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colour inside

Electric motor-operated hand-held tools, transportable tools and lawn and garden machinery – Safety –
Part 4-4: Particular requirements for lawn trimmers, lawn edge trimmers, grass trimmers, brush cutters and brush saws

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

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CONTENTS

FOREWORD 5
INTRODUCTION 8
1 Scope 9
2 Normative references 9
3 Terms and definitions 10
4 General requirements 18
5 General conditions for the tests 18
6 Radiation, toxicity and similar hazards 18
7 Classification 18
8 Marking and instructions 19
9 Protection against access to live parts 26
10 Starting 26
11 Input and current 26
12 Heating 27
13 Resistance to heat and fire 28
14 Moisture resistance 28
15 Resistance to rusting 29
16 Overload protection of transformers and associated circuits 29
17 Endurance 29
18 Abnormal operation 30
19 Mechanical hazards 32
20 Mechanical strength 46
21 Construction 54
22 Internal wiring 64
23 Components 64
24 Supply connection and external flexible cords 65
25 Terminals for external conductors 67
26 Provision for earthing 67
27 Screws and connections 67
28 Creepage distances, clearances and distances through insulation 67
Annexes 72
Annex I (informative) Measurement of noise and vibration emissions 72
Annex K (normative) Battery tools and battery packs 81
Annex L (normative) Battery tools and battery packs provided with mains connection or non-isolated sources 95
Annex AA (normative) Safety signs which may be used on machines 100
Annex BB (normative) Thrown objects test for grass trimmers, brush cutters and brush saws 111
Annex CC (normative) Impact test for brush cutter and brush saw cutting accessories and grass trimmer cutting means 115
Annex DD (informative) Example of a material and construction fulfilling the requirements for an artificial surface 116

Annex EE (informative) Summary of characteristics for lawn trimmers, lawn edge trimmers, grass trimmers, brush cutters and brush saws 118
Bibliography 120

Figure 101 – Example of a brush cutter 12
Figure 102 – Example of a brush saw 13
Figure 103 – Examples of grass trimmers 14
Figure 104 – Example of a lawn edge trimmer 15
Figure 105 – Example of a lawn trimmer 16
Figure 106 – Example of a walk-behind trimmer 17
Figure 107 – Minimum guard coverage, lawn trimmer (see 19.101.1) 34
Figure 108 – Cross-sectional view of lawn edge trimmer cutting means guard 36
Figure 109 – Shaft angle measurement 37
Figure 110 – Lawn edge trimmer guarding when $\theta < 45°$ 38
Figure 111 – Lawn edge trimmer guarding when $\theta \geq 45°$ 39
Figure 112 – Measurement of handle gripping length 41
Figure 113 – Measurement of distance between handles for grass trimmers, brush cutters and brush saws 42
Figure 114 – Examples of brush cutters and brush saws with different handle and barrier configurations: Measurement of distance to cutting accessory 44
Figure 115 – Impact test apparatus for handle insulation 49
Figure 116 – Cutting means guard drop test 50
Figure 117 – Cutting head strength test 51
Figure 118 – Cutting accessory guard test 53
Figure 122 – Application of steel rod when rotated around the handle 57
Figure 123 – Application of steel rod when applied in the direction perpendicular to the handle axis 57
Figure 119 – Example of an operator presence sensor 58
Figure 120 – Lawn trimmer and lawn edge trimmer cutting means measurement 60
Figure 121 – Test assembly for accessibility of attachment plug blades 66
Figure I.101 – Microphone positions on the hemisphere (see Table I.101) 72
~~Figure I.102 – Examples of positions of transducers (hand-held machines) .....~~
Figure I.103 – Examples of positions of transducers (walk-behind machines) 79
Figure AA.1 – Optional safety sign illustrating – "Wear eye and ear protection" 100
Figure AA.2 – Optional safety sign illustrating – "Wear eye and head protection" 100
Figure AA.3 – Optional safety sign illustrating – "Wear eye, ear and head protection" 101
Figure AA.4 – Safety signs illustrating – "Wear eye protection" 102
Figure AA.5 – Safety sign illustrating – "Wear ear protection" 103
Figure AA.6 – Safety sign illustrating – "Do not expose to rain" 103
Figure AA.7 – Safety signs illustrating – "WARNING – Keep bystanders away" 104
~~Figure AA.8 – Safety signs illustrating – "WARNING – The distance between the machine and bystanders shall be at least 15 m (50 ft)" .....~~
Figure AA.9 – Safety sign illustrating – "WARNING – Beware of thrown objects" 105
Figure AA.10 – Safety sign illustrating – "Wear head protection where there is a risk of falling objects " 106

