

between the BRANCHES

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PREMIER FOREST PRODUCTS

— Paul Iarocci

Oregon, Illinois based Premier Forest Products is not your average volume-based harvesting company. Active in lower Michigan, Iowa, Wisconsin and Illinois, Tony Zimmerman's company has a wide range of operations in regions with differing characteristics and regulations. Not the easiest of areas to make a living, Tony has had to stay nimble, agile and creative – prepared to change course with regard to strategy and tactics at a moment's notice. Sticking to old ideas can hold back progress. In the mid-west harvesting operations that Premier Forest Products is active in, complacency is akin to business suicide.

Although Zimmerman is relatively young, his woods experience is deep and he has learned a lot through trial and error. Owing to the Scandinavian influence in the Lake States region, Zimmerman ran both Ponsse and Valmet harvester-forwarder combinations into the late nineties and found the machines were simply not reliable enough.

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The crew: (L-R) Tony Zimmerman (buncher operator), Eric Olson (processor operator), Isaac Nelson and Leonard Raszkewitz (forwarder operators).

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Multi-stemming for biomass. Otherwise unmerchantable trees are bucked to approximately 6 m lengths and transported to the grinder.

“They broke too much even in planted pine. We blew hoses and had constant leaks. The downtime and big parts bills made us fall behind and I ended up selling everything and going back to the chainsaw, a Fabtek forwarder and I log trucked for five years. Then in 2007, I bought a 490 John Deere processor and was doing 45 cords a day [approximately 110 tons at 2.4 cords to the ton] with one truck,” recalls Zimmerman, commenting that the Fabtek wasn’t a bad machine. “It was built better for the region.”

Finding opportunity

It wasn’t long after that Zimmerman recognized an opportunity that everyone else seemed to be missing. In Illinois there is a significant volume of planted pine in the 40-60 year-old age range. Zimmerman explains that the plantations had either been ignored or mismanaged and most of the tracts were a mess. To add further complication, Illinois road regulations, with a 40-ton gross weight maximum, are prohibitive compared to neighbouring Wisconsin. There was not an economical way to transport pine pulp logs out of state and consequently no one was doing anything with it.

“I already had a lot of experience with rail transport and had one of the only railheads in Illinois, so I bought some pine stumpage.” Zimmerman figured he had the most economical method of transporting pine out of state by short

hauling eight foot (2,4 m) logs to his railhead and then loading them onto cars bound for the Domtar paper mill in Nekoosa, Wisconsin. Having solved the transportation problem, Zimmerman purchased a used 415 Timbco and Timberjack 1110 forwarder and increased his daily production to 60-70 cords.

Enter the Tigercat

In 2008, Tigercat dealer in Minnesota and Wisconsin, St Joseph Equipment (now Titan Equipment) entered the picture. “They brought me a slightly used Tigercat H822 with a Log Max 7000 head. Then they brought a 1055 forwarder,” says Zimmerman who ended up purchasing both machines.

“At first I wasn’t impressed with the forwarder. The IQAN was hard to set up and the machine was overly complex compared to the Fabtek. In comparison, the 1110 was much smoother to operate. After about six months I really figured out the computer and got the jerkiness out of the controls and got the operators trained.”

The pine operations were working out well so Zimmerman decided to purchase a second harvester, a newer H822C with a Log Max 7000 and a second 1055 forwarder. Soon after he bought another



The H822C works on a large top.

H822C for a total of three harvesters and three forwarders, including the old 1110.

These days Zimmerman is quite pleased with the quality and reliability of the Tigercat forwarders. “They are very reliable machines and always start in cold weather.” He has experienced very little unplanned downtime and virtually no problems whatsoever with the first machine. The second 1055 was slightly more problematic out of the gate but Tigercat CTL product manager, Jon Cooper, flew out to the second machine and resolved all outstanding issues. “The service from Tigercat has been great. Tigercat looked after me,” confirms Zimmerman.

Premier Forest Products continued to progress, purchasing both pine and hardwood tracts and marketing logs and pulpwood to a number of different companies. Zimmerman made a special effort to purchase and harvest pine tracts year-round,



Loading eight foot logs.

making him a favoured supplier for pulp mills Domtar in Nekoosa, Wisconsin and Thilmany located in Kaukana, Wisconsin. Premier transports eight foot pulp logs to both mills by rail.

Premier’s pine markets are literally all over the map, supplying logs by truck and rail to T&T Quality Cutting in Spencer, Wisconsin and by rail to the Potlatch studmill in Gwinn, Michigan. The company also supplies a shavings mill (KTD Ltd) in Dubuque, Iowa which produces horse bedding.

It got to the point that Zimmerman was evaluating and purchasing enough timber to justify a full time forester, so he hired Eric Olson to help with procurement and with creating harvesting plans. After losing a processor operator in 2009, Zimmerman cross-trained Olson on the H822C.

Evolving efficiency

Zimmerman’s next goal was to get away from using the harvesters to fell, reasoning that felling was very hard on bars, chain and electrical components in the head. In addition, felling and processing was not very



Zimmerman teamed up with River City Recycling to supply chips to the DTE Stoneman power generation facility.

