SLOVENSKI STANDARD
SIST EN 62841-1:2015/oprA1:2024

01-september-2024

Električna motorna ročna orodja, prenosna orodja ter stroji za trato in vrt - Varnost - 1. del: Splošne zahteve - Dopolnilo A1

Amendment 1 - Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery - Safety - Part 1: General requirements

Elektrische motorbetriebene handgeführte Werkzeuge, transportable Werkzeuge und Rasen- und Gartenmaschinen - Sicherheit - Teil 1: Allgemeine Anforderungen

Outils électroportatifs à moteur, outils portables et machines pour jardins et pelouses - Sécurité - Partie 1: Règles générales

Ta slovenski standard je istoveten z: **EN 62841-1:2015/prA1:2024**

ICS:

25.140.20	Električna orodja	Electric tools
65.060.70	Vrtnarska oprema	Horticultural equipment

SIST EN 62841-1:2015/oprA1:2024 **en**

116/785/CDV

COMMITTEE DRAFT FOR VOTE (CDV)

PROJECT NUMBER:	
IEC 62841-1/AMD1 ED1	
DATE OF CIRCULATION:	CLOSING DATE FOR VOTING:
2024-07-05	**2024-09-27**
SUPERSEDES DOCUMENTS:	
116/782/RR	

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

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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:

Amendment 1 - Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery - Safety - Part 1: General requirements

PROPOSED STABILITY DATE: 2029

NOTE FROM TC/SC OFFICERS:

INTERNATIONAL ELECTROTECHNICAL COMMISSION

Part 1: General requirements

AMENDMENT 1

FOREWORD

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Amendment 1 to IEC 62841-1:2014 has been prepared by IEC technical committee 116: Safety of motor-operated electric tools.

The text of this Amendment is based on the following documents:

Draft	Report on voting
116/XX/XXXX	116/XX/XXX

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 Amendment 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/.

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

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Foreword

Add, at the end of the Foreword, the following new NOTE:

NOTE 4 In Europe (EN 62841-1), the following additional paragraph applies:

When a relevant Part 2, 3, or 4 does not exist, this document can be used to support the risk assessment process in order to establish requirements for the tool.

2 Normative references

Delete the existing normative reference for ISO/TR 11690-3.

3 Terms and definitions

Add the following new terms and definitions:

3.64
entity
person, device, tool, **battery**, **charging system**, or service that interacts with a tool, **battery** or **charging system**

3.65
message
data which is transmitted from a sender (data source) to one or more receivers (data sink)

3.66
public network
network carrying digital data or analogue signals or both where access to the data and signals is not restricted by the physical space within the–use environment of the tool, **battery** or **charging system**

Note 1 to entry: Determination of confinement to the physical space includes consideration of the network's range of communication, configuration, or construction.

Note 2 to entry: For the purposes of this document, examples of **public networks** include, but are not limited to:

– PAN (personal area network);
– LAN (local area network) connected devices which may or may not be connected to a gateway, such as BLE (Bluetooth Low Energy), Bluetooth or WLAN (wireless local area network);
– PLC (power line communication);
– SRD (short range devices); and
– WAN (wide area network).

Note 3 to entry: For the purposes of this document, examples of networks which are not considered as being **public networks** include, but are not limited to:

– NFC (near field communication);
– optical communication with line of sight (infra-red rays or visual rays); and

– hardwired configurations constructed of physical media

without connection to a **public network**.

3.67
remote communication
transmission of data between the tool, **battery** or **charging system** and an **entity** that can be initiated out of sight of the tool, **battery** or **charging system** using communication means such as radio wave modulation, sound wave modulation or bus systems

Note 1 to entry: Examples of transmission of data include, but are not limited to, remote monitoring, software downloading or control parameter modifications.

Note 2 to entry: Transmission of data can be one-way (simplex) or two-way (duplex).

8 Marking and instructions

Replace the existing text of the sixth dash of 8.3 with the following new text:

– if the mass of the tool is greater than 25 kg: “> 25 kg” or the mass of the tool in kg.

