

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

The European Standard EN 892:2004 has the status of a
British Standard

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National foreword

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The UK participation in its preparation was entrusted to Technical Committee SW/136/5, Mountaineering, which has the responsibility to:

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Summary of pages

This document comprises a front cover, an inside front cover, the EN title page, pages 2 to 26, an inside back cover and a back cover.

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Bergsteigerausrüstung - Dynamische Bergseile -
Sicherheitstechnische Anforderungen und Prüfverfahren

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Foreword

This document (EN 892:2004) has been prepared by Technical Committee CEN/TC 136 “Sports, playground and other recreational 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of an identical text or by endorsement, at the latest by May 2005, and conflicting national standards shall be withdrawn at the latest by May 2005.

This document supersedes EN 892:1996.

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association to support Essential Requirements of EU Directive 89/686/EEC.

For relationship with EU directives, see informative annex ZA, which is an integral part of this document.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

Introduction

The text is based on UIAA-Standard B (Union Internationale des Associations d'Alpinisme), which has been prepared with international participation.

This document is one of a package of standards for mountaineering equipment, see annex A.

1 Scope

This document specifies safety requirements and test methods for dynamic ropes (single, half and twin ropes) in kernmantel construction for use in mountaineering including climbing.

2 Normative references

The following referenced documents are indispensable for the application 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 6487, *Road vehicles — Measurement techniques in impact tests — Instrumentation*.

3 Terms and definitions

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

3.1

dynamic mountaineering rope

rope, which is capable, when used as a component in the safety chain, of arresting the free fall of a person engaged in mountaineering or climbing with a limited peak force

3.2

single rope

dynamic mountaineering rope, capable of being used singly, as a link in the safety chain, to arrest a person's fall

3.3

half rope

dynamic mountaineering rope, which is capable, when used in pairs, as a link in the safety chain to arrest the leader's fall (see Figure 1)

3.4

twin rope

dynamic mountaineering rope, which is capable, when used in pairs and parallel, as a link in the safety chain to arrest a person's fall (see Figure 2)

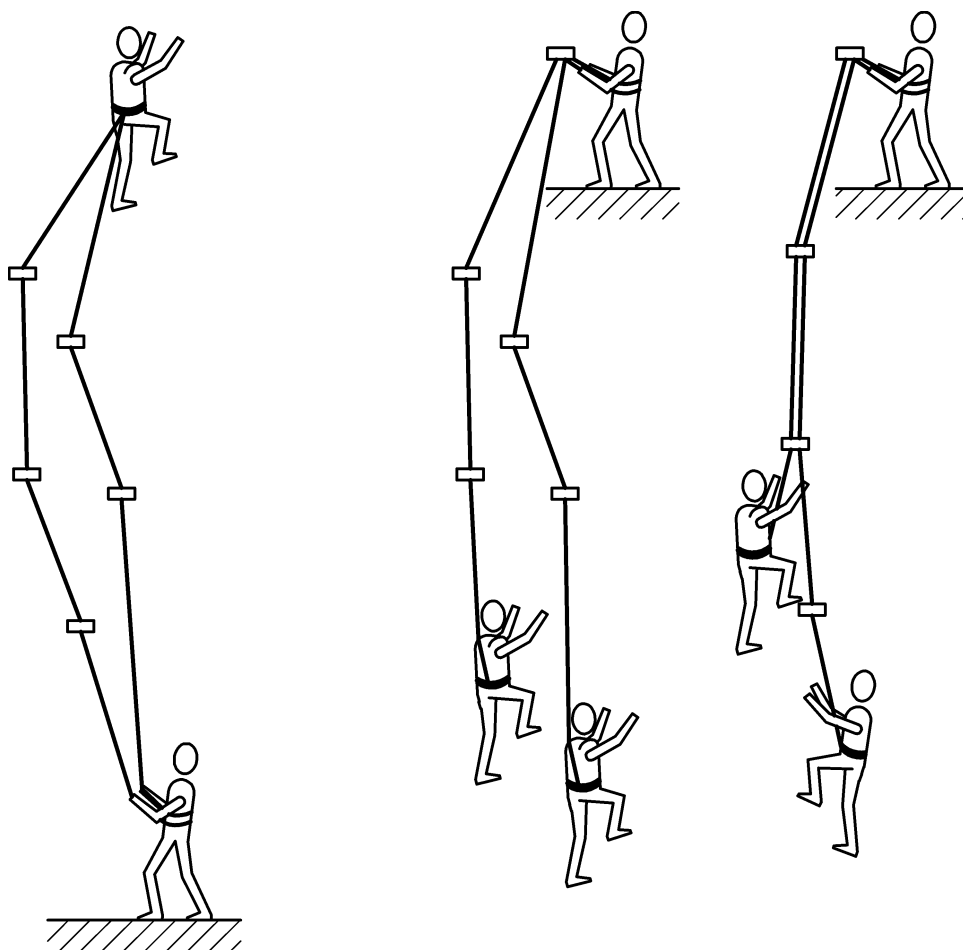


Figure 1 — Examples of use of half ropes

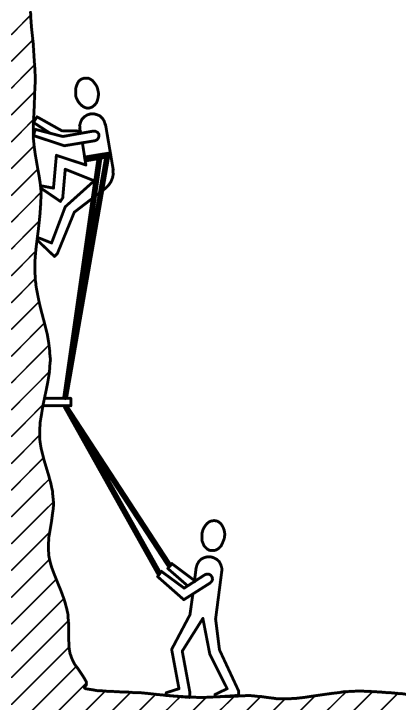


Figure 2 — Use of twin rope

3.5

kernmantel rope

rope composed of a core and a sheath

4 Safety requirements

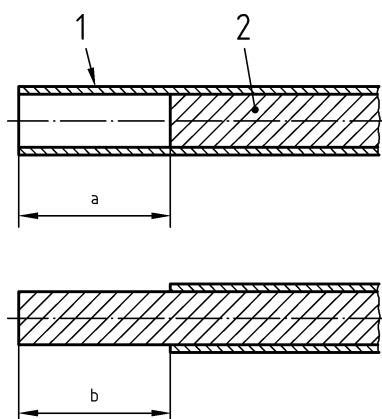
4.1 Construction

Dynamic ropes in accordance with this document shall be made in a kernmantel construction.

If the properties of the rope change along its length, for example: diameter, strength, markings, samples from each section shall be submitted for testing. The information to be supplied shall all correspond to the lowest performance section of the rope.

4.2 Sheath slippage

When tested in accordance with 5.4, the sheath slippage in a longitudinal direction relative to the core (in positive or negative direction) shall not exceed 20 mm (see Figure 3).



Key

- 1 Sheath
- 2 Core

- a Positive sheath slippage ≤ 20 mm
- b Negative sheath slippage ≤ 20 mm

Figure 3 — Sheath slippage

4.3 Static elongation

When tested in accordance with 5.5, the static elongation shall not exceed:

- 10 % in single ropes (single strand of rope);
- 12 % in half ropes (single strand of rope);
- 10 % in twin ropes (double strand of rope).