

# B E T W E E N the BRANCHES

## L830 gets Favourable Reviews

**Introduced at Demo 2000 in British Columbia, the zero tail-swing L830 leveling feller buncher is now in full production.**

Midway, BC based Mid-Boundary Contracting took delivery of the prototype L830 following the show. "This area of southern BC is an ideal location to test equipment," comments Reid Hedlund co-owner of Mid-Boundary. "We have very rough and rugged terrain and we are fairly easily accessible to the Tigercat people when they want to come out from the plant."<sup>1</sup>

The L830 is a powerful machine, specially designed for thinning, clearfall and extreme slopes.

The tractive effort required for operation in rugged and mountainous terrain is achieved with a 253 hp engine and closed loop hydrostatics for each drive motor.

Unique to Tigercat is the hydrostatically driven cooling fan. Variable speed control improves fuel efficiency. By reversing the direction of rotation, the operator can purge debris from the coolers as often as necessary without leaving the cab and interrupting production. Further aiding cooling efficiency is the location of the heat exchangers - nowhere near the saw discharge area.

Special care was taken with the design of the cab to maximize operator comfort. The interior space is large and visibility is excellent - even where

competitive feller bunchers typically falter. A full-length rear window provides vital visibility to the tracks on the down slope and should prove to be an asset in tight selective cut applications. A clear line of sight is also maintained through the right-hand side window due to the favourable boom geometry.

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Mid-Boundary operator, Brian Hancock is thus far impressed with the machine. “There’s not a lot of fatigue at the end of the day as the machine is very stable,” he says. “It is pretty impressive in terms of smoothness. I think it will definitely be a front runner.”<sup>2</sup>

Hedlund elaborates. “Most leveling systems are electric and are either open or closed resulting in jerky movements. With the [hydraulic controls] you can go anywhere in between so you have manual control of the leveling system.”<sup>3</sup>

Those who gaze upon the L830 for the first time seem to be most amazed by the massive leveling components. The large

diameter pin size and thick steel plate is unprecedented. Underneath is an FH400 series undercarriage with heavy duty rollers and track chain. The long track frames minimize impact on the forest floor by reducing ground pressure.

“When they designed the 830 they started with a clean sheet of paper and built a machine that will be in demand in BC due to our terrain and forest practices code,”<sup>4</sup> confirms Hedlund.

The L830 engineering team continues regular communications with Mid-Boundary, ironing out problems and working further improvements into the machine. ■

1-4 Canadian Forest Industries, May 2001

## Hodgson Chipping: First Movers in the Maritimes

McKay Hodgson of Truro, Nova Scotia started his company, Hodgson Chipping, about 35 years ago as a fifteen person manual felling crew. The company began to mechanize in 1987 with the purchase of a rail delimeter.

Within two years a chipper and a pair of skidders were added. The growth has continued. These days the Hodgson Chipping fleet includes 32 pieces of forestry related equipment.

It’s all about the payload - the deciding factor in the purchase decision.



As a family run business, each member of the Hodgson clan looks after a different aspect of the business. McKay and Vaughn head up daily operations, Dale is responsible for organizing the trucking, Paul manages the chipping crew and Roger leads the harvesting crew.

Hodgson Chipping contracts for Kimberly Clark, operating primarily in the southwest region of Nova Scotia. Ground conditions range from rolling hills to very challenging rocky terrain. The weekly harvest of 2,500-3,000 tons is comprised of red spruce, fir and various hardwoods.

In January 2001, Strongco forestry salesman, Sandy Hodgson, landed a Tigercat 630B on the jobsite. The preceding winter produced higher than average snowfall, leaving the Hodgson’s to deal with chest deep accumulations. They were skidding with Deere 648D and 648GII skidders and were experiencing problems getting the felled trees to roadside.

Traditionally, smaller skidders have been used in working forests throughout the Maritimes but the performance advantages of the larger Tigercat 630B became quickly apparent.

Previously, the tough conditions and smaller machines restricted operator Paul Hodgson to skidding single bunches. Conversely, the smooth hydrostatic drive of the 630B consistently moved two or three bunches to roadside with every pull.

