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

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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

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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:

Draft	Report on voting
116/944/FDIS	116/973/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/publications.

This document is to be used in conjunction with the first edition of IEC 62841-1:2014 and IEC 62841-1:2014/AMD1:2025.

This document 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 document 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 IEC 62841-1, except as described for Annex K below, are numbered starting from 101.

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

NOTE The attention of National Committees is drawn to the fact that equipment manufacturers and testing organizations can 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.

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 webstore.iec.ch in the data related to the specific document. At this date, the document will be

– reconfirmed,
– withdrawn, or
– revised.

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.

This document does not cover the risk of electric shock associated with the intended use of **pole-mounted pruners** in the vicinity of overhead power lines.

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

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

This document does not apply to

– saws mounted on a pole where the distance measured between the point of the **power switch** closest to the **cutting device** and the nearest unguarded cutting edge of the **cutting device** is <1 000 mm,
– pruning saws,
– chain saws as covered by IEC 62841-4-1,
– chain saws for tree service as covered by IEC 62841-4-9,
– hedge trimmers, including extended-reach hedge trimmers, as covered by IEC 62841-4-2,
– brush cutters and brush saws as covered in IEC 62841-4-4,
– scissors-type pruners, or
– machines designed for use with a circular saw blade.

NOTE 101 Pruning saws will be covered by a future part of IEC 62841-4.

NOTE 102 Scissors-type pruners will be covered by a future part of IEC 62841-4.

NOTE 103 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 and IEC 62841-1:2014/AMD1:2025, Clause 2 are applicable, except as follows:

Addition:

IEC 60112:2020, *Method for the determination of the proof and the comparative tracking indices of solid insulating materials*

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 61058-1-1:2016, *Switches for appliances - Part 1-1: Requirements for mechanical switches*

IEC 61058-1-2:2016, *Switches for appliances - Part 1-2: Requirements for electronic switches*

IEC 62841-1:2014, *Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery - Safety - Part 1: General requirements*
IEC 62841-1:2014/AMD1:2025

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

ISO 9773:2024, *Plastics - Determination of burning behaviour of thin flexible vertical specimens in contact with a small flame ignition source*

ISO 11684:2023, *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*

Replacement:

IEC 60664-1:2020, *Insulation coordination for equipment within low-voltage systems - Part 1: Principles, requirements and tests*

IEC 61058-1:2016, *Switches for appliances - Part 1: General requirements*

ISO 3744:2025, *Acoustics - Determination of sound power levels of noise sources using sound pressure - Engineering methods for an essentially free field over a reflecting plane*

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*

3 Terms and definitions

IEC 62841-1:2014, Clause 3 and IEC 62841-1:2014/AMD1:2025, Clause 3 are applicable, except as follows:

Addition:

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 can 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

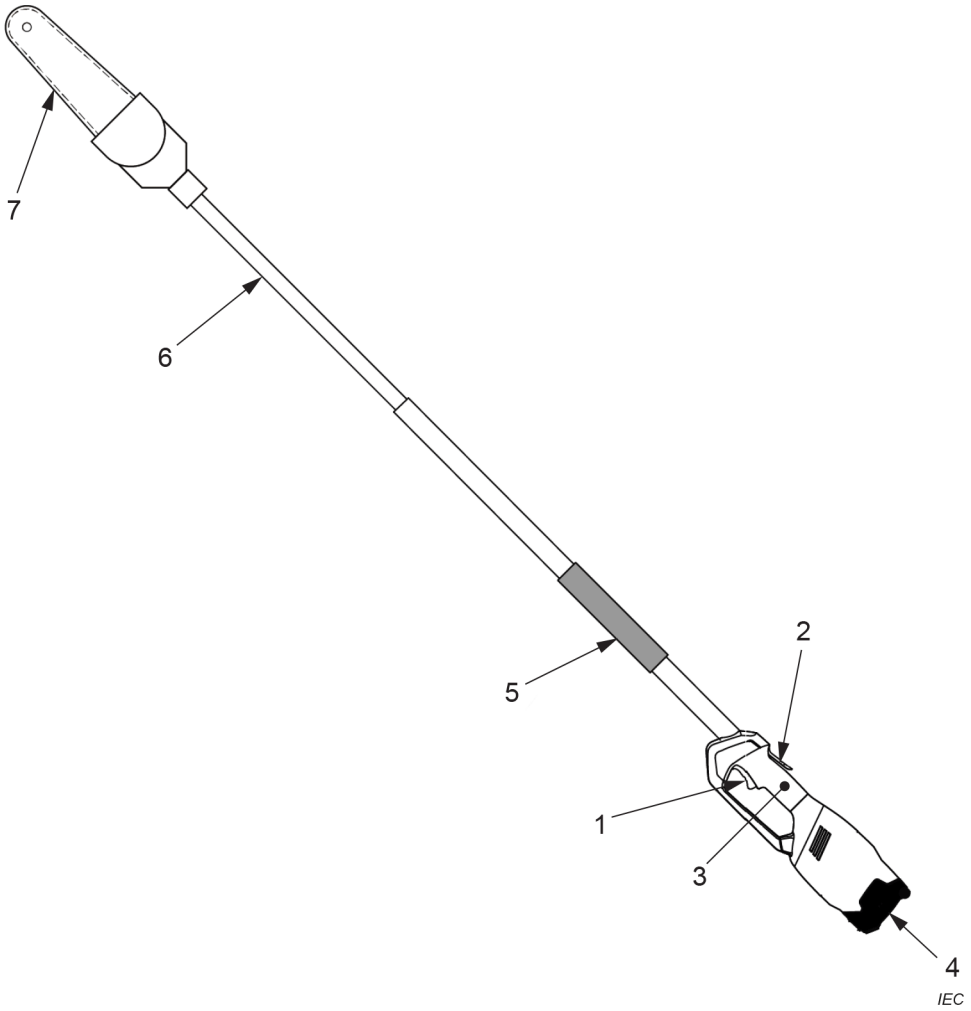
Note 101 to entry: See Figure 103.

