SLOVENSKI STANDARD
oSIST prEN IEC 62841-4-10:2023

01-november-2023

Elektromotorna ročna orodja, prenosna orodja ter stroji za trato in vrt - Varnost - 4-10. del: Posebne zahteve za obrezovalnike z drogom

Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery - Safety - Part 4-10: Particular requirements for pole-mounted pruners

Outils électroportatifs à moteur, outils portables et machines pour jardins et pelouses - Sécurité - Partie 4-10: Exigences particulières pour les élagueuses sur perche

Ta slovenski standard je istoveten z: **prEN IEC 62841-4-10:2023**

ICS:

25.140.20	Električna orodja	Electric tools
65.060.70	Vrtnarska oprema	Horticultural equipment

oSIST prEN IEC 62841-4-10:2023 **en**

116/674/CDV

COMMITTEE DRAFT FOR VOTE (CDV)

PROJECT NUMBER: **IEC 62841-4-10 ED1**	
DATE OF CIRCULATION: **2023-09-01**	CLOSING DATE FOR VOTING: **2023-11-24**
SUPERSEDES DOCUMENTS: **116/652A/NP, 116/662/RVN**	

IEC TC 116 : SAFETY OF MOTOR-OPERATED ELECTRIC TOOLS

SECRETARIAT: United States of America	SECRETARY: Mr Joseph Harding
OF INTEREST TO THE FOLLOWING COMMITTEES:	PROPOSED HORIZONTAL STANDARD: ☐ Other TC/SCs are requested to indicate their interest, if any, in this CDV to the secretary.

FUNCTIONS CONCERNED:

☐ EMC ☐ ENVIRONMENT ☐ QUALITY ASSURANCE ☒ SAFETY

☒ SUBMITTED FOR CENELEC PARALLEL VOTING	☐ NOT SUBMITTED FOR CENELEC PARALLEL VOTING
Attention IEC-CENELEC parallel voting The attention of IEC National Committees, members of CENELEC, is drawn to the fact that this Committee Draft for Vote (CDV) is submitted for parallel voting. The CENELEC members are invited to vote through the CENELEC online voting system.	

This document is still under study and subject to change. It should not be used for reference purposes.

Recipients of this document are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Recipients of this document are invited to submit, with their comments, notification of any relevant "In Some Countries" clauses to be included should this proposal proceed. Recipients are reminded that the CDV stage is the final stage for submitting ISC clauses. (SEE AC/22/2007 OR NEW GUIDANCE DOC).

TITLE:

Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery - Safety - Part 4-10: Particular requirements for pole-mounted pruners

PROPOSED STABILITY DATE: 2028

NOTE FROM TC/SC OFFICERS:

CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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ELECTRIC MOTOR-OPERATED HAND-HELD TOOLS, TRANSPORTABLE TOOLS AND LAWN AND GARDEN MACHINERY – SAFETY –

Part 4-10: Particular requirements for pole-mounted pruners

FOREWORD

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

IEC 62841-4-10 has been prepared by IEC technical committee 116: Safety of motor-operated electric tools. It is an International Standard.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
116/XX/FDIS	116/XX/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement,

available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

This Part 4-10 is to be used in conjunction with the first edition of IEC 62841-1 (2014).

This Part 4-10 supplements or modifies the corresponding clauses in IEC 62841-1:2014, so as to convert it into the IEC Standard: Particular requirements for pole-mounted pruners.

Where a particular subclause of IEC 62841-1:2014 is not mentioned in this Part 4-10, that subclause applies as far as relevant. Where this document states "addition", "modification" or "replacement", the relevant text in IEC 62841-1:2014 is to be adapted accordingly.

The following print types are used:

– requirements: in roman type;

– *test specifications: in italic type*;

– notes: in small 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, except as described for Annex K below, are numbered starting from 101.

Subclauses, notes, tables and figures in Annex K which are additional to those in the main body of this document are numbered starting from 301.