When asked why Hodgson Chipping went out on the proverbial limb and bought the first Tigercat skidder in the Atlantic provinces, Vaughn answers quickly, "It was the payload that made the decision to purchase an easy one."

The Hodgson's 630B operates two shifts daily, amounting to 90-hours per week

including scheduled maintenance. The machine hauls 900 to 1000 tons per week.

Regarding performance and uptime, Paul Hodgson comments "The 630B compares to nothing else, it stands in a class by itself."

The Hodgson's have owned a Timberjack 450, Cancar C7, John Deere 648G and CAT 525 in the past. They say that there is no comparison to the Tigercat for comfort and power. "The Tigercat comes out on top in every way."

For a skidder that has virtually created its own market due to its unprecedented size and capacity, this initial success in the Maritimes represents another public perception hurdle. Even in areas where big skidders have been ignored or frowned upon, the high production 630B continues to make inroads. ■

## Between The Branches Editorial Team:

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# Successful CONEXPO for Tigercat

## Non-forestry machines seen as a natural progression to the Tigercat line

In March 2002, Tigercat exhibited for the first time ever at CONEXPO-CON/AGG in Las Vegas, NV. The T750 street cutter and M760 mulcher, the two machines displayed, could be viewed as a natural progression of Tigercat's ever-expanding product line.

Despite being a first-timer at a show of such magnitude, the Tigercat booth was a hub of activity as tradeshow visitors were attracted to the innovative niche equipment on display.

The T750 is a prime mover mated to a street trenching attachment. The machine is used to open road surfaces prior to the installation of fiber optic cables, pipes and other utility infrastructure. The horizontal drum cutting attachment was developed in conjunction with Tigercat's strategic partner, Street Industries.

Tigercat manufactures the entire machine, including the attachment and Street Industries oversees the marketing function.



The T750 caught the interest of utility contractors who see the machine as a solution to one of the biggest problems with conventional street opening methods - what to do with the waste material. Because the T750 grinds asphalt and reinforced concrete into a fine aggregate and backfills the trench as it progresses, there is no need for off-site disposal.

The attention grabbing M760 mulcher.

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# Tigercat Down Under

## Two years down the track...

**Just over two years ago Tigercat Industries, through newly appointed dealer Forest Centre Pty. Ltd., entered the Australian market...**

It was Tigercat's first step outside of North America. Armed with extensive factory training and an Australian-based parts



Tigercat 635 hauling a load uphill.

warehouse, Forest Centre went about finding their first Tigercat customer.

Initial single-digit sales targets have long since been exceeded with the Aussie

machine population soon to edge past the 15 unit mark. The products of initial focus were the H845B harvester and the 630B skidder. The 845B feller buncher mated to the 5700 disc saw and more recently the 635 skidder added some depth to the product range.

The H845B machines have all been fitted with various Waratah harvesting heads for harvesting or processing of both Eucalyptus and pinus. Radiata species. This combination has proven most successful in these trying conditions where heavy limbs and tough bark account for most of the challenge.

Australian loggers' experiences with competing purpose-built and excavator conversion carriers have been unfavourable when it comes to hydraulic cooling and

performance. In the case of the H845B it's a different story. Customers and operators cannot stop talking about the "lack" of oil leaks and cool hydraulic oil temperatures - a welcome change from what they were previously so accustomed to.

Experienced Tasmanian operator Ricky Hampson comments, "I have 1,350 hours on the clock and have not used a single a wrench on it yet. I came off an excavator conversion and initially perceived the 845B as not having enough lift capacity and I also thought the hydraulic and slewing speed of the carrier were too slow but as I settled in, I realized that they were perfectly matched to suit the head. I am experiencing less downtime and higher productivity with the head compared to my excavator because of this match."

The H845B has proven to be a winner in Australia and so it is becoming a popular and highly productive alternative to what was formerly available.

The 630B with its reliability and superior pulling power made a reputation for itself in no time. First sold into a p. Radiata operation, the 630B immediately showed its true (yellow and black) colours, increasing productivity over conventional single skidder jobs. Skidding 3-4 trees where other skidders are only able to pull 1-2 immediately impacts the bottom line, resulting in happy owners.

