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Snow throwers - Safety requirements and test
procedures - Part 3: Ride-on snow throwers (ISO
8437-3:2019)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN ISO 8437-3:2021 sisaldab Euroopa standardi EN ISO 8437-3:2021 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 8437-3:2021 consists of the English text of the European standard EN ISO 8437-3:2021.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.
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**Snow throwers - Safety requirements and test procedures
- Part 3: Ride-on snow throwers (ISO 8437-3:2019)**

Chasse-neige - Exigences de sécurité et essais - Partie
3: Chasse-neige à conducteur porté (ISO 8437-3:2019)

Schneefräsen - Sicherheitsanforderungen und
Prüfverfahren - Teil 3: Schneefräsen mit Fahrersitz
(ISO 8437-3:2019)

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European foreword

This document (EN ISO 8437-3:2021) 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of an identical text or by endorsement, at the latest by October 2021, and conflicting national standards shall be withdrawn at the latest by October 2021.

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

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, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 8437-3:2019 has been approved by CEN as EN ISO 8437-3:2021 without any modification.

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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 23, *Tractors and machinery for agriculture and forestry*, Subcommittee SC 13, *powered lawn and garden equipment*.

This first edition of ISO 8437-3, together with ISO 8437-1, ISO 8437-2 and ISO 8437-4, cancels and replaces ISO 8437:1989, which has been technically revised. It also incorporates the Amendment ISO 8437:1989/Amd.1:1997.

A list of all parts in the ISO 8437 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

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

- a) Type-A standards (basic 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 aspects or safeguards that can be used across a wide range of machinery:
 - 1) type-B1 standards on particular safety aspects (e.g. safety distances, surface temperature, noise);
 - 2) type-B2 standards on safeguards (e.g. two-handed 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.

ISO 8437 is a type-C standard as stated in ISO 12100.

This document is of relevance, in particular, for the following stakeholder groups representing the market players with regard to machinery safety:

- machine manufacturers (small, medium and large enterprises);
- health and safety bodies (regulators, accident prevention organizations, market surveillance, etc.).

Others can be affected by the level of machinery safety achieved with the means of the document by the above-mentioned stakeholder groups:

- machine users/employers (small, medium and large enterprises);
- machine users/employees (e.g. trade unions, organizations for people with special needs);
- service providers, e.g. for maintenance (small, medium and large enterprises);
- consumers (in case of machinery intended for use by consumers).

The above-mentioned stakeholder groups have been given the possibility to participate at the drafting process of this document.

The machinery concerned and the extent to which hazards, hazardous situations or hazardous events are covered are indicated in the Scope of this document.

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 shall 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.

Snow throwers — Safety requirements and test procedures —

Part 3: Ride-on snow throwers

1 Scope

This document specifies safety requirements applicable to combustion engine powered ride-on snow throwers. It is intended to be used with ISO 8437-1 and ISO 8437-4 to achieve the full requirements and means for ride-on snow throwers.

The ISO 8437 series deals with significant hazards, hazardous situations and events relevant to snow throwers used as intended and under the conditions reasonably foreseeable by the manufacturer.

It does not apply to the following:

- electrically powered and battery powered snow throwers;
- hand-held snow throwers;
- airport or highway snow removal machines and equipment;
- machines intended for use in potentially explosive atmospheres.

It does not deal with hazards related to the following:

- battery circuits exceeding 42 V;
- mains connected starting motor;
- magneto grounding circuits;
- working environment;
- electromagnetic compatibility.

The ISO 8437 series is not applicable to machines that were manufactured before the date of its publication.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 3411, *Earth-moving machinery — Physical dimensions of operators and minimum operator space envelope*

ISO 5395-3, *Garden equipment — Safety requirements for combustion-engine-powered lawnmowers — Part 3: Ride-on lawnmowers with seated operator*

ISO 8437-1:2019, *Snow throwers — Safety requirements and test procedures — Part 1: Terminology and common tests*

ISO 8437-4:2019, *Snow throwers — Safety requirements and test procedures — Part 4: Information on national and regional provisions*

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

3 Terms and definitions

For the purposes of this document, the terms and definitions in ISO 8437-1 and ISO 12100 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

4 Snow thrower safety requirements and test procedures

4.1 General

The machines shall comply with the safety requirements and/or protective measures of this clause. In addition, the machine shall be designed in accordance with the principles of ISO 12100 for hazards relevant but not significant that are not dealt with by this document (e.g. sharp edges on the outside of the machine).

A slip-resistant surface or other means shall be provided to minimize the possibility of an operator's foot slipping off the foot supports or platforms.

Machines with a snow thrower shall be equipped with two red-colour reflex reflectors. They shall face rearward and be mounted a minimum of 305 mm above the ground. A red tail light, visible at 91,4 m, may be substituted for reflectors. Reflectors or tail lights shall be provided with the snow thrower attachments if the propelling machine is not equipped with reflectors or tail lights.

For additional regional and national requirements, see ISO 8437-4:2019, Clause 6.

4.2 Controls

4.2.1 General

Operator controls shall be located within, and have a range of movement which remains within, the operator control position given in [Figure 1](#), except for

- engine controls,
- snow discharge chute and deflector control(s),
- manual lift,
- hydrostatic bypass valve, and
- parking brake.

Compliance shall be checked by inspection and measurement.

The controls shall be designed such that they can be operated by an operator with and without arctic mittens see [Figure 2](#).

Compliance shall be checked by functional test.

No controls shall be in any hazard zone (see [Figure 1](#)).