



**Mountaineering and
Climbing Equipment**
'DYNAMIC ROPES'

**UIAA
101**

Foreword

This UIAA Standard is only published in the English language version, which is the master text. For any validations in translation, the UIAA Safety Commission should be contacted via the UIAA Office in Bern, Switzerland.

UIAA Standards are the only 'globally recognized' standards for mountaineering equipments. In order to prevent multiplicity, the UIAA collaborates with its partner in standardization CEN; and bases UIAA standard 101 on the European Standard EN 892:2004. The EN Standards in turn are based on the original UIAA Standards, the first of their kind in the world. Additionally the UIAA publishes pictorials for each of the standards in a user-friendly way. This UIAA Standard 101 also has additional requirements over and above those in EN 892:2004.

Owing to copyright restrictions, this UIAA Standard does not state the full requirements of EN 892:2004 to which it refers. Hence it is necessary to obtain a copy of EN 892:2004. The procedure for purchasing the EN Standards is included at the end of the text of this standard. The UIAA Standards are reviewed at intervals to see whether they meet the latest technical requirements and revised if necessary.

The UIAA invites manufacturers of mountaineering and climbing equipment worldwide to become members of the UIAA Safety Commission as Safety Label Holders. Members can participate in discussions on standard requirements, test methods and revisions thereof (see the "General Regulations for the UIAA Safety Label").

A complete list of UIAA Standards for mountaineering and climbing equipment can be found on the UIAA website.

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Copyright and Version Management

This document was first published in English. The English master text is decisive in any conflict of interpretation. For any validations in translation the UIAA should be contacted via the UIAA Office in Bern, Switzerland.

UIAA declarations, standards, documents and guidelines are subject to review. Updates are recorded in the version details stated on the front page of this document.

UIAA documents are generally produced by the responsible Commission and are subject to approval in accordance with the UIAA Articles of Association.

All UIAA documents can be found on the relevant subject area on the UIAA website.

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The Version number refers to the latest revision, e.g. V4 is the fourth change to the document. The last update is the date of this latest version.



1. General Remarks on the UIAA Trademark and UIAA Label

- 1.1. The UIAA Trademark (see section 5.1.) is copyright protected internationally. The UIAA Label is only given to items of mountaineering and climbing equipment upon approval of prospective label holder's application from the UIAA.
- 1.2. The procedure to be followed by a manufacturer, when applying for a UIAA Label, is laid down in the "General Regulations for the UIAA Safety Label Certification"

2. Requirements for Dynamic ropes

- 2.1. The UIAA Label can only be granted for dynamic ropes that meet all the requirements of EN 892:2004, with the following exception:

2.1.1. No EN number required.

- 2.2. For the award of the UIAA Label, the following additional safety requirements shall be met:

2.2.1. Multidrop rope

Definition: a single rope or a half rope in accordance with EN 892, which withstands 10 or more test falls according to the aforementioned EN.

2.2.2. Diameter.

The rope diameter specified on the hang-tag shall be within +/- 0.3 mm of the diameter specified in 5.3.2. of EN 892:2004.

2.2.3. Possible shrinkage of the rope.

In the information for use there shall be a warning to the effect that ropes may shrink during normal usage.

2.2.4. Middle marker.

If a rope is provided with a middle marker the mark shall be at +/- 1 m from the real middle

Definitions:

Middle Marker: An identifier of the lengthwise middle of the rope, intended to remain for the life of the rope. Middle markers may be used to identify when half the rope has been used while belaying/lead climbing and to centre the rope when double line rappelling with a single rope.

Typical middle markers may be, but are not limited to, paints, inks, a whip stitch, and woven pattern changes. Not all ropes are sold with middle markers.

Safety Requirements:

Middle Marker Location

When tested, the middle marker (if the rope has a middle marker) shall be located less than or equal to 0.6 meters from the physical middle of the rope.

2.2.5. Test Report

Recommendation: The slippage at the rope clamp after the last fall should be stated in the test report.

2.2.6. Storage temperature.

The minimum and maximum storage temperature shall be clearly specified in the information supplied by the manufacturer.

2.2.7. Packaging

If dynamic rope is supplied on a drum and consists of more than one piece, the ends of the pieces shall be clearly visible and not joined together; the number of pieces shall be stated on the drum.

3. Tests Methods

3.1. Middle marker.

See Annex 1

Test Method

Conditioning: None Required.

Apparatus: Pulley, karabiner, measuring scale with mm increments, and marker pen.

Procedure:

- 1 Mark the centre of manufacturer's middle mark. If the middle mark is a pattern change, determine start and finish of pattern change, measure the length, and mark the centre.
- 2 Place a pulley in the loop, at the middle marker, and secure with a karabiner or other suitable device.
- 3 While holding the rope ends with your hand, align the ends and stretch out the loop in line with enough force so the rope is not in contact with any surface.
- 4 Have an assistant use a marker to mark the rope at the top of the pulley wheel. Alternatively the rope on each side of the pulley wheel could be marked.
- 5 Measure and record the distance from the centre of the manufacturer's middle mark to the measured physical middle of the rope to the nearest .01 meter.

