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oSIST prEN IEC 62841-4-11:2024
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Elektromotorna ročna orodja, prenosna orodja ter stroji za trato in vrt - Varnost - 4-11. del: Posebne zahteve za obrezovalnike

Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery - Safety - Part 4-11: Particular requirements for edgers

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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: <input type="checkbox"/> Other TC/SCs are requested to indicate their interest, if any, in this CDV to the secretary.
FUNCTIONS CONCERNED: <input type="checkbox"/> EMC <input type="checkbox"/> ENVIRONMENT <input type="checkbox"/> QUALITY ASSURANCE <input checked="" type="checkbox"/> SAFETY	
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TITLE:

Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery - Safety - Part 4-11: Particular requirements for edgers

PROPOSED STABILITY DATE: 2029

NOTE FROM TC/SC OFFICERS:

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Document Preview

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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 –**

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Part 4-11: Particular requirements for edgers

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FOREWORD

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8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.

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IEC 62841-4-11 has been prepared by IEC technical committee 116: Safety of motor-operated electric tools. It is an International Standard.

163

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

Draft	Report on voting
116/XXX/FDIS	116/XXX/RVD

164

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166

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

167

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

168 This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in
169 accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available
170 at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are
171 described in greater detail at www.iec.ch/publications.

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

173 This document supplements or modifies the corresponding clauses in IEC 62841-1:2014, so as
174 to convert it into the IEC Standard: Particular requirements for edgers.

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

178 The following print types are used:

- 179 – requirements: in roman type;
- 180 – *test specifications: in italic type;*
- 181 – notes: in small roman type.

182 The terms defined in Clause 3 are printed in **bold typeface**.

183 Subclauses, notes, tables and figures which are additional to those in IEC 62841-1:2014 are
184 numbered starting from 101.

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

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

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

- 193 • reconfirmed,
- 194 • withdrawn,
- 195 • replaced by a revised edition, or
- 196 • amended.

197 The National Committees are requested to note that for this publication the stability date
198 is 2029.

199 THIS TEXT IS INCLUDED FOR THE INFORMATION OF THE NATIONAL COMMITTEES AND WILL BE DELETED
200 AT THE PUBLICATION STAGE.

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

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

207

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

Part 4-11: Particular requirements for edgers

1 Scope

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

Addition:

This document applies to

- **walk-behind edgers** and **walk-beside edgers** having a **blade-tip circle** diameter of not more than 305 mm, and where the plane of the **blade-tip circle** is designed to operate at not more than 15° from the vertical, equipped with a
 - **cutting accessory**; and/or
 - **cutting means** with one or more **cutting elements** pivotally mounted on a generally circular drive unit and have a kinetic energy for each single **cutting element** of greater than 10 J.

and

- **hand-held edgers** having at least one ground-support having a **blade-tip circle** diameter of not more than 305 mm, equipped with a
 - **cutting accessory**; and/or
 - **cutting means** with one or more **cutting elements** pivotally mounted on a generally circular drive unit and have a kinetic energy for each single **cutting element** of greater than 10 J.

NOTE 101 Machines having **cutting elements** with a kinetic energy not exceeding 10 J are considered to be lawn edge trimmers and are covered by IEC 62841-4-4.

This document does not apply to

- lawn trimmers, lawn edge trimmers, grass trimmers, brush cutters and brush saws;
- scissor type edgers and brush cutters; and
- machines equipped with metallic **cutting accessories** consisting of more than one piece, e.g. pivoting chains or flail blades;

NOTE 102 Lawn trimmers, lawn edge trimmers, brush cutters and brush saws are covered by IEC 62841-4-4.

NOTE 103 Scissor type edgers and brush cutters will be covered by a future part of IEC 62841.

