



Big news in Big River

The start-up of the sawmill in Big River, Saskatchewan—with its annual production target of 250 million board feet of lumber—is big news for the Carrier Group of Companies, and the community.

By Tony Kryzanowski

The Carrier Group of Companies doubled its size with its acquisition of the idled—but modern—former Weyerhaeuser sawmill in Big River, Saskatchewan. And now, after three years of preparation, the mill at Big River is back producing lumber and Carrier Forest Products Ltd. is hiring a second shift to achieve its 250 million board feet annual production target.

Carrier Lumber Ltd., co-founded by William Kordyban Sr. in 1951, earned a reputation for its innovative, modular sawmill technology that could be trucked to a site in 50 to 100 semi-trailer loads, bolted together, and was able to produce lumber largely from fire and insect-killed salvage in remote areas. It was the opportunity to salvage timber from large forest fires that attracted its sister company, Carrier Forest Products Ltd., to Saskatchewan in 1995.

Now, under the guidance of Kordyban's son, William Kordyban Jr., the company has set aside its nomadic ways in Saskatchewan with its investment in the Big River dimension lumber sawmill.

Carrier's acquisition of this sawmill in 2010, located between Meadow Lake and Prince Albert, ended the drama surrounding this facility, which was built by Weyerhaeuser in 2001 but closed in 2006.

“What got us interested in purchasing the sawmill is that it was a relatively new, well-built mill and has a lot of USNR equipment, which we are familiar with because we have a lot of USNR equipment in the Carrier Lumber mill in Prince George,” says Kordyban.

Other factors related to the available wood supply also attracted Carrier's interest in the Big River mill. These included the fact that there was a timber supply allocated to the mill for whoever purchased it, there was other timber reallocated to the sawmill from the previous Forest Management Agreement (FMA), the availability of wood from First Nations, and Carrier's familiarity with the available timber supply in the province. This all gave the company confidence that they would have enough fibre to operate the sawmill profitably.

Most of the logs will be harvested within about a 160 kilometre radius of the sawmill, consisting of about 50 per cent jackpine and 50 per cent white spruce. Kordyban says one big positive of operating in Saskatchewan—vs. the B.C. Interior—is that the Big River sawmill won't have mountain pine beetle kill issues with its wood supply. Tongue in cheek, he added that, “I don't think the beetle can survive the Saskatchewan winters.”

The jackpine averages 6” to 8” while the white spruce reaches up to 18” in diameter.

The sawmill produces lumber from 2 X 4 to 2 X 10 in lengths from 8' to 16'. The highest volume product is 2 X 4.



Kordyban says that overall, the company really focuses on capturing value from its wood fibre. In the case of Big River, the goal is to produce at least a premium #2 and better grade lumber product to satisfy Carrier's customers: high end home builders, truss manufacturers, and lumber treatment companies in Canada and the United States. They also pull J-grade lumber for the Japanese market.

There were a number of hurdles to overcome from the time of the sawmill's purchase to the shipment of Carrier's first load of lumber from Big River this past January. The first was the successful negotiation of a collective agreement with the United Steelworkers Local 1-184 soon after the purchase. That was accomplished in November 2012.

"Without a more flexible collective agreement, the project was not going to proceed," says Kordyban. He adds that there was a fair amount of give and take during negotiations to make the agreement possible.

The second was finding a market for the sawmill's chips. Kordyban says that Carrier has negotiated a purchase agreement with Meadow Lake Mechanical Pulp.

The third challenge was banking on a better price for softwood lumber, considering the collapse of the American housing market in 2007. Lumber prices have bounced back significantly since then, coinciding with the sawmill's production launch, and the current plan is to add a second shift, creating total employment for about 90 workers.

The final challenge was to reactivate the sawmill, and install important upgrades to bring it up to the volume and quality standards expected by the company. That has been ongoing for about three years, with JDT Construction as the main contractor and K2 Electric as the main electrical contractor. As part of this process, Carrier Forest Products suspended operations at a sawmill north of Prince Albert to focus on the Big River operation, with staff at that facility offered jobs in Big River. The other mill may reopen at some future time.

The sawmill processes cut-to-length (CTL) logs exclusively, with logs arriving in the yard from 12' to 16'. A Tanguay 460 butt-n-top loader mounted on rails unloads logs from trucks and feeds seven different sorting bins at the front end of the mill. Then step feeders transport the logs for debarking through three, 22" Nicholson debarkers. From the debarkers, the logs are then sorted into bins for either the small or large USNR log lines, with the break point being 7" diameter.

"Our large log line curve saws. So we will put some smaller diameter wood through our large log line if it has a lot of sweep," says Aaron Parent, Big River sawmill project manager.

Parent adds that Carrier has significantly upgraded the Big River large log line, with a focus on optimization by changing out sensors and upgrading the controls—and replacing systems from two different companies to all USNR controls.

The logs proceed through the log turner and are processed through the chipper heads and then through a twin band mill to remove sideboards. Cants proceed past a group of sensors prior to final processing through a curved gangsaw.

At this point, the sawn material continues through a green sort either for processing through the edger, redirection to the slash pile, or further processing down the green chain.

Carrier has invested in a total optimization upgrade on its edger with what Parent describes as processor upgrades, a new repositioning decision engine, new LPL USNR sensors, and new controls.



“They had a lot of problems with it before, about making a proper decision on the edging,” says Parent. “When the mill was shut down, we also lost a lot of computers as far as getting them to reboot and trying to get the software to run again. We didn’t want to start the mill and have challenges with it, so we decided to proceed with that upgrade right away.”

The small USNR log line is essentially a straight throughput line with boards gathering with material from the large log line on the green chain.

The boards on the green chain then proceed through an unscrambler, which has been fitted with a new set of even ending rolls. This area also gives the mill the opportunity to pull smaller broken pieces before the boards proceed to a lug loader that propels the boards through a scanner and then through a Gemofor board trimmer.

“We’ve done a bunch of upgrades at our trimmer, as well, by adding a USNR multi-track positioning fence and also a dual articulating gate after the trimmer, which allows us to run a little bit faster and we have boards with better trimming decisions coming out,” says Parent. “We also put an optimizer upgrade on the trimmer for process controls.”

Boards are then sorted through the upgraded USNR sorter and placed into the Comact stacker in preparation for kiln drying.

In addition to the sawmill, Carrier has also made many improvements to its planer mill. This includes a new lineal high grader infeed bridge and a USNR lineal high grader (LHG) computerized grading machine. After processing through the existing Yates planer, the lumber goes through the new USNR lineal high grader. It decides where the best trimming decision is further downstream. For example, this could be for cosmetic trimming, which is a capability the new LHG system provides.

The planed lumber proceeds on to the slowdown belts to a landing transfer, then through a new USNR grade projector. It is a visual projector that projects the grade, trim lines and defects on the board. The LHG decision is then confirmed by a “Check Grader” employee.

The boards proceed through the new USNR multi-track fence to establish where they will be trimmed. Then the lumber goes through the Gemofor trimmer and is stamped with a new Samuel inkjet laser printer where logos, grade stamp and end print is put on each board. The lumber is then off to the Gemofor sorter, which has been upgraded with USNR controls and auto-bin dumping. After that, the lumber goes to the Newnes stacker and then to the Samuel strapper and wrapper.

Kordyban says that Carrier Forest Products has felt welcome in the picturesque community of 600 and he is impressed by the quality of the workforce in Big River.

“The local people really want to see this mill succeed and that is our goal too—to be there for the long term,” Kordyban concludes.