AS 2657.2:2025

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STANDARDS Australia

Garden equipment — Safety requirements for combustion-engine-powered lawnmowers

Part 2: Pedestrian-controlled lawnmowers (ISO 5395-2:2013, MOD)



AS 2657.2:2025

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Garden equipment — Safety requirements for combustion-engine-powered lawnmowers

Part 2: Pedestrian-controlled lawnmowers (ISO 5395-2:2013, MOD)

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Preface

This Standard was prepared by the Standards Australia Committee CS-033, Power Lawn Mowers and Edge Trimmers. This document supersedes AS 2657:1985, *Powered rotary lawnmowers*, which has been withdrawn.

The objective of this document is to specify safety requirements and their verification for combustion-engine-powered pedestrian-controlled rotary lawnmowers and cylinder lawnmowers, including pedestrian-controlled mowers with a sulky having a seated operator (hereafter named "lawnmower"), and equipped with:

(a) metallic cutting means; and/or

(b) 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 10 J or more.

This part of AS 2657 does not apply to:

(i) robotic and remote-controlled lawnmowers, flail mowers, grassland mowers, sickle bar mowers, towed/semi-mounted grass-cutting machines, and scrub-clearing machines;

(ii) electrically powered and battery-powered lawnmowers; and

(iii) pedestrian-controlled lawnmowers with a swing-over handle/flip-over handle.

NOTE 1 AS/NZS 60335.1, together with AS/NZS 62841.4.3, give particular requirements for pedestrian-controlled walk-behind electrically powered lawnmowers.

NOTE 2 AS/NZS 62841.4.3 gives requirements for Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery – Safety (Particular requirements for pedestrian controlled walk-behind lawnmowers).

A list of all parts in the AS 2657 series can be found in the Standards Australia online catalogue.

This document is an adoption with national modifications and has been reproduced from ISO 5395-2:2013, *Garden equipment — Safety requirements for combustion-engine-powered lawnmowers — Part 2: Pedestrian-controlled lawnmowers* and its *Amendments No. 1 (2016)* and *2 (2017)* which have been added at the end of the source text. The modifications are alternate requirements and are set out in Appendix ZZ, which has been added at the end of the source text.

Appendix ZZ lists the modifications to ISO 5395-2:2013, for the application of this document in Australia.

As this document has been reproduced from an international document, the following apply:

(A) In the source text "this part of ISO 5395" should read "this document".

(B) A full point substitutes for a comma when referring to a decimal marker.

Australian or Australian/New Zealand Standards that are identical adoptions of international normative references may be used interchangeably. Refer to the online catalogue for information on specific Standards.

The terms "normative" and "informative" are used in Standards to define the application of the appendices or annexes to which they apply. A "normative" appendix or annex is an integral part of a Standard, whereas an "informative" appendix or annex is only for information and guidance.

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Contents

Preface ii
Foreword v
Introduction vi
1 Scope 1
2 Normative references 1
3 Terms and definitions 2
4 Requirements for pedestrian-controlled lawnmowers 2
4.1 General 2
4.2 Controls 2
4.2.1 Location 2
4.2.2 Engine speed 4
4.2.3 Engine starting 5
4.2.4 Engine stopping 5
4.2.5 Brake steering or clutch steering 5
4.2.6 Traction drive 5
4.3 Operator presence control (OPC) 5
4.4 Handle 6
4.4.1 Distance 6
4.4.2 Pivoting 6
4.5 Guards 7
4.5.1 General 7
4.5.2 Detaching or opening of guards 8
4.6 Brakes 8
4.6.1 Service-brake performance 8
4.6.2 Parking brake 9
4.7 Transport position of the cutting-means assembly 10
4.7.1 Disengagement of the cutting means 10
4.7.2 Manual movement to the transport position 10
4.7.3 Securing in the transport position 10
4.7.4 Movement from the transport position 10
4.8 Separate fan for grass collection 11
4.9 Hot surfaces 11
4.10 Exhaust fumes 11
4.11 Pressurized components of hydraulic systems 11
4.12 Liquid spillage 11
4.12.1 Requirements 11
4.12.2 Spillage test 11
4.13 Electrical system 12
4.13.1 Electrical cables and wiring (including high tension cables) 12
4.13.2 Starting battery installation 12
4.13.3 Overload protection 12
4.13.4 Terminals and electrical parts 12
4.13.5 Ignition circuits (spark ignition engines) 12
4.14 Electromagnetic immunity 13
4.15 Noise 13
4.15.1 Reduction by design, at source and by protective measures 13
4.15.2 Noise measurements 13
4.16 Vibration 13
4.16.1 Reduction by design, at source and by protective measures 13
4.16.2 Vibration measurements 13
4.17 Additional requirements for a lawnmower with a sulky with a seat 14
4.17.1 Braking 14

