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Standards

Irish Standard
I.S. EN 12733:2001+A1:2009

Agricultural and forestry machinery - Pedestrian controlled motor mowers - Safety

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English Version

Agricultural and forestry machinery - Pedestrian controlled motor mowers - Safety

Matériel agricole et forestier - Motofaucheuses à conducteur à pied - Sécurité

Land- und forstwirtschaftliche Maschinen - Handgeführte Motormäher - Sicherheit

This European Standard was approved by CEN on 21 January 2001 and includes Corrigendum 1 issued by CEN on 15 October 2003 and Amendment 1 approved by CEN on 29 December 2008.

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Foreword

This document (EN 12733:2001+A1:2009) 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 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of an identical text or by endorsement, at the latest by September 2009, and conflicting national standards shall be withdrawn at the latest by December 2009.

This European Standard was approved by CEN on 21 January 2001 and includes Corrigendum 1 issued by CEN on 15 October 2003 and Amendment 1 approved by CEN on 29 December 2008.

This document supersedes EN 12733:2001.

The start and finish of text introduced or altered by amendment is indicated in the text by tags $\boxed{A_1}$ $\langle A_1 \rangle$.

The modifications of the related CEN Corrigendum have been implemented at the appropriate places in the text and are indicated by the tags \boxed{AC} $\langle AC \rangle$.

This European Standard 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).

$\boxed{A_1}$ For relationship with EU Directive(s), see informative Annexes ZA and ZB, which are integral parts of this document. $\langle A_1 \rangle$

Annexes A, B, C, D, E, F, G, H, I and J are normative. Annexes K and L are informative.

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

Introduction

The extent to which hazards are covered is indicated in the scope of this standard.

1 Scope

This standard specifies safety requirements and their verification for design and construction of pedestrian controlled motor mowers with rotary or reciprocating cutting blades used in agricultural, forestry and landscaping to cut and/or mulch grass or similar plants or scrub and woody vegetation. For the purposes of this standard the following types of pedestrian controlled machines are considered to be motor mowers:

- flail mowers;
- grassland mowers;
- scrub clearing machines;
- sickle bar mowers.

This standard applies also to multipurpose machines when are used for cutting or mulching grass or scrub.

This standard does not cover lawn mowers (see EN 836), engine driven brush cutters and grass trimmers (see EN ISO 11806) or other lawn maintenance equipment.

This standard describes methods for the elimination or reduction of hazards arising from the use of motor mowers. Additionally, it specifies the type of information to be provided by the manufacturer on safe working practices.

Environmental aspects have not been considered in this standard.

This standard applies primarily to machines which are manufactured after the date of issue of the standard.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 292-1:1991, *Safety of machinery — Basic concepts, general principles for design — Part 1: Basic terminology, methodology.*

EN 292-2:1991+A1:1995, *Safety of machinery — Basic concepts, general principles for design — Part 2: Technical principles and specifications.*

EN 294:1992, *Safety of machinery — Safety distances to prevent danger zones being reached by the upper limbs.*

EN 709:1997, *Agricultural and forestry machinery — Pedestrian controlled tractors with mounted rotary cultivators, motor hoes, motor hoes with drive wheel(s) — Safety.*

EN 836:1997, *Garden equipment — Powered lawnmowers — Safety.*

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CR 1030-1:1995:1995, *Hand-arm vibration — Guidelines for vibration hazards reduction — Part 1: Engineering methods by design of machinery.*

EN 1033:1995, *Hand-arm vibration — Laboratory measurement of vibration at the grip surface of hand-guided machinery – General.*

EN ISO 354:1993, *Acoustics — Measurement of sound absorption in a reverberation room (ISO 354:1985).*

EN 60651:1994, *Sound level meters (IEC 60651:1993).*

EN 60804:1994, *Integrating-averaging sound level meters (IEC 60804:1985 and A1:1989).*

EN ISO 3744:1995, *Acoustics — Determination of sound power levels of noise sources using sound pressure — Engineering method in an essentially free field over a reflecting plane (ISO 3744:1994).*

ISO 3767-1:1991, *Tractors, machinery for agriculture and forestry, powered lawn and garden equipment — Symbols for operator controls and other displays — Part 1: Common symbols.*

ISO 3767-3:1995, *Tractors, machinery for agriculture and forestry, powered lawn and garden equipment — Symbols for operator controls and other displays — Part 3: Symbols for powered lawn and garden equipment.*

EN ISO 4871:1996, *Acoustics — Declaration and verification of noise emission values of machinery and equipment (ISO 4871:1996).*

EN ISO 11201:1995, *Acoustics — Noise emitted by machinery and equipment — Measurement of emission sound pressure levels at a work station and at other specified positions — Engineering method in an essentially free field over a reflecting plane (ISO 11201:1995).*

EN ISO 11688-1:1998, *Acoustics — Recommended practice for the design of low-noise machinery and equipment — Part 1: Planning (ISO/TR 11688-1:1995).*

EN ISO 11688-2:2000, *Acoustics — Recommended practice for the design of low-noise machinery and equipment — Part 2: Introduction to the physics of low-noise design.*

ISO 2758:1983, *Paper — Determination of bursting strength.*

ISO 3789-1:1982, *Tractors, machinery for agriculture and forestry, powered lawn and garden equipment — Location and method of operation of operator controls — Part 1: Common controls.*

ISO 5718-1:1989, *Harvesting equipment — Flat blades for rotary mowers — Specifications — Part 1: Type A flat blades.*

ISO 5718-2:1991, *Harvesting equipment — Flat blades for rotary mowers — Part 2: Specifications for type B flat blades.*

ISO 11102-1:1997, *Reciprocating internal combustion engines — Handle starting equipment — Part 1: Safety requirements and tests.*

ISO 11102-2:1997, *Reciprocating internal combustion engines — Handle starting equipment — Part 2: Method of testing the angle of disengagement.*

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