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The 822C on a pine clearfell job.

efficient in the smaller diameter pine that they were often working in. Production was suffering on account of the small piece size but also because of the tangled mass of understorey in the neglected stands which is difficult for a harvester to deal with.

Zimmerman began his search for a suitable feller buncher and explored all possible options. “We demoed a wheel feller buncher and the concept made sense. When bunching, it is easier for the operator to sort and it allowed us to keep up production in both the pine and hardwood.” Zimmerman ended up selling the oldest H822 harvester and rented a Tigercat 726D drive-to-tree buncher. “It got us through a 200 acre [80 ha] hardwood job,” explains Zimmerman. Eventually he traded one of the two remaining H822C harvesters for a used 822C buncher with a 5400 saw and high rotation wrist.

“The 5400 is really good for bunching,” asserts Zimmerman. “I really like the pocket. For us it is better than the 5700 head – much better in pine plantations.” Zimmerman runs the buncher, which he describes as the heartbeat of the operation. He can easily get far ahead of the rest of the crew, enabling him to do other supporting jobs and actually run the business – working with landowners and planning future jobs more optimally to ensure there is going to be a market for whatever they are cutting next. In addition, machine utilization has gone way up.

“Before I was sitting in the processor all day and now I can get the job set up, put the roads and landing in, bring in gravel, culverts, do excavating, whatever is required. Then the machines come in and we are putting wood on the trucks within 48 hours. Now the processors are never parked. Before they were parked all this time.”

Zimmerman sees a lot of advantages in the buncher-processor-forwarder system. Compared with a buncher-skidder system, where the bunches must be very neat and optimized for the skidder, Zimmerman can work more quickly, with less back and forth tracking. “The bunches don’t have to be as perfect as for a grapple skidder and the H822C has no problem pulling trees out of the pile.” Zimmerman claims that the bunches improve Olson’s productivity in the processor and also leave larger log stacks for Leonard Raszkewitz and Isaac Nelson in the forwarders, making them more productive as well.

In the pine operations, the disc saw does a great job of quickly mowing down understorey. Zimmerman has also invented a new, more efficient row thinning technique that is optimized for the buncher-processor-forwarder system. Traditionally, the harvester would take out a row felling the trees into the adjacent stand and processing the logs to the edge of the thinning corridor.

Although somewhat complicated to describe, with the new system, the feller buncher travels at 30 ft intervals perpendicular to the rows, removing as many trees as can be reached from each row designated for removal and dropping the bunches in the corridor. It is one more example demonstrating Zimmerman's willingness to walk away from conventional thinking and practices. In this case he has improved production and is seeing less residual stand damage.

Transitioning to biomass

Recently, Premier's hardwood pulp market collapsed. In addition, certain species like the invasive black locust are prevalent in Illinois hardwood forests, yet there is no traditional market for the fibre.

DTE Stoneman in Cassville, Wisconsin is a power generation plant converted from coal-fired to renewable material including rail ties, demolition material, saw dust and woody green material. The 40 mW renewable energy facility commenced

operation in October, 2010. Taking emissions regulations into account, Zimmerman recognized the importance of logging residue as an input and also realized the facility in western Wisconsin was not ideally located in terms of fibre supply. Logging in the region is characterized by steep ground, low volume and high value hardwood. He correctly assumed that local contractors would not be able to supply the required volume of fibre.

Zimmerman initially contracted with DTE to supply round wood. Later, after rethinking the cost of handling the round wood and chips multiple times, he came up with a better solution that eliminated most of DTE's extra handling and associated costs.

"Initially the round wood had to be unloaded in a secondary yard, then handled through the grinder, then piled, then loaded again and trucked to the plant," explains Zimmerman. He figured the best way to reduce all this handling was to grind infield. "But I didn't want to buy a grinder and all new trailers to

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transport it.” Instead Zimmerman teamed up with River City Recycling, owner of an older model Morbark grinder. Initial results have been encouraging.

On a typical hardwood job, the processor goes into the stand after felling is completed, processes and sorts the logs to one side and separates the tops and unmerchantable trees like black locust into piles on the other side, multi-stemming where possible and bucking into approximately 6 m lengths. Eliminating the requirement of merchandising and sorting pulpwood has significantly boosted processor productivity. Zimmerman explains that the ER really shines when merchandising bolts and logs where the boom is constantly going in and out among the various sort rows.

When the forwarders come through, the operators maximize the payload by sandwiching the brush and tops between heavier layers of logs. Zimmerman estimates the forwarder can accumulate around ten tons per load with this method.

“Getting rid of the eight foot logs really boosted our production. A grapple skidder would be ideal but I



The H822C processes large pine on a thinning operation.

don't want to process at the deck. I firmly believe that infield processing is the best way to deal with such a large number of sorts. Otherwise we would need such a huge deck area.”

