

This is a preview of "ISO 4254-13:2012". [Click here to purchase the full version from the ANSI store.](#)

First edition
2012-08-01

Agricultural machinery — Safety —

Part 13: Large rotary mowers

Matériel agricole — Sécurité —

Partie 13: Grandes faucheuses rotatives



Reference number
ISO 4254-13:2012(E)

© ISO 2012

This is a preview of "ISO 4254-13:2012". [Click here to purchase the full version from the ANSI store.](#)



COPYRIGHT PROTECTED DOCUMENT

© ISO 2012

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

This is a preview of "ISO 4254-13:2012". Click here to purchase the full version from the ANSI store.

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	2
3 Terms and definitions	2
3.1 Rotary mowers	2
3.2 Cutting elements	3
3.3 Thrown-object testing	4
4 Safety requirements and/or protective measures	5
4.1 General	5
4.2 Protection against thrown objects	5
4.3 Protection against inadvertent contact with the cutting elements	5
4.4 Rotating power component guarding and shielding	5
4.5 Overrunning clutch or freewheel device	5
4.6 Attachment means for trailed mowers	6
4.7 Attachment means for mounted and semi-mounted mowers	6
4.8 Cutting elements	6
4.9 Impact of the cutting means assemblies	6
4.10 Unbalance	6
4.11 Structural integrity	7
5 Verification of safety requirements and/or measures	7
5.1 Test conditions — General	7
5.2 Foot-probe test	7
5.3 Impact test for cutting-element assemblies	9
5.4 Unbalance test for the cutting element	12
5.5 Structural integrity test	13
5.6 Thrown-object test	14
5.7 Charpy impact strength test	21
5.8 Cutting-element bend test	21
6 Information for use	23
6.1 Operator's manual	23
7 Marking and safety signs	24
7.1 Marking	24
7.2 Safety signs	24
Annex A (informative) List of significant hazards	25
Annex B (informative) Examples of test recording forms	27
Annex C (informative) Example illustrations of mowers	30
Annex D (normative) Corrugated fibreboard penetration tests	34
Bibliography	36

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 4254-13 was prepared by Technical Committee ISO/TC 23, *Tractors and machinery for agriculture and forestry*, Subcommittee SC 7, *Equipment for harvesting and conservation*.

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

- *Part 1: General requirements*¹⁾
- *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 mowers*

ISO 4254-2, *Tractors and machinery for agriculture and forestry — Technical means for providing safety — Part 2: Anhydrous ammonia applicators*, has been withdrawn; ISO 4254-3, *Tractors and machinery for agriculture and forestry — Technical means for providing safety — Part 3: Tractors*, has been cancelled and is to be replaced by ISO 26322 (all parts), *Tractors for agriculture and forestry — Safety*; and ISO 4254-4, *Tractors and machinery for agriculture and forestry — Technical means for providing safety — Part 4: Forestry winches*, has been cancelled and replaced by ISO 19472, *Machinery for forestry — Winches — Dimensions, performance and safety*.

1) 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, *Agricultural machinery — Guards for moving parts of power transmission — Guard opening with tool*, and ISO/TS 28923, *Agricultural machinery — Guards for moving parts of power transmission — Guard opening without tool*.

This is a preview of "ISO 4254-13:2012". [Click here to purchase the full version from the ANSI store.](#)

Introduction

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

- type-A standards (basis safety standards) giving basic concepts, principle for design, and general aspects that can be applied to machinery;
- type-B standards (generic safety standards) dealing with one safety aspect or one type 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 control devices, interlocking devices, pressure-sensitive devices, guards);
- 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 12100:2010.

When provisions of this type-C standard are different from those which are stated in type-A or -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 large rotary mowers.

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