2 Normative references

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

Replacement of undated normative reference for ISO 3744:

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*

248 *Addition:*

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

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

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

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

256 ISO 683-4:2016, *Heat-treatable steels, alloy steels and free-cutting steels – Part 4: Free-cutting*
257 *steels*

258 ISO 11789:1999, *Powered edgers with rigid cutting means — Definitions, safety requirements*
259 *and test procedures*

260 ISO 11201:2010, *Acoustics – Noise emitted by machinery and equipment – Measurement of*
261 *emission sound pressure levels at a work station and at other specified positions – Engineering*
262 *method in an essentially free field over a reflecting plane*

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

265 **3 Terms and definitions**

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

267 *Addition:*

268 **3.101**

269 **blade-tip circle**

270 path described by the outermost point of the **cutting means** or **cutting accessory** cutting edge
271 as it rotates about its shaft axis

272 Note 101 to entry: See Figure 107 and Figure 112.

273 **3.102**

274 **cutting accessory**

275 rigid cutting device made of metallic or non-metallic material

276 **3.103**

277 **cutting element**

278 single freely pivoting non-metallic cutter

279 **3.104**

280 **cutting head**

281 support and retention system for the **cutting means**

282 **3.105**

283 **cutting means**

284 assembly of freely pivoting non-metallic cutter(s) that rotates about an axis normal to the cutting
285 plane, used to provide the cutting action by one or more **cutting elements**

286 **3.106**
287 **debris deflector**
288 additional guarding made of flexible material fitted to the unit as an extension of the guard to
289 protect the operator from thrown debris

290 **3.107**
291 **depth of cut**
292 vertical location of the **blade-tip circle** relative to the surface level

293 **3.108**
294 **edger**
295 grass/soil trimming machine where the **cutting means** or **cutting accessory** operates in a
296 plane approximately perpendicular to the ground

297 Note 101 to entry: See Figure 101 for an example **hand-held edger**, Figure 102 for an example of a **walk-behind**
298 **edger**, Figure 103 for an example of a **walk-beside edger**.

299 **3.109**
300 **guide handle**
301 the front **handle** of a **hand-held** machine by which the operator partially supports the machine

302 Note 101 to entry: See Figure 101.

303 **3.110**
304 **handle**
305 structure that enables the operator to hold and control the unit during operation

306 **3.111**
307 **hand-held edger**
308 **edger** that is supported by hand, possibly assisted by wheel(s) or skids

309 Note 101 to entry: See Figure 101 for an example of a **hand-held edger**.

310 **3.112**
311 **maximum speed**
312 highest output speed attainable under all conditions of **normal use**, including no load

313 **3.113**
314 **operator presence sensor**
315 device to detect the presence of an operator's hand

316 **3.114**
317 **shaft**
318 structural part of the machine that distances the **cutting means** or **cutting accessory** from the
319 **handles**

