

KÄESHOITAVAD ELEKTRIMOOTORIGA TÖÖRIISTAD,
TRANSPORDITAVAD TÖÖRIISTAD JA MURU- NING
AIATÖÖMASINAD. OHUTUS. OSA 4-2: ERINÕUDED
HEKILÕIKURITELE

Electric Motor-Operated Hand-Held Tools,
Transportable Tools and Lawn and Garden Machinery -
Safety - Part 4-2: Particular requirements for hedge
trimmers

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 62841-4-2:2019 sisaldab Euroopa standardi EN 62841-4-2:2019 ingliskeelset teksti.	This Estonian standard EVS-EN 62841-4-2:2019 consists of the English text of the European standard EN 62841-4-2:2019.
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 28.06.2019.	Date of Availability of the European standard is 28.06.2019.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

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English Version

**Electric motor-operated hand-held tools, transportable tools and
lawn and garden machinery - Safety - Part 4-2: Particular
requirements for hedge trimmers
(IEC 62841-4-2:2017 , modified + COR1:2018)**

Outils électroportatifs à moteur, outils portables et machines
pour jardins et pelouses - Sécurité - Partie 4-2: Exigences
particulières pour les taille-haies
(IEC 62841-4-2:2017 , modifiée + COR1:2018)

Elektrische motorbetriebene handgeführte Werkzeuge,
transportable Werkzeuge und Rasen- und
Gartenmaschinen - Sicherheit - Teil 4-2: Besondere
Anforderungen für Heckenscheren
(IEC 62841-4-2:2017 , modifiziert + COR1:2018)

This European Standard was approved by CENELEC on 2018-01-18. CENELEC 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 CENELEC 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 CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

European foreword

The text of document 116/346/FDIS, future edition 1 of IEC 62841-4-2, prepared by IEC/TC 116 "Safety of motor-operated electric tools" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62841-4-2:2019.

A draft amendment, which covers common modifications to IEC 62841-4-2, was prepared by CLC/TC 116 "Safety of motor-operated electric tools" and approved by CENELEC.

The following dates are fixed:

- latest date by which this document has to be implemented (dop) 2019-12-28
at national level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting (dow) 2023-06-28
with this document have to be withdrawn

EN 62841-4-2:2019 supersedes EN 60745-2-15:2009 + A1:2010.

This European Standard is divided into four parts:

- Part 1: General requirements which are common to most hand-held electric motor operated tools (for the purpose of this standard referred to simply as tools) which could come within the scope of this standard;
- Part 2, 3 or 4: Requirements for particular types of tools which either supplement or modify the requirements given in Part 1 to account for the particular hazards and characteristics of these specific tools.

This Part 4-2 is to be used in conjunction with EN 62841-1:2015.

This Part 4-2 supplements or modifies the corresponding clauses in EN 62841-1:2015, so as to convert it into the European Standard: Particular requirements for hedge trimmers.

Where a particular subclause of Part 1 is not mentioned in this Part 4-1, that subclause applies as far as relevant. When this standard 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 smaller 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.

Clauses, subclauses, notes, tables, figures and annexes which are additional to those in IEC 62841-4-2:2017 are prefixed "Z".

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

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC 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.

Compliance with the clauses of Part 1 together with this Part 4-2 provides one means of conforming with the essential health and safety requirements of the Directive concerned.

Endorsement notice

The text of the International Standard IEC 62841-4-2:2017 and COR1:2018 was approved by CENELEC as a European Standard with agreed common modifications.

COMMON MODIFICATIONS

19 Mechanical hazards

Replace the existing Subclause 19.102.2.1 with the following:

19.102.2.1 The **front handle** shall be located so that the distance from the nearest cutting edge of the **cutter blade** to the rear side of any handle, except for Category 1, is not less than 120 mm as shown in Figure 108.

For Category 1, the shortest distance between the front of the handle grip and the nearest **blade tooth** shall be at least 120 mm (see Figure 111). The distances shall be measured along the shortest path from the front of the handle grip to the nearest cutting edge of the **cutter blade**.