A list of all parts of the IEC 62841 series, under the general title: *Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery – Safety*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

NOTE The attention of National Committees is drawn to the fact that equipment manufacturers and testing organizations may need a transitional period following publication of a new, amended or revised IEC publication in which to make products in accordance with the new requirements and to equip themselves for conducting new or revised tests.

It is the recommendation of the committee that the content of this publication be adopted for implementation nationally not earlier than 36 months from the date of publication.

INTRODUCTION

The International Electrotechnical Commission (IEC) draws attention to the fact that it is claimed that compliance with this document may involve the use of patents concerning prevention of inadvertent starting given in Subclause 21.18.101.

IEC takes no position concerning the evidence, validity and scope of this patent right.

The holders of these patent rights have assured the IEC that they are willing to negotiate licences under reasonable and non-discriminatory terms and conditions with applicants throughout the world. In this respect, the statements of the holders of these patent rights are registered with IEC. Information may be obtained from:

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ELECTRIC MOTOR-OPERATED HAND-HELD TOOLS, TRANSPORTABLE TOOLS AND LAWN AND GARDEN MACHINERY – SAFETY –

Part 4-10: Particular requirements for pole-mounted pruners

1 Scope

IEC 62841-1:2014, Clause 1 is applicable, except as follows:

Addition:

This document applies to hand-held **pole-mounted pruners** which are designed for use by one operator for cutting tree branches with a **cutting device** and a fixed or detachable elongated construction such that the **cutting device** is distanced from the handles or grasping surfaces during use.

The **cutting device** of **pole-mounted pruners** may be

– a **saw chain**; or
– a reciprocating saw blade.

This document does not apply to

– chain saws as covered by IEC 62841-4-1; or
– chain saws for tree service as covered by IEC 62841-4-9; or
– hedge trimmers, including extended-reach hedge trimmers, as covered by IEC 62841-4-2; or
– brush saws as covered in IEC 62841-4-4; or
– scissors-type pruners; or
– machines designed for use with a circular saw blade.

NOTE 101 Scissors-type pruners will be covered by a future part of IEC 62841-4.

NOTE 102 In Europe (EN IEC 62841-4-10) this document does not apply to **pole-mounted pruners** equipped with **integral batteries**.

2 Normative references

IEC 62841-1:2014, Clause 2 is applicable, except as follows:

Addition:

IEC 60664-3:2016, *Insulation coordination for equipment within low-voltage systems – Part 3: Use of coating, potting or moulding for protection against pollution*

IEC 60664-4:2005, *Insulation coordination for equipment within low-voltage systems – Part 4: Consideration of high-frequency voltage stress*

IEC 62841-1:2014, *Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery – Safety – Part 1: General requirements*

ISO 354:2003, *Acoustics – Measurement of sound absorption in a reverberation room*

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

ISO 22867:2021, *Forestry and gardening machinery – Vibration test code for portable hand-held machines with internal combustion engine – Vibration at the handles*

ISO 22868:2021, *Forestry and gardening machinery - Noise test code for portable hand-held machines with internal combustion engine – Engineering method (Grade 2 accuracy)*

Replacement:

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*

3 Terms and definitions

IEC 62841-1:2014, Clause 3 is applicable, except as follows:

3.101
cutting device
assembly of **saw chain** and a **guide bar** or one or more reciprocating saw blades together with any supporting part, which perform the cutting action

Note 101 to entry: See Figure 101 and Figure 102.

3.102
drive sprocket
chain drive wheel with teeth

3.103
front handle
grasping surface located on the **shaft** or support handle located towards the front of the machine

Note 101 to entry: See Figure 101.

3.104
guide bar
attachment that supports and guides the **saw chain**

3.105
maximum speed
highest steady-state **cutting device** speed attainable under all conditions of **normal use**, including no-load, when adjusted in accordance with the manufacturer's specifications and/or instructions

Note 101 to entry: The steady-state **cutting device** speed excludes transients such as overshoot that may occur before attaining a steady-state condition.