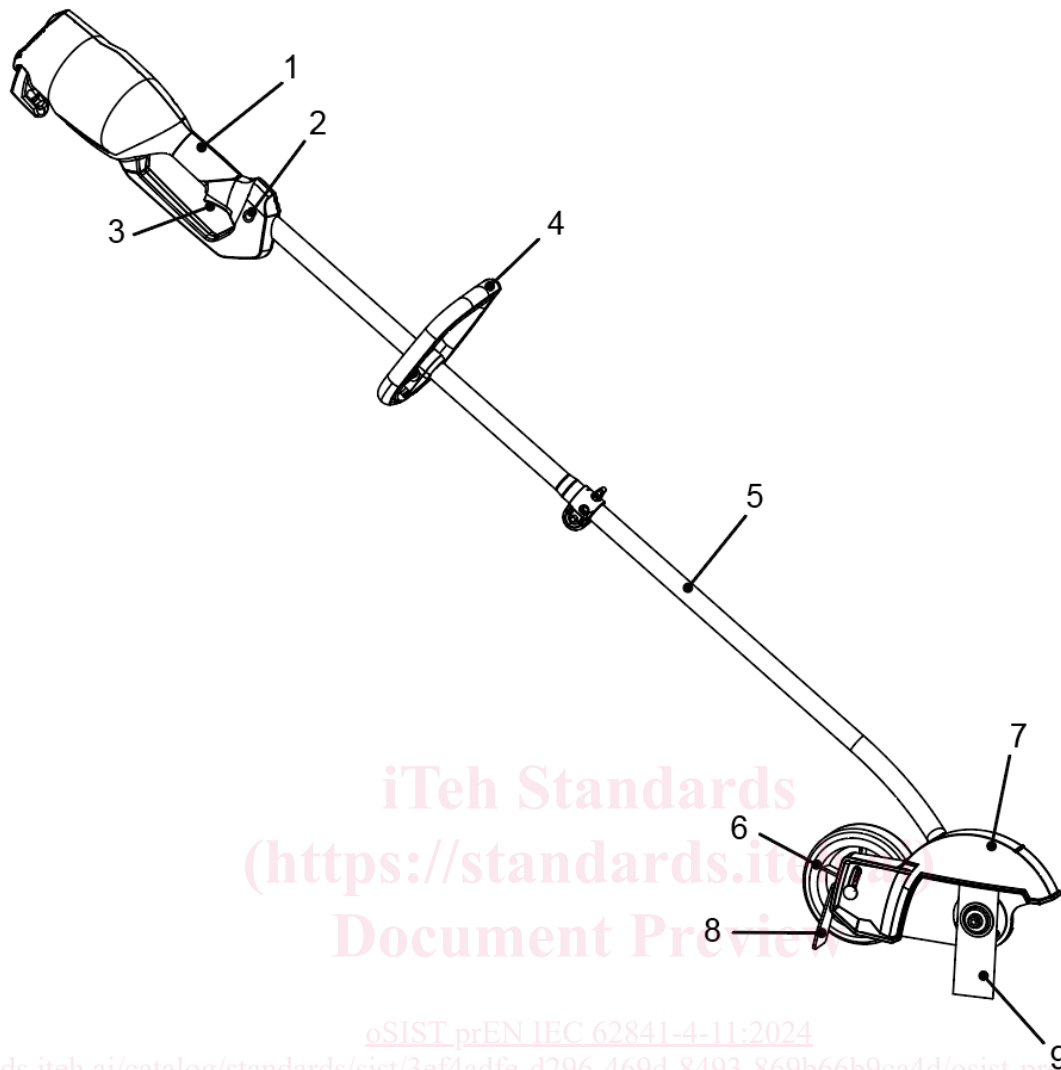
320 **3.115**
321 **walk-behind edger**
322 **edger** normally controlled by an operator walking behind the **handle** of a ground-supported
323 machine

324 Note 101 to entry: See Figure 102 for an example of a **walk-behind edger**.

325 **3.116**
326 **walk-beside edger**
327 **edger** normally controlled by an operator walking beside the **handle** of a ground-supported
328 machine

