

# Summary of Climbing/Rappelling Standards

## Summary of UIAA Standards

Device	Minimum Breaking Strength	Additional Info
Anchors	25 kn (5620 lbs)	<p><b>Ropes</b> must be kernmantel construction and survive 4 falls with the following parameters:</p> <ul style="list-style-type: none"> <li>• the rope being tested is 2.8 meters (9.2 ft) long</li> <li>• the falling weight is 80 kg (176 lbs)</li> <li>• the distance of fall is 4.8 meters (15.7 ft)</li> <li>• the rope passes over a carabiner 10mm in diameter</li> </ul> <p>These conditions simulate a fall that generates 12 kN (2697 lbs) of force on the first fall. According to John Long in "Climbing Anchors", extensive testing has demonstrated that the maximum force likely to be generated with modern equipment in an actual leader fall virtually never exceeds 2400 lbs of force. Long also states that the maximum force encountered in top rope situations virtually never exceeds 800 lbs. Thus, the UIAA standards exceed forces likely to be encountered in actual climbing situations.</p>
Carabiners	20 kn (4496 lbs)	
Harnesses	15 kn (3372 lbs)	
<b>Ropes</b>	12 kn (2697 lbs)	
Slings	22 kn (4495 lbs)	

## Scouting Guidelines for Climbing Equipment

**Helmets and Harnesses** must be [UIAA- or CE-approved](#), designed for climbing and must be retired according to manufacturer's recommendations or after seven years. Harnesses tied from 1-inch wide webbing may be used.

**Ropes** must be [UIAA- or CE-approved](#), kernmantel construction, and 10.5 mm or greater in diameter. All ropes must be purchased new, a log kept recording date of purchase and all use, and all ropes must be retired after four years, regardless of use.

- Only dynamic ropes may be used for belaying.
- Static ropes may be used for rappelling if they have a minimum breaking strength when new of 22.2 kN (5,000 lbs). Diameters of 11 mm are recommended for static rappell ropes.

**Webbing** used for slings and harnesses must be designed for climbing (military spec 1-inch tubular qualifies), with a minimum breaking strength when new of 15.6 kn (3,500 lbs). Webbing may be doubled to meet this standard. All webbing must be purchased new, and all webbing must be retired after four years, regardless of use.