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Standards

Irish Standard  
I.S. EN ISO 4254-5:2009

# Agricultural machinery - Safety - Part 5: Power-driven soilworking machines (ISO 4254-5:2008)

## I.S. EN ISO 4254-5:2009

*Incorporating amendments/corrigenda/National Annexes issued since publication:*  
EN ISO 4254-5:2009/AC:2011

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard – national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation - recommendation based on the consensus of an expert panel and subject to public consultation.

SWIFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

*This document replaces:*  
EN 708:1996

<i>This document is based on:</i> EN ISO 4254-5:2009 EN 708:1996	<i>Published:</i> 30 September, 2009 17 October, 1997
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**NSAI**  
1 Swift Square,  
Northwood, Santry  
Dublin 9

T +353 1 807 3800  
F +353 1 807 3838  
E standards@nsai.ie  
W NSAI.ie

**Sales:**  
T +353 1 857 6730  
F +353 1 857 6729  
W standards.ie

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Agricultural machinery - Safety - Part 5: Power-driven soil-working machines (ISO 4254-5:2008)

Matériel agricole - Sécurité - Partie 5:  
Machines de travail du sol à outils animés  
(ISO 4254-5:2008)

Landmaschinen - Sicherheit - Teil 5:  
Kraftbetriebene Bodenbearbeitungsgeräte  
(ISO 4254-5:2008)

This corrigendum becomes effective on 16 March 2011 for incorporation in the three official language versions of the EN.

Ce corrigendum prendra effet le 16 mars 2011 pour incorporation dans les trois versions linguistiques officielles de la EN.

Die Berichtigung tritt am 16.März 2011 zur Einarbeitung in die drei offiziellen Sprachfassungen der EN in Kraft.



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

**Management Centre: Avenue Marnix 17, B-1000 Brussels**

## **Modifications due to EN ISO 4254-5:2009/AC:2010**

*The modification due to EN ISO 4254-5:2009/AC:2011 (see below) overrules completely the changes contained in EN ISO 4254-5:2009/AC:2010.*

*As the changes contained in the former corrigendum EN ISO 4254-5:2009/AC:2010 already concerned the Foreword of EN ISO 4254-5:2009, they have been merged with the change of Foreword in EN ISO 4254-5:2009/AC:2011 below.*

*Thus the changes contained in EN ISO 4254-5:2009/AC:2010 are not to be taken into account, nor implemented anymore.*

## **Modification due to EN ISO 4254-5:2009/AC:2011**

### **1 Modification to the Foreword**

*Replace the exiting Foreword with the following:*

## "Foreword

The text of ISO 4254-5:2008 has been prepared by Technical Committee ISO/TC 23 "*Tractors and machinery for agriculture and forestry*", Subcommittee SC 3, '*Safety and comfort*' of the International Organization for Standardization (ISO) and has been taken over as EN ISO 4254-5:2009 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 *March 2010*, and conflicting national standards shall be withdrawn at the latest by *March 2010*.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 708:1996.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of the Machinery Directive 2006/42/EC. It is intended to be used together with EN ISO 4254-1:2009, *Agricultural machinery — Safety — Part 1: General requirements (ISO 4254-1:2008)* and EN 15811:2009, *Agricultural machinery — Guards for moving parts of power transmission — Guard opening with tool (ISO/TS 28923:2007 modified)*.

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

This second edition cancels and replaces the first edition (EN 708:1996 and EN 708/A1:2000), which has been technically revised.

The following major changes were introduced:

- deletion of the reference to EN 1553:1999, *Agricultural machinery — Agricultural self-propelled, mounted, semi-mounted and trailed machines — Common safety requirements*, and replacement with EN ISO 4254-1:2009, *Agricultural machinery — Safety — Part 1: General requirements (ISO 4254-1:2008)*;
- deletion of the requirements related to the guarding of moving parts for power transmission dealt with in EN 15811:2009, *Agricultural machinery — Guards for moving parts of power transmission — Guard opening with tool (ISO/TS 28923:2007 modified)*;
- deletion of the requirements related to handling and transport dealt with in EN ISO 4254-1:2009, *Agricultural machinery — Safety — Part 1: General requirements (ISO 4254-1:2008)*;
- addition of a noise clause (4.2);
- revision of the requirements related to the protection against inadvertent contact with power-driven tools (4.3).