329 Note 101 to entry: See Figure 103 for an example of a **walk-beside edger**.

330



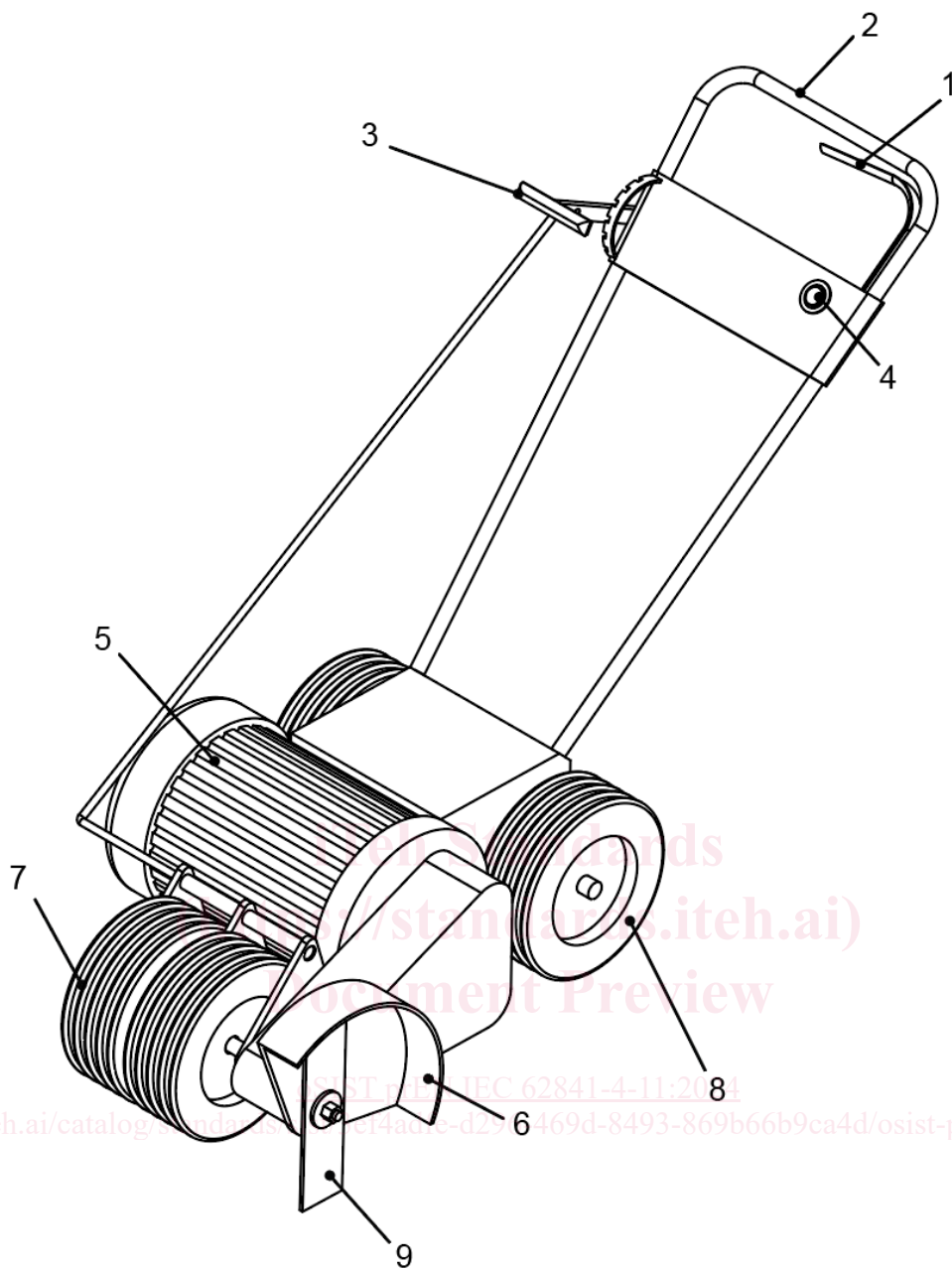
331 standards.iteh.ai/catalog/standards/sist/3ef4adfe-d296-469d-8493-869b66b9ca4d/osist-pr-en-iec-62841-4-11-2024

332 **Key**333 1 **handle**334 2 **lock-off device**335 3 **power switch**336 4 **guide handle**337 5 **shaft**338 6 **support wheel (depth wheel)**339 7 **guard**340 8 **debris deflector**341 9 **cutting accessory**

342

Figure 101 – Example of a hand-held edger

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346 **Key**347 1 **power switch**348 2 **handle**

