

TECHNICAL SOURCE GUIDE

WIRE ROPE TOOLS: THE HAVEN GRIP AND THE STRANDVISE

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The major advantage in using wire rope (aircraft cable) is its high strength-to-size ratio; however, it is difficult to hold onto. The Haven Grip and the Strandvise are two tools that we have found to hold onto wire rope in temporary and semi-permanent applications.

To grab onto a cable to pull or tension it, we use the Klein Tools "Haven Grip," which is designed to pull a wide range of cable sizes when compression of the strand is not a concern. Klein also makes other grips designed to handle coated cables. The Klein 1604-20L (Figure 1) will grip cable ranging from 1/8" (3.18 mm) to 1/2" (12.7 mm). It has a latch that prevents the tool from falling off of the cable when it goes slack, which is critical because grips only hold when under tension. There is also a non-latching version of this clamp and a smaller one that will take cable down to 0.06" (1.5 mm). The maximum load for the 1604-20L is 5,000 pounds (2,268 kg), which is well over the working load of 1/4" cable. It is important to note that the Haven Grip is meant to be used as a pulling device to aid in the process of taking up tension on a line: it is not meant to be used as an anchoring device. Prices range from \$30 to \$40. We have three Haven Grips and rarely have need for all of them at once. They are generally available from an electrical supply house.

Another tool is the Reliable Power Products "Strandvise," which is the ice-cream-cone-shaped piece that is found at the bottom of telephone pole guy-wires. The Strandvise works on the finger-trap principle: a spring pushes jaws onto the cable and the tension of the load sets the tool. They will slide up the cable, but the spring must be manually released in order for it to slide down. By placing two Strandvises on a cable, we can leap-frog them along the cable to easily pull more length than the available space. The application is simple, there are no nuts to torque or saddles to put on backwards, and you do not have to try to compress a sleeve on the top of a lift.

Reliable Power Products Offers a wide range of sizes for the Strandvise. The Universal Strandvise family ranges from 9/64" (3.56 mm) to 33/64" (13.21 mm), which works out to 3/16" to 1/2". They can be purchased with a rigid or flexible bail. Reliable is also just starting a new series of tests using these on wire rope after many years, but a small number of preliminary tests indicate that using a figure of 90% of the cable strength is conservative.

Reliable also makes a smaller tool called the "Wirevise," which can be as small as 1/6". Two drawbacks of the smaller units are that you cannot release the spring to slide down the cable, and the bail is not captive so it can spring loose under an intermittent load.

The Strandvise can be purchased from a distributor for \$5 to \$10, but you may need to pay a broken case fee since the standard order is 50 pieces.