Also praised was the 630B's speed control lever, which is being used extensively during road clearing and other blading operations. Operator Bryan "Bongo" van der Huel explains, "With a mobile chipper following the initial logging job, it is my task to ensure that the road is cleared of all debris. I am prohibited from damaging the road surface so I have to be careful about the setting of my blade. Matching up the right speed for this operation is just as critical for me and so with the speed

control feature I can set my optimum speed and give my full attention to the blade setting which makes for an easier and neater job overall.”

In Tasmania, where the trees are even bigger than those in mainland Australia, the 630B created the same stir with its incredible grapple capacity and pulling power. It has performed above all expectations.

Anyone who works in this industry knows that no matter how good the iron is, proper support and service is essential. With their Support Plus Programme, Forest Centre has introduced a system which ensures the proper schedule of maintenance, oil sampling and monitoring.

“The program was instigated to aid the machines owners to get the absolute most out of their machines, while still working within the design boundaries,” explains Service Manager, Glen Marley. “An easy to follow, detailed check list for each scheduled service to 4000 hours is incorporated in the Support Plus Manual. The check sheets are in triplicate form. The top sheet is returned to us. The owner retains the

second for his maintenance records and the third sheet stays in the manual to help ensure maximum resale value through accurate service records.”

Every thousand-hour service includes a full machine audit free of charge, conducted by a factory trained service technician. The audit is designed to monitor maintenance procedures as well as machine performance.

The program is free, providing a profitable, open working relationship between Tigercat, Forest Centre, the operator, maintenance staff and most importantly the owner.

This value-added service will go a long way in seeing that the Tigercat products fulfill their initial promise. ■



They grow 'em big down there.

## Robot Technology

Anyone who has participated in an admittedly exhausting Tigercat plant tour understands the strength and depth of Tigercat’s manufacturing facilities.

Affiliate fabricators, MacDonald Steel and Metalfab have recently advanced their technology with three additional dual robotic welding stations. A total of eight robotic welding arms in five stations are operating in all four of the fabricating plants.

The programmable welding robots are enhancing Tigercat’s high standards, while adding speed, consistency and efficiency.

A 630 skidder front chassis formerly took 18 hours to weld by hand. The new dual robotic weld centre accomplishes the same task in a mere eight hours. Amazingly, the 55% productivity increase is also accompanied by improved quality.

Tigercat’s machining capabilities permit flexibility and quick modification to prototype work on the fly. It’s all

part of the drive to improve response time to the vast and continually changing demands of forest professionals worldwide. ■

Dual robotic weld station - fast and efficient.



# The Tigercat Drive-to-Tree Buncher

Although predominantly sold in the southeastern United States, Tigercat drive-to-tree feller bunchers are working in the US northeast, the lake state regions and even Chile. In northern Canada, a handful of contractors have determined that for relatively level terrain, wheel feller bunchers are a low cost, effective alternative to track bunchers.

In the past year, Tigercat completely revamped and reorganized the wheel feller buncher line-up. Here's a rundown of what engineering did and why.



## **718. Small, simple, quick, maneuverable** *165 hp (123 kW)*

The primary application of the 718 is plantation thinning and selective cutting. The 718 benefits from the shortest wheel base and the tightest turning radius when equipped with 28Lx26 or smaller tires.

The 718 is derived from the very popular, successful and field proven 720 series feller buncher. Minor hydraulic system refinements and improved heat rejection capabilities are the primary differences between the 718 and its predecessor, the 720B.



## **720D. Powerful, versatile, mid-sized feller buncher**

*174-185 hp (130-138 kW)*

The extended wheelbase of the 720D permits the installation of Tigercat's unique cross-flow cooling system. (See Cross-flow Cooling sidebar at right)

Tigercat's single range, no-shift transmission enables the operator to achieve higher wheel speed in favourable harvesting conditions without sacrificing tractive effort if difficult terrain is suddenly encountered.

The 720D has powerful 174 hp Cummins 6BTA5.9 and 185 hp John Deere 6068T



# Line-up

engine options but retains the feel of a smaller machine. With a tight turn radius and excellent rearward visibility, it's an excellent choice for contractors requiring versatility for thinning and final fell applications.

