

SVENSK STANDARD

SS-EN 15436-4:2009

Fastställt/Approved: 2009-09-07
Publicerad/Published: 2009-10-13
Utgåva/Edition: 1
Språk/Language: engelska/English
ICS: 43.160

Utrustning för underhåll av vägar och trafikområden – Del 4: Användares godkännandekriterier vid leverans av maskiner

Road service area maintenance equipment – Part 4: Delivery acceptance of the machines by the users

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NORME EUROPÉENNE
EUROPÄISCHE NORM

September 2009

ICS 43.160

English Version

**Road service area maintenance equipment - Part 4: Delivery
acceptance of the machines by the users**

Matériel d'entretien des dépendances routières - Partie 4:
Réception des machines par les utilisateurs

Straßenunterhaltungsgeräte - Teil 4: Leistungsbewertung
für Maschinen durch die Anwender

This European Standard was approved by CEN on 1 August 2009.

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This European Standard 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 CEN Management Centre has the same status as the official versions.

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Foreword

This document (EN 15436-4:2009) has been prepared by Technical Committee CEN/TC 337 "Road service area maintenance equipment", the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by March 2010, and conflicting national standards shall be withdrawn at the latest by March 2010.

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1 Scope

This standard applies to:

— mowers;

and

— mechanical brush cutters;

used by road maintenance services.

The standard provides harmonised expressions/characteristic parameters by means of which operators can specify the above-mentioned equipment's performance to suppliers.

The standard also describes procedures for testing delivered equipment's compliance with operator requirements.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 15436-1:2008, *Road service area maintenance equipment – Part 1: Terminology*

EN 15436-2, *Road service area maintenance equipment – Part 2: Performance assessment*

3 Terms and definitions

This document makes use of the expressions defined by EN 15436-1:2008 for describing machine groups and components. Dimensions and performance specifications provided by EN 15436-1:2008 do not apply here. Exceptions are referred to in this standard.

3.1

mowing strip

width-dependent area to be mowed by a machine in any one operation parallel to the carrier vehicle's direction of motion

3.2

trimming strip

width-dependent area to be trimmed by a machine in any one operation parallel to the carrier vehicle's direction of motion

3.3

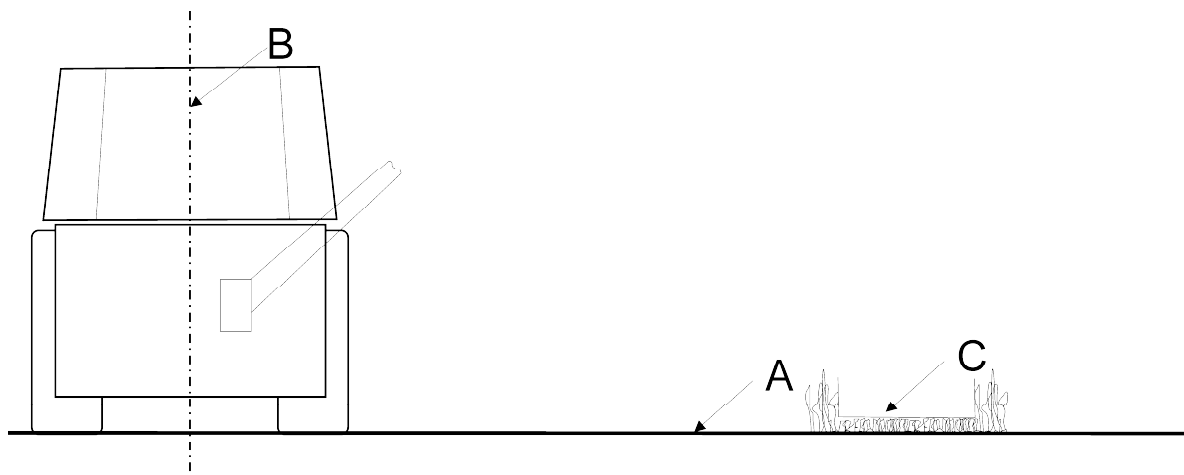
mowing/trimming plane

assumed, planar, post-mowing/post-trimming, overgrown surface over which the mowing/trimming machine is routed (vertical trimming line)

3.4

central plane

vehicle's central, longitudinal plane with respect to the rolling track (Figure 1)