3.106
operator presence sensor
device to detect the presence of an operator's hand

3.107
pole-mounted pruner
hand-held machine of an elongated construction, with or without length adjustment and fitted with a **cutting device**, intended to allow the operator to cut off branches of standing trees from a distance

Note 101 to entry: See Figure 101 for an example of a **pole-mounted pruner** with a **saw chain cutting device** within the scope of this document.

3.108
rear handle
support handle located towards the rear of the machine

Note 101 to entry: See Figure 101.

3.109
saw chain
attachment serving as a cutting tool, consisting of drive links and cutters

Note 101 to entry: See Figure 103.

3.110
shaft
fixed or extendable element of a **pole-mounted pruner** that distances the **cutting device**

Note 101 to entry: Examples of extendable **shaft** elements include telescoping elements or the addition of **shaft** extensions.

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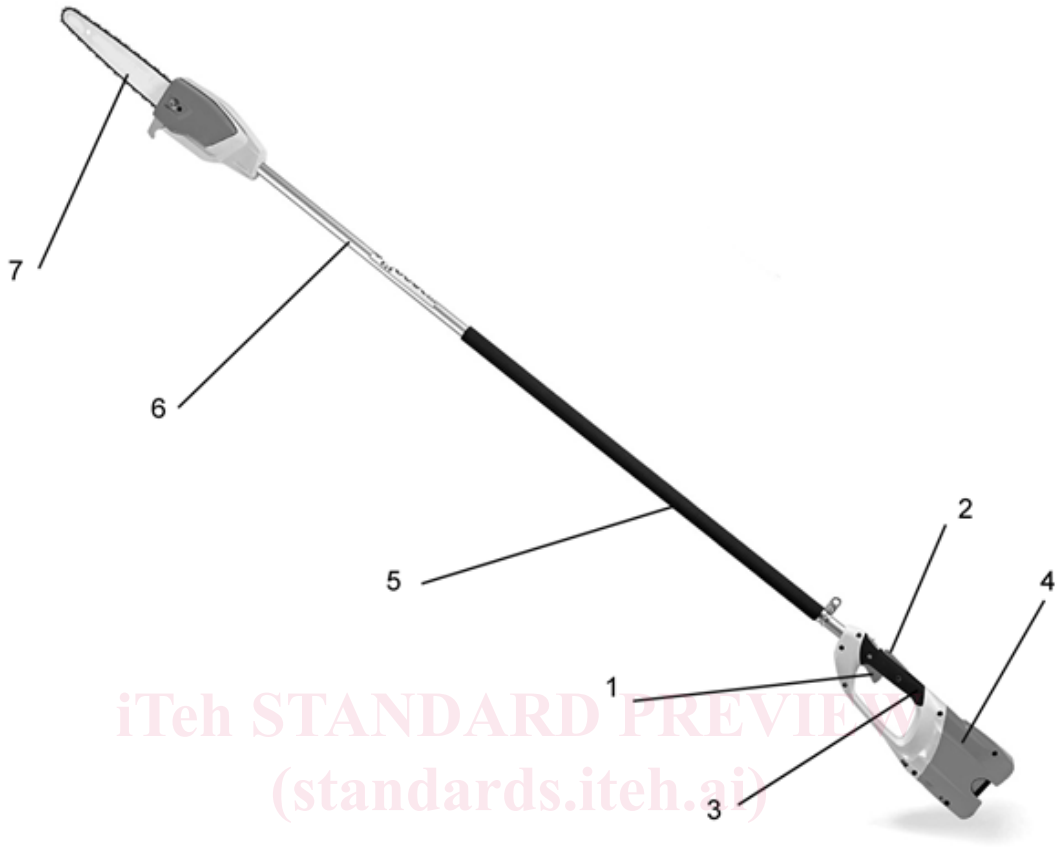

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309 **Key**

310 1 **power switch**
311 2 **operator presence sensor**
312 3 **rear handle**
313 4 power unit/**battery** location
314 5 **front handle**/grasping surface
315 6 pole/**shaft**
316 7 **cutting device**

317 **Figure 101 – Pole-mounted pruner nomenclature**

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320 **Figure 102 – Example of a reciprocating saw blade**

