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Landrich Harvester hits the hardwood harvesting mark

New Brunswick contractor Denis Caron had a demanding shopping list when he went looking for a new machine for harvesting hardwood—but the Landrich Harvester, with its Ponsse H8 head, looks to be meeting all his needs.

By George Fullerton

When Denis Caron went looking for a harvester to fit a new contract harvesting hardwood for the Groupe Savoie sawmill in Saint Quentin, New Brunswick, he knew he needed the right combination of power and reliability for handling big tough hardwood, combined with the best fuel economy and operator comfort he could find. After taking a good look at the industry offerings, Caron really did not have to go very far from his home in Saint Quentin to find what he needed. In fact, his harvester manufacturing plant and product support centre is only about an hour up the road, in the Village of Balmoral, at ALPA Equipment and AL Fabrication, home of the Landrich Harvester.

And after 10 months in operation, Caron is more than happy with his decision to go with the Landrich Harvester.

“Our fuel economy is what Landrich promised, our production has been better than what we and Landrich had expected, we had virtually no start-up problems and my operators have made the move from wheeled harvesters to tracks very smoothly,” says Caron. “The H8 head handles the biggest hardwoods and still functions well on small diameter wood. We are very happy with our decision to go with the Landrich.”

Caron’s company, AGB Foresterie, was formed as a spinoff in 1995 from AGB Fabrication, a Saint Quentin-based fabrication and machine shop. AGB, for “Atelier Gerard Beaulieu’’, has specialized in welding, machining, hydraulic repairs, general repairs on forestry equipment, as well as custom fabrication work since 1912. Caron married into the Beaulieu family, and initially became manager, and then owner, of AGB Foresterie in 2008.

AGB Foresterie began work doing (first entry) commercial thinning on J.D. Irving plantations in 1995 with a small Rottne 2000 wheel harvester, and later added an Enviro harvester. In 2001, they bought the Ponsse Beaver for working in second thinnings. Later, they sold the mini harvesters, and made the move to Acadian Timber with the Ponsse Beaver, teamed with a Rottne forwarder, to work in softwood harvesting.

In March 2012, Groupe Savoie offered AGB a contract to work in both partial harvesting and final felling, harvesting hardwood.

While the move to hardwood harvesting and the Landrich was a serious business decision—combined with an equally serious financial commitment—the Landrich had a number of selling points that won Caron over. He had 50,000 hours of Ponsse experience with a six wheel Beaver harvester with a H60 head, so the Landrich with a Ponsse H8 head and Ponsse Opti5 electronics and controls offered a lot of familiarity. The Ponsse experience combined with a long business relationship with ALPA Equipment, no doubt, helped sell Landrich.

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Serge Landry, general manager of ALPA Equipment, recalls that Caron came shopping for a hardwood harvester in March 2012, following his initial offer to work for Groupe Savoie.

Landry explained that from the beginning of negotiations, he and Caron agreed a Ponsse H8 head with integrated top saw was the way to go, since it had been designed specifically for full-on hardwood harvesting. The growing reputation of the Landrich for production and fuel economy cinched the negotiations and Caron signed the deal for Landrich production number 12 in April, and he took delivery of the new machine in May.

The Ponsse H8 harvesting head initially offered an optional bolt-on top saw unit for hardwood harvesting. The top saw allows operators to cut off crotches or big limbs, and offers the option of making bucking cuts with the top saw to avoid pushing crooked stems through the head. Pushing crooked stems through the head inevitably results in fibre damage to the logs, in addition to lost time, production and unnecessary punishment to the head.

As a bolt-on option, operators have the opportunity to remove the top saw when the harvester shifts to straight softwood harvesting. But since 2011, the H8 has been manufactured with an integral top saw.

Serge Landry shared that harvester operators quickly adapt their work methods to the top saw addition and see their production increase.

Overall, the H8 maintained its short stature with the integrated top saw design measuring 66” without rotator. This short frame allows the head to efficiently follow stem crooks while processing, as compared with longer framed heads that lose knife contact and feed roller traction on crooks.

Landry points out that the Ponsse measuring wheel is spring mounted in the head, allowing the wheel to respond instantly to stem curvatures or other defects, whereas hydraulically mounted measuring wheels have a delayed response to stem defects, especially in cold weather when hydraulic oil is thick.

