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Sport- och fritidsutrustning – Äventyrsbanor – Del 1: Konstruktions- och säkerhetskrav

Sports- and recreational facilities – Ropes courses – Part 1: Construction and safety requirements



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Denna standard ersätter SS-EN 15567-1:2007, utgåva 1.

The European Standard EN 15567-1:2015 has the status of a Swedish Standard. This document contains the official English version of EN 15567-1:2015.

This standard supersedes the Swedish Standard SS-EN 15567-1:2007, edition 1.

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EUROPEAN STANDARD

EN 15567-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 2015

ICS 97.220.10

Supersedes EN 15567-1:2007

English Version

Sports and recreational facilities - Ropes courses - Part 1: Construction and safety requirements

Structures de sport et d'activités de plein air - Parcours
acrobatiques en hauteur - Partie 1: Exigences de
construction et de sécurité

Sport- und Freizeitanlagen - Seilgärten - Teil 1:
Konstruktion und sicherheitstechnische Anforderungen

This European Standard was approved by CEN on 12 March 2015.

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.

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Foreword

This document (EN 15567-1:2015) has been prepared by Technical Committee CEN/TC 136 "Sports, playground and other recreational facilities and equipment", the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by November 2015, and conflicting national standards shall be withdrawn at the latest by November 2015.

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 15567-1:2007.

EN 15567 consists of the following parts, under the general title, *Sports- and recreational facilities — Ropes courses*:

- *Part 1: Construction and safety requirements*;
- *Part 2: Operation requirements*.

The main changes to EN 15567-1:2007 are:

- a) terms and definitions revised (Clause 3);
- b) requirements for wire ropes revised (4.2.4);
- c) new clause for synthetic ropes included (4.2.5);
- d) influence of loads revised (4.3.2);
- e) requirements for trees revised (4.3.3.3);
- f) requirements for zip lines revised (4.3.4.2);
- g) requirements for safety systems revised (4.3.5);
- h) requirements for personal protective equipment revised in accordance with existing standards (4.4);
- i) requirements for inspection and maintenance revised (Clause 7);
- j) Annex A revised;
- k) Annex B deleted;
- l) new Annex C "Relevance of ISO 4309:2010 to EN 15567-1 for ropes courses" added;
- m) correction of editorial errors.

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

Ropes courses vary considerably and may be used for educational, recreational, training or therapeutic purposes.

Ropes course activities involve risks that should be managed by the manufacturers and operators. This is achieved through careful design, manufacture, supervision, training, instruction, information etc.

Ropes course activities should only be undertaken by those who are physically and mentally able to comply with the safety requirements specified by the operator.

The various safety devices (for protection against falling from a height and collisions) consist of equipment designed to limit the consequences of falls or collisions. There are inherent risks associated with ropes courses. These risks should, however, be appropriately managed and reduced to an acceptable level by the ropes course operator. However, it should be understood that such risks cannot be eliminated altogether. It should be noted that no safety system can prevent deliberate misuse.

On the basis of a risk assessment, that takes into account the manufacturer's manual, operators should take reasonably practicable measures to ensure the safety of participants and staff. This means that the degree of risks in a particular job/work place/facility need to be balanced against the time, trouble, cost, benefits and physical difficulty of taking measures to avoid or reduce the risk.

Ropes course operators should also consider EN 15567-2, when carrying out risk assessments.

1 Scope

This European Standard applies to permanent and mobile ropes courses and their components.

This European Standard specifies safety requirements for the design, construction, inspection and maintenance of ropes courses and their components.

This European Standard does not apply to temporary ropes courses (see 3.3) and children's play grounds (see EN 1176 all parts).

For the use of ropes courses EN 15567-2 applies.

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.

EN 335, *Durability of wood and wood-based products — Use classes: definitions, application to solid wood and wood-based products*

EN 350-2:1994, *Durability of wood and wood-based products — Natural durability of solid wood — Part 2: Guide to natural durability and treatability of selected wood species of importance in Europe*

EN 351-1:2007, *Durability of wood and wood-based products — Preservative-treated solid wood — Part 1: Classification of preservative penetration and retention*

EN 358, *Personal protective equipment for work positioning and prevention of falls from a height — Belts for work positioning and restraint and work positioning lanyards*

EN 361, *Personal protective equipment against falls from a height — Full body harnesses*

EN 636, *Plywood — Specifications*

EN 813, *Personal fall protection equipment — Sit harnesses*

EN 1176-1, *Playground equipment and surfacing — Part 1: General safety requirements and test methods*

EN 12277, *Mountaineering equipment — Harnesses — Safety requirements and test methods*

EN 12927-6, *Safety requirements for cableway installations designed to carry persons — Ropes — Part 6: Discard criteria*

EN 13411-1, *Terminations for steel wire ropes — Safety — Part 1: Thimbles for steel wire rope slings*

EN 13411-2, *Terminations for steel wire ropes — Safety — Part 2: Splicing of eyes for wire rope slings*

