



SLOVENSKI STANDARD
SIST EN 836:1998/A3:2004

01-september-2004

Oprema za nego vrta - Gnane vrtno kosilnice – Varnost

Garden equipment - Powered lawnmowers - Safety

Gartengeräte - Motorgetriebene Rasenmäher - Sicherheit

Matériel de jardinage - Tondeuses à gazon à moteur - Sécurité

iTeh STANDARD PREVIEW
(standards.iTeh.si)

Ta slovenski standard je istoveten z: EN 836:1997/A3:2004

SIST EN 836:1998/A3:2004
<https://standards.iTeh.si/catalog/standards/sist/d612ee67-dca9-4586-8dcc-54af0726d117/sist-en-836-1998-a3-2004>

ICS:

65.060.70 Vrtnarska oprema Horticultural equipment

SIST EN 836:1998/A3:2004 **en**

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 836:1998/A3:2004](https://standards.iteh.ai/catalog/standards/sist/d812ee87-dca9-458b-8dcc-54af0726d117/sist-en-836-1998-a3-2004)

<https://standards.iteh.ai/catalog/standards/sist/d812ee87-dca9-458b-8dcc-54af0726d117/sist-en-836-1998-a3-2004>

ICS 65.060.70

English version

Garden equipment - Powered lawnmowers - Safety

Matériel de jardinage - Tondeuses à gazon à moteur -
Sécurité

Gartengeräte - Motorgetriebene Rasenmäher - Sicherheit

This amendment A3 modifies the European Standard EN 836:1997; it was approved by CEN on 17 December 2003.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This amendment exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

(standards.iteh.ai)

SIST EN 836:1998/A3:2004

<https://standards.iteh.ai/catalog/standards/sist/d812ee87-dca9-458b-8dcc-54af0726d117/sist-en-836-1998-a3-2004>



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: rue de Stassart, 36 B-1050 Brussels

Contents

page

Foreword	3
1 General modifications.....	4
2 Modifications in scope.....	6
3 Modifications in normative references	6
4 Modifications in definitions.....	7
5 Modifications in clause 4.....	7
6 Modifications in clause 5.....	15
7 Modifications in annex B.....	16
8 Modifications in annex C.....	16
9 Modifications in annex D.....	16
10 Modifications in annex E.....	16
11 Modifications in annex F.....	19
12 Modifications in annex G.....	19
13 Modifications in annex ZA.....	19

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 836:1998/A3:2004
<https://standards.iteh.ai/catalog/standards/sist/d812ee87-dca9-458b-8dcc-54af0726d117/sist-en-836-1998-a3-2004>

Foreword

This document (EN 836:1997/A3:2004) has been prepared by Technical Committee CEN/TC 144 "Tractors and machinery for agriculture and forestry", the secretariat of which is held by AFNOR.

This Amendment to the European Standard EN 836:1997 shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by August 2004, and conflicting national standards shall be withdrawn at the latest by August 2004.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN 836:1998/A3:2004](https://standards.iteh.ai/catalog/standards/sist/d812ee87-dca9-458b-8dcc-54af0726d117/sist-en-836-1998-a3-2004)

<https://standards.iteh.ai/catalog/standards/sist/d812ee87-dca9-458b-8dcc-54af0726d117/sist-en-836-1998-a3-2004>

1 General modifications

Replace "blade" with "cutting means" in the following places:

- 4.1.8.1.2 - 2nd paragraph a)
- 4.2.1.1 - title to read "Cutting means enclosure" also change entry in "Contents"
- 4.2.1.1.1 - paragraph 1, line 1 2nd word; line 1 15th word; line 3 1st word
- 4.2.1.1.1 - paragraph 2 line 1
- 4.2.1.1.1 - paragraph 3 line 2
- Figure 4 - title
- 4.2.1.1.2 b) - line 2 (twice)
- 4.2.1.1.3 - line 3 and line 4
- 4.2.1.2 - line 3
- 4.2.1.3 - title to read "Cutting means" also change entry in "Contents"
- 4.2.1.3.1.1 - paragraph 1 line 2
- 4.2.1.3.1.1 - paragraph 2 line 1
- Figures 5, 6 and 7 - all annotations except "blade tip circle"
- 4.2.1.3.1.2 - paragraph 1 line 2, NOTE (twice), and paragraph 2 line 1
- 4.2.1.3.2 - title
- 4.2.1.3.2.1 - lines 1, 2 and 5
- 4.2.1.3.2.2 - lines 1, 2 and 4
- 4.2.1.3.2.3 - title and 10 occurrences in the text
- 4.2.2.3.1.3 - line 3
- 4.2.2.3.2 - paragraph 1 line 1, paragraph 2 line 6, NOTE
- 4.2.2.4.2 - line 1, line 4 (twice), line 5
- 4.2.2.4.3 - (5 times)
- 4.2.2.5.2 - line 1, line 4, line 6, line 8, line 9 (twice)
- 4.2.2.6.2 - paragraph 1, paragraph 2 (twice), paragraph 3 (four times), paragraph 4 c), paragraph 7 line 4
- 4.2.2.6.3 - line 1
- 4.2.2.7 - title to read "Structural integrity test for cutting means enclosure, guards and grass catcher" also change entry in "Contents"
- 4.2.2.7.1.1 - paragraph 1 line 3
- 4.2.2.7.1.2 - paragraph 1 lines 3 and 4
- 4.2.2.7.1.4 - line 3
- 4.2.2.7.2 - (four times)
- 4.2.2.7.3 - (four times)
- 4.2.3.1.1 - paragraph 1 line 5
- Figure 16 - "Blade enclosure" (twice), "a) single blade" and "b) twin blade";
- 5.1.1 b) - line 2 first word
- H.4 - paragraph 2, 2nd indent change to read "... between rotating cylinder and stationary blade does not exceed ..."
- H.4 - paragraph 3 change to read "Cutting means of cylinder (reel) ..."
- H.4 - NOTE