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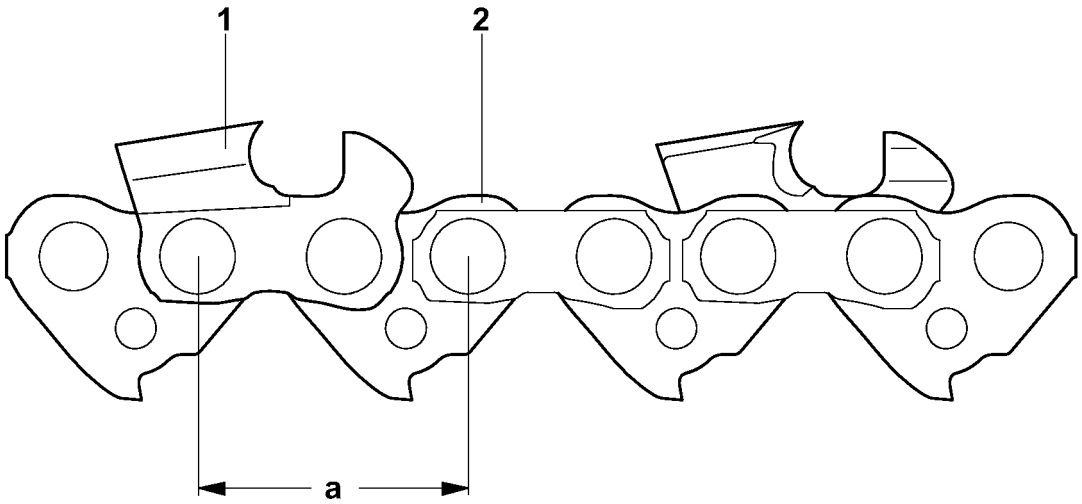

Key

1 cutter

2 drive link

a distance between drive links

Figure 103 – Saw chain drive link spacing

4 General requirements

IEC 62841-1:2014, Clause 4 is applicable.

5 General conditions for the tests

IEC 62841-1:2014, Clause 5 is applicable, except as follows:

5.8 *Addition:*

*If different **cutting devices** can be mounted on the **pole–mounted pruner** in accordance with 8.14.2 a) and 8.14.2 b), the **cutting devices** are regarded as **attachments**.*

5.15 *Addition:*

*For tests carried out at any percentage of **rated input** or **rated current**, except for no-load, the **cutting device** may be removed and the **pole–mounted pruner** loaded by means of a brake.*

5.17 *Addition:*

*The mass of the machine includes the heaviest **cutting device** in accordance with 8.14.2 a) 103) as well as the lubrication tank, if any, filled to the maximum specified level, but excludes the **cutting device** cover and shoulder harness, if any.*

5.101 *For tests that are performed at **maximum speed** and no-load, the manufacturer may need to provide special hardware and/or software.*

5.102 *The tests are carried out on the machine as supplied. However, a machine constructed as a single machine but supplied in a number of units is tested after assembly in accordance with 8.14.2.*

5.103 *Unless otherwise specified, for Clauses 19 and 21, machines are tested in each operating configuration as described in 8.14.2.*

6 Radiation, toxicity and similar hazards

IEC 62841-1:2014, Clause 6 is applicable.

7 Classification

IEC 62841-1:2014, Clause 7 is applicable, except as follows:

7.1 *Replacement:*

Machines shall be of one of the following classes with respect to protection against electric shock:

class II tool (machine), **class III tool** (machine)

8 Marking and instructions

IEC 62841-1:2014, Clause 8 is applicable, except as follows:

8.2 Addition:

Pole-mounted pruners shall be marked with safety information which shall be written in one of the official languages of the country in which the machine is to be sold or marked with the appropriate symbol**:**

– “Wear head protection” or a relevant safety sign of ISO 7010;

– “Wear eye protection” or a relevant safety sign of ISO 7010 or one of the product safety labels specified in Figure AA.1;

– “Wear ear protection”, or a relevant safety sign of ISO 7010 or the product safety label specified in Figure AA.2. This marking may be omitted if the measured A-weighted emission sound pressure level at the operator position determined in accordance with Annex I, does not exceed 85 dB(A).

