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Agricultural machinery — Safety — Part 12: Rotary disc and drum mowers and flail mowers

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Keywords: Disc mowers, Drum mowers, Flail mowers, Safety

0 Foreword

0.1 ASABE/ISO 4254-12:2012, Agricultural machinery — Safety — Part 12: Rotary disc and drum mowers and flail mowers, is an adoption with deviations of the identically titled ISO standard ISO 4254-12:212, Agricultural machinery — Safety — Part 12: Rotary disc and drum mowers and flail mowers. Deviations noted in the following Foreword sections pertain to those provisions where harmonization could not be achieved between ASABE and the International Standard.

Deviations from the subsequently printed international standard are noted with underscore (additions) or strikethrough (deletions) text. Deviations from the international standard figures and equations are clearly marked.

0.2 This part of ISO 4254, where used with ISO 4254-1, specifies the safety requirements and their verification for the design and construction of rotary disc mowers, rotary drum mowers, as used for forage crop harvesting in agriculture only, and flail mowers with a horizontal axis for use in agriculture only, that are mounted, semi-mounted, trailed or self-propelled. 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.

Flail mowers with a horizontal axis that can be opened at the rear only for maintenance reasons are included.

This part of ISO 4254 is also applicable to mowers equipped with a conditioning device.

This part of ISO 4254 is applicable only to mowers intended to work at ground level, examples of which are given in A.1.

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 (with the exception of noise and vibrations) relevant to rotary disc mowers, rotary drum mowers and flail mowers, when they are used as intended and under the conditions of misuse that are reasonably foreseeable by the manufacturer (see Clause 4).

It is not applicable to (see examples in A.2)
— flail mowers that have the rear part which can be opened for particular field use operations,
— mowers with an articulated arm,
— mowers with one or more vertical axes designed for mulching,
— pedestrian-controlled motor mowers,
— lawn mowers,
— inter-row mowing units, or
— machines specifically designed for highway and road maintenance.

This part of ISO 4254 does not deal with environmental hazards, road safety and hazards related to moving parts for power transmission. It does not deal with hazards related to maintenance or repairs to be 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.

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

0.3 Ten normative references are listed in ISO 4254-12:2012. The responsible ASABE committee has reviewed these references and approved the following deviations:

0.3.1 Replace ISO 3600:1996, Tractors, machinery for agriculture and forestry, powered lawn and garden equipment — Operator's manuals — Content and presentation, with ANSI/ASABE AD3600:2015, Tractors, machinery for agriculture and forestry, powered lawn and garden equipment — Operator's manuals — Content and presentation. Any reference to ISO 3600:1996 in the printed portion of ISO 4254-12 shall be replaced by ANSI/ASABE AD3600:2015, Tractors, machinery for agriculture and forestry, powered lawn and garden equipment — Operator's manuals — Content and presentation.


0.4 This standard has been approved as an American National standard by ANSI (American National Standards Institute).

0.5 This standards deviated from ISO 4254-12:2012 as follows:

0.5.1 See Section 0.3 for Normative reference deviations.

0.5.2 Section 3.1.3, change to:

<disc, and drum, and flail mowers> distance from the ground to the active cutting edge of the cutting element when the cutting element is in the forward-most lowest position of rotation

Text of ISO 4254-12:2012, Agricultural machinery — Safety — Part 12: Rotary disc and drum mowers and flail mowers, with deviations noted, follows.
1 Scope

This part of ISO 4254, where used with ISO 4254-1, specifies the safety requirements and their verification for the design and construction of rotary disc mowers, rotary drum mowers, as used for forage crop harvesting in agriculture only, and flail mowers with a horizontal axis for use in agriculture only, that are mounted, semi-mounted, trailed or self-propelled. 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.

Flail mowers with a horizontal axis that can be opened at the rear only for maintenance reasons are included.

This part of ISO 4254 is also applicable to mowers equipped with a conditioning device.

This part of ISO 4254 is applicable only to mowers intended to work at ground level, examples of which are given in A.1.

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 (with the exception of noise and vibrations) relevant to rotary disc mowers, rotary drum mowers and flail mowers, when they are used as intended and under the conditions of misuse that are reasonably foreseeable by the manufacturer (see Clause 4).

It is not applicable to (see examples in A.2)

— flail mowers that have the rear part which can be opened for particular field use operations,
— mowers with an articulated arm,
— mowers with one or more vertical axes designed for mulching,
— pedestrian-controlled motor mowers,
— lawn mowers,
— inter-row mowing units, or
— machines specifically designed for highway and road maintenance.

This part of ISO 4254 does not deal with environmental hazards, road safety and hazards related to moving parts for power transmission. It does not deal with hazards related to maintenance or repairs to be 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.

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

2 Normative references

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