After all this is complete, Zimmerman goes back into the stand with a chainsaw and hand falls the highest value trees. They are left tree-length, tops attached to dry out for a couple of weeks so that the bark tightens around the trunk. Then they are forwarded out and transported to Zimmerman's wood yard. These trees are too valuable to risk damaging or splitting with the feller buncher. “Usually they are too big to handle properly anyway,” adds Zimmerman. Much of the smaller walnut is left standing for additional growth and to seed the tract, with stand improvement being the end goal.

Zimmerman has cultivated a number of different markets for hardwood as well. In addition to the biomass, Premier Forest Products supplies firewood, grade mills, pallet and rail tie manufacturers, logs for rotary and slicer veneer as well as the high grade export logs. ■



The operators layer heavier logs over the brush for compaction to increase the biomass payload.



880 LOGGER STARTS OFF STRONG

Early reports indicate prototype is right on the money.

In Late August Tigercat shipped its prototype 880 logger to our British Columbia distributor, Parker Pacific. The machine was delivered to Parker's Prince George branch where staff hosted a three day open house for customers to view and test drive the 880. Customer feedback was very positive.

Tigercat undertook the 880 project to offer the marketplace a purpose-built forestry carrier that solves many of the problems experienced by owners of converted excavators. The project involved a wide range of participants from Tigercat and Parker Pacific as well as loader and shovel logger owners and operators. Throughout the design process review meetings were held with these groups to ensure design work was meeting everyone's expectations. Advanced engineering manager, Grant Somerville explains that while this process lengthened the design stage, "the end result was a machine that met the requirements with few surprises."

The prototype 880 was purchased by Blue Valley Enterprises Ltd. during the design phase of the project.

"Their confidence in our abilities, and patience throughout the entire project was greatly appreciated by all of us at Tigercat," adds Somerville. BVE is presently operating the machine near Vanderhoof, BC and early field results have been extremely positive. From an operating standpoint the 880 is viewed as a very stable carrier with excellent lift capacity at extended reach that performs well beyond its size classification. Operators also commented on the quiet operating environment and excellent visibility.

The 224 kW (300 hp) 880 logger can be equipped for shovel logging, loading or processing with a live heel, power clam, butt-n-top or processing attachment. The 300 horsepower engine significantly increases machine productivity and travel speed relative to excavator conversions while delivering excellent fuel efficiency. Depending on the attachment, maximum reach ranges from 11-12,5 m (38-41 ft) with lift capacities of 5 445-7 260 kg (12,000-16,000 lb) at full reach.

One of the innovative design features of the new 880 is the closed loop swing drive system. This system

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provides excellent visibility throughout the operator's working sightline. The expansive, comfortable, ergonomic cab interior is designed to minimize operator strain and fatigue during long shifts.

One of the design criteria for the 880 was to create a machine with better service access and component layout than any competing machine available on the market today. The results speak for themselves. The 880 is equipped with independent power operated side door and roof top openings, exposing the entire engine compartment for direct and convenient access to the engine, hydraulic pumps, valves and

eliminates energy loss from swing relief valves during swing acceleration, and recovers energy stored in the swinging boom and upper frame assembly during braking. The same system is currently used in the LS855C shovel logger and the 234 and 250 series loaders, and is an important contributing factor to the industry-leading fuel efficiency of these machines. The dedicated swing drive system also reserves all main hydraulic pump flow for boom and attachment functions, increasing speed and productivity.

cooling system. All daily service points can be accessed through the side door, eliminating the requirement to open the entire roof enclosure on a daily basis. The layout also separates the hydraulic system components from hot engine parts.

Another energy saving feature is the hydraulically driven and computer controlled variable speed, reversing cooling fan. Air intakes and outlets are large for optimal cooling airflow. Common to the 870C series feller bunchers, this cooling system permits high machine performance in extreme ambient temperatures and dusty conditions.

Considering the overall high performance and excellent stability of the 880 compared with other machines in its weight class, it seems that Tigercat has created an entirely new machine class. Stay tuned for more reports on the 880 logger as it undertakes additional west coast shovel logging and processing applications. ■

Tigercat designed a new undercarriage called the F7-163 with 334 kN (75,000 lbf) tractive effort and an overall width of 3 630 mm (143 in) with standard track pads. The super duty FH400 track components were taken directly from the 870C series bunchers.



The cab forward design combined with the main boom curvature

PRODUCTIVE, SATISFYING AND SAFE

New Tigercat equipment and an innovative business approach have reinforced Jesse Bowman's focus on a productive, satisfying and safe work environment.

— Tony Kryzanowski

Reprinted with permission, *Logging & Sawmilling Journal*, July/August 2011.

Loggers sometimes have a habit of pursuing quantity of logs over quality of life. The results can be stress, a mediocre family life and business failure. Alberta's Jesse Bowman Logging has chosen a different path.

Bowman harvests 120 000 cubic metres (approximately 120,000 ton) of primarily hardwood for Weyerhaeuser's oriented strandboard (OSB) plant in Edson, Alberta and softwood for the sawmill in Drayton Valley. A stump-to-dump contractor, he

recently upgraded his fleet to a Tigercat 845C feller buncher equipped with a 5702 high rotation head, a Tigercat 610C skidder and a Tigercat H855C processor with a Waratah 624HD fixed wrist processing head.