## **724D. High production machine, compact package**

*200-215 hp (149-160 kW)*

Although the 724D has Cummins 6CT8.3 215 hp and John Deere 6081AF 200 hp engine options and the cross-flow cooling arrangement, it is all housed in the visibility-promoting angled rear chassis, similar to the 720D.

The 724D is a high production final fell machine offering high stability for tough terrain. The heavy-duty front chassis, boom system and 1400 series John Deere front axle are designed to handle large timber applications.

Like the 720D, the 724D is equipped with Tigercat's own single-range transfer case.

## **726B. Proven production; the machine that started it all**

*215 hp (160 kW)*

Rounding out the wheel buncher line-up is the 726 series feller buncher, Tigercat's first product, introduced in 1992.

Simple, extremely durable design, well proven construction, excellent stability and a high capacity fuel tank, position the 726B as the optimal machine for difficult final felling applications.



Cross-flow cooling system on a nearly assembled Tigercat skidder.

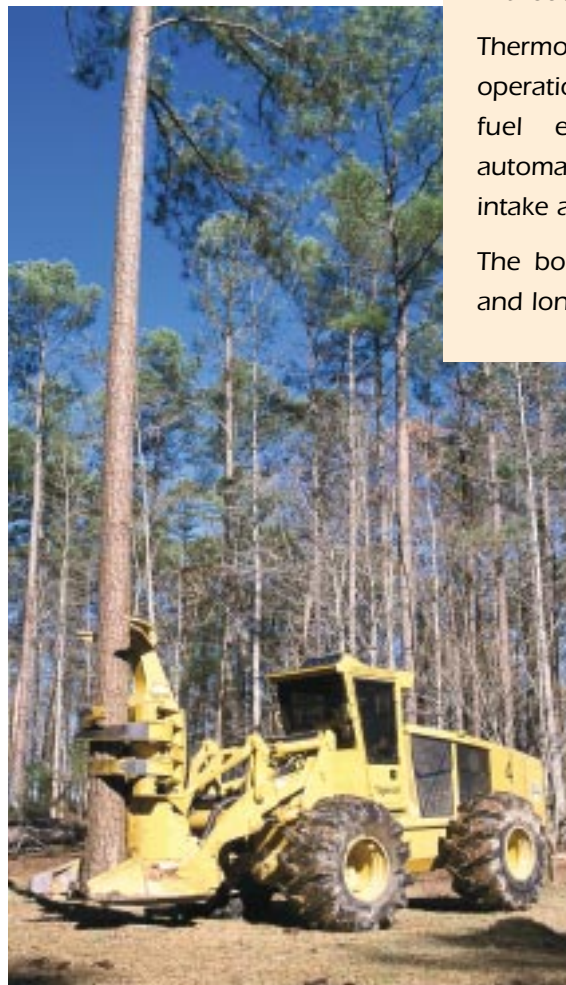
## **Cross-Flow Leaves Engine Fans in the Dust**

Tigercat is turning to hydrostatically driven cooling fan systems across a number of product lines. The fan and engine are isolated from one another for improved cooling capacity and a cleaner engine compartment.

The operator is able to purge the heat exchangers without exiting the cab, resulting in less debris build-up. The positioning of the coolers improves cooling capacity compared with standard arrangements because cool air is blown directly over the coolers without obstruction.

Thermostat control automates all fan operations. Variable speed to optimize fuel efficiency and cold starts; automatic purge function to keep the intake area free of debris.

The bottom line? Higher productivity and longer component life.



The 724D is a large timber final fell machine.

With a clear line of sight to the rear, the Tigercat 718 is right at home in tight selective cut applications.

Brian Schonberg, President of Street Industries said, "In the initial stages of development of this product, I knew that it would create interest at CONEXPO, but I did not realize that interest would be this great. We had people from all over the US, Canada, Europe and even Tahiti inquiring about it."

The M760 mulcher, another niche machine, also attracted heavy interest from right-of-way and commercial land clearing contractors. The machine mulches heavy brush, blow-down, standing trees and stumps, leaving behind a coarse mulch.

