

## **ROPE WRENCH BASICS:**

The Singing Tree Rope Wrench is a revolutionary SRT climbing tool. It represents the simplest and best way to access a tree currently available. The ZK-1 is designed and built in Detroit by world-class tree climber Kevin Bingham with simplicity, strength, and durability in mind.

**Basic Concept:** The Rope Wrench is a friction device that allows the climber to ascend, descend and work the tree "Single Rope" with a friction hitch. It is not intended for use as primary life support. The wrench has undergone an impressive design evolution since it first appeared in wooden form.

This tool is a simple yet effective tool that assists a climber climbing up and down in Single Rope Technique (SRT). The Rope Wrench works by using leverage to force the rope into an S shape and providing friction for a controlled descent. When engaged, the Rope Wrench acts much like a conventional descent device such as a Figure eight. When not engaged, the Rope Wrench provides no interference with ascending the rope. This allows the climber to work an entire tree using Single Rope Technique.

**Please Consider:** The Rope Wrench is recommended for tree climbers who have a working knowledge of Single Rope Technique. This means you have received qualified training and have practical experience climbing SRT.

**The SRT Advantage:** Climbing SRT has many advantages. It allows the climber to ascend at a 1:1 rate of speed. For every foot they pull on the rope they ascend one foot. This is different from the conventional dDRT (double rope technique) configuration of 2:1. In dDRT the climber must pull two feet of rope to advance one foot.

**The Wrench Advantage:** Using a Rope Wrench has advantages over many other SRT systems as well. Climbing with mechanical ascenders allows one to rapidly ascend the rope but the climber must perform a changeover to descend. The Rope Wrench dissipates friction and heat away from the climber's friction hitch allowing the climber to descend.

The Rope Wrench is essentially a descent device that has a neutral gear that allows it to ascend the rope as well. Because of this neutral gear, it is imperative that the Rope Wrench be used with a sturdy and trusted friction hitch.

**Configuration:** There are many ways to configure the Rope Wrench properly, but the climber must be secured to both hitch and Rope Wrench. Any hitch that works safely in dDRT should work with a Rope Wrench. The Rope Wrench is the "limb that goes with you". It provides the same service to your climbing hitch that the tree limb or cambium saver provides in dDRT.

**Friction Adjustment:** The ZK-1 allows the tree climber to adjust the amount of friction they prefer by sliding the bottom friction bolt up or down before locking it into place. The ability to adjust the friction is very important as it allows a climber to fine tune the Wrench to their climbing line and hitch combination.

**Tether Selection:** The tether of the rope wrench should be installed in a manner that gives the friction hitch enough room to function properly but short enough to not be sloppy in the climber's system. Select a durable section of cordage or webbing such as New England Maxim Tech Cord. Tether material should have a WLL of 500 lbs. or greater (ABS of 5000+ lbs.).