349 3 height adjustment

350 4 lock-off device

351 5 motor

352 6 **guard**

353 7 height adjustment wheel

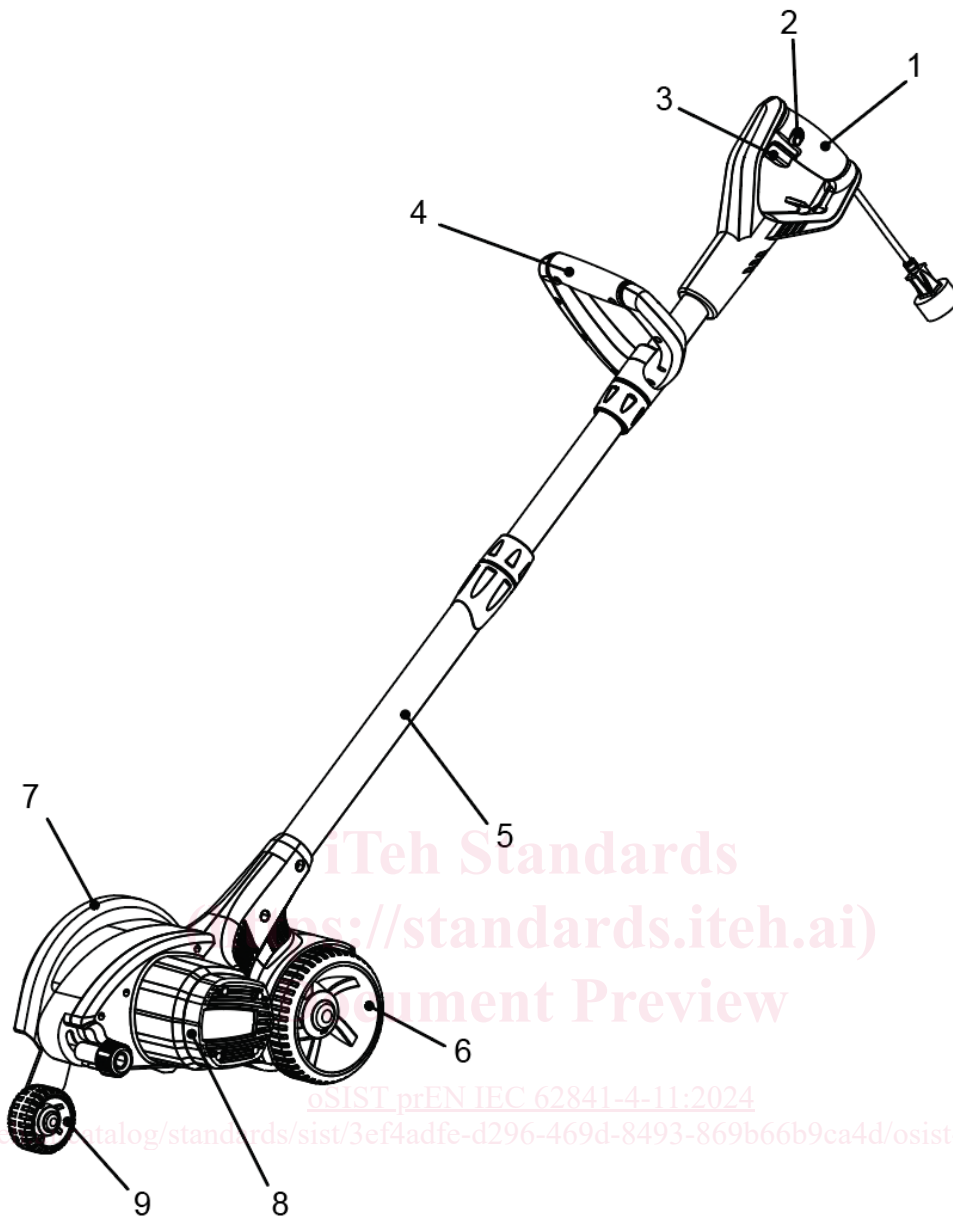
354 8 ground support wheel

355 9 **cutting accessory**

356

Figure 102 – Example of a walk-behind edger

357



- 358
 359 **Key**
 360 1 **handle**
 361 2 lock-off device
 362 3 **power switch**
 363 4 **guide handle**
 364 5 **shaft**
 365 6 ground support wheel
 366 7 **guard**
 367 8 motor
 368 9 height adjust wheel

369

Figure 103 – Example of a walk-beside edger

370 **4 General requirements**

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