The fixed wrist offers better control and faster production in certain circumstances, especially for processing and decking slippery and heavy eight-foot aspen or poplar logs in winter.

“Stacking eight foot aspen in winter is like trying to stack jackfish,” Bowman says. “Your decking means everything to production. So we went with the fixed wrist for better control and it has really paid off.”

Rounding out the fleet is a Komatsu 200 excavator with a quick attach on the boom. Bowman initially equipped it with a Rotobec bypass slasher grapple and used it to feed logs into a stand alone Timrick tag slasher that could be operated by remote control from the loader cab to buck their hardwood logs to eight foot dimensions. This method fit their operation well when they were doing smaller volumes and prior to their recent purchase of a more expensive, purpose-built carrier and processor. Jesse's brother, Dustin, subcontracts an additional processor to the business and another brother, Clint, subcontracts his Komatsu 200 log loader equipped with a Rotobec power clam.



The H855C harvester equipped with an optional undercarriage riser and a fixed wrist head for better control of the slippery poplar.

The company has twelve employees and logs about ten months a year. While 31-year-old Jesse, the youngest of the brothers, says he's eager to succeed in logging, he seeks a balance between work and time off for himself, his family and his employees. They work five twelve-hour shifts during the week and take weekends off.

Wife, Amanda is his business partner, taking care of the office duties in addition to looking after their children. He's in no rush to grab more volume as it becomes available, focusing instead on making his current logging operation as efficient and profitable

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as possible, with part of the objective being the operation of comfortable, well-designed equipment that minimizes operator fatigue. His recent equipment upgrades have delivered immediate financial and productivity dividends.

Weyerhaeuser is also doing its part to maintain a positive work environment by making the commute to work reasonable at only about 40 km (25 mi) from town.

Jesse Bowman Logging has an outstanding safety record, having lost no time to employee injury for the past six years. It has the best safety record of any Weyerhaeuser contractor in Canada.

The company has been so successful from a production and safety standpoint that Weyerhaeuser asked Bowman whether he believes his business model can be duplicated. Bowman says it's possible, but it would be difficult, as appearances are often deceiving. While he is relatively young, he calculates that there is over 100 years of experience among employees on his logging crew. He comes from a strong logging family

– his parents met in a logging camp. And he began his own logging career at the age of sixteen. When he wasn't in school, Bowman was working with power saws and line skidders with his father and two brothers.

Bowman began the development of his business through Alberta's Community Timber Permit (CTP) program. This is a program where smaller volumes of timber are made available on a bid basis to local residents. In addition to gaining a log volume from the CTP program, Jesse and Dustin also qualified for Weyerhaeuser's Local Logger Opportunity Program, which is a program where the company hires local loggers to harvest some of its annual cut. They each qualified for 5,000 cubic metres, and Weyerhaeuser was so pleased with their work that they gave them the entire 10,000 cubic metres available the following year. Over the past ten years, Jesse has been able to gradually increase his volume and the size of his equipment fleet to the point where he now works entirely for Weyerhaeuser as a stump-to-dump contractor.



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Bowman specified his 610C with more horsepower and a larger grapple than a standard machine and high flotation rubber for a better match with the application and conditions that he typically faces.

“We kept improving our equipment to the most efficient line that we could afford,” says Bowman. “We’re getting really good production right now from each individual machine, but it took a long time to get here.”

The terrain is generally flat to slightly rolling in their cutblocks north and south of Edson. Because they operate both in winter and summer, they make slight adjustments for summer logging because the operation is more susceptible to weather or terrain issues at that time of year. They use wider tires on the 610C skidder for better flotation and have chosen to install 28 in pads with a tri-track undercarriage on the new 845C feller buncher instead of 24 in pads on a single rail, also for better flotation.

Unlike the wood basket further west and closer to the mountains where the log diet is almost entirely conifer, most cutblocks around Edson are mixed wood.

Jesse Bowman Logging harvests about 75% hardwood and 25% softwood. Lately, it has been more softwood as Weyerhaeuser puts a priority on harvesting pine stands infected by the mountain pine beetle. Bowman estimates that 90% of the pine stands they have

harvested recently have some infection in them.

The company can have as many as seven sorts at roadside, with the sorting done primarily by the feller buncher and skidder operators. Depending on the cutblock, there are often roadside sorts for aspen, black poplar, tree length material, cut-to-length material, pine, spruce, birch as well as sorts for different dimensions within each species. Having a feller buncher head with 340 degree rotation capability has helped to improve sorting production. In a stand with numerous sorts, Bowman says he believes it has boosted productivity by 30%. The ability to sort more efficiently also contributes to fuel savings because the tracks on the machine are moving less often.

Bowman put considerable thought into what features he wanted in his upgraded fleet. Equipment reliability was a major concern. He had experience with Tigercat in the past and was impressed with the uptime and engineering. Fuel efficiency was also foremost in his mind, especially given the direction that fuel prices are heading at present.

