

AS/NZS 62841.4.3:2021
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Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery — Safety

Part 4.3: Particular requirements for pedestrian controlled walk-
behind lawnmowers



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AS/NZS 62841.4.3:2021

This Joint Australian/New Zealand Standard™ was prepared by Joint Technical Committee EL-002, Safety of Household and Similar Electrical Appliances and Small Power Transformers and Power Supplies. It was approved on behalf of the Council of Standards Australia on 20 October 2021 and by the New Zealand Standards Approval Board on 6 October 2021.

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The following are represented on Committee EL-002:

- Association of Accredited Certification Bodies
- Australian Industry Group
- Australian Retailers Association
- Better Regulation Division (Fair Trading, Safework NSW, TestSafe)
- Business New Zealand
- Consumer Electronic Suppliers Association, Australia
- Consumers' Federation of Australia
- Electrical Regulatory Authorities Council, Australia
- Electrical consultants
- Engineers Australia
- JAS-ANZ
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Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery — Safety

Part 4.3: Particular requirements for pedestrian controlled walk-behind lawnmowers

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STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

AS/NZS 62841.4.3:2021

**ELECTRIC MOTOR-OPERATED HAND-HELD TOOLS, TRANSPORTABLE TOOLS
AND LAWN AND GARDEN MACHINERY –
SAFETY –****Part 4.3: Particular requirements for pedestrian controlled walk-behind lawnmowers****Foreword**

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-002 - Safety of Household and Similar Electrical Appliances and Small Power Transformers to supersede AS/NZS 60335.2.77:2002 three years from the date of publication of this Standard. During this period AS/NZS 60335.2.77:2002 will also remain current. Regulatory authorities that reference this Standard in regulation may apply these requirements at a different time. Users of this Standard should consult with these authorities to confirm their requirements.

The objective of this Standard is to provide manufacturers, designers, regulatory authorities, testing laboratories and similar organizations with safety requirements designed to give the user protection against hazards that might occur during normal operation and abnormal operation of the appliance and which may be used as the basis for approval for sale or for connection to the electricity supply mains in Australia and New Zealand.

The text of IEC 62841-4-3 Ed 1, prepared by IEC Technical Committee TC 116, was submitted to the Standards Australia/Standards New Zealand Combined Procedure (dual public comment and committee vote) for adoption of the IEC standard as a Standards Australia/Standards New Zealand joint standard.

This Standard is an adoption with national modifications of the first edition of IEC 62841-4-3 *Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery – Safety – Part 4-3 Particular requirements for pedestrian controlled walk-behind lawnmowers*. It has been varied as indicated to take account of Australian and New Zealand conditions.

This part of AS/NZS 62841 has to be used in conjunction with the latest edition of AS/NZS 62841.1 *Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery – Safety – Part 1: General requirements* and its Amendments. It was established on the basis of AS/NZS 62841.1:2015.

This part of AS/NZS 62841 supplements or modifies the corresponding clauses of Part 1 of AS/NZS 62841 so as to convert it into the Australian/New Zealand Standard: Safety requirements for pedestrian controlled walk-behind lawnmowers.

When a particular subclause of AS/NZS 62841.1 is not mentioned in this part of AS/NZS 62841, that subclause applies as far as is reasonable. When this standard states "addition", "modification" or "replacement", the relevant text of AS/NZS 62841.1 is to be adapted accordingly.

NOTE 1 The following numbering system is used:

- subclauses, tables and figures that are numbered starting from 101 are additional to those in AS/NZS 62841.1;
- unless notes are in a new subclause or involve notes in AS/NZS 62841.1, they are numbered starting from 101, including those in a replaced clause or subclause;
- additional annexes are lettered AA, BB, etc.;
- subclauses, notes and annexes that are additional to those in the IEC standard are prefixed with the letters AZ.

NOTE 2 The following print types are used:

- requirements: in roman type;
- test specifications: in italic type;

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– notes: in small roman type.

Words in **bold** in the text are defined in Clause 3.

p NOTE 3 In this document, p is used in the margin to indicate instructions for preparing a consolidated version.

The essential safety requirements in AS/NZS 3820¹ that could be applicable to requirements for pedestrian controlled walk-behind lawnmowers are covered by this standard.

The national variations to IEC 62841-4-3 Ed 1 form the Australian and New Zealand national variations for purposes of the IECEE scheme for recognition of results of testing to standards for safety of electrical equipment (the CB scheme).

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¹ AS/NZS 3820 *Essential safety requirements for electrical equipment*

The text of the International Standard IEC 62841-4-3 Ed 1 was approved as a joint Australia/New Zealand Standard with the agreed national variations as given below.

AUSTRALIAN NATIONAL VARIATIONS

There are no national variations to this part of AS/NZS 62841 other than those listed in the national variations in AS/NZS 62841.1:2015.