The Landrich Harvester is solidly built, relying on reliable, long-tested and readily available components including a Mercedes-Benz engine, Rexroth 190cc hydraulic pumps, Lohman planetary and swing drive, Voac Parker valves and proven Ponsse control system.

The Ponsse Opti 5 operating system has witnessed several software upgrades and integrates smoothly in the Landrich application. It provides control for the harvesting head, as well as GPS capacity, manages fuel economy of the Mercedes engine, and offers comprehensive data report capacity including machine productive time and operator production reporting. It even sends production reports to office computer systems.

The H8 has three feed rollers, with the centre roller consisting of two separate wheels powered on two separate hydraulic circuits. The centre wheels’ hydraulic circuits are paired with their respective (left and right) moveable feed rollers so that power can be portioned to the side of a crooked stem that is experiencing the greatest contact and traction. This results in less spinning damage to the log’s fibre.

The AGB head is also equipped with 1.5 inch wide traction lugs on the feed rollers. Serge Laplante, vice-president of wood procurement with Groupe Savoie, pointed out that the wide lugs are critical for minimizing fibre damage to processed logs that are sawn into lumber destined for furniture and flooring markets.

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"The wide lugs grip the log without piercing deep into the fibre," he explains. "Smaller lugs would pierce deeply into the fibre which would turn up as a defect in the lumber, and consequently lower the quality and value of the wood. Our objective at Groupe Savoie is to ensure that we direct as much lumber as possible to high value markets."

Laplante added that Groupe Savoie is very satisfied with their decision to contract with AGB, citing AGB's commitment to producing high quality logs and noting that the Landrich Harvester's productive time is close to 98 per cent.

Groupe Savoie operates as a sub-licensee to AV Nackawic which owns two dissolving pulp mills in the province, as well as receiving allocations from Acadian Timber and Fornebu Crown licenses. About 30 per cent of their Crown land harvesting is in partial cut silviculture and the balance through clearcuts.

Groupe Savoie's mill consumes some 450,000 tonnes of hardwood logs annually, in the form of 7, 8 and 9-foot logs supplied from Crown lands, industrial and private woodlot producers. From high grade hardwood, the mill produces flooring stock, furniture blanks and pallets and pallet components. Waste fibre from the milling processes is manufactured into pellets and compressed fire logs. Bark from processed logs becomes biomass for kiln energy and winter heat for the mill complex.

The Landrich Harvester has seen a few technical changes from its original design and the first prototype unit which was tested by some twenty contractors in New Brunswick and Quebec in 2009. The most obvious change was a redesign of the boom, which originally had a curve to allow better close-in processing.

While AGB opted for an H8 head, standard equipment for the Landrich is the Ponsse H7 head. The AGB harvester also features extra counterweights to match the weight of the H8 head and the size of the trees it handles. With the 10 metre boom, excellent stability (at 62,500 pounds) and long undercarriage, the Landrich cuts a major swath in clearcut applications, while still—with its zero tail swing— making an admirable thinning machine.

While final assembly occurs at AL Fabrication next door to the ALPA shop, certain components are farmed out to reliable fabrication and manufacturing plants. Specifically, precut and bent steel components are delivered to AGB Fabrication in Saint Quentin for assembly of track frames, and the upper deck of the harvester is cut and machined at the Rotobec factory in the Beauce region of Quebec.

Caron said they had little lost production time incorporating the Landrich Harvester into their operation. "We had the learning curve that comes with any new machine, and the normal start-up service schedule with ALPA technicians." The machine has worked nine to 10 shifts per week since it was delivered and it had close to 4000 hours as of March 2013. "Our production is more than we expected and the fuel consumption is impressive for a track harvester," added Caron.

AGB is experiencing fuel consumption in the range of 26 litres per hour working in hardwoods with the H8 topsaw. ALPA reports that the Landrich runs closer to 20 litres per hour when it operates in straight softwood harvest with a H7.

"The Landrich has a good reputation and it is a local machine, built by people that understand our needs," summarizes Caron. "The service from ALPA Equipment also played a big role in the decision to buy this machine. In this business, we need to have good service from our dealer and ALPA is second to none. When you look at the Landrich, it is easy to see that it is well designed and all the components are well proven and reliable."