SLOVENSKI STANDARD
oSIST prEN ISO 8437-1:2016

01-junij-2016

Snežne freze - Varnostne zahteve in preskusni postopki - 1. del: Terminologija in splošni preskusi (ISO/DIS 8437-1:2016)

Snow throwers - Safety requirements and test procedures - Part 1: Terminology and common tests (ISO/DIS 8437-1:2016)

Schneefräsen - Sicherheitsanforderungen und Prüfverfahren - Teil 1: Begriffe und allgemeine Prüfverfahren (ISO/DIS 8437-1:2016)

Chasse-neige - Exigences de sécurité et essais - Partie 1: Terminologie et essais communs (ISO/DIS 8437-1:2016)

Ta slovenski standard je istoveten z: **prEN ISO 8437-1**

ICS:

43.160	Vozila za posebne namene	Special purpose vehicles

oSIST prEN ISO 8437-1:2016 **en,fr,de**

DRAFT INTERNATIONAL STANDARD

ISO/DIS 8437-1

ISO/TC **23**/SC **13**

Secretariat: **ANSI**

Voting begins on:
2016-04-07

Voting terminates on:
2016-07-06

Snowthrowers — Safety requirements and test procedures —

Part 1:
Terminology and common tests

Chasse-neige — Exigences de sécurité et essais —

Partie 1: Terminologie et essais communs

ICS: 43.160

To expedite distribution, this document is circulated as received from the committee secretariat. ISO Central Secretariat work of editing and text composition will be undertaken at publication stage.

Reference number
ISO/DIS 8437-1:2016(E)

ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

Contents

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. www.iso.org/directives

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received. www.iso.org/patents

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 meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

ISO 8437 was prepared by Technical Committee ISO/TC 23, *Tractors and Machinery for Agriculture and Forestry*, Subcommittee SC 13, *Lawn and Garden Equipment*.

ISO 8437 consists of the following parts under the general title Snow thrower – Safety requirements and test procedures:

Part 1: Terminology and common tests

Part 2: Pedestrian controlled snow throwers

Part 3: Ride-on snow throwers

Part 4: National and regional provisions

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:

- type-B1 standards on particular safety aspects (e.g. safety distances, surface temperature, noise);
- 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.

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

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 1: Terminology and common tests

1 Scope

This part of ISO 8437 defines terms and definitions and common test methods applicable to combustion engine powered walk-behind and ride-on snow throwers.

This standard deals with significant hazards, hazardous situations and events relevant to snow throwers used as intended and under the conditions reasonably foreseen by the manufacturer.

This international standard does not apply to:

- 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

This international standard does not deal with hazards related to:

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

This international standard is not applicable to machines which are 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.

ISO 3767 – 1	1995	*Tractors, machinery for agriculture and forestry, powered lawn and garden equipment -- Symbols for operator controls and other displays -- Part 1: Common symbols*
ISO 3767 – 3	1995	*Tractors, machinery for agriculture and forestry, powered lawn and garden equipment -- Symbols for operator controls and other displays -- Part 3: Symbols for powered lawn and garden equipment*
ISO 3864 - 1	2011	*Graphical symbols -- Safety colours and safety signs -- Part 1: Design principles for safety signs in workplaces and public areas*
ISO 5673 - 1	2005	*Agricultural tractors and machinery -- Power take-off drive shafts and power-input connection -- Part 1: General manufacturing and safety requirements*
ISO 8437 - 2	201x	*Snow throwers – Safety requirements and test procedures – Part 2*

		Pedestrian controlled snow throwers
ISO 8437 - 3	201x	*Snow throwers – Safety requirements and test procedures – Part 3 Ride-on snow throwers*
ISO 8437 - 4	201x	*Snow throwers – Safety requirements and test procedures – Part 4 Information on national and regional provisions*
ISO 11684	1995	*Tractors, machinery for agriculture and forestry, powered lawn and garden equipment – Safety signs and hazard pictorials – General principles*
ISO 12100	2010	*Safety of machinery – General principles of design – risk assessment and risk reduction*
ISO 13857	2008	*Safety of machinery -- Safety distances to prevent hazard zones being reached by upper and lower limbs*

3 Terms and definitions

3.1
barrier
vertical plane determined by an obstruction, such as a handle or steering wheel, that restrains the operator (see Figures 2(a) and 2(b) of ISO 8437-2)

3.2
braking distance
distance travelled between the point of the first application of the brake control and the point at which the machine comes to rest.