4.17.2 Controls 14
4.17.3 Platform and foot rest 16
4.17.4 Stability 16

5 Particular requirements for pedestrian-controlled rotary lawnmowers 16
5.1 Stopping time of the cutting means 16
5.1.1 Stopping time and durability 16
5.1.2 Imbalance 17
5.2 Impact of the cutting means 17
5.3 Cutting-means enclosure 17
5.3.1 Enclosure 17
5.3.2 Foot protection 19
5.4 Structural integrity 22
5.5 Thrown objects 23
5.6 Grass catcher 23

6 Particular requirements for pedestrian-controlled cylinder lawnmowers 23
6.1 Throw line 23
6.2 Cutting-means enclosure 24
6.2.1 Requirements 24
6.2.2 Verification 24
6.3 Stopping time of the cutting means 26

7 Information for use 27
7.1 Instruction handbook 27
7.1.1 General 27
7.1.2 Technical data 27
7.1.3 Other information 27
7.2 Markings and warnings 30
7.2.1 Marking requirements 30
7.2.2 Warning requirements 31
7.2.3 Artificial weathering test 31

Annex A (informative) **List of significant hazards 32**

Bibliography 34

Amendment 1: OPC, cutting means, pressurized hoses 35

Amendment 2: Cutting-means-enclosure guards 37

Appendix ZZ (normative) **Modifications to ISO 5395-2:2013 for Australia 42**

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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

ISO 5395-2 was prepared by the European Committee for Standarization (CEN) Technical Committee CEN/TC 144, *Tractors and machinery for agriculture and forestry* in collaboration with ISO Technical Committee TC 23, *Tractors and machinery for agriculture and forestry*, Subcommittee SC 13, *Powered lawn and garden equipment*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition of ISO 5395-2, together with ISO 5395-1 and ISO 5395-3, cancels and replaces ISO 5395:1990, which has been technically revised. These three parts also incorporate the Amendment ISO 5395:1990/Amd.1:1992.

ISO 5395 consists of the following parts, under the general title *Garden equipment — Safety requirements for combustion-engine-powered lawnmowers*:

— *Part 1: Terminology and common tests*

— *Part 2: Pedestrian-controlled lawnmowers*

— *Part 3: Ride-on lawnmowers with seated operator*

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Introduction

This document is a type-C standard as stated in ISO 12100.

The machinery concerned and the extent to which hazards, hazardous situations or hazardous events are covered are indicated in the scope of this document.

When requirements of this type-C standard are different from those which are stated in type-A or type-B standards, the requirements of this type-C standard take precedence over the requirements of the other standards for machines that have been designed and built according to the requirements of this type-C standard.

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Garden equipment — Safety requirements for combustion-engine-powered lawnmowers

Part 2: Pedestrian-controlled lawnmowers (ISO 5395-2:2013, MOD)

1 Scope

1.1 This part of ISO 5395 specifies safety requirements and their verification for combustion-engine-powered pedestrian-controlled rotary lawnmowers and cylinder lawnmowers, including pedestrian-controlled mowers with a sulky having a seated operator (hereafter named "lawnmower"), and equipped with:

— 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 10 J or more.

This part of ISO 5395 does not apply to:

— robotic and remote-controlled lawnmowers, flail mowers, grassland mowers, sickle bar mowers, towed/semi-mounted grass-cutting machines, and scrub-clearing machines;

— electrically powered and battery-powered lawnmowers;

— pedestrian-controlled lawnmowers with a swing-over handle.

NOTE IEC 60335-1[2] together with IEC 60335-2-77,[3] give requirements for pedestrian-controlled walk-behind electrically powered lawnmowers.

1.2 This part of ISO 5395 deals with all significant hazards, hazardous situations or events (see Annex A) relevant to lawnmowers when used as intended and under the conditions of misuse which are reasonably foreseeable by the manufacturer.

1.3 It is not applicable to lawnmowers which are manufactured before the date of publication of this document.

2 Normative references

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.

IEC 61032:1997, *Protection of persons and equipment by enclosures — Probes for verification*

ISO 5395-1:2013, *Garden equipment — Safety requirements for combustion-engine-powered lawnmowers — Part 1: Terminology and common tests*

ISO 5395-3:2013, *Garden equipment — Safety requirements for combustion-engine-powered lawnmowers — Part 3: Ride-on lawnmowers with seated operator*

ISO 12100:2010, *Safety of machinery — General principles for design — Risk assessment and risk reduction*

ISO 13849-1:2006, *Safety of machinery — Safety-related parts of control systems — Part 1: General principles for design*

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