**
– notes: in small roman type.

Subclauses, notes, tables and figures which are additional to those in IEC 62841-1 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 document are numbered starting from 301.

A list of all parts in the IEC 62841 series, published 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 webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

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 content of the corrigendum 1 (2026-05) has been included in this copy.

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

Part 2-22: Particular requirements for hand-held cut-off machines

1 Scope

IEC 62841-1:2014, Clause 1 is applicable, except as follows:

Replacement of the third paragraph:

The **rated voltage** is not more than 250 V for single-phase a.c. or d.c. tools, and 480 V for three-phase a.c. tools.

Addition:

This document applies to hand-held **cut-off machines** fitted with

– one **bonded reinforced wheel** of Type 41 or Type 42; or

– one or more **diamond cutting wheels** with peripheral gaps, if any,

- having no positive rake angle; and
- not exceeding 10 mm for **cut-off machines** other than **flush cutters**, **power cutters** and **wall chasers**;

and with

– a **rated no-load speed** not exceeding a peripheral speed of the wheel of 100 m/s at **rated capacity**; and

– a **rated capacity** not exceeding 430 mm.

NOTE 101 An example of a permitted **diamond cutting wheel** construction is shown in Figure 106.

These tools are intended to cut materials such as metals, concrete, masonry, glass and tile.

This document does not apply to:

– **cut-off machines** that can be converted to a grinder, sander or polisher, which are covered by IEC 62841-2-3;

– circular saws which are covered by IEC 62841-2-5; and

– die grinders and small rotary tools which are covered by IEC 62841-2-23;

– tools intended to cut wood, except for **utility cutters**;

– **cut-off machines** fitted with a **bonded reinforced wheel** of Type 42 with a diameter exceeding 230 mm.

2 Normative references

IEC 62841-1:2014, Clause 2 is applicable, except as follows:

Addition:

IEC 61008-1:2010, *Residual current operated circuit-breakers without integral overcurrent protection for household and similar uses (RCCBs) – Part 1: General rules*[1]
IEC 61008-1:2010/AMD1:2012
IEC 61008-1:2010/AMD2:2013

IEC 62841-1:2014, *Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery – Safety – Part 1: General requirements*

ISO 19432-1:2020, *Building construction machinery and equipment – Portable, hand-held, internal combustion engine-driven abrasive cutting machines – Part 1: Safety requirements for cut-off machines for centre-mounted rotating abrasive wheels*

Bibliography

The bibliography of IEC 62841-1:2014 is applicable, except as follows:

Addition:

IEC 62841-2-3, *Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery – Safety – Part 2-3: Particular requirements for hand-held grinders, disc-type polishers and disc-type sanders*

IEC 62841-2-5, *Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery – Safety – Part 2-5: Particular requirements for hand-held circular saws*

IEC 62841-2-23, *Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery – Safety – Part 2-23: Particular requirements for hand-held die grinders and small rotary tools*

ISO 603-15:2022, *Bonded abrasive products – Dimensions – Part 15: Cutting-off wheels on stationary or mobile cutting-off machines*

ISO 603-16:2022, *Bonded abrasive products – Dimensions – Part 16: Cutting-off wheels on hand held power tools*

ISO 630-2:2021, *Structural steels – Part 2: Technical delivery conditions for structural steels for general purposes*

EN 1339:2003, *Concrete paving flags – Requirements and test methods*

ANSI-UAMA B7.1-2017, *Safety Requirements for the Use, Care and Protection of Abrasive Wheels*

CSA C22.2 No. 144, *Ground Fault Circuit Interrupters*

UL 1053, *Ground-Fault Sensing and Relaying Equipment*

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