

**Aiapidamisseadmed. Ohutusnõuded  
sisepõlemismootoriga muruniidukitele. Osa 3:  
Juhiistmega murutraktorid**

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

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN ISO 5395-3:2013 sisaldab Euroopa standardi EN ISO 5395-3:2013 inglisekeelset teksti.	This Estonian standard EVS-EN ISO 5395-3:2013 consists of the English text of the European standard EN ISO 5395-3:2013.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 04.09.2013.	Date of Availability of the European standard is 04.09.2013.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile [standardiosakond@evs.ee](mailto:standardiosakond@evs.ee).

ICS 65.060.70

### **Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele**

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega:  
Aru 10, 10317 Tallinn, Eesti; [www.evs.ee](http://www.evs.ee); telefon 605 5050; e-post [info@evs.ee](mailto:info@evs.ee)

### **The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation**

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation:  
Aru 10, 10317 Tallinn, Estonia; [www.evs.ee](http://www.evs.ee); phone 605 5050; e-mail [info@evs.ee](mailto:info@evs.ee)

English Version

## Garden equipment - Safety requirements for combustion-engine-powered lawnmowers - Part 3: Ride-on lawnmowers with seated operator (ISO 5395-3:2013)

Matériel de jardinage - Exigences de sécurité pour les tondeuses à gazon à moteur à combustion interne - Partie 3: Tondeuses à gazon à conducteur assis (ISO 5395-3:2013)

Gartengeräte - Sicherheitsanforderungen für verbrennungsmotorisch angetriebene Rasenmäher - Teil 3: Rasenmäher mit Fahrersitz mit sitzendem Benutzer (ISO 5395-3:2013)

This European Standard was approved by CEN on 19 July 2013.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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 United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**

## Foreword

This document (EN ISO 5395-3:2013) 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.

### Endorsement notice

The text of ISO 5395-3:2013 has been approved by CEN as EN ISO 5395-3:2013 without any modification.

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

# Contents

Page

<b>Foreword</b> .....	<b>iv</b>
<b>Introduction</b> .....	<b>v</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms and definitions</b> .....	<b>2</b>
<b>4 Requirements for ride-on lawnmowers</b> .....	<b>2</b>
4.1 General.....	2
4.2 Controls.....	2
4.3 Operator presence control (OPC).....	6
4.4 Brakes.....	6
4.5 Guards.....	9
4.6 Stability.....	11
4.7 Rollover protective structure (ROPS).....	12
4.8 Seat belts.....	12
4.9 Seats and foot rests.....	13
4.10 Transport position of the cutting-means assembly.....	14
4.11 Separate fan for grass collection.....	14
4.12 Hot surfaces.....	15
4.13 Exhaust fumes.....	15
4.14 Pressurized components of hydraulic systems.....	15
4.15 Liquid spillage.....	15
4.16 Electrical system.....	16
4.17 Electromagnetic immunity.....	16
4.18 Noise.....	17
4.19 Vibration.....	17
<b>5 Particular requirements for ride-on rotary lawnmowers</b> .....	<b>18</b>
5.1 Cutting means.....	18
5.2 Impact of the cutting means.....	19
5.3 Cutting-means enclosure.....	19
5.4 Structural integrity.....	23
5.5 Thrown objects.....	23
5.6 Grass catchers.....	24
<b>6 Particular requirements for ride-on cylinder lawnmowers</b> .....	<b>24</b>
6.1 Cutting-means enclosure.....	24
6.2 Throw line.....	27
6.3 Stopping time of the cutting means.....	27
<b>7 Information for use</b> .....	<b>27</b>
7.1 Instruction handbook.....	27
7.2 Markings and warnings.....	30
<b>Annex A (normative) Ride-on lawnmower stability test</b> .....	<b>33</b>
<b>Annex B (normative) Determination of contact with moving power-driven components</b> .....	<b>36</b>
<b>Annex C (informative) List of significant hazards</b> .....	<b>40</b>
<b>Bibliography</b> .....	<b>42</b>

## 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.

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

## Part 3: Ride-on lawnmowers with seated operator

### 1 Scope

**1.1** This part of ISO 5395 specifies safety requirements and their verification for combustion-engine-powered ride-on (seated) rotary lawnmowers and cylinder lawnmowers (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;
- cutting-means assembly when used in combination with an agricultural tractor;
- electrically powered and battery-powered lawnmowers.

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

**1.3** This part of ISO 5395 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 3776-2:2013, *Tractors and machinery for agriculture — Seat belts — Part 2: Anchorage strength requirements*

ISO 3776-3:2009, *Tractors and machinery for agriculture — Seat belts — Part 3: Requirements for assemblies*

ISO 5353, *Earth-moving machinery, and tractors and machinery for agriculture and forestry — Seat index point*

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

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*