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Irish Standard
I.S. EN ISO 5395-2:2013

# Garden equipment - Safety requirements for combustion-engine-powered lawnmowers - Part 2: Pedestrian-controlled lawnmowers (ISO 5395-2:2013)

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

# EN ISO 5395-2

September 2013

ICS 65.060.70

Supersedes EN 836:1997+A4:2011

English Version

# Garden equipment - Safety requirements for combustion-engine-powered lawnmowers - Part 2: Pedestrian-controlled lawnmowers (ISO 5395-2:2013)

Matériel de jardinage - Exigences de sécurité pour les tondeuses à gazon à moteur à combustion interne - Partie 2: Tondeuses à gazon à conducteur à pied (ISO 5395-2:2013)

Gartengeräte - Sicherheitsanforderungen für verbrennungsmotorisch angetriebene Rasenmäher - Teil 2: Handgeführte Rasenmäher (ISO 5395-2:2013)

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# Foreword

This document (EN ISO 5395-2:2013) has been prepared by Technical Committee ISO/TC 23 "Tractors and machinery for agriculture and forestry" in collaboration with Technical Committee CEN/TC 144 “Tractors and machinery for agriculture and forestry” the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by March 2014, and conflicting national standards shall be withdrawn at the latest by September 2014.

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

This document supersedes EN 836:1997+A4:2011.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive.

For relationship with EU Directive, see informative Annex ZA, which is an integral part of this document.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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The text of ISO 5395-2:2013 has been approved by CEN as EN ISO 5395-2:2013 without any modification.

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# Annex ZA
(informative)

## Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC on machinery amended by 2009/127/EC

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association to provide a means of conforming to Essential Requirements of the New Approach Directive 2006/42/EC amended by 2009/127/EC.

Once this standard is cited in the Official Journal of the European Union under that Directive and has been implemented as a national standard in at least one Member State, compliance with the normative clauses of this standard confers, within the limits of the scope of this standard, a presumption of conformity with the relevant Essential Requirements of that Directive and associated EFTA regulations.

**WARNING** — Other requirements and other EU Directives may be applicable to the product(s) falling within the scope of this standard.

NOTE Compliance with Part 2, together with Part 1, is necessary to achieve presumption of conformity with the Essential Requirements of Directive 2006/42/EC and associated EFTA regulations.

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I.S. EN ISO 5395-2:2013

INTERNATIONAL STANDARD

# ISO 5395-2

Second edition
2013-09-01

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

## Part 2: Pedestrian-controlled lawnmowers

*Matériel de jardinage — Exigences de sécurité pour les tondeuses à gazon à moteur à combustion interne —*

*Partie 2: Tondeuses à gazon à conducteur à pied*

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# 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

## 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*

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