4. Demonstrating that the Requirements are met

- 4.1. The requirements of section 2.1. shall be satisfied by either
 - (a) a test report from a UIAA-approved test laboratory, or
 - (b) a Type Test Certificate from an EU Notified Body, together with any additional documentation or test report which may be necessary
- 4.2. The requirements of section 2.2. shall be satisfied by the manufacturer certifying on the Safety Label Application Form that the product meets these particular requirements.



5. Information to be supplied

- 5.1. The information to be supplied (in accordance with EN 959:2007) shall be given in English, or at least in the language of the country in which the product is sold.

6. Attachment of the UIAA Label

- 6.1. For any model of mountaineering equipment, which has been awarded the UIAA Label, the UIAA recommends that the UIAA Trademark (see below) or the four letters "UIAA" be marked clearly and indelibly on each item sold in accordance with the branding guidelines specified in the "General regulations for UIAA Safety Label".

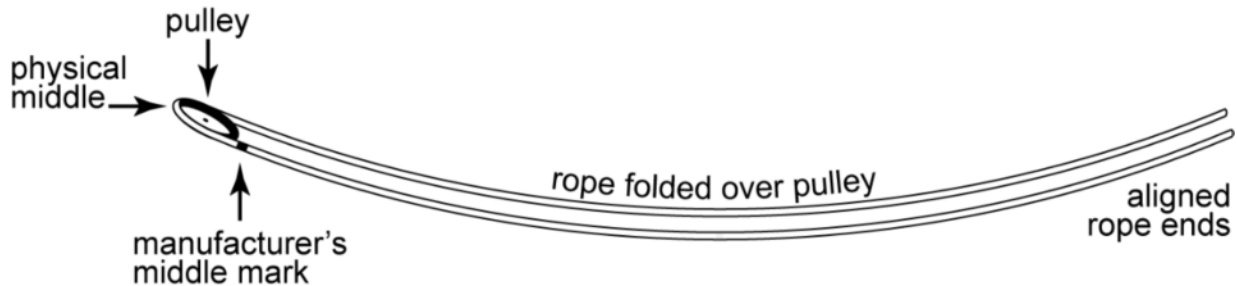


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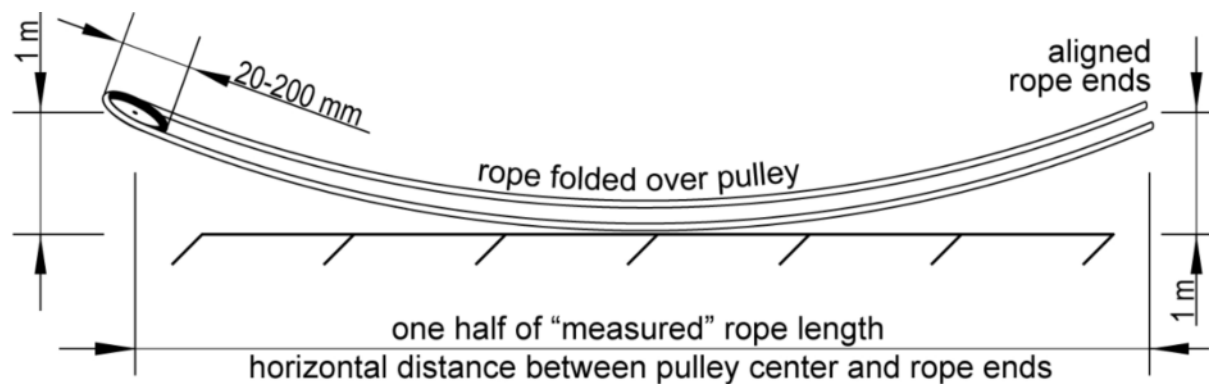
- 6.2. In addition, the UIAA Trademark or the four letters "UIAA" may be included in the instructions for use and/or on a swing ticket as well as in catalogues and other publications of the manufacturer. In the last case, the illustration and/or the text must clearly apply only to the equipment which has been awarded the UIAA Label.

ANNEXES

Annex 1 Middle mark:



Annex 2 Informative Annex on measuring ropes:



Test Method for Rope Length Measurement

Apparatus: Metric tape measure, pulley with a sheave root diameter of 20-200 mm, karabiner, sling, meter stick.

Procedure: Secure the centre of the rope in a pulley mounted 1 meter high. Align the ends of the rope to be even. Pull the ends of the rope at a height of 1 meter this pulling may be done by hand. Pull with a force enough to just lift the low point of the rope off the ground. Use a meter stick as a "plumb-bob" to mark a position on the floor equal with the ends of the rope. Use a tape measure to measure between the anchor point and the mark under the ends. Multiply this measurement by two, and round down to the nearest 0.1 meter.



Last Updated	Remarks
<i>August 30, 2010</i>	<u>Correction of 2.2.4: Middle Marker</u> : The definitions and requirements were added. <u>Correction of 3: Test methods</u> : The procedure was added,. <u>Inclusion of Annexes: Middle Mark and Length Measurement</u> : Figures and text were added based on the decisions of the Safety Commission Meeting in 2008.

Copies of the EN Standards can be purchased from the following:

Great Britain British Standards Institution (BSI), Tel: +44 20 8996 9001
Order by Fax: +44 20 8996 7001 (with credit card details)
by post: BSI Customer Services c/o Cash Office,
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