Figure AA.11 – Safety sign illustrating – "Wear hand protection" 106
Figure AA.12 – Safety sign illustrating – "Wear slip-resistant footwear" 106
Figure AA.13 – Safety signs illustrating – "WARNING – Beware of blade thrust" 107
Figure AA.14 – Alternative safety signs illustrating – "WARNING – Beware of blade thrust" 108
Figure AA.15 – Safety sign illustrating – "Do not use metal blades" 108
Figure AA.16 – Safety sign illustrating – "WARNING – Remove plug from the mains immediately if the power cord or cable is damaged or cut" 109
Figure AA.17 – Safety sign illustrating – "WARNING – Disconnect battery before maintenance" 109
Figure AA.18 – Safety sign illustrating – "WARNING – Remove the disabling device before maintenance" 109
Figure AA.19 – Safety sign illustrating – "WARNING – Operate the disabling device before maintenance" 110
Figure BB.1 – Machine position on test stand 111
Figure BB.2 – Insertion positions of the test pieces 112
Figure BB.3 – Test piece 114
Figure CC.1 – Impact test 115
Figure DD.1 – Sketch of the measurement surface covered with an artificial surface (not to scale) 117

Table 2 – Maximum outside surface temperature rises 28
Table 4 – Required performance levels 31
Table 7 – Switch trigger force 54
Table 9 – Pull and torque value 67
~~Table 301 – Pull and torque value ..... .~~
Table 12 – Minimum creepage distances and clearances 69
Table I.101 – Co-ordinates of microphone positions 74
Table I.102 – Absorption coefficients 75
Table 4 – Required performance levels 86
Table K.1 – Minimum creepage distances and clearances between parts of different potential 92
Table K.2 – Minimum total sum of creepage distances and clearances to accessible surfaces 94
Table 4 – Required performance levels 96
Table EE.1 – Machine categories 118

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

Part 4-4: Particular requirements for lawn trimmers, lawn edge trimmers, grass trimmers, brush cutters and brush saws

FOREWORD

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In this Redline version, a vertical line in the margin shows where the technical content is modified by amendment 1. Additions are in green text, deletions are in strikethrough

red text. A separate Final version with all changes accepted is available in this publication.

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

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

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

This Part 4-4 supplements or modifies the corresponding clauses in IEC 62841-1, so as to convert it into the IEC Standard: Particular requirements for lawn trimmers, lawn edge trimmers, grass trimmers, brush cutters and brush saws.

Where a particular subclause of Part 1 is not mentioned in this Part 4-4, that subclause applies as far as reasonable. Where 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 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 as well as Annexes of Part 1, except as described for Annex K and Annex L 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 Part 4-4 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 and its amendment 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.

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.

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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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D-70442 Stuttgart, Germany

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights other than those identified above. IEC shall not be held responsible for identifying any or all such patent rights.

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

Part 4-4: Particular requirements for lawn trimmers, lawn edge trimmers, grass trimmers, brush cutters and brush saws

1 Scope

This clause of Part 1 is applicable, except as follows:

Addition:

This document applies to hand-held and **walk-behind lawn trimmers** and **lawn edge trimmers**, used by a standing operator for cutting grass, weeds or similar soft vegetation, and **grass trimmers**, **brush cutters** and **brush saws** used by a standing operator for cutting grass, weeds, brush, bushes, saplings and similar vegetation.

This document does not apply to

– hand-held machines having a mass of 18 kg or greater;
– self-propelled **lawn trimmers** or **lawn edge trimmers**;
– scissors type **lawn trimmers** and **lawn edge trimmers**;
– machines equipped with metallic **cutting accessories** consisting of more than one piece, e.g. pivoting chains or flail blades;
– edgers with rigid and/or metallic cutting devices.