3.3
clutch
device used for engaging or disengaging the load from the power source

3.4
collector
auger or similar device used to gather snow

3.5
collector housing
structure, framework, or integral shields that limit access to, and egress of, material from the collector

3.6
hazard zone
three-dimensional space that might be hazardous for a person to occupy (see Figures 2(a) and 2(b) of ISO 8437-2 and Figure 2 of ISO 8437-3).

Note to entry: The hazard zone moves with the discharge chute and does not include the space behind the discharge chute that is guarded by the discharge chute.

3.7

impeller
power-driven device that transfers energy to discharge the snow

Note to entry: When the collecting function of a device is combined with the impelling function, this device will be called an "impeller".

3.8
impeller housing
structure, framework, or integral shield that limits access to, and egress of, material from the impeller

3.9
normal operation
use of the machine which is reasonably foreseeable and which is consistent with such activities as starting, stopping, fuelling, and connecting to (or disconnecting from) a power source, and mounting and dismounting of ride-on tractors

3.10
operator presence control
(OPC)
control designed so that it will automatically interrupt power to a drive when the operator's actuating force is removed

3.11
reject ring

cover having the shape of a ring or disk which is attached to a rotating body (e.g. sidewards of collector/impeller) to provide protection against drawing-in or trapping

3.12
service brake system
means for decelerating and stopping a machine from its ground travel speed

3.13
snow clean out tool
tool(s) for clearing blockages of the discharge chute

3.14
snow discharge deflector
movable component used to direct snow discharging from a snow discharge chute

3.15
snow discharge chute
movable or fixed component that directs snow discharging from the impeller housing

3.16
snow thrower configurations

3.16.1
hand-held
snow thrower that, at some time during normal operation, is intended to be completely supported by the user

3.16.2
lever-steer ride-on

machine in which steering, traction-drive engagement, and speed-control functions are combined and controlled by hand-operated lever(s)

3.16.3
ride-on
self-propelled ride-on machine generally used for mowing with an attachment that is designed for throwing snow

3.16.4
self-propelled
snow thrower equipped with a means for powered propulsion, other than the collector or impeller, such as wheels or tracks

3.16.5
pedestrian-controlled
snow throwing machine, pushed or self-propelled, normally controlled by the operator walking behind the unit, including machines with an attachment that is designed for throwing snow

3.16.6
single-stage
machine that uses a single high-speed impeller to both move the snow into the machine and force it out of the discharge chute, typically used for light duty work

3.16.7
multi-stage
machine that uses one or more augers to break up snow and move it into a high-speed impeller that will throw the snow out of the discharge chute

3.17
tiller bar steering
steering means that extends from one side or opposite sides of the axis of steering control rotation, the use of which tends to cause the operator's weight to shift opposite to the direction of turn

4 Common test methods

Note: If not otherwise specified within this document the tests may be carried out in any one order and on separate machines

4.1 Non-metallic snow discharge chutes and deflectors

4.1.1 Structural integrity

4.1.1.1 Test procedure

A smooth steel sphere having a diameter of 50 ± 2 mm and weighing 0,55 ± 0,03 kg shall be used.

If parts can be struck from above, the sphere shall be dropped vertically; if not, the sphere shall be suspended by a cord and allowed to fall from rest as a pendulum to strike the parts. In either case, the vertical travel of sphere shall be at least 1,3 meters.

One drop shall be made on each part being tested.