NEW ZEALAND NATIONAL VARIATIONS

There are no national variations to this part of AS/NZS 62841 other than those listed in the national variations in AS/NZS 62841.1:2015.

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Annex ANZ (normative)

Normative references to international publications with their corresponding joint Australia/New Zealand publications

The following referenced documents are indispensable for the application of this document. 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 national variations the relevant joint Australia/New Zealand publication applies if the national variations are needed to ensure the safety of the appliance for Australia/New Zealand conditions. These international publications are indicated by (mod). If an international publication is not so indicated, then either it or the listed Australia/New Zealand publication may be used.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>AS/NZS</u>	<u>Year</u>
IEC 60664-3		<i>Insulation coordination for equipment within low-voltage systems – Part 3: Use of coating, potting or moulding for protection against pollution</i>		
IEC 60664-4		<i>Insulation coordination for equipment within low-voltage systems – Part 4: Consideration of high-frequency voltage stress</i>		
IEC 61058-1	2016	<i>Switches for appliances – Part 1: General requirements</i>		
IEC 61058-2-6	2018	<i>Switches for appliances – Part 2-6: Particular requirements for switches used in electric motor-operated hand-held tools, transportable tools and lawn and garden machinery</i>		
IEC 61672-1		<i>Electroacoustics – Sound level meters – Part 1: Specifications</i>		
ISO 354	2003	<i>Acoustics – Measurement of sound absorption in a reverberation room</i>		
ISO 3744	2010	<i>Acoustics – Determination of sound power levels and sound energy levels of noise sources using sound pressure – Engineering methods for an essentially free field over a reflecting plane</i>		
ISO 5395-1 ISO 5395-1:2013/AMD1	2013 2017	<i>Garden equipment – Safety requirements for combustion-engine-powered lawnmowers – Part 1: Terminology and common tests</i>		
ISO 5395-2 ISO 5395-1:2013/AMD1 ISO 5395-1:2013/AMD2	2013 2016 2017	<i>Garden equipment – Safety requirements for combustion-engine-powered lawnmowers – Part 2: Pedestrian-controlled lawnmowers</i>		

ISO 11201	2010	<i>Acoustics – Noise emitted by machinery and equipment – Determination of emission sound pressure levels at a work station and at other specified positions in an essentially free field over a reflecting plane with negligible environmental corrections</i>
ISO 13857	2019	<i>Safety of machinery – Safety distances to prevent hazard zones being reached by upper and lower limbs</i>
ANSI B71.1	2017	<i>Consumer turf care equipment – Pedestrian-controlled mowers and ride-on mowers – Safety specifications</i>
EN 12096		<i>Mechanical Vibration – Declaration and Verification of Vibration Emission Values</i>

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

ELECTRIC MOTOR-OPERATED HAND-HELD TOOLS, TRANSPORTABLE TOOLS AND LAWN AND GARDEN MACHINERY – SAFETY –**Part 4-3: Particular requirements for pedestrian controlled walk-behind lawnmowers**

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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International Standard IEC 62841-4-3 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
116/467/FDIS	116/478/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 publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

This Part 4-3 is to be used in conjunction with the first edition of IEC 62841-1:2014.

This Part 4-3 supplements or modifies the corresponding clauses in IEC 62841-1, so as to convert it into the IEC Standard: Particular requirements for pedestrian controlled walk-behind lawnmowers.

Where a particular subclause of Part 1 is not mentioned in this Part 4-3, that subclause applies as far as reasonable. Where this document 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, tables and figures which are additional to those in Part 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 Part 4-3 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 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.

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

Part 4-3: Particular requirements for pedestrian controlled walk-behind lawnmowers

1 Scope

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

Addition:

This document applies to the design of pedestrian controlled walk-behind

– **cylinder lawnmowers;**

and

– **rotary lawnmowers**

equipped with

– metallic **cutting means;** and/or

– rigid non-metallic **cutting means;** and/or

– non-metallic **cutting means** with one or more cutting elements pivotally mounted on a generally circular drive unit, where these cutting elements rely on centrifugal force to achieve cutting, and have a kinetic energy for each single cutting element of greater than 10 J.

NOTE 101 Machines that have non-metallic **cutting means** and a kinetic energy for each single cutting element of less than or equal to 10 J are considered to be lawn trimmers.

This document does not apply to

- robotic lawnmowers;
- remote-controlled lawnmowers;
- flail mowers or flail-type attachments;
- scissors type lawnmowers;
- grassland mowers;
- sickle bar mowers;
- towed/semi-mounted grass-cutting machines;
- scrub-clearing machines;
- lawn trimmers and lawn edge trimmers;
- lawn edgers;
- grass trimmers;
- brush cutters;
- brush saws;
- agricultural mowers;
- trailing seat/sulky units;
- ride-on machines;