Both the M760 and T750 carriers were developed from the successful and woods-proven line of Tigercat wheel feller bunchers. The applications are extremely stressful on the structure of the carriers. Cooling and horsepower requirements are significant.

Robin Barker, Product Manager for the Tigercat wheel feller buncher group states that, "There has been a continual stream of inquiries about getting a mulching machine with the quality of our wheel feller buncher." Benefits of the M760 include a 425 hp Caterpillar C-12 engine, variable speed hydrostatic transmission with a unique travel speed control lever and a high

capacity cross-flow cooling system.

The M760 also created interest due to its attachment — the FECON Bull Hog BH350H. This fixed tooth mulching head has performance and safety features over vertical shaft cutters. As land clearing requirements continue in urban areas throughout North America, FECON's guarded horizontal drum virtually eliminates the errant spray of debris, instead discharging directly in the path of the M760.

Tigercat sees both the T750 and M760 as a continuation of its commitment to producing premium quality products.

"Tigercat is approachable for developing new products based on our existing line of equipment," comments Barker. "We have been successful in our established field because of our ability to quickly react to current trends."

While attracting both new customers and distributors to the booth, Tigercat representatives were pleased to recognize many old faces. Tigercat President, Anthony Iarocci said that he was pleasantly surprised to see "so many of our existing Tigercat customers and dealer people from our forestry equipment line." ■

## New Dealerships

The Tigercat dealer network is continually expanding. In an effort to fulfill the demand for Tigercat equipment, Tigercat Industries appointed **Vkran**, Russia in Moscow and St Petersburg; **JV Arkaim** for Asiatic Russia; **St. Joseph Equipment** of Duluth, Minnesota; **Vines Equipment**, Glenwood, Arkansas; **Boman Industries** based in Salem, Oregon and **Rocan Forestry Service Ltd.** for the province of Newfoundland.

Forestry veterans, **Parker Pacific** will be distributing Tigercat equipment out of several branches across the British Columbia mainland and Vancouver Island.

**G&S Equipment** of Prattville, AL is opening a second store in Moundville, just south of Tuscaloosa.

**Tidewater** is opening a new store in Starke, FL.

To learn more about Tigercat's new distributors, visit the Tigercat website at [www.tigercat.com](http://www.tigercat.com) and link to the dealer sites through the Tigercat Dealer Locator.

## New Ownership

Former Tidewater Branch Manager, Stony Gilmore is embarking on a new venture as store owner. Stony has purchased the Tidewater Equipment store in Washington, Georgia and renamed it ForesTrac Equipment Services Inc. We, at Tigercat, wish Stony and his staff all the best and hope that they will experience continued success as a Tigercat distributor.

### ForesTrac Equipment Services Inc.

1310 Lexington Rd.

Washington, GA

30673

Phone: (866) 886-5903 or (706) 678-3275

Fax: (706) 678-4803

Email: [sgilmore@nu-z.net](mailto:sgilmore@nu-z.net)

Remember to check the Tigercat website for the most up to date products, press releases and dealer contact information. [www.tigercat.com](http://www.tigercat.com)



# South Carolina Logger Elated with New Tigercat 822 feller buncher

Excerpted in part from Timberline Magazine, February, 2002

J. C. 'Jimmy' Witherspoon, Jr. logs in eastern South Carolina. That's the short of it. Jimmy owns and runs a large and diverse logging business and two other enterprises as well.

The logging company, J.C. Witherspoon Jr. Inc., employs 62 people in a number of applications including thinning and chipping plantation pine, harvesting of hardwood timber and cut-to-length harvesting of mixed hardwood and softwood stands.

In addition, Witherspoon owns Jimmy's Trucking, Inc., which provides hauling services as well as Witherspoon Forest Products Inc., which focuses on buying timber to be harvested by the logging units.

A busy man, Jimmy sometimes works 100 or more hours per week. The 46-year-old businessman knows a lot about logging, having started going to logging sites with his father when he was just five. His love for the land and the industry stuck, as he has been logging full-time for 27 years.