Add, before the last paragraph of 8.3, the following new NOTE:

NOTE 3 In Europe (EN 62841-1), the following additional requirement applies:

Tools shall be additionally marked with the website, e-mail address or other digital contact at which the manufacturer can be contacted. Where the size or nature of the tool does not allow the marking on the product, the required information shall be provided on the packaging or in an accompanying document.

For tools where the instruction manual is provided only in a digital format, the tool shall be marked with information on how to access the digital instructions. Where the size or nature of the tool does not allow the marking on the product, the required information shall be provided on the packaging or in an accompanying document.

Add, at the end of the NOTE in 8.14, the following new text:

NOTE If the instruction manual is provided only in digital format, the following information is regarded as essential for putting the tool into use and using the tool in a safe way in accordance with Regulation (EU) 2023/1230:

– safety warnings in accordance with 8.14.1; and

– instructions in accordance with 8.14.2 a), 8.14.2 b) and 8.14.2 d), as applicable.

Add, at end of 8.14.1.1 2) (Electrical Safety), the following new NOTE:

NOTE 1 The warnings in items a), b), d), e) and f) above can be omitted for tools covered by Annex K.

Add, at the end of 8.14.2 a), the following new text:

9) For **hand-held tools** and **transportable tools** that produce a considerable amount of dust in accordance with 21.35, instructions how to properly connect the dust extraction system to the tool including any associated devices.

Replace the existing text of 8.14.2 b) 7) with the following new text:

7) For tools with electronic speed or load regulators that reduce the output spindle torque of the tool during a stalled condition and will increase the output spindle torque after the stalled condition is removed: a warning that the tool will resume **normal operation** immediately after the stalled condition is removed;

Add, at the end of 8.14.2 c), the following new text:

8) For **hand-held tools** and **transportable tools** that produce a considerable amount of dust as specified in 21.35:

   – information when to empty, change or maintain an integral dust collection/suction device, if any, in order to keep its effectiveness; and

– information to read the maintenance instructions of the connected external suction device, if any, in order to keep its effectiveness.

Replace the existing text of the NOTE in 8.14.2 with the following new text:

NOTE In Europe (EN 62841-1), the following additional requirements apply:

8.14.2.Za)

Noise emissions:

1) The noise emission, measured in accordance with I.2, as follows:

– A-weighted emission sound pressure level L_{pA} and its uncertainty K_{pA}, where L_{pA} exceeds 70 dB(A). Where L_{pA} does not exceed 70 dB(A), this fact shall be indicated, either by a statement or by listing the actual measured value;

– A-weighted sound power level L_{WA} and its uncertainty K_{WA}, where the A-weighted sound pressure level L_{pA} exceeds 80 dB(A);

– C-weighted peak emission sound pressure value $L_{pC,peak}$, where this exceeds 130 dB in relation to 20 µPa.

2) Recommendation for the operator to wear hearing protection.

Continuous vibration:

3) For **hand-held tools** and **lawn and garden machinery** where Clause I.3 is applicable, the following applies: The vibration total value and its uncertainty measured in accordance with I.3.

Information and warnings on noise and vibration emissions:

4) The following information:

– that the declared vibration total value and declared noise emission values have been measured in accordance with a standard test method and may be used for comparing one tool with another;

– that the declared vibration total value and declared noise emission value may also be used in a preliminary assessment of exposure.

5) A warning:

– that the vibration emission and noise emission during actual use of the power tool can differ from the declared total value depending on the ways in which the tool is used; and

– of the need to identify safety measures to protect the operator that are based on an estimation of exposure in the actual conditions of use (taking account of all parts of the operating cycle such as the times when the tool is switched off and when it is running idle in addition to the trigger time).

8.14.2 Zb)

Declaration of vibration values for **hand-held tools** and **lawn and garden machinery** where Clause I.3 is applicable:

1) The vibration total value (continuous vibration) and its uncertainty measured in accordance with I.3 shall be given in the instructions.

2) The mean value of the peak amplitude of the acceleration from repeated shock vibrations and its uncertainty shall be given in the instructions.

8.14.2 Zc)

Hazardous dust emissions:

1) For tools equipped with dust outlet(s) to connect an external suction device as specified in 21.35, information indicating the characteristics and at least the recommended filtration efficiency of the external suction device considering the **normal use** of the tool.