For all categories in Table 101, if there is a front hand barrier, then the x_1 and x_2 distances in Figure 108 shall be measured along the shortest path from the backside of the handle, via the edge of the front hand barrier, to the nearest cutting edge of the **cutter blade**. The front hand barrier shall not have any openings with a minor dimension larger than 10 mm.

Compliance is checked by inspection and by measurement.

Replace the existing Subclause 19.102.2.2 with the following:

19.102.2.2 This subclause is not applicable.

19.103.1

Replace Table 101 with the following:

Table 101 – Hedge trimmer categories (excluding extended-reach hedge trimmers)

Items with requirements	Category number and requirements			
	1	2	3b	4
Cutting length	≤ 200 mm	Not applicable	Not applicable	Not applicable
Maximum blade stopping time (Subclause 19.104)	No	No	1 s	1 s
Minimum number of handles	1	2	2	2
Minimum number of handles with blade control	1	1	2 (two with simultaneous actuation)	2 (two with simultaneous actuation)
Location of blade control	rear handle	rear handle	Not applicable	Not applicable
Blade configuration figure	114	114	115	116
Lower barrier required (Subclause 19.105)	No	No	No	No
Adjustable handle during operation permitted (Subclause 19.101.3)	No	Yes	Yes	Yes
Front hand barrier required (Subclause 19.102.2)	No	No	No	No

and delete NOTE 1 and NOTE 2.

Replace the existing Subclause 19.103.4 with the following:

19.103.4 This subclause is not applicable.

Replace the existing Subclause 19.105 with the following:

19.105 This subclause is not applicable.

20 Mechanical strength

Replace the existing Subclause 20.101.2 with the following:

20.101.2 The **hedge trimmer** is suspended vertically from a point midway along the length of the **cutting device**. A mass of

- 5 kg for Categories 1 and 2; or
- 15 kg for Categories 3b and 4

is gradually suspended at the midpoint of each gripping surface of each handle identified in 8.14.2, in turn, over an area of (75 ± 5) mm in width for 1 min.

After the test, the **hedge trimmer** shall comply with the acceptance criteria of 20.1 and shall not have separated or permanently deformed to a degree that the mechanical safety of the machine as required by this standard is impaired (excluding deformation of the **cutting device**) as a result of the applied force.

Delete Figures 109, 110 and 118.

Annex I

Replace the title of Annex I with the following:

Annex I (normative)

Measurement of noise and vibration emissions

and ~~delete~~ the note.

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Annex K (normative)

Battery tools and battery packs

K.1 Scope

Replace Note 103 with the following:

Except for Category 1 machines, this annex does not apply to **hedge trimmers** equipped with **integral batteries**.

Replace the NOTE 101 in Subclause K.21.18 with the following:

K.21.18.Z101 Isolation and disabling device

Machines with an **integral battery** shall either be equipped

- with an isolation device to prevent the risk of injury from mechanical hazards during servicing or **user maintenance**; or
- with a disabling device that prevents unintentional starting of the machine.

An isolation device shall

- provide disconnection of all poles of the **battery** from the serviceable region of the machine;
- be equipped with an unambiguous indication of the state of the disconnection device which corresponds to each position of its manual control (actuator);
- be provided with protection against accidental reconnection.

NOTE 1 Examples of methods to achieve this disconnection include removable jumpers, **integral batteries** that can be disconnected for servicing or **user maintenance**, or an electromechanical **power switch** with a direct mechanical link between the actuator and the contact.

NOTE 2 The risk of accidental reconnection for a **power switch** is addressed by the requirement of 21.18.102.3. The other examples in NOTE 1 achieve this by the necessary actions for reconnection.

A disabling device may be achieved by any of the following:

- a self-restoring or non-self-restoring lock-off device where two separate and dissimilar actions are necessary before the motor is switched on (e.g. a **power switch** which has to be pushed in before it can be moved laterally to close the contacts to start the motor). It shall not be possible to achieve these two actions with a single grasping motion or a straight-line motion;
- a removable disabling device provided with the machine where it shall not be possible for the machine to be operated when either applied or removed.

