

Let's Get Climbing

DC VICKERS, ARBORICULTURE PROGRAMME MANAGER AT BERKSHIRE COLLEGE OF AGRICULTURE, CONTINUES THEIR SERIES ON CLIMBING, CURRENTLY LOOKING AT SRT RESCUE SETUPS.



IN the last article we tried to improve the system for lowering a casualty who had climbed using a basal tie-off; to be fair, we ended up with a bit of a monster(!) which worked but did look rather complicated.

This system consisted of the climbing line and the rescue system, both of which were tied at the base of the tree being climbed. This system would work but, other than looking rather complex, still suffers from one major issue... you would need to cut the climbing line between the basal tie-off and the Alpine Butterfly knot to effect the rescue and lower the injured climber.

In this article, we'll look at one method of tidying up this system to improve its ease of use whilst keeping the overall advantages of it.

HOW LONG IS A PIECE OF STRING?

Before we get into how we are going to tidy the system up, we should just take a moment to consider the length of the line required to lower the casualty. Let's say we were using 40 m of Teufelberger arborACCESS rope as part of our SRT system and that we had elected to use our basal tie-off...

The maximum height of our anchor point would be 20 m (actually somewhat less due to potentially running the line around the base of the tree plus the various knots, so we'll take up to 4 m off the rope length for this purpose, leaving our anchor point maximum height, Amax = 18 m).

If our anchor point is at this height, all of the climbing has been used up and we have no additional rope with which to lower the casualty; in this example, we are going to need at least another 18 m of rope to be able to lower our climber to the ground if the incident occurred whilst they were at the anchor point. Based on this we can create a basic rule of thumb: the minimum rope length to lower a casualty is 3x Amax. This is worth considering if you are going to purchase a new rope specifically for SRT use!

TIDYING UP OUR CASUALTY LOWERING SYSTEM

The ideal then, is to create a system that allows the maximum amount of rope to be available for the rescue and we are about to work towards this goal now.

The overall system we mentioned at the start of this article uses separate components for climbing and rescuing, but



through the rigging plate hole, a karabiner can be secured (via a Larksfoot) and the basal rope tightened up by adjusting the Prusik. Notice that the karabiner gates are held away from the stem of the tree to reduce the likelihood of being accidentally opened by any movement of the karabiner against the bark.

The SRT line can be thrown over the required anchor point with one end touching the ground (the climber's end) and the other end fed into our rescue system - in this example, a figure-8 although a better (but more expensive) solution would be a Petzl ID at this point.

The climbing line is fed through the figure-8 and in the photo is seen with a 'soft lock'; this is not enough when the system is in use (!) although is ideal when you are setting it all up and you must introduce a 'hard lock' before anyone climbs on this system. Although difficult to make out in this photo, this is also backed up by a split-tail connected to the other karabiner, using a Blake's Hitch to hold the climbing line.

To rescue the casualty, the only actions we need to take are to undo the hard lock and soft lock, then lower the casualty as for a normal belay setup - make sure there is a stopper knot on the end of the casualty's line.

In the next article we'll take a look at how we install and use the Petzl ID to create an ever neater, more compact and smoother system.

there is no real reason why these could not be combined (although to do this updated version justice, we really need to utilise that rope which is at least three times the intended height of the anchor point).

We are going to use a separate line to create the actual basal tie-off so that we need not reduce the effective length of the climbing line. In the photo showing the new system being set up we can see the line going around the base of the tree connected to a rigging plate - more of that in just a moment!

1 The basal wrap will need to be tightened so, in this example, I've used a Prusik on the basal rope and fed the loop through one of the holes in the rigging plate. The free line after the Prusik must be secured to ensure that the Prusik does not slip and a stopper knot here is essential (although not shown in this image).

In this example, the Petzl Paw S has been used as a key component essentially tying the climbing/rescue system to the basal tie-off.

2 Just to be absolutely clear, this rigging plate has never been used for rigging purposes and is CE-marked.

With the end of the Prusik loop pushed

DISCLAIMER

The usual disclaimer applies... you would be well advised to seek out training and advice from an experienced person before trying out any of the methods discussed in these articles. Try out any new method by starting low to the ground initially and then moving higher. The magazine, Berkshire College of Agriculture, nor I, cannot accept any liability for any injuries howsoever caused by trying out methods shown in these articles.