It is easy to fall into a routine when it comes to beginning the work day. Many tree workers start the day off the same way every day: get to the yard, check the job board for the day, get a cup of coffee, and look over the equipment before heading out to the first job site. But what they miss as a part of the repetitive humdrum is brushing up on basic skills and tasks that usually are taken for granted. Tasks such as vehicle inspections or knot-tying review are often hurried or forgotten about completely.

Speaking of knots, let’s slow things down a bit and take a basic look at one of the most common knots in tree care work – the bowline. The bowline is a versatile knot and can be tied in many different configurations. The benefits of the bowline include that it is easier to untie after loading or when wet and frozen, and it’s possible to tie it with only one hand. You probably tie and untie this knot hundreds of times a day, but consider this a rudimentary refresher course just to brush the dust off.

A common misconception of this knot is that it can be used in its simplest form as a climbing line attachment for life safety. The bowline will hold the weight of the climber, but is usually tied in a loop around the saddle attachment rings. This loop allows the ring or carabiner to slide freely, which causes too much “play” in the climber’s work positioning system.

Any knot used to attach a rope to a climber’s saddle

“Safety Starts at the Top …
– summarized by Lesa Scarbrough, TCIA Regional Outreach Coordinator - California

... and trickles down through the company” stated Gary McIver, CSP of Cal/OSHA during a recent Tree Trimming Safety Seminar in Rancho Cucamonga, CA.

Safety starts at the top. Are you talking the talk AND walking the walk? Tree care company owners need to invest in their businesses. The investment with the most pay-out is safety training.

**Investment on the Front End**

- Decreases the likelihood that you’ll have to pay on the back end of an accident

continued on page 2
Daily Skills Check: The Bowline Knot

should always be finished with a ‘stopper’ knot, such as such as a poacher’s knot, or any tightening knot that prevents the carabiner from moving. A stopper knot, while serving to keep the loose end tidy, will not only help to prevent failure of the primary knot, but also acts as a secondary safety knot itself.

A Yosemite finish on a bowline is often used as a stopper knot. The Yosemite finish moves the end of the rope out of the bight of rope that is formed in the bowline and exits through the top of the knot, making a backup or stopper knot much easier to tie. The key to this knot is having it dressed correctly to prevent the knot from slipping into a noose. When finished, the working end forms a figure eight.

Here are some diagrams you and your crew can follow to brush up on tying the bowline with a Yosemite finish:

As you and your crew practice tying this common knot, remember to use the tie-dress-and-set principles to assure it is secured correctly each time.
Here is another rendition of the bowline knot; the Portuguese Bowline:
(equalizing bowline)

Here is another rendition of the bowline knot: the Portuguese Bowline (equalizing bowline).

This knot’s application comes from being able to self-equalize the legs under load. It can be used when tying into two anchors or loads, and the rope may need to move from side to side. Also it’s a great knot if you want to challenge yourself. The need for a stopper knot is vital due to shifting and moving parts while the knot is in use, just like the running bowline.

Practice tying knots in low-risk situations. Try keeping a 4-foot length of rope at your home and in your climbing bag to practice during your free time. Practice tying knots without looking, relying only on feel to help your mind visualize the knot. This will be a useful skill if your vision is ever obscured. Tie them with the knot facing you, and then away so you can identify a correctly tied and dressed knot from any view. Then you will never have to wonder “is that tied right?”

As you and your crew practice tying this common knot, remember to use the tie-dress-and-set principles to assure it is secured correctly each time.

Create a culture of SAFETY in your organization.

CTSP workshops are the last step in the certification process.

Contact TCIA at 800-733-2622 or CTSP@tcia.org to enroll in CTSP!
tcia.org

UPCOMING 2017 WORKSHOPS:

February 22-23 | Charlotte, NC
March 15-16 | Windsor, CT
April 4-5 | Arcadia, CA
May 16-17 | Apopka, FL
July 11-12 | Vacaville, CA

Tree Care Industry Association
Invest in Your Workforce

- Provide hands-on training
- Use operator’s manuals as a reference
- Follow manufacturer's recommendations
- Relay personal experiences with past accidents and near misses
- Properly supervise and train employees
- Observe employees periodically
  - New and inexperienced employees
  - Frequent offenders
- Discipline, counsel and/or retrain as needed

Return on Investment

- Lower experience modification rate => profit
- Lower injury and illness rate
- Better and more efficient production
- Better employee morale vs cost of an injury or fatality

Cost of an Injury or Fatality

- The cost to hire and train new employees
- Loss of profits
- Wrongful death lawsuits
- Medical cost
- Loss of morale
- Increase of workers’ compensation premiums
- Cost of OSHA citations, appeals and litigation

Safety starts at the top! Check out the training calendar on tcia.org and sign your employees up for free Susan Harwood or ASTI grant workshops in your area. Become a Certified Treecare Safety Professional (CTSP) to help develop and nurture a safe work environment. Make safety your top priority.
Hidden Electrical Dangers

Storm damage scenes are often unstable with a lot going on at once. During the initial survey of your work site, take electricity into account as there may be hidden dangers that are not immediately apparent. This might include downed electrical wires as well as exposed wiring. It is important to remember that downed wires that are a distance away can still have an effect on your immediate work site.