Compliance is checked by inspection and by manual test.

Annex L (normative)

Battery tools and battery packs provided with mains connection or non-isolated sources

L.1 Scope

Replace Note 103 with the following:

Except for Category 1 machines, this annex does not apply to **hedge trimmers** equipped with **integral batteries**.

Replace the NOTE 101 in Subclause L.21.18 with the following:

L.21.18.Z101 Isolation and disabling device

Machines with an **integral battery** shall either be equipped

- with an isolation device to prevent the risk of injury from mechanical hazards during servicing or **user maintenance**; or
- with a disabling device that prevents unintentional starting of the machine.

An isolation device shall

- provide disconnection of all poles of the **battery** from the serviceable region of the machine;
- be equipped with an unambiguous indication of the state of the disconnection device which corresponds to each position of its manual control (actuator);
- be provided with protection against accidental reconnection.

NOTE 1 Examples of methods to achieve this disconnection include removable jumpers, **integral batteries** that can be disconnected for servicing or **user maintenance**, or an electromechanical **power switch** with a direct mechanical link between the actuator and the contact.

NOTE 2 The risk of accidental reconnection for a **power switch** is addressed by the requirement of 21.18.102.3. The other examples in NOTE 1 achieve this by the necessary actions for reconnection.

A disabling device may be achieved by any of the following:

- a self-restoring or non-self-restoring lock-off device where two separate and dissimilar actions are necessary before the motor is switched on (e.g. a **power switch** which has to be pushed in before it can be moved laterally to close the contacts to start the motor). It shall not be possible to achieve these two actions with a single grasping motion or a straight-line motion;
- a removable disabling device provided with the machine where it shall not be possible for the machine to be operated when either applied or removed.

Compliance is checked by inspection and by manual test.

Add the following annexes:

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

The Annex ZA from EN 62841-1:2015 is applicable with the following changes:

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
<i>Addition:</i>				
IEC 61672-1	-	Electroacoustics – Sound level meters – Part 1: Specifications	EN 61672-1	
ISO 354	2003	Acoustics – Measurement of sound absorption in a reverberation room	EN ISO 354	2003
ISO 11684	-	Tractors, machinery for agriculture and forestry, powered lawn and garden equipment – Safety signs and hazard pictorials – General principles	-	-
ISO 22868	2011	Forestry and gardening machinery – Noise test code for portable hand-held machines with internal combustion engine – Engineering method (Grade 2 accuracy)	EN ISO 22868	2011
<i>Replacement:</i>				
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	EN ISO 3744	2010

Annex ZZ

(informative)

Relationship between this European Standard and the essential requirements of Directive 2006/42/EC [2006 OJ L157] aimed to be covered

This European Standard has been prepared under a Commission's standardisation request M/396 to provide one voluntary means of conforming to essential requirements of Directive 2006/42/EC of the European Parliament and of the Council of 17 May 2006 on machinery, and amending Directive 95/16/EC.

Once this standard is cited in the Official Journal of the European Union under that Directive, compliance with the normative clauses of this standard given in Table ZZ.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding essential requirements of that Directive, and associated EFTA regulations.

Table ZZ.1 – Correspondence between this European Standard and Annex I of Directive 2006/42/EC