“I wanted to see if the Mercedes 6.4 litre engine was going to be as good as what I was being told and so

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far it has been,” says Bowman. “It’s at least 20% more fuel efficient than the engine in our old feller buncher.” Bowman has the same engine installed in the Tigercat H855C harvester.

“I was going to be really happy burning anything around 300 L (80 US gal) per day,” says Bowman. “Right now, we’re running around 280 on a twelve-hour shift. It’s just amazing.”

While not as big an issue, operator comfort was also a consideration. “Tigercat has really done well to try to make the operator last all day, just like the machine does,” says Bowman. “All of my operators have said that they are less tired at the end of the day compared to operating our old equipment line and that alone has boosted productivity. I see it every day and I believe it.”

Add in the advanced engineering such as Tigercat’s ER boom and the increased capacity of the newer Tigercat equipment and Bowman says that production has improved ten to fifteen percent per shift. “The ER boom on the feller buncher is so smooth,” says Bowman. “There are no jerky movements, even if you don’t cut right through a tree on occasion. To me, I can run that machine for twelve hours and in the

previous machine, I was just as tired after nine hours. It’s that much of a difference.”

The high rotation wrist on the felling head and the fixed wrist on his processor for better control are two decisions that have had an immediate positive impact on productivity. He also requested some notable tweaks on his Tigercat 610C skidder.

“The specifications on the 610C typically make it a little bit small for this area,” says Bowman, “but we bumped up the horsepower to a 6.7 litre Cummins engine and 220 horsepower with a seventeen square foot grapple. So with those two advances in the engineering, the wheel base is exactly the same as another popular brand out here, which puts it pretty much head to head with that larger skidder.” His previous skidder had a 5.9 litre engine with a 14 square foot grapple. Even though he is now pulling more wood, the new skidder is burning around the same amount of fuel.

So far, Bowman says Tigercat dealer Wajax Industries has worked hard to live up to its promises for after-sale support, which he also appreciates. Response has been quick and the only problems encountered so far on the equipment have been with a few hoses. ■

FIRST LS855C HITS VANCOUVER ISLAND

Tigercat has been quietly developing its steep slope shovel logging concept with a handful of machines in Brazil and Australia. Integrated Brazilian forestry company, Klabin, has been studying the shovel logging concept for a number of years and has tens of thousands of hours of experience with five LS855C shovel loggers. As a result Klabin representatives now possess a great deal of data and insight on the performance, productivity and capability of the machines and have been sharing this knowledge with other forestry companies and



harvesting contractors. A BC contractor purchased the first LS855C in Canada, placing the machine in its Vancouver Island operations. The LS855C is equipped with the same super duty leveling undercarriage as the 870C feller buncher. The closed loop swing drive with energy recovery maximizes operating performance while providing enhanced fuel efficiency. ■

NEW ZEALAND'S FICA EXPO

Australasia district manager, Glen Marley reports on the show and subsequent field trip organized and hosted by AB Equipment.

The last large-scale forestry expo in New Zealand was a static show back in March 2006 in Rotorua. It could be described as a bit of a flop due to the downturn in the New Zealand forestry market at that time. It took an extremely strong recovery, a robust Chinese export market, strong interest from the contractors and the support of FICA (*Forest Industry Contractors Association*) to put on another forestry equipment expo in Rotorua this past September.

The Expo was also planned to coincide with the 2011 Rugby World Cup as an attempt to attract foreign contractors. The host nation's 'All Blacks' were the favourites (defeating France 8-7 in the final) and the comparatively small and secluded but exceptionally



(L-R) James Peacocke, Steve Mellar, Mark Hill, Glen Marley, Steve Varcoe, Marcus Bourke, Ken MacDonald and Dean Cousins at the FICA Expo.

proud country was bursting at the seams with excitement for anything Kiwi and anxious to embrace any visitors whether for the rugby or the forestry expo. 2500 overseas attendees, combined with the attendance of the local contractor base provided an exceptional turnout, proving that this expo was long overdue.

AB Equipment is Tigercat's distributor for New Zealand. Sales specialists James Peacocke and Steve Mellar along with other supporting AB staff and Tigercat personnel Ken and Donna MacDonald, Gary Olsen, Jeff Cave, Mike Carlyle and Shawn Pette put on arguably the best stand of the show. Machinery included a leveling LH855C harvester, a used S860C shovel logger and 620D and 630D skidders. All three of the new machines were already sold.

Throughout the expo AB Equipment showed what passion and commitment can bring to this industry. After the expo, the Tigercat and AB staff headed to



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ONE VERY HAPPY CUSTOMER

This correspondence, penned by Dean Cousins, Invercargill-based sales specialist for AB Equipment in New Zealand, provides some feedback from customer Doug Anderson and observations regarding the performance of his new 635D skidder.

Went and watched this thing go today, and go it does, and then some.