When electrical hazards are present you must think about other everyday objects and situations in different ways. Many materials such as metal (watch out for those chain linked fences) and water are electrical conductors and can be very hazardous.

• If you see a downed power line, move away from it and anything it is touching.
  o Always assume that it is energized. Touching it could be fatal.
  o Consider all wires energized and dangerous until tested and shown to be de-energized.
  o Even lines that are de-energized could become energized at any time.

• The ground around power lines may be energized.
  o Stay at least 10 feet away from downed lines.
  o Move away from the power line by shuffling away with small steps, keeping your feet together as close as possible and on the ground at all times.

• Do not attempt to remove a tree limb or other object from a power line by using an object such as a pruner or stick.
  o Non-conductive materials like wood or cloth can conduct electricity if even slightly wet.
  o Electricity can travel through tree branches, especially when they are wet.

• If a broken power line should fall on your vehicle, stay inside the vehicle.
  o The vehicle can become energized; you are safer remaining inside until help arrives.
  o Use your cell phone to call for help, or honk the horn.
  o Warn others not to approach or touch the vehicle, and have them call for help.
  o Do not try to help someone else from the vehicle while you are standing on the ground. If you do, you will become a path for electricity.

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Hidden Electrical Dangers
continued from page 5

• Metal objects such as fences and guardrails can also become energized if a downed power line contacts them. Be careful not to touch or step in water near a downed power line.

What other hidden dangers could become energized from downed wires?

<table>
<thead>
<tr>
<th>Guard rails</th>
<th>Chain-link fences</th>
<th>Cables and other electric utilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manhole covers</td>
<td>Wood fences</td>
<td>Manhole castings</td>
</tr>
<tr>
<td>Metal ditch culverts</td>
<td>Utility poles</td>
<td>Reinforcement bars (re/bar) in pavement</td>
</tr>
<tr>
<td>Aluminum sheds</td>
<td>Bushes and trees</td>
<td>Wind-blown objects such as canopies, aluminum roofs, siding, sheds, etc.</td>
</tr>
<tr>
<td>Swimming pools</td>
<td>Buildings</td>
<td>Telephone/CATV/fiber optic</td>
</tr>
<tr>
<td>Swing sets</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If someone on your crew makes contact with a downed power line, do not try to rescue them because you risk becoming a victim yourself. Call 911 for help.
HIDDEN ELECTRICAL DANGERS

Downed power lines may be well-hidden and can energize unexpected things!

Downed lines touching fence. Fence energized far from downed lines.

BACK FEED FROM A GENERATOR

The line may be no longer hooked up to the pole but still energized from a generator.

Mr. Safety by Bryan Kotwica
CTSP CEU QUIZ

The answers to this month’s quiz will be published in the March 2017 issue of the TreeWorker.

FEBRUARY 2017

1. Which is a benefit of using the bowline knot?
   a. It is retrievable.
   b. It is easy to untie after loading.
   c. It is self-tying.
   d. It can be tied with no hands.

2. What importance is the Yosemite finish on a bowline knot?
   a. It acts as a stopper knot.
   b. It acts as a starter knot.
   c. It can be easily untied when frozen.
   d. It keeps the rope strand from fraying.

3. When company owners provide hands-on training:
   a. It should be presented in a demonstration-only method.
   b. That training should take place off the clock.
   c. They are likely to cause more accidents.
   d. They are investing in the workforce.

4. If you suspect the ground around downed power lines to be energized:
   a. Carefully move the wire out of the way with a stick or wooden pole (no metal).
   b. Grasp a nearby object, such as chain-link fence, to feel for electrical pulses.
   c. Walk, do not run, away from the wire.
   d. Move away from the power line with your feet together using small, shuffling steps.

5. What hidden dangers could become energized from downed wires?
   a. Aluminum sheds.
   b. Manhole covers.
   c. Swimming pools.
   d. All of the above.

Answers to January 2017 CTSP Quiz: 1. c  2. b  3. d  4. c  5. d

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Fax: (603) 314-5386 or
Scan and email to: ikochurov@tcia.org.
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