

HYDRO ONE ADDS VERSATILITY, INCREASES SAFETY WITH WORLD'S TALLEST INSULATED AERIAL

What does Hydro One do with the world's tallest insulated aerial device?

"Everything," according to Jim Starrett, Power Line Maintainer for Hydro One. "And, we're doing things safer than ever," he added.

Starrett is part of Hydro One's traveling line crew based in Barrie, Ontario and is one of the people responsible for operating their new Bronto Skylift model SI 197 HDT. The huge Bronto aerial device is one of only two 197-footers built to date and is the only one located in North America. The other is being used in Saudi Arabia.

Although this is Hydro One's first new Bronto, it's not their first experience with Bronto aerials. It all started a few years ago when Hydro One representatives attended the IEEE's ESMO show in Montreal where Bronto was demonstrating bare hand techniques using their SI-

178 HDT, then the tallest insulated aerial in the world. They were considering the purchase of a new aerial device to replace the one they currently owned and Jeff Harris of HYCOTEC, Inc., Bronto's Canadian dealer, told them about the Bronto and mentioned that he could arrange to bring the machine to their facilities following the show.

Shortly after the show ended Harris took the Bronto to Toronto where he demonstrated the unit to a group of Hydro One fleet and line representatives. Although impressed with the machine, they weren't quite ready to place an order at that point.

It wasn't until about 6 months later when their existing unit was finally retired from service that they contacted

Harris to begin negotiations on the purchase of a new unit.

They had seen photos of a huge 197-ft. (60m) Bronto machine that was built for use in Saudi Arabia and felt it was just what they needed. It was built to be driven over all types of terrain, it reached the heights they required, and it had the lifting capacities they wanted. The only problem was that they needed it then, not sometime in the future.

Realizing their predicament, Harris offered a solution — he arranged for them to rent a Bronto SI 155 HDT that they could use immediately, while giving the Bronto factory enough time to build the machine they really wanted. This program worked so well that even with

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the new machine delivered and put into service, Hydro One still rents the SI 155 HDT for a variety of other applications.

The new Bronto SI 197 HDT that Hydro One purchased is mounted on an 8 x 6 TOR chassis with huge 25" (635mm) Michelin tires, and features a maximum working height of 197 ft. (60m), horizontal outreach to 75.5 ft. (23m), platform capacity up to 1000 lbs. (450 Kg), and it is rated for use in wind velocities up to 31 mph (50kph). With the greater working envelope and large load capacity, Hydro One uses the Bronto for a wider variety of applications than ever before possible.

"We're finding new uses for it almost every day. And we're saving time on just about everything we use it for,"

said Hugh Crockett, Hydro One's Superintendent of Provincial Lines.

"We use it for all types of line and tower maintenance including dead end insulator changeouts, replacement of spacers clips on dampers and corona rings, installa-

tion of cellular and microwave and antennae, and a lot more. We even use it for insulator washing so we don't have to bring an additional piece of equipment on site.

"We work on everything from a 55 ft. (16.76m) pole to our new 205 ft. (62.48m) transmission towers, so we need the additional working height the Bronto gives us. When using the Bronto on the smaller towers we can sometimes even come in from above to reach where we need to work. And, with the extended reach the machine has, we can usually work on more than one area from a single set-up, we don't have to continually reposition the unit. In some cases, we can even position it between towers and work on both of them from the one position," added Crockett.

Other features that come in handy, particularly in the center part of Toronto where they have a compacted right-of-way, are the Bronto's narrow outrigger spread of only 19 ft. 8 in. (6m) when fully extended, and its ability to be operated in a "short-jacked" configuration. When short-jacked, all four of the outriggers are deployed, but on one side of the unit they are not fully extended.

This permits the unit to be safely operated within its full work envelope over the fully extended outrigger side, while providing a narrower overall foot-

print so that it can be operated in tighter areas and with minimum lane closures.

Adding even more convenience when setting up in confined areas is a unique telescoping boom design that requires only 28 ft. (8.5m) of overhead clearance to raise the boom. And the elbow of the boom doesn't extend out behind the chassis footprint while being elevated and/or rotated, so it's not sticking out and requiring even more room for set-up or access to the work area.

But even more important to Hydro One than its versatility however, is the increased level of safety that the Bronto brings to the workplace. Using the Bronto, line maintainers don't have to climb towers as often. They can carry more tools to an overhead worksite and access more areas without reaching or straining. And they can perform their tasks quicker so they don't fatigue or tire as easily. One seasoned crewmember who no longer does overhead line work said, "If I had equipment like this when I was still climbing towers, it would have put a lot less stress on our bodies"

Another important safety feature that sold Hydro One on the unit was its reliability. Bronto aerial devices were originally designed for use in fire fighting where performance under pressure is required first time, every time, no matter what the conditions. Because of this, Bronto engineers designed the unit to incorporate redundant or back up systems for all critical operating areas including hydraulics, electronics, and structural components. This additional safety feature was also a major reason why a Bronto aerial was chosen by NASA to be part of the permanent Orbiter Recovery Convoy that greets the Space Shuttle when it lands at the Kennedy Space Center in Florida.

More versatility, increased safety, better reliability. These are just a few of the things that Hydro One is finding out about their new aerial. And, they're so confident with their new machine's performance that they are offering to rent it, along with a dedicated operating crew, to other Canadian utility companies for their high reach overhead work.

As one line crew member remarked, "It's the best thing that's ever happened to line maintenance. What took us long minutes to ascend to the working position on towers, is now done in half the time, and we can thank Bronto for that."

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