



## Stack 'em high

**Tolko's Quest Wood Division in Quesnel, B.C. has made an investment in two Liebherr 934 C machines, which is allowing them to stack logs higher—and ended the need for satellite log storage yards.**

*By Jim Stirling*

A sawmill owner's decision to switch to short wood processing creates a domino effect throughout the operation. But these dominos tumble upstream as well as down.

It starts with the timber assessment and procurement strategies. It moves on through the pre-harvesting development stages. The logging and transportation required in the bush significantly changes. The short wood decision also frequently equates to investment in new log breakdown equipment in the sawmill, and fresh approaches toward processing. While the wooyard—the all important transition between bush and mill—assumes a whole new set of material handling challenges. And opportunities. And it was that latter word that proved pivotal for Quest Wood Division in Quesnel, British Columbia.

The focus on short wood helped Quest Wood, a division of Tolko Industries Ltd., cure a major operational headache. The investment in two Liebherr 934 C heavy duty log stacking/reclaiming machines allows for higher piling of wood and more efficient storage of logs in the operation's space-challenged mill yard. And that, in turn, has ended the need for storage in nearby satellite log yards.

No more re-loading and re-trucking as the mill requires. Each time a log is handled it incurs costs faster than a ticking taxi meter. And with every handling, the risk of stem breakage increases, especially given Quest Wood's fibre diet of desiccated timber killed in the mountain pine beetle epidemic.

To make a bad situation worse, the satellite wood yards were located on the opposite side of Highway 97 from the mill, necessitating constant crossing of the busy north-south artery.

"The satellite yards were a real pain," confirms Royce Lawrence, Quest Wood's log yard/mobile supervisor. And he's pleased they're a thing of the past.

Today, the short wood volumes are trucked into the yard in 10 and 20 foot lengths. Unlike with the old set-up, they don't require the time and expense of banding before being stored. Logs come straight off the logging trucks into storage or are hot decked, explains Lawrence.

The decision to go with the two identical 934 Cs followed considerable research. They visited other operations to see what was out there and how it might work for them, recalls Lawrence. The Liebherr's ability to deck and reclaim wood at heights was a key consideration.

"Other cab risers could operate to 19 feet. The Liebherr machines can deck to 27 feet although we usually run them up to 25 feet," he continues.



And it didn't hurt that other Tolko divisions in B.C. had successful experiences using the Liebherrs. And that's proved out in Quesnel with the Liebherrs being versatile and dependable during their first 8,000 hours of operating time. "They've been a blessing," vouches Lawrence.

The machines are kept hopping, especially during the busier winter logging season. The Liebherrs' duties include unloading logging trucks, loading and up and down decking using the machine's Rotobec 185 grapples.

During the late summer, the yard was accommodating between 48 and 60 loads a day. That will increase to around 80 loads a day when the winter season kicks into gear. The Liebherrs usually work two eight hour shifts daily.

The Quest Wood Division is fortunate that Tolko was successful negotiating a deal with China Building Materials for varying grades and dimensions of SPF lumber that the Quesnel operation is largely providing. "It's helping keeping us going," says Lawrence.

To keep the mill going, the millyard has four infeed lines to service, leading to two main lines entering the mill. "The canter line averages 8.4 inch diameters with the smaller line handling three inch tops to a 5.8 inch average," outlines Lawrence. "But the wood is generally coming down in size."

The 934s appear to have slotted in seamlessly with other mobile equipment in the log yard. One Cat loader focuses on feeding the mill, another on general yard duties including the sample yard and there's also a bucking loader. Taylor forklifts handle that side of the yard operation.

Quest Wood was fortunate to have on staff a couple of operators with some experience on cab riser type equipment. "They knew the general cab layout and things like where the operating levers are," he continues. That existing knowledge base was supplanted by training. "The Liebherr training crew came in and they did a wonderful job."

Lawrence attempts to keep the same main operator on "his" machine to encourage familiarity, performance and foster a sense of ownership. He notes a regular preventative maintenance program is strictly followed.

Since the industry downturn and operational curtailments, there are fewer Liebherr machines active in the region. "Basically, small parts are a day away while items like hydraulic pumps and motors might take two or three days," says Lawrence. He adds that Liebherr is working closely with the company to streamline the parts supply flow.

The Liebherr 934s are sturdy machines—with an operating weight of about 42,400 kilograms—but remain nimble, an important quality for the operation with Quest's relatively cramped and unpaved log yard. They're powered by a 4-stroke diesel Liebherr engine rated at 204 hp at 1800 rpm. Lawrence says Quest Wood specified a forestry operator's cab for the machines.

Four point outriggers with suspended rocker arm supports provide the additional stability required.

When markets permit, the Quest Wood Division typically produces about 265 million board feet on an eight hour shift in dimensions from 1 x 3 to 2 x 10 and in lengths from eight feet to 20 feet.