A fairly long greasy drag where their 748 was pulling out three stems, the 635D is bringing out nine or more at over 16 tonnes. Power to the ground and stability is excellent. The 748 was averaging 30 L of fuel per hour and the 635 is the same. Ground speed is the same or better, so two to three times the wood at the same speed and same fuel usage. This is not rocket science is it?

Doug Anderson is the owner and operates the processor. Doug is watching on the Waratah monitor and has been used to spells of inactivity between skidder pulls. Now he is struggling to keep up and without a break. The shoveller [harvester that falls, delimits and shovels] is flat out as is the poor loader operator. The 635D is as the sticker says – the boss of the bush. It's making the other machines go like #\$\$%^ to try and stay ahead.

Bear in mind that these figures are conservative over what the machine is capable of. After the snow and rain we've had, it's wet and greasy and also an uphill run, so as Doug says, wait till it dries out...



Konteki fishing on Ninety Mile Beach.

the far north region of Whangarei for an exceptionally well attended field demonstration. It featured an LH855C with a directional bar saw felling head cutting and shovelling 28-year old Radiata Pinus trees (1,5-2,5 m³ piece size), an H855C harvester and a 630C skidder working on Jordan, Kristen, and Mark Grimmer's cable logging job in remote, wet and very steep terrain.

The day was organized by local AB Equipment salesman, Marcus Bourke and his crew from the Whangarei branch. Around 35 contractors attended, a fantastic turn out for this relatively small region. The contractors gathered that night for a quick presentation and dinner prior to the official opening ceremony of Rugby World Cup.

Saturday saw our contingent drive even further north to the area of Pukinui to deliver a new 620D skidder to Herbie, Lynn, Jessie and Tina Adams of Adams Logging. Afterward the Adams family hosted a unique version of beach fishing, called Konteki fishing off Ninety Mile beach in the northland.

On Sunday the group travelled from the very north of New Zealand to the Christchurch/Rangiora region on the South Island where the Tigercat crew saw first-hand the absolute devastation of the recent massive earthquakes that affected the area.

Monday, the troop visited the jobsite of Peter, Wendy and Scott Renner for another very well organized field demo day by Alistair McClellan, Steve Varcoe and local AB staff. A new LH855C harvester and a



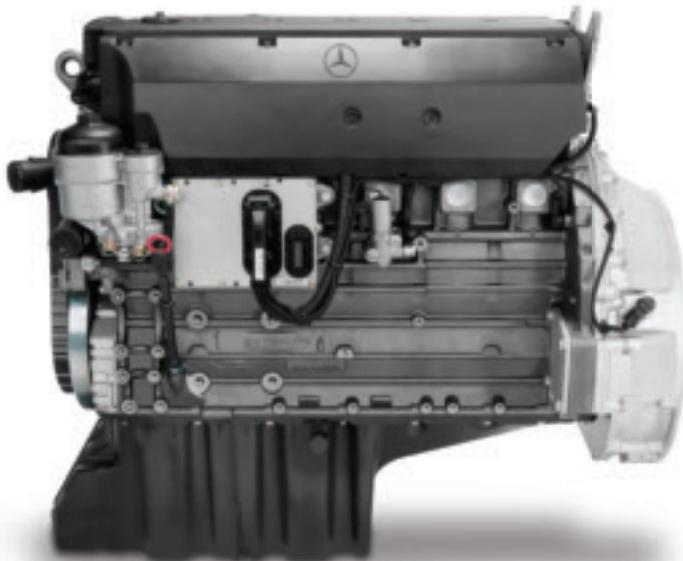
LH855C harvester and 630C skidder on the jobsite of Renner Logging near Rangiora.

630C skidder were showcased and 75 contractors turned up to see the machines in action in challenging terrain.

Continuing south to the Otago region, the town of Milton was the site of another massive roll-up of contractors attending an informative presentation and dinner hosted by Antony Burkenshaw, Steve Varcoe and staff from the Dunedin branch. Two brand new 630D skidders were on display on the front walk of the venue. They were delivered to the jobsites of Roxburgh Contracting and Hayes Logging the following day.

On Wednesday we headed to the southern city of Invercargill to attend a World Cup match between Scotland and Georgia. The following day, the

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group visited two jobsites, taking in Doug Anderson's new 635D and Andrew Pratt's "King One" 610C skidder working in extremely tough, steep terrain. Evan Sanderson, Dean Cousins and the Invercargill branch staff contributed to a great visit.

Special thanks to the massive effort and commitment put in by Mark Hill (AB Equipment's Tigercat national sales manager), company CEO, Peter Dudson and the whole AB organization for a fantastic insight into New Zealand's harvesting industry. ■



LH855C with a directional bar saw felling head owned by Jordan, Kristen, and Mark Grimmer in the Whangarei region.



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EQUIPMENT INSPECTIONS

Methodical examination and action can help prevent breakdowns, thwart fire.

— Tony Tijerina

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Article after article has been written about the importance of equipment maintenance but often loggers pay little attention to them. With the production pace now slower in much of the country, most loggers have the time to get serious about preventive machine care. To use the old cliché, there is no time like the present.