A combination of ISO safety signs, such as eye, ear and head protection, is allowed. In addition, a combination of product safety labels as specified in Figure AA.3 and Figure AA,4 is allowed.

– “Wear hand protection” or a relevant safety sign of ISO 7010;

– "Wear slip-resistant footwear" or the product safety label specified in Figure AA.5;

– “DANGER – Keep sufficient distance away from electrical power lines” or the safety sign C.2.30 of ISO 11684:1995 or the product safety label specified in Figure AA.6;

– “WARNING – Keep bystanders away" or one of the product safety labels specified in Figure AA.7;

For all **pole-mounted pruners** with a degree of protection of less than IPX4:

– “Do not expose to rain”; or the product safety label specified in Figure AA.8;

For mains supplied machines:

– "⚠WARNING – Remove plug from the mains immediately if the cable is damaged or cut" or the product safety label specified in Figure AA.9.

8.3 *Addition:*

Pole-mounted pruners permitted to be operated with a **saw chain** in accordance with 8.14.2 a) 103) shall be marked with an identification of the direction of rotation of the **saw chain** by a legible and durable mark that is visible when fitting the **saw chain**. This may be located under the **drive sprocket** cover, if any.

8.12 *Replacement of the first paragraph:*

Markings required by the standard shall be legible and durable. Signs shall be in contrast such as colour, texture, or relief, to their background such that the information or instructions provided by the signs are clearly legible when viewed with normal vision from a distance of (500 ± 50) mm. Signs need not be in accordance with the colour requirements of ISO 3864-2.

If markings are embossed, stamped, etched, engraved or moulded, contrasting colours are not required.

8.14.1 *Addition:*

The additional safety instructions as specified in 8.14.1.101, applicable to the supplied **cutting device**, shall be given. This part may be printed separately from the “General Machine Safety Warnings”.

NOTE 101 "General Machine Safety Warnings" are referred to as "General Power Tool Safety Warnings" in IEC 62841-1:2014.

8.14.1.101 Safety instructions for pole-mounted pruners

Pole-mounted pruner safety warnings:

a) **Keep all parts of the body away from the saw chain or saw blade when the pole-mounted pruner is operating. Before you start the pole-mounted pruner, make sure the saw chain or saw blade is not contacting anything.** *A moment of inattention while operating the pole-mounted pruner may result in injury to yourself or others.*

NOTE 101 It is possible to replace the text “saw chain or saw blade” in item a) above with “saw chain” or “saw blade”, depending on the permitted **cutting device(s)** in accordance with 8.14.2 a) 103).

b) **Always use two hands when operating the pole-mounted pruner.** *Hold the pole-mounted pruner with both hands to avoid loss of control.*

c) **To reduce the risk of electrocution, never use the pole-mounted pruner near any electrical power lines.** *Contact with or use near power lines may cause serious injury or electric shock resulting in death.*

d) **Hold the pole-mounted pruner by insulated gripping surfaces only, because the saw chain or saw blade may contact hidden wiring or its own cord.** *Saw chains or saw blades contacting a "live" wire may make exposed metal parts of the pole-mounted pruner "live" and could give the operator an electric shock.*

NOTE 102 It is possible to replace the text “saw chain or saw blade” in item d) above with “saw chain” or “saw blade”, depending on the permitted **cutting device(s)** in accordance with 8.14.2 a) 103).

e) **Wear eye and ear protection. Further protective equipment for hands and slip-resistant footwear is recommended.** *Adequate protective equipment will reduce the risk of personal injury.*

NOTE 103 The ear protection portion of the warning can be omitted if the measured A-weighted emission sound pressure level at the operator's ear in accordance with Annex I does not exceed 85 dB(A).

f) **Always use head protection when operating the pole-mounted pruner overhead**. *Falling debris can result in serious personal injury.*