

PÕLLUMAJANDUSMASINAD. OHUTUS. OSA 11:
PRESSKOGURID (ISO 4254-11:2010)

Agricultural machinery - Safety - Part 11: Pick-up
balers (ISO 4254-11:2010)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>See Eesti standard EVS-EN ISO 4254-11:2011 sisaldab Euroopa standardi EN ISO 4254-11:2010 ingliskeelset teksti.</p> <p>Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 15.12.2010.</p> <p>Standard on kättesaadav Eesti Standardimis- ja Akrediteerimiskeskusest.</p>	<p>This Estonian standard EVS-EN ISO 4254-11:2011 consists of the English text of the European standard EN ISO 4254-11:2010.</p> <p>This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.</p> <p>Date of Availability of the European standard is 15.12.2010.</p> <p>The standard is available from the Estonian Centre for Standardisation and Accreditation.</p>
--	---

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 65.060.50

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardimis- ja Akrediteerimiskeskusele. Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardimis- ja Akrediteerimiskeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardimis- ja Akrediteerimiskeskusega: Koduleht www.evs.ee; telefon 605 5050; e-post info@evs.ee

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation and Accreditation. No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation and Accreditation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation and Accreditation: Homepage www.evs.ee; phone +372 605 5050; e-mail info@evs.ee

EUROPEAN STANDARD

EN ISO 4254-11

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 2010

ICS 65.060.50

Supersedes EN 704:1999+A1:2009

English Version

**Agricultural machinery - Safety - Part 11: Pick-up balers
(ISO 4254-11:2010)**

Matériel agricole - Sécurité - Partie 11: Ramasseuses-
presses (ISO 4254-11:2010)

Landmaschinen - Sicherheit - Teil 11: Sammelpressen ISO
4254-11:2010)

This European Standard was approved by CEN on 14 December 2010.

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-CENELEC 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-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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 United Kingdom.



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

Management Centre: Avenue Marnix 17, B-1000 Brussels

Foreword

This document (EN ISO 4254-11:2010) has been prepared by Technical Committee ISO/TC 23 "Tractors and machinery for agriculture and forestry" in collaboration with 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 June 2011, and conflicting national standards shall be withdrawn at the latest by June 2011.

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 704:1999+A1:2009.

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, see informative Annex ZA, which is an integral part of this document.

The following major changes were introduced:

- deletion of the reference to prEN 1553:1998, *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)*;
- inclusion in the Scope of combination of pick-up balers with wrappers (and new requirements from 5.2.7 to 5.2.7.2.4);
- new requirements for feeding elements designed as augers (5.2.3.1, second sentence, and new 5.2.3.2);
- new requirements on automatic starting systems (5.2.4);
- new requirements on manual feeding of twine (5.2.5);
- new requirements on changing of knives (5.2.6);
- modification on requirements against hazards related to clearing blockages (5.4.1.1 and 5.4.1.2);
- new requirements on bale ejection door (5.4.2.1 second sentence and 5.4.2.2).

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.

Endorsement notice

The text of ISO 4254-11:2010 has been approved by CEN as a EN ISO 4254-11:2010 without any modification.

This document is a preview generated by EVS

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	2
4 List of significant hazards	2
5 Safety requirements and/or protective measures	4
5.1 General	4
5.2 Requirements for all types of balers	4
5.3 Requirements for rectangular balers	8
5.4 Requirements for round balers	12
6 Verification of the safety requirements and/or protective measures	13
7 Information for use	13
7.1 Operator's manual	13
7.2 Marking	14
Bibliography	15

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 4254-11 was prepared by Technical Committee ISO/TC 23, *Tractors and machinery for agriculture and forestry*, Subcommittee SC 7, *Equipment for harvesting and conservation*.

For the purposes of global relevance, the requirements related to the guarding of moving parts for power transmission have been transferred and published as two separate Technical Specifications: ISO/TS 28923:2007 (Guard opening with tool) and ISO/TS 28924:2007, which include the requirements taken from both 4.6 and Annex C of ISO 4254-1:2008.

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

- *Part 1: General requirements*
- *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 disc and drum mowers and flail mowers*
- *Part 13: Large rotary mowers¹⁾*

Part 2, *Anhydrous ammonia applicators*, has been withdrawn; Part 3, *Tractors*, has been cancelled and is to be replaced by ISO 26322 (all parts), *Tractors for agriculture and forestry — Safety*; and Part 4, *Forestry winches*, has been cancelled and replaced by ISO 19472, *Machinery for forestry — Winches — Dimensions, performance and safety*.

1) Under preparation.

Introduction

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

- a) type-A standards (basic standards) giving basic concepts, principles for design, and general aspects that can be applied to machinery;
- b) type-B standards (generic safety standards) dealing with one or more safety aspects or one or more types 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-hand controls, interlocking devices, pressure-sensitive devices, guards);
- c) Type-C standards (machinery safety standards) dealing with detailed safety requirements for a particular machine or group of machines.