NOTE 101 Freely pivoting non-metallic **cutting elements** are considered not to be rigid cutting devices.

NOTE 102 Edgers with rigid or metal cutting devices will be covered by a future part of IEC 62841-4.

NOTE 103 Annex EE provides an informative summary of characteristics for **lawn trimmers**, **lawn edge trimmers**, **grass trimmers**, **brush cutters** and **brush saws**.

Brush cutters and **brush saws** covered by this document are designed only to be operated with the machine to the right of the operator.

2 Normative references

This clause of Part 1 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*

Addition:

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

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

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

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

ISO 7918:1995, *Forestry machinery – Portable brush-cutters and grass-trimmers – Cutting attachment guard dimensions*

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*

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:~~2011~~2021, *Forestry and gardening machinery – Noise test code for portable hand-held machines with internal combustion engine – Engineering method (Grade 2 accuracy)*

CONTENTS

FOREWORD 5
INTRODUCTION 7
1 Scope 8
2 Normative references 8
3 Terms and definitions 9
4 General requirements 17
5 General conditions for the tests 17
6 Radiation, toxicity and similar hazards 17
7 Classification 17
8 Marking and instructions 18
9 Protection against access to live parts 25
10 Starting 25
11 Input and current 25
12 Heating 25
13 Resistance to heat and fire 26
14 Moisture resistance 26
15 Resistance to rusting 27
16 Overload protection of transformers and associated circuits 27
17 Endurance 27
18 Abnormal operation 28
19 Mechanical hazards 31
20 Mechanical strength 45
21 Construction 53
22 Internal wiring 63
23 Components 63
24 Supply connection and external flexible cords 64
25 Terminals for external conductors 65
26 Provision for earthing 66
27 Screws and connections 66
28 Creepage distances, clearances and distances through insulation 66
Annexes 71
Annex I (informative) Measurement of noise and vibration emissions 71
Annex K (normative) Battery tools and battery packs 79
Annex L (normative) Battery tools and battery packs provided with mains connection or non-isolated sources 92
Annex AA (normative) Safety signs which may be used on machines 97
Annex BB (normative) Thrown objects test for grass trimmers, brush cutters and brush saws 107
Annex CC (normative) Impact test for brush cutter and brush saw cutting accessories and grass trimmer cutting means 111
Annex DD (informative) Example of a material and construction fulfilling the requirements for an artificial surface 112

Annex EE (informative) Summary of characteristics for lawn trimmers, lawn edge trimmers, grass trimmers, brush cutters and brush saws 114
Bibliography 116

Figure 101 – Example of a brush cutter 11
Figure 102 – Example of a brush saw 12
Figure 103 – Examples of grass trimmers 13
Figure 104 – Example of a lawn edge trimmer 14
Figure 105 – Example of a lawn trimmer 15
Figure 106 – Example of a walk-behind trimmer 16
Figure 107 – Minimum guard coverage, lawn trimmer (see 19.101.1) 33
Figure 108 – Cross-sectional view of lawn edge trimmer cutting means guard 35
Figure 109 – Shaft angle measurement 36
Figure 110 – Lawn edge trimmer guarding when $\theta < 45°$ 37
Figure 111 – Lawn edge trimmer guarding when $\theta \geq 45°$ 38
Figure 112 – Measurement of handle gripping length 40
Figure 113 – Measurement of distance between handles for grass trimmers, brush cutters and brush saws 41
Figure 114 – Examples of brush cutters and brush saws with different handle and barrier configurations: Measurement of distance to cutting accessory 43
Figure 115 – Impact test apparatus for handle insulation 48
Figure 116 – Cutting means guard drop test 49
Figure 117 – Cutting head strength test 50
Figure 118 – Cutting accessory guard test 52
Figure 122 – Application of steel rod when rotated around the handle 56
Figure 123 – Application of steel rod when applied in the direction perpendicular to the handle axis 56
Figure 119 – Example of an operator presence sensor 57
Figure 120 – Lawn trimmer and lawn edge trimmer cutting means measurement 59
Figure 121 – Test assembly for accessibility of attachment plug blades 65
Figure I.101 – Microphone positions on the hemisphere (see Table I.101) 71
Figure I.103 – Examples of positions of transducers (walk-behind machines) 77
Figure AA.1 – Optional safety sign illustrating – "Wear eye and ear protection" 97
Figure AA.2 – Optional safety sign illustrating – "Wear eye and head protection" 97
Figure AA.3 – Optional safety sign illustrating – "Wear eye, ear and head protection" 98
Figure AA.4 – Safety signs illustrating – "Wear eye protection" 99
Figure AA.5 – Safety sign illustrating – "Wear ear protection" 100
Figure AA.6 – Safety sign illustrating – "Do not expose to rain" 100
Figure AA.7 – Safety signs illustrating – "WARNING – Keep bystanders away" 101
Figure AA.9 – Safety sign illustrating – "WARNING – Beware of thrown objects" 102
Figure AA.10 – Safety sign illustrating – "Wear head protection where there is a risk of falling objects " 102
Figure AA.11 – Safety sign illustrating – "Wear hand protection" 102
Figure AA.12 – Safety sign illustrating – "Wear slip-resistant footwear" 103
Figure AA.13 – Safety signs illustrating – "WARNING – Beware of blade thrust" 103