NOTE : Occasions where "blade" will **not** be changed are –

Everything before clause 4

4.1.8.1.1	- 2 nd indent
Figure 3	- "blade tip circle" three times
4.2.1.1.1	- lines 1 and 4 "blade tip circle"
4.2.1.1.1	- paragraph 3 line 2
Figure 4	- "blade tip circle"
4.2.1.1.2 b)	- line 1 (twice)
4.2.1.1.3	- line 2 (twice)
4.2.1.3.1.1	- NOTE
Figures 5, 6 and 7	- "blade tip circle"
4.2.2.2.4.2	- paragraph 2 line 2
4.2.2.3.1.1	- paragraph 2 lines 2 and 4
4.2.2.3.1.3	- line 2
Figures 10, 11, 12, 13 and 14	- "blade tip circle"
4.2.2.5.2	- line 5,
4.2.2.6.2	- paragraph 5 and paragraph 7 line 1,
4.2.2.7.1.1	- paragraph 2,
Table 1,	- "blade tip circle"
4.2.2.7.1.2	- line 3,
4.3.1.1	- paragraph 1 line 4,
5.1.1 b)	- line 2 last word,
Figure D.1	- last line in first row,
Annex F	- all instances.

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST EN 836:1998/A3:2004
<https://standards.iteh.ai/catalog/standards/sist/d812ee87-dca9-458b-8dce-54af0726d117/sist-en-836-1998-a3-2004>

Replace "lawnmower" with "machine" in the following places:

4.1.1	- paragraph 1 line 2
4.1.8.1.2	- title; paragraph 2 indent b) line 2; last paragraph line 1
4.1.11.1	- line 2
4.2.1.1.1	- paragraph 3 line 1
4.2.1.3.1.1	- line 1
4.2.1.3.2.1	- line 1
4.2.1.3.2.3	- paragraph 1 line 1; paragraph 2 line 1; paragraph 4 line 1
4.2.2.2.2	- NOTE line 1
4.2.2.2.4.2	- paragraph 2 (twice); paragraph 3 line 3
4.2.2.3.1.1	- paragraph 2 line 1, line 3 and line 4; paragraph 3 line 1
4.2.2.3.1.3	- paragraph 1 line 3
4.2.2.3.2	- paragraph 1 line 1; paragraph 2 line 4, line 5 and line 6; paragraph 4 line 1
4.2.2.3.4.1	- paragraph 2 line 1
4.2.2.6.2	- paragraph 6
4.2.3.1	- line 1 (twice)
4.2.3.1.1	- paragraph 1 line 4 and line 5
4.2.4.1.1	- paragraph 1 line 1 and line 2
4.2.4.2.1	- indent c)
4.3.1.3	- paragraph 1 line 1
4.3.1.4	- paragraph 1 line 1

- 4.3.3.2 - paragraph 1 line 1
- 5.2.2 - paragraph 5 line 1 (2nd occurrence only - first is a term defined in clause 3) and line 2
- C.4 - paragraph 1 line 1
- Figure D.1 - footnote 1
- E.2 - NOTE
- H.4 - paragraph 7 line 2

NOTE : Occasions where "lawnmower" will **not** be changed are –

Everything before clause 4

All occurrences of terms defined in clause 3 that include the word 'lawnmower'

All titles to clauses, sub-clauses, Figures and annexes

All occurrences in Tables

All occurrences in annex F

Replace "projectiles" with "balls" in the following places:

- 4.2.2.3.1.3 - paragraph 1
- 4.2.2.3.2 - paragraph 4
- 4.2.2.3.3 - paragraph 1 sentence 1 and sentence 3
- 4.2.2.3.4.1 - paragraph 1 sentence 1 (twice)
- 4.2.2.7.1.1 - paragraph 3
- 4.2.2.7.1.2 - paragraph 2
- 4.2.2.7.2 - paragraph 2

[SIST EN 836:1998/A3:2004](https://standards.iteh.ai/catalog/standards/sist/d812ee87-dca9-458b-8dcc-54af0726d117/sist-en-836-1998-a3-2004)

[https://standards.iteh.ai/catalog/standards/sist/d812ee87-dca9-458b-8dcc-](https://standards.iteh.ai/catalog/standards/sist/d812ee87-dca9-458b-8dcc-54af0726d117/sist-en-836-1998-a3-2004)

2 Modifications in scope

Paragraph 2 – amend to read:

"...not applicable to machines covered by EN 786, lawn edgers, flail mowers, scrub cutters, automatic (robot) mowers, sickle-bar mowers, ..."

Paragraph 3 – amend to read:

"... kinetic energy of a single cutting element not exceeding 10 J."

Paragraph 5 – amend to read:

"This standard is not applicable to lawnmowers as covered by EN 60335-2-77 and EN 50338.

Penultimate paragraph – amend to read:

"Environmental aspects and EMC have not been dealt with in this standard."

3 Modifications in normative references

Add the following references

EN ISO 5353, *Earth-moving machinery, and tractors and machinery for agriculture and forestry — Seat index point (ISO 5353:1995).*

EN 50338, *Safety of household and similar electrical appliances — Particular requirements for pedestrian controlled battery powered electrical lawnmowers.*

Amend reference EN 60335 to read:

EN 60335-2-77, *Safety of household and similar electrical appliances — Part 2-77: Particular requirements for pedestrian controlled mains-operated lawnmowers (IEC 60335-2-77:1996, modified).*

4 Modifications in definitions

3.4 *Delete this definition as the term is not used in the text of the standard.*

Add new definitions:

3.35

automatic (robot) mower

automatic lawnmower that operates without human control. It operates only within a delimited perimeter or within a pre-programmed area

3.36

cutter unit

combination of cutting means and cutting means enclosure

5 Modifications in clause 4

4.1.1 *Paragraph 1 line 2 – amend to read:*

“... pedestrian-controlled self-propelled lawnmowers...”

Paragraph 4 – amend to read: <https://standards.iteh.ai/catalog/standards/sist/d812ee87-dca9-458b-8dcc-54af0726d117/sist-en-836-1998-a3-2004>

“... recommended by the instruction manual.”

4.1.3.3 *Paragraph 4 sentence 1– amend to read:*

“... and with the cone tip in a downward to horizontal ...”

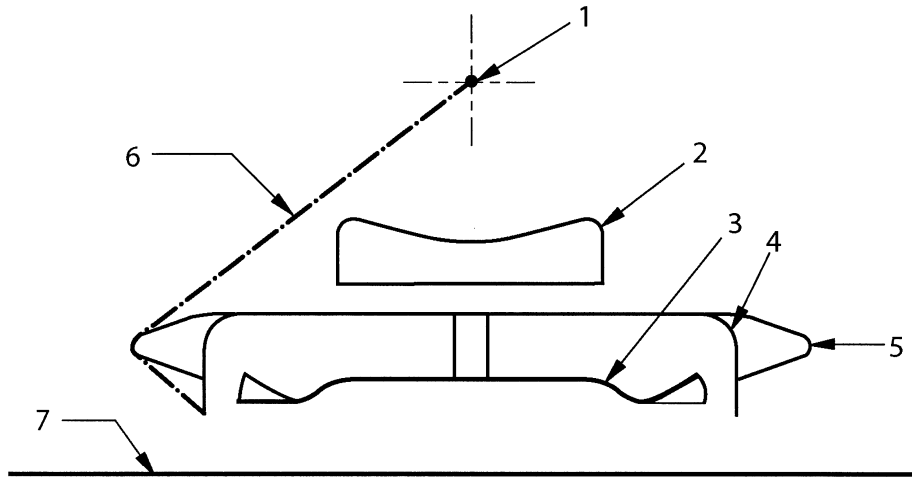
4.1.6 *Amend to read:*

“... according to the instruction manual.”