EN 13411-3:2004+A1:2008, *Terminations for steel wire ropes — Safety — Part 3: Ferrules and ferrule-securing*

EN 13411-4, *Terminations for steel wire ropes — Safety — Part 4: Metal and resin socketing*

EN 13411-5, *Terminations for steel wire ropes — Safety — Part 5: U-bolt wire rope grips*

EN 13411-6, *Terminations for steel wire ropes — Safety — Part 6: Asymmetric wedge socket*

EN 13411-7, *Terminations for steel wire ropes — Safety — Part 7: Symmetric wedge socket*

EN 15567-2:2015, *Sports- and recreational facilities — Ropes courses — Part 2: Operation requirements*

ISO 4309:2010, *Cranes — Wire ropes — Care and maintenance, inspection and discard*

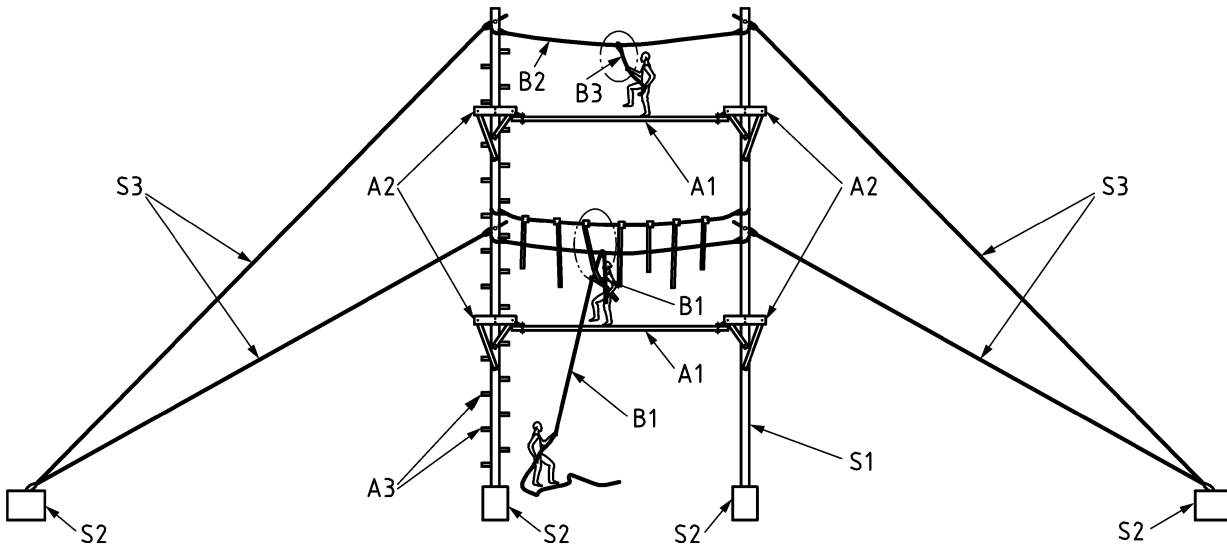
3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1 ropes course

constructed facility consisting of one or more activity systems, support systems and, if needed, an appropriate safety system with restricted access and requiring supervision

Note 1 to entry: See Figure 1.



Key

Activity systems A		Support systems S		Belaying systems B	
A1	Elements	S1	Poles	B1	Assisted belaying system
A2	Platforms	S2	trees	B2	Safety line
A3	Access	S3	buildings, rock, other supporting structures	B3	Safety system (categories A to E)
			Foundations, anchors		
			Guy lines		

Figure 1 — Example of a ropes course

3.2 permanent ropes course

facility installed for more than seven days on the same site

3.3 temporary ropes course

facility that is not a mobile ropes course and is installed for a maximum of seven days

3.4**mobile ropes course**

facility constructed in such a way that the support system is transportable from site to site

3.5**support system**

artificial and/or natural structure intended for installation of activity and safety systems

Note 1 to entry: See Figure 1 for examples.

3.6**activity system**

facility that permits the progression of the participant

EXAMPLE Examples are elements, platforms and access structures, see Figure 1.

3.7**element**

activity unit in a ropes course

3.8**platform**

raised area usually before or after an element on which participants can stand

3.9**giant swing**

activity system where the participant performs guided pendulums (to- and-fro movements)

3.10**zip line**

activity system in which the participant glides under gravity in a sloping direction

3.11**landing area**

area in which a participant exiting an element can land

3.12**change-over**

manual transfer from one part of a safety system to another

3.13**safety line**

flexible or rigid, horizontal, vertical or sloping, continuous or discontinuous device used as a protection against falling from a height

3.14**interlocking device**

device with at least two gates whereby an action on the one gate results in an effect on another gate

EXAMPLE The opening of one gate causes the locking of another gate.

3.15**safety system**

system used either to prevent, to arrest or cushion a participant's fall

Note 1 to entry: Examples of fall safety systems are guard rails, safety line, landing mat, net, retractable lifeline.