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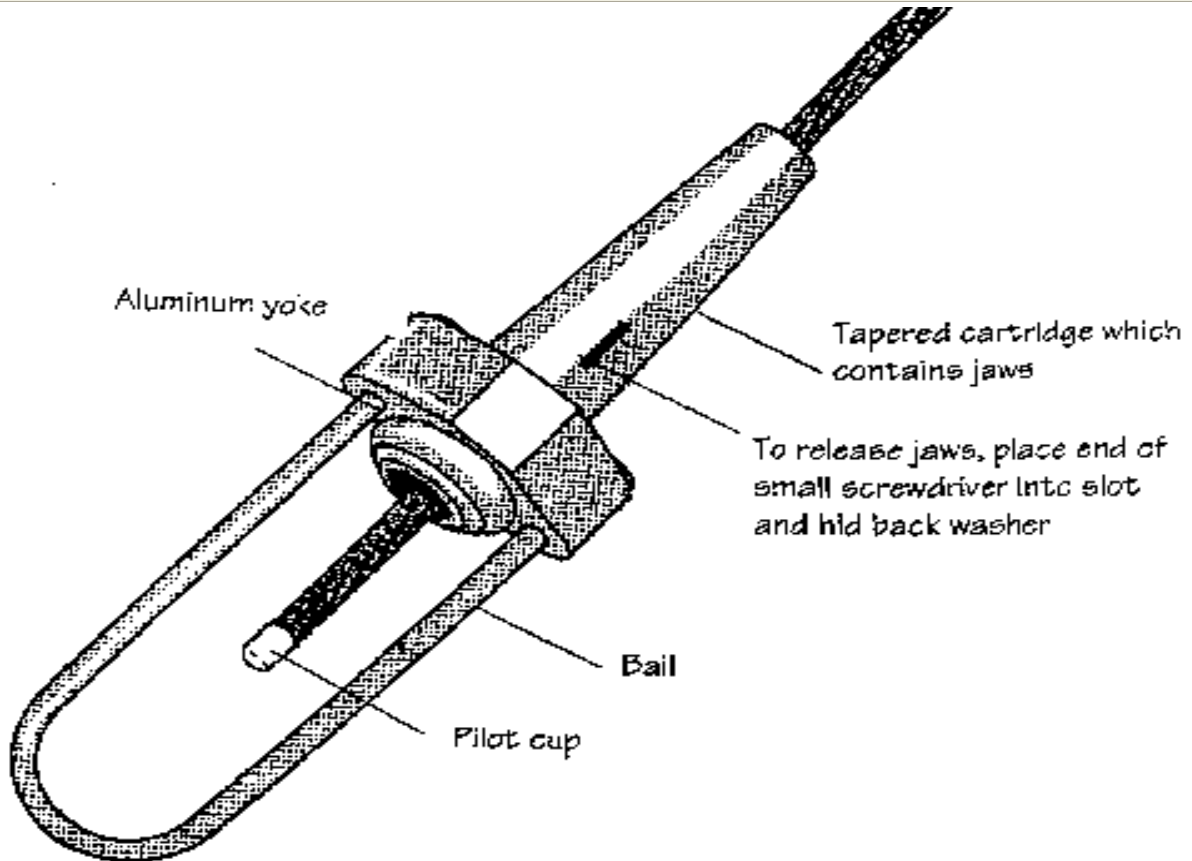
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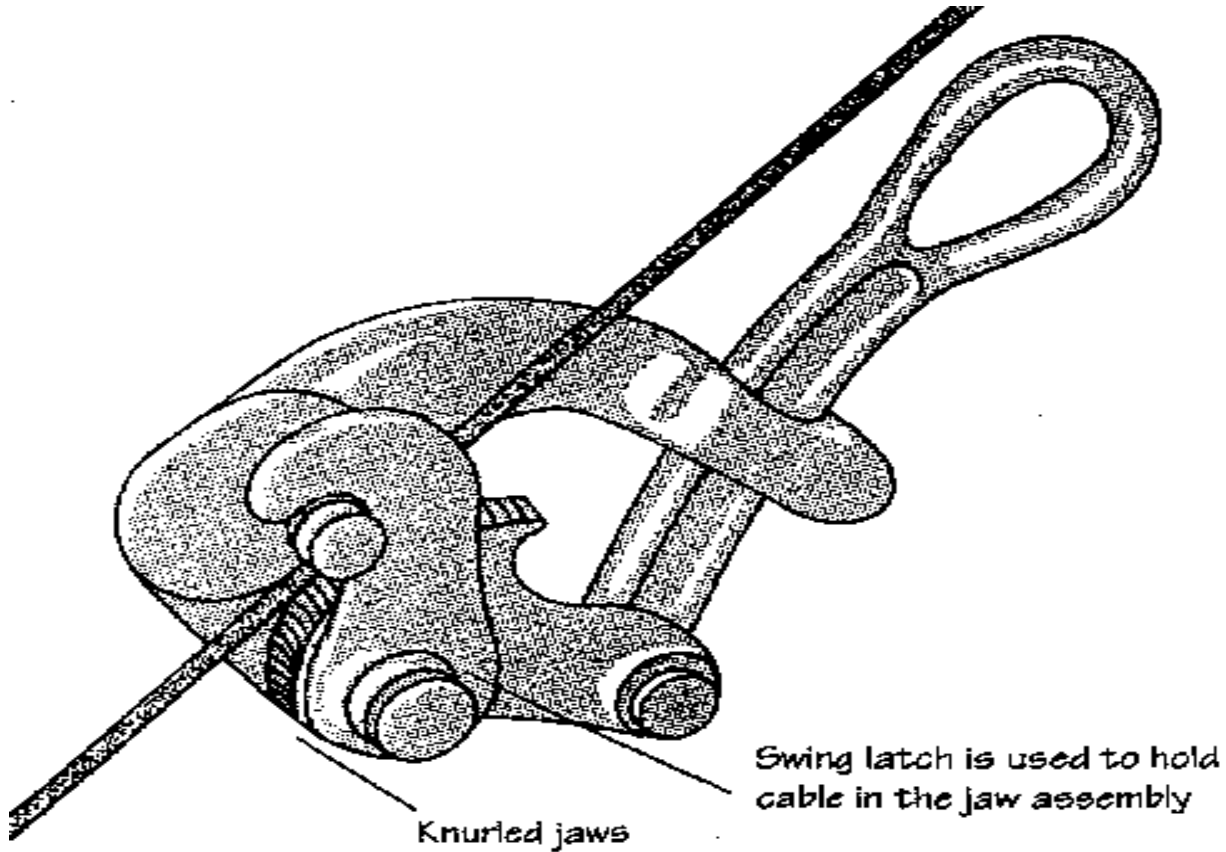
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Strandvise

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Haven Grip

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