



SLOVENSKI STANDARD
SIST EN 836:1998/A1:1998

01-februar-1998

Oprema za nego vrta - Gnane vrtno kosilnice - Varnost

Garden equipment - Powered lawnmowers - Safety

Gartengeräte - Motorbetriebene Rasenmäher - Sicherheit

Matériel de jardinage - Tondeuses à gazon à moteur - Sécurité

Ta slovenski standard je istoveten z: EN 836:1997/A1:1997

[SIST EN 836:1998/A1:1998](https://standards.iteh.ai/catalog/standards/sist/6fed9af6-da84-42eb-8eb7-a554c48b01f6/sist-en-836-1998-a1-1998)

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ICS:

65.060.70 Vrtnarska oprema Horticultural equipment

SIST EN 836:1998/A1:1998 **en**

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EUROPEAN STANDARD

EN 836:1997/A1

NORME EUROPÉENNE

EUROPÄISCHE NORM

October 1997

ICS 65.060.70

Descriptors: horticultural machinery, power horticultural machinery, lawnmowers, safety requirements, accident prevention, specifications, design, equipment specifications, safety devices, hazards, tests, verification, marking

English version

Garden equipment - Powered lawnmowers - Safety

Matériel de jardinage - Tondeuses à gazon à moteur -
Sécurité

Gartengeräte - Motorbetriebene Rasenmäher - Sicherheit

This amendment A1 modifies the European Standard EN 836:1997; it was approved by CEN on 18 September 1997.

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, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

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EN 836:1997/A1:1997

Foreword

This Amendment EN 836:1997/A1:1997 to the EN 836:1997 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 April 1998, and conflicting national standards shall be withdrawn at the latest by April 1998.

This amendment fulfils the "under study" NOTE which is located at the end of the present text of 4.2.1.3.2.3 "Measurement of blade stopping time".

This Amendment to the European Standard EN 836:1997 has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

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

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4.2.1.3.2.3 Measurement of blade stopping time

Replace this sub-clause by the following :

"Prior to the test the lawnmower shall be assembled and adjusted according to the manufacturers published instructions for use. Petrol powered lawnmowers shall be "run in" for a period as requested by the manufacturer or for 15 min. whichever is the less. During the "run in" period the blade control shall be operated 10 times. For electric machines there shall be no "run in" period but the machine shall be operated 10 times before commencing the test. Battery powered lawnmowers shall be powered from an external power source to simulate a fully charged battery.

The lawnmower shall be mounted and instrumented in such a manner that the results of the test are not affected. If an external starting device is used it shall not influence the results. A device shall be provided to detect the moment of release of the blade operator presence control and another to detect movement of the cutting blades.

The time recording measurement system shall have a total accuracy of 25 ms and any tachometers used shall have an accuracy of $\pm 2,5\%$. The ambient test temperature shall be $20^{\circ}\text{C} \pm 5^{\circ}\text{C}$.

The means of operating the lawnmower during the test shall be such that the operator presence control for the blade is released abruptly from the full "on" position and it returns to the "idle" or "off" position by itself.

Stopping time is measured from the moment of release of the blade operator presence control until the last time a cutting blade passes the sensing device.

The lawnmower shall be subjected to a sequence of 5000 stop/start cycles. The 5000 test cycles are not required to be continuous and the lawnmower shall be maintained and adjusted during the test in accordance with the manufacturers published instructions for use. There shall be no maintenance or adjustment after 4500 cycles have been completed.

Figure 8 gives a schematic representation of two cycles. Each cycle shall consist of the following sequence :

- accelerate the blade from rest to the maximum operating engine/motor speed (m) - (time = t_s);
- hold it at this speed for a short time to ensure that it is stable - (time = t_r);
- release the operator presence control that controls the blade(s) and allow the blade to come to rest - (time = t_b);
- allow a short time at rest before commencing the next cycle - (time = t_o).

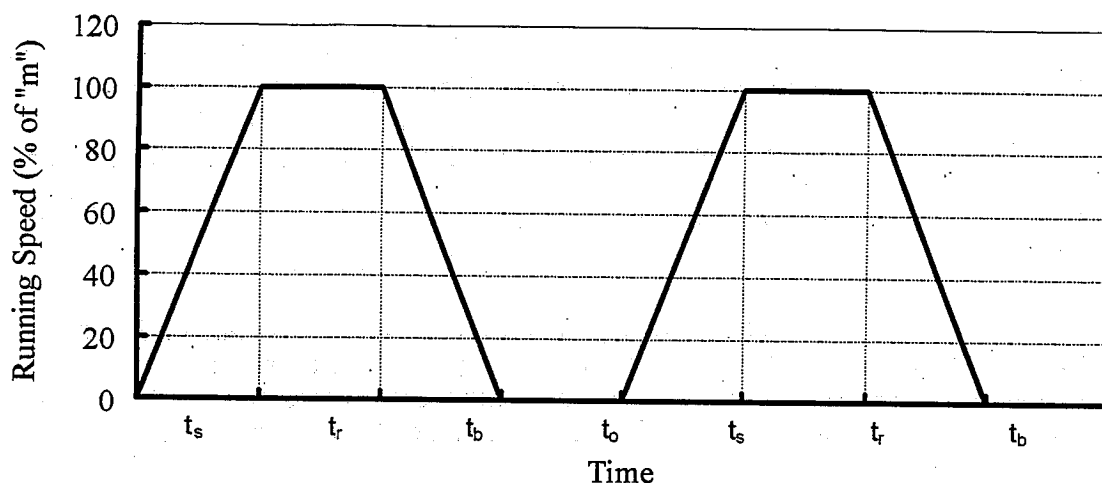


Figure 8 : Example of test cycles

If the total time for one cycle is t_c then $t_c = t_s + t_r + t_b + t_o$. The test cycle times for "on" (t_s+t_r) and "off" (t_b+t_o) shall be decided by the manufacturer but shall not exceed 100s "on" and 20s "off".

NOTE: This test is not representative of normal use and therefore the cycle times should be specified by the manufacturer to avoid unnecessary wear or damage to the machine.

The blade stopping time shall be measured for the following:

- each of the first five cycles of the 5000 cycle test sequence (i.e. not including the 10 preparatory operations); and
- each of the last five cycles prior to any brake maintenance or adjustment carried out during the test; and
- each of the last five cycles of the 5000 test cycles.

No other stopping times shall be recorded.

Each of the measured stopping times (t_b) shall comply with the requirement of 4.2.1.3.2.1 or 4.2.1.3.2.2. If the test sample fails to complete the full number of cycles but otherwise meets the requirements of this test either the machinery may be repaired if the brake mechanism is not affected and the test continued or if the machine cannot be repaired one further sample may be tested which shall then comply fully with the requirements."