4.1.7.1 *Add at the end:*

“For ride-on machines the seat index point (as defined in EN ISO 5353) shall be at least 500 mm from the blade tip circle, measured as a chain dimension around any fixed components (see Figure 2)”

4.1.7.1 Add new Figure 2 (renumber all subsequent Figures accordingly):



Key

- | | | | |
|---|-------------------------|---|--|
| 1 | Seat index point | 5 | Fixed component |
| 2 | Seat | 6 | Chain dimension – seat index point to blade tip circle |
| 3 | Cutting means | | |
| 4 | Cutting means enclosure | 7 | Ground surface |

iTeh STANDARD PREVIEW
(standards.iteh.ai)

Figure 2 — Example of chain distance measurement from Seat index point to blade tip circle

4.1.8.1.1 Amend to read:

<https://standards.iteh.ai/catalog/standards/sist/d812ee87-dca9-458b-8dcc-54af0726d117/sist-en-836-1998-a3-2004>

“Operator controls other than those for:

- height of cut setting;
- fixed blade (on-cut) setting or adjustment on cylinder lawnmowers;
- engine starting;
- grass catcher discharge arrangements

shall meet the requirements of 4.1.8.1.2 or 4.1.8.1.3, whichever is applicable, and the following:

- it shall not be possible to sustain an engine/motor speed greater than the maximum operating speed (see 3.19) by use of any control or by simple adjustments made by using standard tools;
- for machines with traction drive the drive shall automatically stop or disengage when the operator leaves the normal operating position.

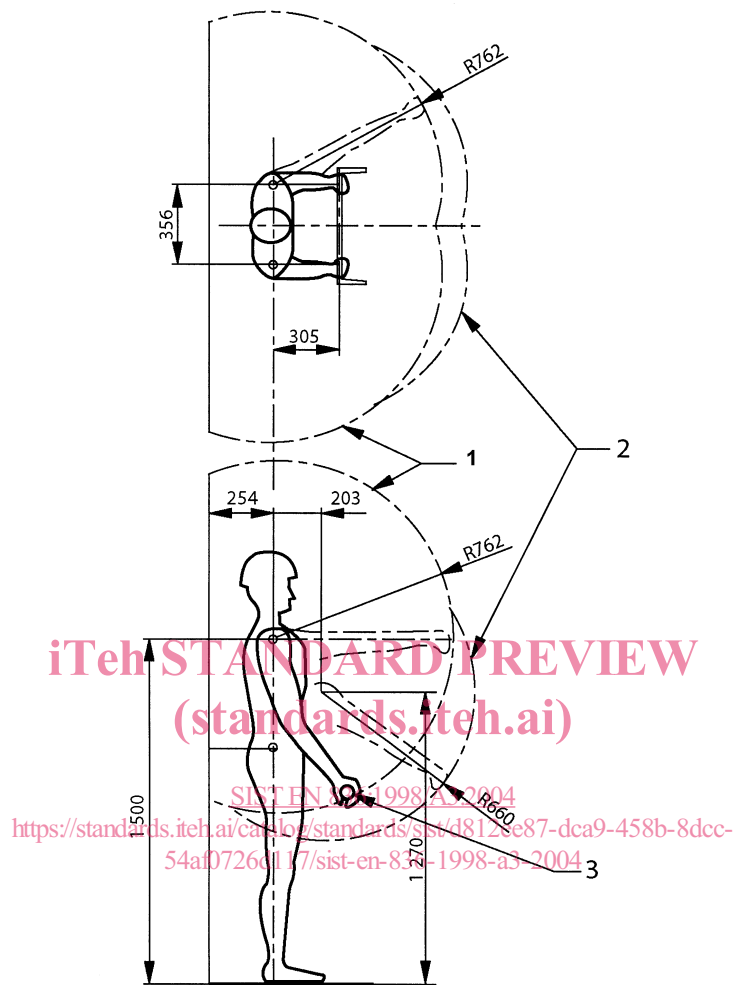
NOTE An audible warning device (e.g. horn) is not required. However machines travelling on public roads can be required to be fitted with a horn in order to meet highway regulations.”

4.1.9.1 Amend last sentence to read:

“Electrically driven machines shall comply with EN 60335-2-77 or EN 50338 as appropriate”

Figure 2 Amend as shown below:

Dimensions in millimetres

**Key**

- 1 Operator zone
- 2 Lower forward zone
- 3 Handle

NOTE 1 The operator zone is the area into which the extremities of a 95th percentile male can reach from the normal operator position.

NOTE 2 The lower forward zone is the area into which a 5th percentile male or a 50th percentile female can reach when against the handle. This zone can also be reached by a 95th percentile leaning forward against the handle.

NOTE 3 All barriers (handles) within the operator zone will reduce the zone by the space occupies and protected by the barrier.

NOTE 4 The operator zone includes the maximum range of movement of all frequently used operator controls but is not intended to represent preferred operator control positions.

Figure 3 — Operator zone — Pedestrian controlled lawnmower (see 4.1.8.1.2)