This document is a type-C standard as stated in ISO 12100.

The machinery concerned and the extent to which hazards, hazardous situations or hazardous events are covered are indicated in the Scope of this part of ISO 4254. These hazards are specific to self-propelled and trailed pick-up balers, including the combination of pick-up balers with wrappers.

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

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

Agricultural machinery — Safety —

Part 11: Pick-up balers

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 self-propelled and trailed pick-up balers, including the combination of pick-up balers with wrappers, independent of the shape or size of the bales formed. It describes methods for the elimination or reduction of hazards arising from the intended use and reasonably foreseeable misuse of these machines by one person (the operator) in the course of normal operation and service. In addition, it specifies the type of information on safe working practices to be provided by the manufacturer.

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 for machines that have been designed and built according to the requirements of this part of ISO 4254.

This part of ISO 4254, taken together with ISO 4254-1, deals with all the significant hazards (as listed in Table 1), hazardous situations and events relevant to self-propelled and trailed pick-up balers, including the combination of pick-up balers with wrappers, when they are used as intended and under the conditions of misuse that are reasonably foreseeable by the manufacturer (see Clause 4).

This part of ISO 4254 is not applicable to pedestrian-controlled round balers, environmental hazards, road safety, vibration and hazards related to moving parts for power transmission. It is not applicable to hazards related to maintenance or repairs carried out by professional service personnel.

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

This part of ISO 4254 is not applicable to machines manufactured before the date of its publication.

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 3600:1996, *Tractors, machinery for agriculture and forestry, powered lawn and garden equipment — Operator's manuals — Content and presentation*

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

ISO 11684:1995, *Tractors, machinery for agricultural and forestry, powered lawn and garden equipment — Safety signs and hazard pictorials — General principles*

ISO 12100:—, *Safety of machinery — General principles for design — Risk assessment and risk reduction*²⁾

2) To be published.

ISO 13857:2008, *Safety of machinery — Safety distances to prevent hazard zones being reached by upper and lower limbs*

ISO 14982:1998, *Agricultural and forestry machinery — Electromagnetic compatibility — Test methods and acceptance criteria*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 12100 and ISO 4254-1 apply.

4 List of significant hazards

Table 1 specifies the significant hazards, the significant hazardous situations and significant hazardous events that have been identified by risk assessment as being significant for this type of machine, covered by this part of ISO 4254, and which may require specific action by the designer or manufacturer to eliminate or reduce the risk.

Attention is drawn to the necessity to verify that the safety requirements specified in this part of ISO 4254 apply to each significant hazard presented by a given machine and to validate that the risk assessment is complete.

Table 1 — List of significant hazards associated with self-propelled and trailed pick-up balers, including the combination of pick-up balers with wrappers

No. ^a	Hazard	Hazardous situation and event	Clause/subclause of ISO 4254-1:2008	Clause/subclause of this part of ISO 4254
A.1 Mechanical hazards				
A.1.1	Crushing	Manual feeding; uncontrolled movements of the drawbar; contact with pick-up device; contact with feeding elements; contact with the flywheel or other moving parts, ejection of the bale	4.7; 4.8; 4.14.1; 4.14.3; 4.14.5; 4.14.6; 5.2; 6.4	5.1; 5.2; 5.3; 5.4; 7.1; 7.2
A.1.2	Shearing	Manual feeding; uncontrolled movements of the drawbar; contact with pick-up device; contact with feeding elements; contact with the flywheel, knotting mechanism or other moving parts	4.7; 4.8; 4.14.1; 4.14.3; 4.14.5; 4.14.6; 5.2; 6.4	5.1; 5.2; 5.3; 5.4; 7.1; 7.2
A.1.3	Cutting or severing	Manual feeding; contact with pick-up device; contact with feeding elements; contact with the flywheel, knotting mechanism or other moving parts	4.7	5.1; 5.2; 5.3; 5.4; 7.1; 7.2
A.1.4	Entanglement	Manual feeding; contact with pick-up device; contact with feeding elements; contact with the flywheel, knotting mechanism or other moving parts	6.4; 4.7	5.1; 5.2; 5.3; 5.4; 7.1; 7.2
A.1.5	Drawing-in or trapping	Manual feeding; contact with pick-up device; contact with feeding elements; contact with the flywheel, knotting mechanism or other moving parts	6.4; 4.7	5.1; 5.2; 5.3; 5.4; 7.1; 7.2
A.1.6	Impact	Manual feeding; uncontrolled movements of the drawbar; contact with pick-up device; contact with feeding elements; contact with the flywheel, knotting mechanism or other moving parts	4.14.5; 4.14.6; 5.1.3.1	5.1; 5.2; 5.3; 5.4; 7.1; 7.2