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, Croatia, 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 the United Kingdom."

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I.S. EN ISO 4254-5:2009

EUROPEAN STANDARD

**EN ISO 4254-5**

NORME EUROPÉENNE

EUROPÄISCHE NORM

September 2009

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## Agricultural machinery - Safety - Part 5: Power-driven soil-working machines (ISO 4254-5:2008)

Matériel agricole - Sécurité - Partie 5: Machines de travail du sol à outils animés (ISO 4254-5:2008)

Landmaschinen - Sicherheit - Teil 5: Kraftbetriebene Bodenbearbeitungsgeräte (ISO 4254-5:2008)

This European Standard was approved by CEN on 14 September 2009.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN Management Centre or to any CEN member.

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.

CEN members are the national standards bodies of 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.



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

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## Foreword

The text of ISO 4254-5:2008 has been prepared by Technical Committee ISO/TC 23 "Tractors and machinery for agriculture and forestry", Subcommittee SC 3, 'Safety and comfort' of the International Organization for Standardization (ISO) and has been taken over as EN ISO 4254-5:2009 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 March 2010, and conflicting national standards shall be withdrawn at the latest by March 2010.

This document supersedes EN 708:1996.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

Its purpose is to implement ISO 4254-5:2008 at European level, bearing in mind that the reference to ISO 4254-1 to which it is referred had been updated by ISO/CS after the parallel vote in order to refer to the latest version of ISO 4254-1:2008 in reply to the French appeal against EN ISO 4254-1:2005.

This document 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.

For relationship with EU Directive, see informative Annex ZA, which is an integral part of this document.

This standard has been developed to support the Machinery Directive 2006/42/EC.

This second edition cancels and replaces the first edition (EN 708:1996 and EN 708/A1:2000), which has been technically revised.

The following major changes were introduced:

- addition of a noise clause (4.2);
- revision of the requirements related to the protection against inadvertent contact with power-driven tools (4.3);
- addition of Annex ZB;
- deletion of EN 1553:1999 "*Agricultural machinery - Agricultural self-propelled, mounted, semi-mounted and trailed machines - Common safety requirements*" and replacement with EN ISO 4254-1:— "*Agricultural machinery - Safety - Part 1: General requirements*" (ISO 4254-1:2008);
- deletion of the requirements related to the guarding of moving parts for power transmission dealt with in EN 15811:— "*Agricultural machinery - Guards for moving parts of power transmission - Guard opening with tool*" (ISO/TS 28923:2007);
- deletion of the requirements related to handling and transport dealt with in EN ISO 4254-1:— "*Agricultural machinery - Safety - Part 1: General requirements*" (ISO 4254-1:2008).

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 the United Kingdom.

## Endorsement notice

The text of ISO 4254-5:2008 has been approved by CEN as a EN ISO 4254-5:2009 without any modification.

## Annex ZA (informative)

### Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association to provide a means of conforming to Essential Requirements of the New Approach Machinery Directive 2006/42/EC.

Once this standard is cited in the Official Journal of the European Union under that Directive and has been implemented as a national standard in at least one Member State, compliance with the normative clauses of this standard confers, within the limits of the scope of this standard, a presumption of conformity with the relevant Essential Requirements of that Directive, *except Essential Requirements 1.3.7 limited to moving parts for power transmission, 1.3.8.1, 1.4 with the exception of 1.4.1, limited to moving parts for power transmission, 1.5.11, 1.6 related to maintenance or repairs to be carried out by professional service personnel, 3.4.7 for PTO drive transmission shaft* and associated EFTA regulations.

**WARNING** — Other requirements and other EU Directives may be applicable to the product(s) falling within the scope of this standard.

I.S. EN ISO 4254-5:2009  
**INTERNATIONAL  
STANDARD**

**ISO  
4254-5**

Second edition  
2008-09-01

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**Agricultural machinery — Safety —  
Part 5:  
Power-driven soil-working machines**

*Matériel agricole — Sécurité —*

*Partie 5: Machines de travail du sol à outils animés*



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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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

ISO 4254-5 was prepared by Technical Committee ISO/TC 23, *Tractors and machinery for agriculture and forestry*, Subcommittee SC 3, *Safety and comfort*.