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

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

3.111
switched circuit
circuit that is a low-power circuit when the **power switch** is in the "off" position

Note 101 to entry: The requirements for a low-power circuit are given in Annex H.



Key

1 **power switch**
2 **lock-off device**
3 **rear handle**
4 **battery**
5 **front handle**/grasping surface
6 pole/**shaft**
7 **cutting device**

Figure 101 – Pole-mounted pruner nomenclature

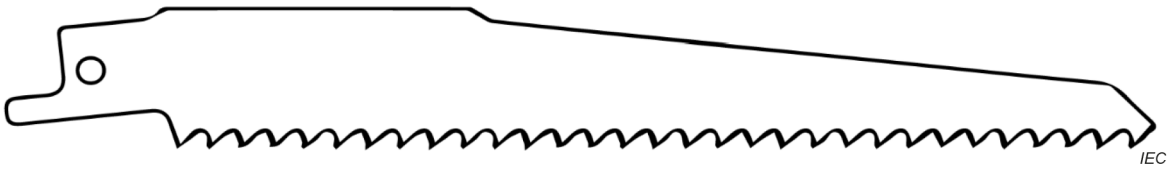
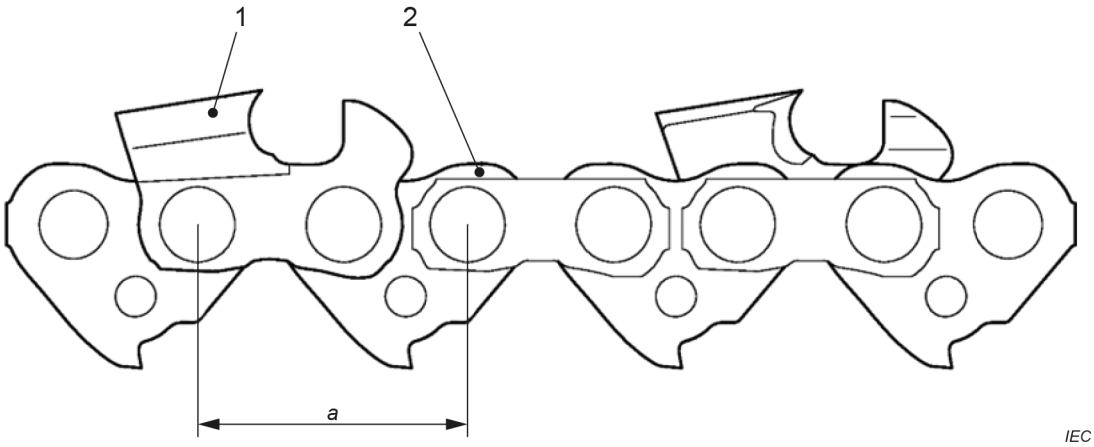


Figure 102 – Example of a reciprocating saw blade



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 **pole-mounted pruner** shall be tested with the **cutting device** that produces the most unfavourable result, irrespective of a clause referring to an **accessory** or an **attachment**.*

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 can 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 a) 102).*