Key

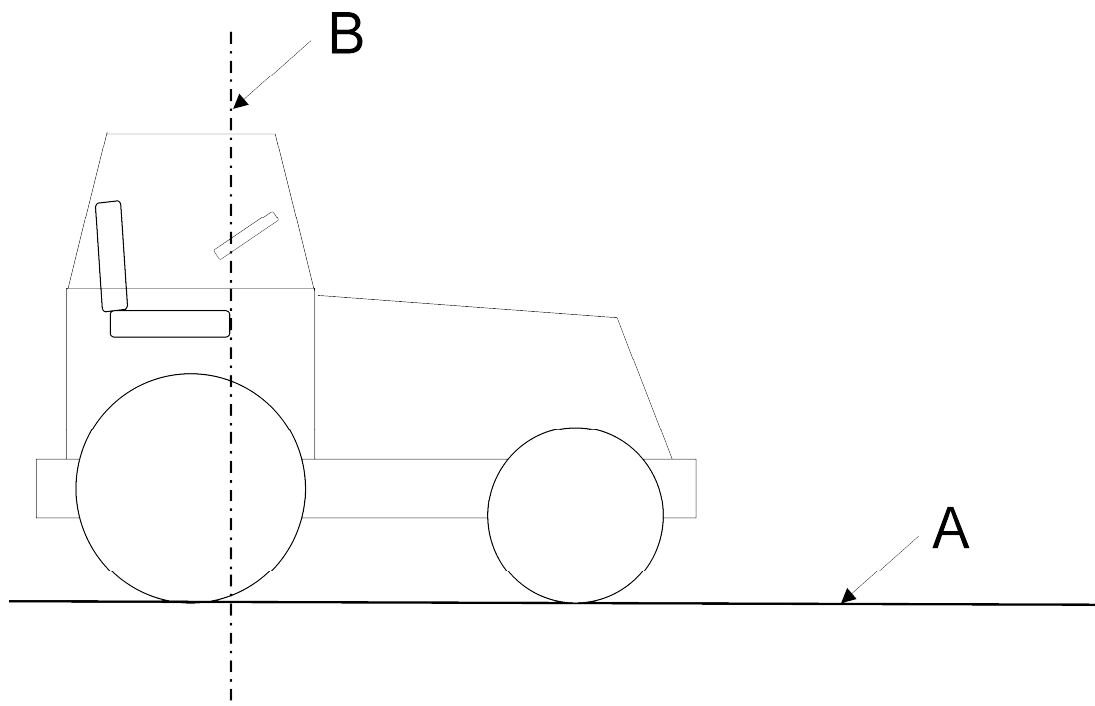
- A Ground plane
- B Middle plane
- C Mowing strip

Figure 1 — Central plane

3.5

operator's seat reference plane

plane meeting the middle of the operator's seat with respect to the vehicle's direction of motion. The operator's seat is located in the middle position. If the operator seat is not aligned with the vehicle's direction of motion the middle position is also to be taken as the reference line. Should the carrier vehicle be unknown this data does not apply (Figure 2)



Key

- A Ground plane
- B Operator's seat reference plane

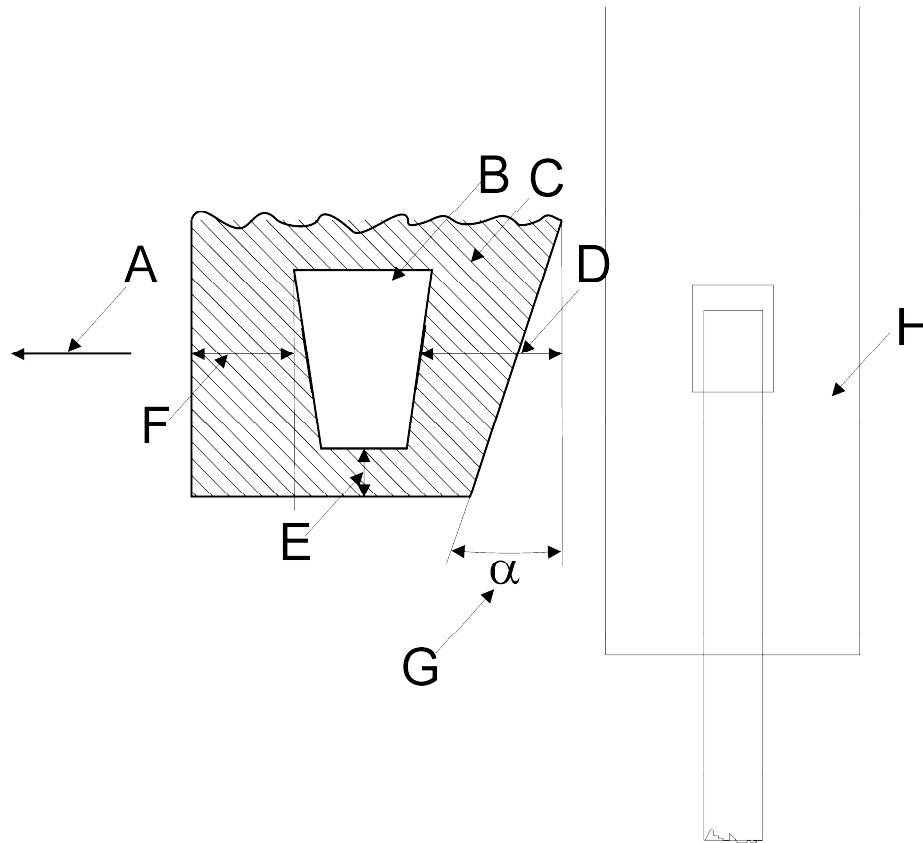
Figure 2 — Operator's seat reference plane

4 Performance specifications

4.1 Specifications for mowers/mechanical branch cutters

- Post-mowing/post-trimming width: corresponding to EN 15436-1 [in cm].
- Mowing/trimming height: corresponding to EN 15436-1 [in cm].
- Quality of the mowing: admissible number of parts of plants in a defined area which are not mowed or which are longer than the mowing height.
- Length of the mowed/trimmed material (chaff function): length of the mowed/trimmed vegetation [in cm].
- Distance to obstructions (design of the mowing/trimming device): the minimum distance to be attained to obstructions (e.g. posts, walls) during mowing/trimming (see Figure 3).