NOTE: Examples for characteristics to connect an external suction device to the tool are the appropriate connecting dimensions for the suction hose, the minimum required volume flow in m^3/h and the resulting underpressure (negative pressure) at the tool interface with the external suction device in hPa necessary for **normal use**.

2) For tools equipped with a **liquid system** for suppressing the released dust, information indicating the required technical characteristics of the **liquid system**.

Add, at the end of 8.14.3, the following new NOTE:

NOTE In Europe (EN 62841-1), the first paragraph is replaced by the following text:

8.14.3 Information about the mass of the tool shall be provided in the instructions. An explanatory note shall be given regarding which **attachments** or interchangeable parts in accordance with 8.14.2 a) 2) have been used to determine the mass.

21 Construction

Replace the NOTE at the end of subclause 21.18.1.2 with the following text:

NOTE In Europe (EN 62841-1), the following additional requirement applies:

Unless **hand-held tools** are equipped with a **momentary power switch** without a lock-on device, voltage recovery following an interruption of the supply shall not give rise to a hazard. The relevant part of IEC 62841-2 specifies if this subclause applies and gives specific requirements.

Compliance is checked by inspection and by practical test.

Replace the existing text of 21.35 with the following new text:

21.35 Dust collection

Tools as identified in the relevant part of IEC 62841-2 or IEC 62841-3, which produce a considerable amount of dust and are not equipped with a **liquid system** for suppressing the released dust, shall be

– provided with an integral dust collection/suction device; or
– provided with a dust outlet(s) for the connection of external suction device(s) which direct the discharge away from the operator; or
– designed to permit the attachment of a dust collection device provided separately by the manufacturer for the connection of external suction device(s)

for preventing the by-products of the working process from entering the environment.

These devices, along with any external suction device(s) for evacuating the by-products of the working process, shall not impede the **normal use** of the tool.

Compliance is checked by inspection.

Add the following new subclause:

21.36 Remote communication through **public networks** shall not impair the safety of the tool.

This requirement is only applicable if **remote communication** includes the download of software or the exchange of data that:

a) could affect software relied upon to provide a **safety critical function** or software, the impairment of which could cause the failure of a lithium-ion **charging system**; or
b) only affects that part of software that is not covered by the above case a), but where software as identified in item a) above may be impaired due to inadequate separation or partitioning from the software in item a) above.

Measures to ensure separation and partitioning are considered adequate if:

– incorrect transmission of remotely communicated parameters, or
– consumption of available processor time by downloaded software, or
– use of processor infrastructure by downloaded software, or
– data corruption due to a failure of downloaded software, such as recursion beyond available stack memory or incorrect pointer calculation

cannot impair a **safety critical function** or the lithium-ion **charging system**.

NOTE 1 An example for a measure to ensure adequate separation and partitioning is the use of two independent processors, one for the management of **remote communication** and one for operation of functions relied for compliance with this document. Communication between those two processors is based on a protocol providing limitations to avoid interference with the functions relied for compliance with this document.

NOTE 2 Another example for measures to ensure adequate separation and partitioning is the use of:

– time fences which will terminate the execution of downloaded software if it overruns the available execution time, and

– software protection of data, corruption of which can impair compliance with this document.

This requirement is not applicable to tools

– where all measures to comply with this document are independent of software;

– where software is located on a separate microprocessor from the main microprocessor which contains the software responsible for the **SCF** and the separate microprocessor is not capable of altering code on the main microprocessor;

NOTE 3 An example are specialized Bluetooth modules which communicate with the host processor but are only capable of passing data, not relied upon for correct operation of any **SCF**, back and forth. The Bluetooth module may be accessible to the **public network**, but there is no path to corrupt code on the host.

– using **remote communication** through **public networks** for the send-only transmission of data; or

– that only provide event driven **messages** or push remote monitoring.

Compliance is checked by inspection of the tool, inspection of the technical documentation of the software, and by the requirements of Annex M.

Annexes

Replace the existing text of Annex G with the following new text:

Annex G
(informative)

Determination of applicable requirements for tools covered by Annex K