This second edition cancels and replaces the first edition (ISO 4254-5:1992), which has been technically revised.

ISO 4254 consists of the following parts, under the general title *Agricultural machinery — Safety*:

- *Part 1: General requirements*
- *Part 3: Tractors* <sup>1)</sup>
- *Part 5: Power-driven soil-working machines*
- *Part 6: Sprayers and liquid fertilizer distributors*
- *Part 7: Combine harvesters, forage harvesters and cotton harvesters*
- *Part 8: Solid fertilizer distributors*
- *Part 9: Seed drills*
- *Part 10: Rotary tedders and rakes*
- *Part 11: Pick-up balers*
- *Part 12: Rotary mowers and flail mowers*

Part 4, *Forestry winches*, was cancelled and replaced by ISO 19472, *Machinery for forestry — Winches — Dimensions, performance and safety*.

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1) To be cancelled and replaced by ISO 26322-1, *Tractors and machinery for agriculture and forestry — Safety — Part 1: Standard tractors*

## Introduction

The structure of safety standards in the field of machinery is as follows.

- a) Type-A standards (basis standards) give basic concepts, principles for design, and general aspects that can be applied to machinery.
- b) Type-B standards (generic safety standards) deal with one or more safety aspect(s) or one or more type(s) of safeguards that can be used across a wide range of machinery:
  - type-B1 standards on particular safety aspects (e.g. safety distances, surface temperature, noise);
  - type-B2 standards on safeguards (e.g. two-hands controls, interlocking devices, pressure sensitive devices, guards);
- c) Type-C standards (machinery safety standards) deal with detailed safety requirements for a particular machine or group of machines.

This part of ISO 4254 is a type-C standard as stated in ISO 12100-1.

When provisions of this type-C standard are different from those which are stated in type-A or type-B standards, the provisions of this type-C standard take precedence over the provisions of the other standards for machines that have been designed and built according to the provisions of this type-C standard.

The machinery concerned and the extent to which hazards, hazardous situations and events are covered are indicated in the scope of this part of ISO 4254. These hazards are specific to power-driven soil-working machines.

Significant hazards that are common to all the agricultural machines (self-propelled, mounted, semi-mounted and trailed) are dealt with in ISO 4254-1.





# Agricultural machinery — Safety —

## Part 5: Power-driven soil-working machines

### 1 Scope

This part of ISO 4254, intended to be used together with ISO 4254-1, specifies the safety requirements and their verification for the design and construction of mounted, semi-mounted and trailed power-driven soil-working machines used in agriculture. In addition, it specifies the type of information on safe working practices (including residual risks) to be provided by the manufacturer.

This part of ISO 4254 deals with significant hazards (as listed in Annex A), hazardous situations and events relevant to power-driven soil-working machines used as intended and under the conditions foreseen by the manufacturer (see Clause 4).

This part of ISO 4254 is not applicable to:

- spading machines;
- machines fitted with a retractable device making them capable of working between two successive plants in the same row.

This part of ISO 4254 is not applicable to environmental hazards or electromagnetic compatibility. It is not applicable to hazards related to moving parts for power transmission, except for strength requirements for guards and barriers, nor to maintenance or repairs carried out by professional service personnel.

NOTE 1 Specific requirements related to road traffic regulations are not taken into account in this part of ISO 4254.

NOTE 2 Vibrations are not regarded as a significant hazard in the case of mounted, semi-mounted or trailed machines.

This part of ISO 4254 is not applicable to power-driven soil-working machines which are manufactured before the date of its publication.

When requirements of this part of ISO 4254 are different from those which are stated in ISO 4254-1, the requirements of this part of ISO 4254 take precedence over the requirements of ISO 4254-1.

### 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.

ISO 4254-1:2008, *Agricultural machinery — Safety — Part 1: General requirements*

ISO 12100-1:2003, *Safety of machinery — Basic concepts, general principles for design — Part 1: Basic terminology, methodology*

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