

**Majapidamismasinad ja nende sarnased elektriseadmed.
Ohutus. Osa 2-91: Erinõuded järelkäiguga ja
käeshoitavatele muru- ja hekitrimmeritele**

**Household and similar electrical appliances - Safety -
Part 2-91: Particular requirements for walk-behind and
hand-held lawn trimmers and lawn edge trimmers**

EESTI STANDARDI EESSÕNA**NATIONAL FOREWORD**

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English Version

Household and similar electrical appliances - Safety - Part 2-91: Particular requirements for walk-behind and hand-held lawn trimmers and lawn edge trimmers

Appareils électrodomestiques et analogues - Sécurité -
Partie 2-91: Règles particulières pour les coupe-gazon et
les coupe-bordures portatifs et à conducteur à pied

Sicherheit elektrischer Geräte für den Hausgebrauch und
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Contents	Page
Foreword	4
Introduction	6
1 Scope	7
2 Normative references	7
3 Terms and definitions	8
4 General requirement	9
5 General conditions for the tests	9
6 Classification	9
7 Marking and instructions	10
8 Protection against access to live parts	13
9 Starting of motor-operated appliances	13
10 Power input and current	13
11 Heating	13
12 Void	13
13 Leakage current and electric strength at operating temperature	13
14 Transient overvoltages	13
15 Moisture resistance	14
16 Leakage current and electric strength	14
17 Overload protection of transformers and associated circuits	14
18 Endurance	14
19 Abnormal operation	14
20 Stability and mechanical hazards	14
21 Mechanical strength	17
22 Construction	18
23 Internal wiring	20
24 Components	20
25 Supply connection and external flexible cords	20
26 Terminals for external conductors	21
27 Provision for earthing	21
28 Screws and connections	21
29 Clearances, creepage distances and solid insulation	21
30 Resistance to heat and fire	21
31 Resistance to rusting	21
32 Radiation, toxicity and similar hazards	22
Annexes	27
Annex B (normative) Appliances powered by rechargeable batteries	27

Annex AA (normative) Safety signs and symbols which may be used on lawn trimmers and lawn edge trimmers	29
Annex BB (normative) Vibration	32
Annex CC (normative) Noise test code – Engineering method (grade 2)	37
Annex DD (informative) Example of a material and construction fulfilling the requirements for an artificial surface	43
Annex EE (informative) Safety instructions	45
Annex FF (normative) Test enclosure - Base	47
Annex ZZ (informative) Coverage of Essential Requirements of EU Directives	49
Bibliography	50
Figures	
Figure 101 — Guard, lawn trimmer (see Clause 20.101.1)	23
Figure 103 — Guard strength test (hand-held trimmers)	25
Figure 104 — Cutting head strength test (see Clause 21.102).....	25
Figure 105 — Cutting means measurement (see Clause 22.103).....	26
Figure AA.1 — “Read operator’s manual”	29
Figure AA.2 — “Keep bystanders away”	29
Figure AA.3 — “Wear eye protection”	30
Figure AA.4 — “Do not expose to rain”	30
Figure AA.5 — “Disconnect the mains plug if the cord becomes damaged or entangled”	30
Figure AA.6 — “Wear hearing protection”	31
Figure BB.1 — Examples of transducer location/orientation (hand-held trimmers).....	35
Figure BB.2 — Examples of transducer location/orientation (walk-behind machines)	36
Figure CC.1 — Microphone positions on the hemisphere (see Table CC.1).....	38
Figure DD.1 — Sketch of the measurement surface covered with an artificial surface (not to scale).....	44
Figure FF.1 — Nail plan of base.....	47
Figure FF.2 — Base detail.....	48
Tables	
Table CC.1 — Co-ordinates of microphone positions.....	39
Table CC.2 — Absorption coefficients	40

Foreword

This document (EN 50636-2-91:2014) has been prepared by CLC/TC 116 "Safety of motor-operated electric tools".

The following dates are fixed:

- latest date by which this document has to be implemented (dop) 2014-12-20
at national level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2016-09-02

This document supersedes EN 60335-2-91:2003.

EN 60335-2-91:2013 includes the following significant technical changes:

- rewording of some clauses;
- alignment to EN 60335-1:2012;
- improvement of Clause 20.102.

This document is to be used in conjunction with EN 60335-1:2012, "*Household and similar electrical appliances — Safety — Part 1: General requirements*".

When "Part 1" is mentioned in this standard, it refers to EN 60335-1:2012.

This document supplements or modifies the corresponding clauses in Part 1, so as to convert that publication into the European Standard "*Safety requirements for walk-behind and hand-held lawn trimmers and lawn edge trimmers*".

