



Kerik Brothers' Tree King 5.5 multi stems a couple of "smaller" logs at roadside. The stroker is used to handle poplar from 0.2 to 1 m³/tree (multi-stem video is available at www.treeking.se, but you'd better have either a high-speed connection or time to burn).

Different Strokes

A new arrival on the harvesting and processing head scene is the Tree King from Sweden. A relatively lightweight stroker with 18 000 lb of delimiting force, it's well suited for hardwoods and limby trees of all sizes. Report from poplar contractor Kerik Bros. Enterprises.

By Scott Jamieson



Listening to Les Kerik talk, it's a good thing he came across the Tree King stroke processor when looking for a head to handle poplar and other hardwoods. Kerik Brothers Enterprises Ltd. is a partnership between Les and Neil Kerik that logs hardwoods for Ainsworth's OSB mill near Grande Prairie, AB. Originally a full-tree operation with bunchers, grapple skidders, and delimiters delivering tree-length material to the mill, the Keriks were asked a few years back to start providing some of its 200 000 m³ annual production in cut-to-length form. Still relying on the high-producing bunchers and grapple skidders to get wood to roadside, the crew had to find a



Both Tree Kings are mounted on JD carriers. Thanks to the head's simple plumbing and wiring, the Keriks use a quick connect system so that the carriers can be used for road reclaim or brushing work as required.

way to efficiently process poplar as big as one metre a tree into the mill preferred length of 16' 6". Any system would also have to produce in smaller wood as well, a combination that general manager Les Kerik started looking for a few years back. For the most part the veteran logger wasn't impressed by what he saw.

"Many of the traditional processors lacked the power for the really big poplars. I looked at the alternatives that could handle the large poplar, like the Hornet, and wasn't impressed. Just thinking about using some of the heads I saw gave me heartburn," he says only half-jokingly.

When it comes to machinery, Les and operations manager Neil Kerik have just about seen it all. Prior to their 15 years as logging contractors, the brothers worked for over six years as licensed heavy-duty mechanics for a local Cat dealer. They are also well known among equipment suppliers and loggers alike as innovative contractors unafraid to try new things.

Flexibility Required

One such new thing was a stroke harvesting head that Les had heard about back in 1993, an earlier version of the Tree King introduced to him by North American representative and Renaissance man Olle Melin. Les saw videos of the machine working in northern BC, and filed the idea away.

Meanwhile, Tree King developers Leif and Olov Unosen continued to field test and refine the original head. With the switch to CTL looming, Les contacted the Unosens early in 2001, and by summer of that year had mounted a new generation Tree King 5.5 on a John Deere 270 excavator for testing. It has proved flexible enough to handle the full range of timber the contractor faces.

"We harvest all deciduous trees and our average tree size is 2.2 trees to the metre. But we get them as big as one tree to the metre, and as small as five to the metre. We don't want to have two different machines to have to ba-

lance, so we were looking for one that could do it all well. It handles both extremes no problem, and everything in between."

With 17 600 lbs of delimiting force, the stroker certainly handles the big wood and limby species comfortably. In videos of a Tree King working in Michigan, the head manhandles some of the ugliest, limbiest pine imaginable. When it gets to the smaller stuff, Les says the



Some of the monster limbs removed by a Tree King working for a Michigan contractor.

operator maintains efficiency by multi-stemming 2, 3 or 4 at a time. It is also helped by a feed speed that is respectable by stroker standards (2.8 m/s) and that remains constant regardless of tree or limb size.

Two basic models are designed for either 3.5 or 5.5 metre maximum single stroke length, and a full harvester version with felling unit is also available. The Keriks' 5.5 processor version weighs 5 500 lb, requires a 22 to 30 ton carrier with ideally 320 l/min of flow, and features limbing knife openings from 3 to 28.5 inches, allowing for smaller, cheaper carriers than many other big wood heads.

Measuring is accomplished through the actual stroking action itself, via an encoding wheel attached to the feed chain. Diameter measurements can be obtained from the delimiting knives (optional), but in either case a key attraction from a log quality perspective is the absence of measuring wheels or spiked feed rolls touching the tree. The head can be set to any stroke length up to the 5.5 m (18 ft) single stroke maximum by removing a few bolts, while even longer

lengths can be obtained through pre-set multiple stroke actions. It all adds up to an almost foolproof mechanical length measuring system that Les says produces excellent results.

"In fact, the lengths are so accurate that right now one of the heads is bucking wood in a mill yard and they tell us it is giving the best length accuracy yet. And there aren't a lot of things to worry about, like wheels slipping or operators calibrating the head all the time."

Les is also pleased with the overall simple design, an important point given that local manufacturer support is still being worked out for Canada. The head has just two lines – one in and a pressure return line out – plus a cable, allowing the Keriks to set theirs up with a quick connect attachment. With northern Alberta's limited logging season, this allows the JD 270 to be used for other chores when logging is off. When CFI spoke with Les in mid

April, for example, the head was off one of the JD 270's, allowing the carrier and operator to keep busy piling tops and doing road reclaim work. With no complex measuring system or electronics, few moving parts, and little to go wrong, Les adds that downtime and repair work have been manageable.

"It's a very simple concept and design, which is what we liked. Basically there are a few grease points and things to look out for, but otherwise it's pretty good that way."

More than anything else though, the original Tree King system worked well enough for the Keriks to expand their CTL operation. They started off last season committed to supplying 60 000 m³ of CTL wood to the mill, but things went so well they logged 100 000 m³ instead. They have in fact sold their remaining delimeter and added a second Tree King, which will move next year's operation to 100% roadside CTL processing. Given northern Alberta's mixed results with CTL systems to date, that's about as strong a vote of confidence as anyone could hope for.

