SLOVENSKI STANDARD
SIST EN 892:2012/oprA1:2015

01-november-2015

Gorniška oprema - Dinamično obremenjene gorniške vrvi - Varnostne zahteve in preskusne metode

Mountaineering equipment - Dynamic mountaineering ropes - Safety requirements and test methods

Bergsteigerausrüstung - Dynamische Bergseile - Sicherheitstechnische Anforderungen und Prüfverfahren

Équipement d'alpinisme et d'escalade - Cordes dynamiques - Exigences de sécurité et méthodes d'essai

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ICS:

97.220.40	Oprema za športe na prostem in vodne športe	Outdoor and water sports equipment

SIST EN 892:2012/oprA1:2015 **en,fr,de**

EUROPEAN STANDARD

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EUROPÄISCHE NORM

DRAFT EN 892:2012

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English Version

Mountaineering equipment - Dynamic mountaineering ropes - Safety requirements and test methods

Équipement d'alpinisme et d'escalade - Cordes dynamiques - Exigences de sécurité et méthodes d'essai

Bergsteigerausrüstung - Dynamische Bergseile - Sicherheitstechnische Anforderungen und Prüfverfahren

This draft amendment is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 136.

This draft amendment A1, if approved, will modify the European Standard EN 892:2012. If this draft becomes an amendment, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant national standard without any alteration.

This draft amendment was established by CEN 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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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

This document (EN 892:2012/prA1:2015) 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 document is currently submitted to the CEN Enquiry.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For the relationship with EU Directive(s) see informative Annex ZA, which is an integral part of this document.

1 Modification to 5.6.3

Replace the existing text in 5.6.3 with the following:

"When testing single and half ropes, attach the test sample to the means for rope attachment to the falling mass by means of a figure-of-eight knot (see Figure 10) with an internal loop length of (50 ± 10) mm.

Tighten the knot by hand, pulling each strand of rope alternately, using pliers to grip the short end as necessary. Ensure that the two strands of rope are parallel and equally tight throughout the knot.

When testing twin ropes, attach to the means for rope attachment to the falling mass in the middle of the rope with a single figure-of-eight knot (see Figure 11). Ensure that the two strands of rope are parallel and equally tight throughout the knot.

Pass the test sample, both strands of rope in a double strand test, through the orifice in the orifice plate, wind each strand three times round the bollard and secure using the clamp(s) (see Figure 9 and Figure 11).

Ensure that the falling mass is situated at a position (3 000 ± 200) mm below the orifice.

Load the test sample with the falling mass as a static load for a period of (60^{+15}_{0}) s.

Raise the falling mass to a height at which the attachment point is (2 300 ± 10) mm below the lowest edge of the orifice (see Figure 9).

Open the clamp(s), leave the strand(s) wound three times round the bollard. Load the test sample with a 10 kg mass below the clamps for a period of (60^{+15}_{0}) s. Ensure there is no contact between the clamps and the 10 kg mass and ensure there is no slack in the rope between the bollard and the orifice plate.

Then fix the rope in the clamp(s). In a two strand test ensure that the tensions in the two strands of the rope are similar.

Load the test sample with the falling mass as a static load for a period of (60^{+15}_{0}) s. Measure the distance from the lowest edge of the orifice to the attachment point with an accuracy of ± 5 mm. This distance is H_0.

Mark the rope at the clamp (when testing double strands, mark both strands).

Before each drop, raise the falling mass to a height at which the centre-point of the means for rope attachment is (2 300 ± 5) mm above the lowest edge of the orifice (see Figure 9).

Release the falling mass.

On the first drop, record:

— the peak force in the rope(s) attached to the falling mass;

— the peak extension of the rope during the drop. This distance is H_{max}.

On every drop, check that the falling mass has not touched any shock absorbing buffer (except when the rope has broken).

There should be no external influence on the free fall of the mass onto the rope. On every drop, record the time interval between the falling mass reaching the upper timing point and reaching the lower timing point. Check that this time interval is $(121^{+1,9}_{-0,4})$ ms. If it is outside this tolerance, the fall energy is incorrect and the test is invalid. In this case the test shall be repeated starting with a new test sample. If the time interval is repeatedly outside the above tolerance, the test apparatus requires attention.

After each drop, remove the load from the rope(s) within 60 s.

The interval from one drop to the consecutive drop on the same test sample shall be (300 ± 15) s from release to release.

Continue testing until the sample breaks completely. If breakage occurs at the knot, the test is declared invalid, and the test shall be repeated starting with a new test sample. If further test samples break at the knot, the fact shall be recorded, but the test results stand. Only one repeat test due to breakage at the knot is allowed.

When a test sample has broken, check whether the rope(s) has slipped through the clamp(s). If any rope has slipped by more than 5 mm the test is invalid. In this case the test shall be repeated starting with a new test sample.

Record the number of drops sustained by each test sample without breaking and whether breakage has occurred at the knot."

2 Modification to 5.6.4

Replace the existing text in 5.6.4 with the following:

"For each valid test sample, express the peak force during the first drop to the nearest 0,1 kN.

For each valid test sample, calculate the dynamic elongation by expressing the peak extension of the rope during the first drop as a percentage, to the nearest 1 %, using the formula:

$$\text{Dynamic elongation} = (H_{max} - H_0)/(H_0 + 300) \quad (1)$$

State the number of drops sustained without breaking for each valid test sample."