Essential Requirements of Directive 2006/42/EC Clause numbers of Annex I	Clause(s) / sub-clause(s) of this EN	Remarks / Notes:
1.1.2 (Principles of safety integration)	4	
1.1.3 (Materials and products)	5, 6.1, 21.6, K/L.5, L.21	
1.1.5 (Design of machinery to facilitate its handling)	5, 19.101, 19.103.3, 19.106, 19.109, 19.110, K/L.5, K.19.101, K.19.103.3, K/L.19.109, K.21.301, L.21.301	
1.1.6 (Ergonomics)	5, 19.5, 21.18.102.2, K/L.5, L.21	
1.2.1 (Safety and reliability of control systems)	5, 18.6, 18.8, 23.1.6, 23.1.10, 23.1.11, 23.3, K/L.5, K/L.18.6, K/L.18.8, K/L.23.1.10, K.23.1.201, L.18	
1.2.2 (Control devices)	5, 8.5, 8.9, 8.10, 8.11, 21.1, 21.2., 21.4, 21.17, 21.18.101 – 21.18.102, K/L.5, K.21.17.1.2, L.21	
1.2.3 (Starting)	5, 21.17, K/L.5, K.21.17.1.2, L.21	
1.2.4.1 (Normal stop)	5, 21.17, K/L.5, K.21.17.1.2, L.21	
1.2.6 (Failure of the power supply)	5, 21.18.102.2, 23.3, K/L.5, L.21	
1.3.2 (Risk of break-up during operation)	5, 8.14.2 c), 13.1, 14.4, 17, 19.107, 19.108, 20, 21.23, 24.11, 24.12, 24.13, 27, K/L.5, K/L.13.1, K/L.17, K.19.107, K/L.20, K/L.24.301, K.27.1, L.21	

Essential Requirements of Directive 2006/42/EC Clause numbers of Annex I	Clause(s) / sub-clause(s) of this EN	Remarks / Notes:
1.3.3 (Risk due to falling or ejected objects)	5, 18.3, K/L.5, L.18	
1.3.4 (Risks due to surfaces, edges or angles)	19.2, 19.103, 21.24, K.19.103, L.21	
1.3.7 (Risks related to moving parts)	5, 19.1, 19.102, 19.103, 19.104, K/L.5	
1.3.8.1 (Moving transmission parts)	5, 19.1, K/L.5	
1.3.8.2 (Moving parts involved in the process)	5, 19.1, 19.102, 19.103.2, K/L.5	
1.4.1 (General requirements (for guards and protective devices))	5, 19.1, 19.102, 19.106, 20.1, 20.2, 20.3, 20.4, 21.22, K/L.5, K.20.1, K.20.3, L.20, L.21	
1.4.2.1 (Special requirements for fixed guards)	5, 19.1, 19.9, K/L.5	
1.4.2.3 (Special requirements for adjustable guards restricting access)	5, 19.1, K/L.5	
1.5.1 (Risks due to electricity supply)	5, 7, 9, 10, 11, 12, 14, 15, 16, 17, 18.1 - 18.7, 20.5, 21.3, 21.5 - 21.16, 21.19 - 21.22, 21.25 - 21.34, 22, 23.1.1 - 23.1.5, 23.1.7 - 23.1.9, 23.2, 23.4, 23.5, 24, 25, 26, 27, 28, K/L.5, K.7, K/L.9, K/L.10, K/L.11, K/L.12, K/L.14, K/L.16, K/L.17, K.18.1 - K.18.7, K.21.5 - K.21.16, K.21.19 - K.21.22, K.21.25 - K.21.34, K/L.22, K/L.24, K/L.25, K/L.26, K.27.1, K/L.28.1, K.28.2, L.7.1, L.18, L.18.201, L.20, L.21, Annex C	
1.5.4 (Risks due to errors of fitting)	5, 8.7, 8.8, 8.13, 8.14.2, 21.7, 21.8, 21.19, 27.1, K/L.5, K.8.7, K.8.8, K/L.19.201, K/L.21.201, K/L.21.203, K.27.1, L.21	
1.5.5 (Risks due to extreme temperatures)	5, 12.5, K/L.5, K.12.1	
1.5.6 (Risks due to fire)	5, 13, 18.1, 18.2, 18.4, 18.6, 28.1, K/L.5, K/L.12.201, K/L.13, K.18.1, K.18.6, K/L.18.201, K/L.18.202, K/L.18.203, K.20.1, K.20.3, K/L.21.201, K/L.21.203, K/L.23.201, K/L.23.202, K/L.28.1, L.18, L.18.204, L.20.201, L.20.202, L.28.201	