Skidders, fellers, loaders and other equipment represent the largest expense you have as a logger. Without these important assets you are out of business. Therefore it is imperative that you stress upon your supervisors and employees the importance of keeping equipment in top condition.

A daily equipment pre-start inspection should be conducted on each machine. This is your business and

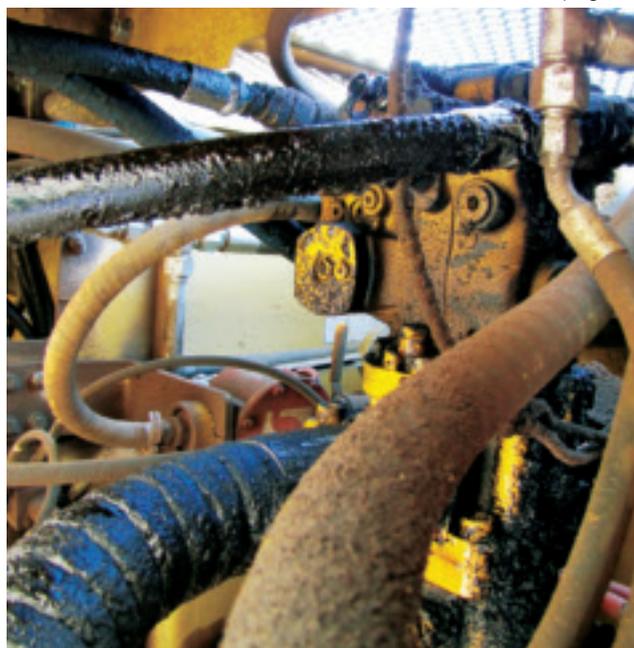
you decide who will be responsible for conducting the inspection. I recommend that the operator inspect, document and ready the machine for the day's work. The inspection should include:

Fluid levels. All fluid levels should be checked to ensure that they are at the proper mark so that the machine can operate in top condition. Low fluid levels cause early wear on parts and can create friction hazards.

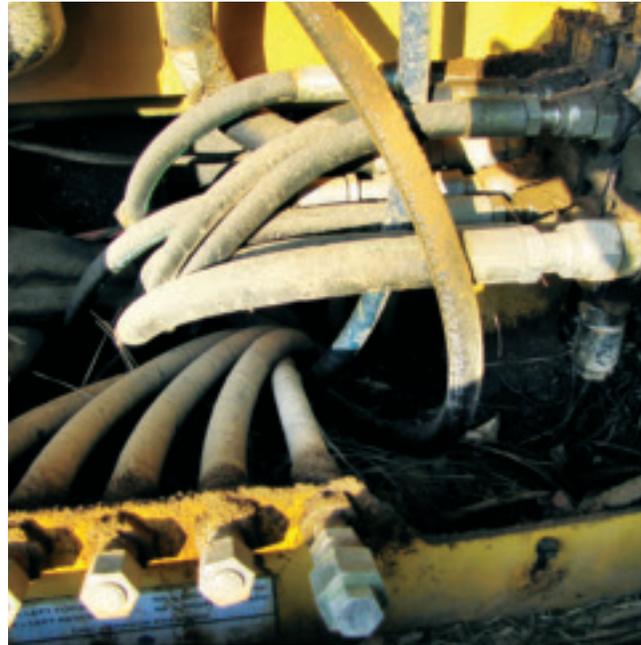
Wiring. All wiring should be inspected for wear, abrasion and bare spots. It goes without saying that bare wires coming into contact with each other or metal will cause an electrical short and potentially a fire.

Hydraulic hoses. These are often overlooked during an inspection. These hoses are designed to operate under heat and pressure but they still require regular monitoring. Rubbing, chafing, pinching and mechanical injury can occur while the machine is in operation. The result is weakening of the hose, compromising the integrity of the line and reducing the pressure that the hose can handle. Hoses should also be checked for evidence of leaking. Hoses found with any of the described problems should undergo a more thorough inspection and be replaced immediately. Hydraulic fluid normally has a flash point of 2 270°C (4,400°F). While heated and under

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Hoses can be weakened by rubbing, chafing and pinching. Hoses leaking hydraulic fluid near high heat sources invite trouble.



Removing debris near the engine manifold and turbo charger is a must.

pressure the fluid's flash point is dramatically reduced. If sprayed directly on the manifold or turbo charger, fire is very possible. All too often, a leak or problem is identified and repairs put off, only to have a burst hose cause a machine to catch fire. In addition to running the risk of higher insurance costs down the line, preventable fires like this cost the owner downtime, an insurance deductible and lots of frustration.

Manifold and turbo charger. This area of a machine poses the highest heat danger. Temperatures exceeding 4 260°C (8,000°F) can easily be found along the run of the manifold and at the turbo. These areas should be inspected every morning and any debris noted should be removed while the machine is cool and the debris can be safely removed. The area should be inspected after shutdown. If debris has accumulated it can be removed with compressed air or the operator can wait until the machine has cooled down and it is safe to reach into these areas. Unfortunately, manufacturers have not been able to completely engineer out debris accumulations; however, they have come a long way.