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

Compliance with the relevant clauses of Part 1 together with this document provides one means of conforming to the specified essential health and safety requirements of the Directive.

This European Standard follows the overall requirements of EN ISO 12100.

Warning: Other requirements arising from other EU Directives can be applicable to the products falling within the scope of this European Standard.

The following numbering system is used:

- subclauses that are numbered starting from 101 are additional to those in Part 1;
- additional annexes are lettered AA, BB, etc.;

NOTE In this European Standard the following print types are used:

- requirements proper: in roman type;
- *test specifications: in italic type;*
- explanatory matter: in smaller roman type.

Words in **bold** in the text are defined in clause 3. When a definition concerns an adjective, the adjective and the associated noun are also in bold.

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

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

For the relationship with EU Directive(s) see informative Annex ZZ, which is an integral part of this document.

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Introduction

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

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

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

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1 Scope

This clause of Part 1 is replaced by the following.

This European Standard specifies safety requirements and their verification for the design and construction of electric powered **walk-behind** and **hand-held lawn trimmers** and **lawn edge trimmers**, with **cutting element(s)** of non-metallic filament line or freely pivoting non-metallic cutter(s), with a kinetic energy of not more than 10 J each, used by a standing operator for cutting grass, their **rated voltage** being not more than 250 V for a.c. or 75 V d.c..

NOTE 101 The method of calculating the kinetic energy for the purposes of this standard is given in 22.103.

In this European Standard, **hand-held** and **walk-behind lawn trimmers** and **lawn edge trimmers** are referred to collectively as machine(s).

This European Standard does not apply to

- scissor type or **lawn trimmers** and **lawn edge trimmers** with **cutting means** other than those described above;
- **lawn trimmers** and **lawn edge trimmers** with collecting devices;
- self-propelled **lawn trimmers** or **lawn edge trimmers**;

EMC and environmental aspects, except noise, have not been considered in this European Standard.

This European Standard does not apply to chargers as covered by EN 60335-2-29.

This European Standard does not apply to batteries as covered by EN 62133.

This European Standard deals with all the significant hazards presented by **hand-held** and **walk-behind lawn trimmers** and **lawn edge trimmers** when they are used as intended and under conditions of misuse which are reasonably foreseeable.

2 Normative references

This clause of Part 1 is applicable except as follows.

Addition:

EN 28662-1:1992, *Hand-held portable power tools — Measurement of vibrations at the handle — Part 1: General (ISO 8662-1:1988)*

EN 60068-2-75, *Environmental testing — Part 2-75: Tests — Test Eh: Hammer tests (IEC 60068-2-75)*

EN 60320 (all parts), *Appliance couplers for household and similar general purposes (IEC 60320)*

EN 60335-1:2012, *Household and similar electrical appliances — Safety — Part 1: General requirements (IEC 60335-1:2010, modified)*

EN 62233:2008, *Measurement methods for electromagnetic fields of household appliances and similar apparatus with regard to human exposure (IEC 62233:2005, modified)*

EN ISO 354:2003, *Acoustics — Measurement of sound absorption in a reverberation room (ISO 354:2003)*

EN ISO 3744:2010, *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 (ISO 3744:2010)*

EN ISO 3767-1:2000, *Tractors, machinery for agriculture and forestry, powered lawn and garden equipment — Symbols for operator controls and other displays — Part 1: Common symbols (ISO 3767-1:1998)*

EN ISO 3767-3, *Tractors, machinery for agriculture and forestry, powered lawn and garden equipment — Symbols for operator controls and other displays — Part 3: Symbols for powered lawn and garden equipment (ISO 3767-3)*

EN ISO 4871:2009, *Acoustics — Declaration and verification of noise emission values of machinery and equipment (ISO 4871:1996)*

EN ISO 11201:2010, *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 (ISO 11201:2010)*

EN ISO 11688-1:2009, *Acoustics — Recommended practice for the design of low-noise machinery and equipment — Part 1: Planning (ISO/TR 11688-1:1995)*

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

ISO 11684:1995, *Tractors, machinery for agriculture and forestry, powered lawn and garden equipment — Safety signs and hazard pictorials — General principles*

3 Terms and definitions

This clause of Part 1 is applicable except as follows.

3.1.9

Replacement:

3.1.9

normal operation

operation of the machine at **rated voltage** with the load necessary to attain **rated power input**

3.5.2

Replacement:

3.5.2

hand-held trimmer

machine which is supported by hand, possibly assisted by wheel(s), skids or harness etc. and constructed such that it cannot maintain its operating position without being held by an operator

Addition:

3.101

walk-behind trimmer

machine which is ground supported, controlled by an operator walking behind and constructed such that it maintains its operating position without being held by an operator