Figure AA.14 – Alternative safety signs illustrating – "WARNING – Beware of blade thrust" 104
Figure AA.15 – Safety sign illustrating – "Do not use metal blades" 104
Figure AA.16 – Safety sign illustrating – "WARNING – Remove plug from the mains immediately if the power cord or cable is damaged or cut" 105
Figure AA.17 – Safety sign illustrating – "WARNING – Disconnect battery before maintenance" 105
Figure AA.18 – Safety sign illustrating – "WARNING – Remove the disabling device before maintenance" 105
Figure AA.19 – Safety sign illustrating – "WARNING – Operate the disabling device before maintenance" 106
Figure BB.1 – Machine position on test stand 107
Figure BB.2 – Insertion positions of the test pieces 108
Figure BB.3 – Test piece 110
Figure CC.1 – Impact test 111
Figure DD.1 – Sketch of the measurement surface covered with an artificial surface (not to scale) 113

Table 2 – Maximum outside surface temperature rises 26
Table 4 – Required performance levels 30
Table 7 – Switch trigger force 53
Table 9 – Pull and torque value 65
Table 12 – Minimum creepage distances and clearances 68
Table I.101 – Co-ordinates of microphone positions 73
Table I.102 – Absorption coefficients 74
Table 4 – Required performance levels 84
Table K.1 – Minimum creepage distances and clearances between parts of different potential 90
Table K.2 – Minimum total sum of creepage distances and clearances to accessible surfaces 91
Table 4 – Required performance levels 93
Table EE.1 – Machine categories 114

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_____

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Part 4-4: Particular requirements for lawn trimmers, lawn edge trimmers, grass trimmers, brush cutters and brush saws

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

Part 4-4: Particular requirements for lawn trimmers, lawn edge trimmers, grass trimmers, brush cutters and brush saws

1 Scope

This clause of Part 1 is applicable, except as follows:

Addition:

This document applies to hand-held and **walk-behind lawn trimmers** and **lawn edge trimmers**, used by a standing operator for cutting grass, weeds or similar soft vegetation, and **grass trimmers**, **brush cutters** and **brush saws** used by a standing operator for cutting grass, weeds, brush, bushes, saplings and similar vegetation.

This document does not apply to

– hand-held machines having a mass of 18 kg or greater;
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– scissors type **lawn trimmers** and **lawn edge trimmers**;
– machines equipped with metallic **cutting accessories** consisting of more than one piece, e.g. pivoting chains or flail blades;
– edgers with rigid and/or metallic cutting devices.

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NOTE 103 Annex EE provides an informative summary of characteristics for **lawn trimmers**, **lawn edge trimmers**, **grass trimmers**, **brush cutters** and **brush saws**.

Brush cutters and **brush saws** covered by this document are designed only to be operated with the machine to the right of the operator.

2 Normative references

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Replacement of undated normative reference for ISO 3744:

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Addition:

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

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

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