Debris. Logging equipment is operated under dirty conditions. Forest debris is a constant menace. It presents a considerable fire hazard when in contact with areas that reach a potential ignition temperature of approximately 2 320°C (4,500°F). Debris

accumulations should be monitored daily and removed often. Best practice is to remove the debris by hand daily and to remove it completely at least weekly. Don't forget to remove debris accumulations from the belly pan. Debris accumulations can and will provide additional fuel in a fire situation.

Articulation joint. Debris accumulates in the area under the cab. If left it poses a potential fire hazard and should be included on the daily inspection routine.

Fire is a real danger in the logging industry. In my twelve years inspecting equipment, and investigating fires in equipment, it is evident that not every fire can be prevented. However, with diligence and effort, fire incidents can be reduced. It is imperative that every logger has a plan of action to deal with fire. Employees should be trained in the proper use of fire extinguishers and water tanks. All too often I have asked an operator to pretend there is a fire on the machine and watched as he tried to locate the extinguisher and/or attempt to get into the water hose compartment, only to find it cannot be opened. Fire extinguishers and water tanks need to be inspected daily to ensure they are ready for duty. When a fire occurs and the extinguisher is discharged, or there is no pressure in the water tank, you have no defense.

In case of fire

All operators and employees must be trained and ready in the event of a fire emergency. At the first sign of fire:

- 1) Shut the machine down! This stops the flow of fluids under pressure.
- 2) Sound the alarm! Get help on the way.
- 3) Exit the cab and dismount the machine with fire extinguisher in hand.
- 4) Assess the situation from a safe location on the ground. Locate the fire. Personal safety is always first.
- 5) If it is safe to do so, spray extinguishing material at the fire through screen openings or other access points.
- 6) Only if safe to do so, remove screens or open doors and continue applying with a side-to-side motion.

- 7) Apply water to debris in belly pan to cool the debris and stop the fire from re-igniting.
- 8) Report the fire immediately to local authorities and your insurance company.

A good daily inspection program can and will assist in the reduction of fire losses as well as reduce operating costs by locating and eliminating costly leaks and problems. Every logger should develop and implement a policy requiring that all equipment be inspected and maintained. Records of the inspections should be kept to document that this work has been completed properly.

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AUSTIMBER UPDATE

AUSTimber 2012 organisers report that exhibitors have booked all the in-forest pine sites, all the in-field chipping sites and all but two of the cut-to length blue gum sites. David Quill, general manager AUSTimber 2012 says, “We are the only combined softwood/ hardwood plantation expo held in the forest in the world and the largest in the Southern Hemisphere. This means we do have a forest that can be used to meet all demands. We’ve had a fantastic response so far with the number of sites sold and we have the capability of adding more sites if there is more demand from exhibitors. AUSTimber 2012 is on track to be an even bigger event than 2008, that brought 8,000 people from overseas and Australia to the Green Triangle region and Mount Gambier.”

The site office is well on track too. It is being constructed by local students in the *Building Trades*

Doorway 2 Construction program. Students learn trade skills on real projects, giving them skills and confidence to move into the trades. Just recently the local TV, radio and press visited the site to report on the progress. The TV interview can be found on our AUSTimber’s You Tube channel:

<http://www.youtube.com/user/austimber2012>

The local airline, Rex, has increased their flights into and out of Mount Gambier to service the thousands of people expected at AUSTimber. A new and easy room booking service is available to help with accommodations. Please check out the AUSTimber website for more info and contacts:

<http://www.austimber2012.com.au/accommodation.html>

<http://www.austimber2012.com.au/transport.html>

AUSTimber also has a presence on Facebook and Twitter. ■

product news

TIGERCAT BUILDS M718E MULCHER

Tigercat recently built a prototype M718E mulcher. The 129 kW (173 hp) machine is light, compact and agile and may find application in lighter duty transmission line and other utility and ROW maintenance applications. ■



dealer news

TIGERCAT SIGNS DEALER IN BELGIUM

The Clohse Group has been named authorized Tigercat dealer in Belgium and several other neighbouring countries, including Luxembourg, Netherlands, Germany and the Paris, Strasbourg and Dijon regions of northern France.

The company, which has more than 40 years experience in the heavy equipment market, offers its clients expertise in areas such as maintenance, service and sales support. Clohse Group is committed to providing its customers with a quality product,

great value and superior service back-up.

The forestry and logging equipment line includes Tigercat skidders, feller bunchers, harvesters and attachments to meet any harvesting equipment requirement.

Clohse Group was started in the village of Crombach (located near St. Vith) in Belgium. The founders Dieter, José and Heinz Clohse, started this business based on their extensive knowledge of the forestry business. ■

NEW TIGERCAT WEBSITE GOES LIVE

Tigercat has unveiled the new and improved tigercat.com. The new site will have improved multi-language coverage and much better access to video and multi-media. Now relevant videos, BTB

articles and other material will be accessible directly from the product overview pages. Also look for expanded BTB content, larger images and streamlined navigation. Additional languages are coming soon. ■

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