The user shall specify how the mowing/trimming device is to avoid obstructions and, if necessary, bypass them from the front or behind transversely with respect to the mowing/trimming direction.



Key

- A Direction of mowing
- B Obstruction
- C Admissible area, which shall not be mowed
- D Admissible distance between end of mowing and obstruction
- E Admissible distance between mowing strip and obstruction
- F Admissible distance between beginning of mowing and obstruction
- G Accomplishable angle
- H Cutting device

Figure 3 — View from top

4.2 Kinematic parameters/ranges

4.2.1 General

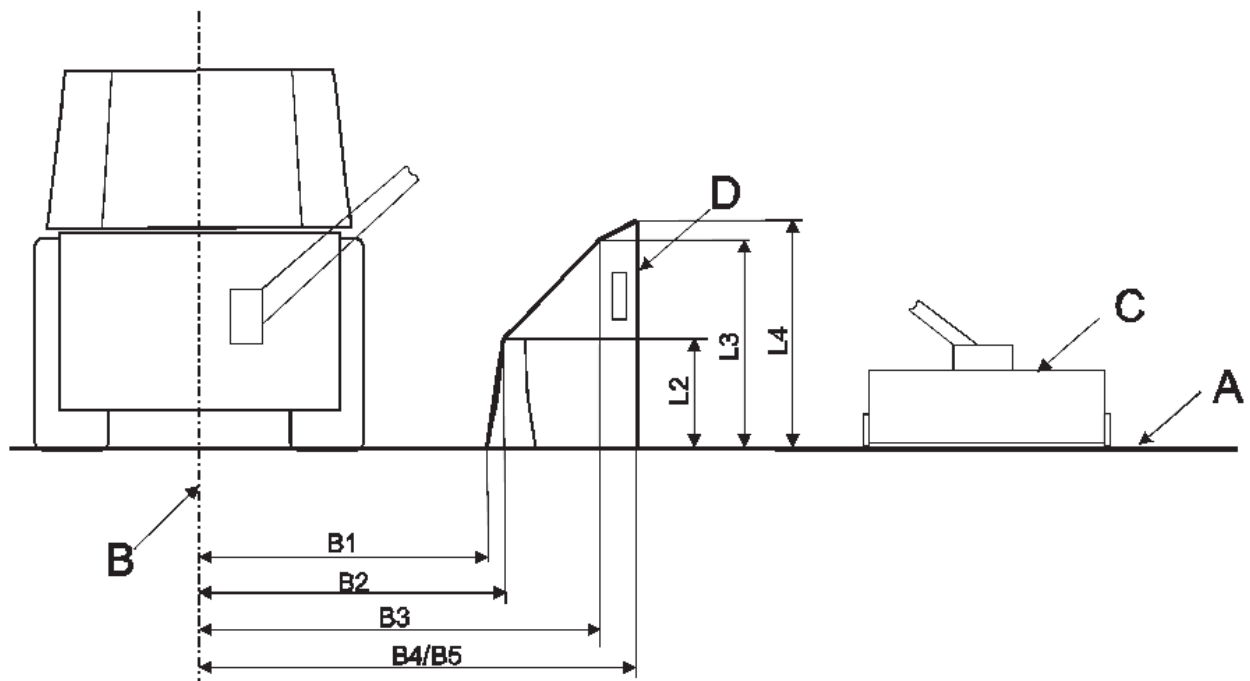
Kinematic specifications for mowing and trimming machines apply in the mounted state on a carrier vehicle. All stipulated geometric dimensions apply with the carrier vehicle positioned on a level horizontal surface with a maximum inclination of 1 % (base plane).

The user's kinematic specifications/ranges for the supplier shall also indicate whether the work is to be performed on the right-hand side, left-hand side or both sides of the direction of travel.

4.2.2 Obstructions and clearances

— Obstructions behind which mowing is required.

The ability to mow strips is influenced by obstructions such as protective barriers, traffic signs etc. If an obstruction cannot be avoided, the kinematics shall allow the mowing/trimming device to pass above the obstruction. The obstruction to be bypassed from above is to be specified as a linear envelope comprising the corner coordinates Bx and Lx with respect to the central or base plane (refer to the Figure 4). Obstructions on embankments and ditch banks shall be specified separately [in m] wherever necessary.



Key

- A Ground plane
- B Middle plane
- C Cutting device
- D Envelope of the obstructions

Figure 4 — Obstructions behind which mowing is required (L1 and L5 Term here 0m)

— Obstructions before which mowing is required (Figure 5).