Recently, Tigercat Industries tapped some of Jimmy's substantial expertise in logging. Ben Twiddy, District Manager for Tigercat in South Carolina, said that Jimmy's experience with zero-tail swing has made him a good person to consult about the design of the new Tigercat model 822 feller buncher. "Jimmy is one of the most mechanically inclined loggers I know," said Ben. "I feel confident if the 822 meets his approval, it will serve the industry well."

Jimmy was invited to a Tigercat engineering facility to meet with Grant Somerville and John Kurelek, the engineers responsible for designing the 822 feller buncher. The result of the informal collaboration speaks for itself. Jimmy now has a prototype 822 feller buncher in service on a thinning job. He bought the machine from Tidewater Equipment Co. in Conway, S.C., the same distributor that sold him some of his other Tigercat equipment. Jimmy's Tigercat 822 is



the first to be put in operation and only the second one made by the manufacturer.

The new Tigercat 822 has met Jimmy's highest expectations. "With new products there's always a little bit of a learning curve," said Jimmy. "Straight out of the gate, it's been ready to go. We are tickled to death with it."

Jimmy put the Tigercat 822 to work with a crew that conducts thinning and chipping operations. The machine works in tandem with a Tigercat 720 series feller buncher. The thinning crew uses the wheel cutter to make rows. Then the 822 goes to work, operating in the rows to make select thins. The operator "can pick and choose trees he wants," said Jimmy.

The Tigercat 822 is effective in select thins and cuts because it has good reach. With no tail swing, it minimizes damage to residual trees. Zero tail-swing is an important feature in a machine "whenever space is real tight," noted Jimmy. Coupled with its strong, efficient performance, the new Tigercat 822 is equipped with a host of amenities and features. Jimmy particularly noted the machine's cab. "It is very spacious, very comfortable, and visibility is real good," he said.

Steve Brock operates the Tigercat 822 feller buncher for J.C. Witherspoon Jr. Inc.

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“I’ve been rather proud of the machine,” said Jimmy. He’s not the only one solid on the 822. “The operator made the comment that if I got rid of the machine, he’d have to go with it,” said Jimmy.

The Tigercat 822 is “operator friendly,” according to Jimmy, and workers can get acclimated to it quickly and learn how to use it efficiently. The machine’s [ER] boom system is the big reason. “Both booms work off one lever,” explained Jimmy.

The operator can extend and retract the boom on a horizontal plane by moving one joystick; joystick controls are ergonomically positioned in order to minimize operator fatigue. The boom also reduces energy consumption because an Energy Recovery system transfers power between the main and stick boom functions. Tigercat has a patent pending on the ER boom system.

Jimmy also has an ER boom on his Tigercat 860 feller buncher that the hardwood crew uses. Running the Tigercat 860, which is mounted on tracks, Jimmy got to know the ability of the ER boom well before he bought the 822.

The hardwood stands are “high graded,” said Jimmy. Oak and gum are the dominant species on the hardwood tracts. Logs from the hardwood stands and mixed stands are sold to one of several sawmills in the region. Bark and residue goes to grinders.

Similarly, everything the thinning crew takes out also becomes a product, whether it leaves as clean pine chips bound for the pulp mill or ground waste for boiler fuel.

The logging company produces 400-450 combined truck loads per week of tree-length wood, cut-to-length wood, boiler fuel and chips. Cut-to-length harvesting accounts for about 15% of the company’s production.

Jimmy believes Tigercat made a good move in putting a Sisu engine in the 822



The Tigercat 822 with ER boom system quickly reaches out to harvest a tree.

feller buncher. “The fuel economy has been good,” he said. (According to Ben, Tigercat will soon offer buyers a choice of Sisu or Cummins engines on the 822.)

The 822’s retractable engine house enclosure gets especially high marks from Jimmy. It is very important that the cooling system is “remote mounted” and has a “reverse fan,” he said, because the arrangement maximizes the “purging capabilities” of the engine. Debris tends to flow out and away from the heat exchangers. The engine is very easily accessible for service thanks to a hydraulically operated enclosure.

Jimmy has found in his experience that the track-mounted Tigercat 822 reduces impact on the forest floor, preventing compacting and rutting. The debate between tires versus tracks will probably continue. Most loggers make a choice based on the type of substrate they regularly encounter and the performance they observe from tires or tracks.

Along with the foundation he has built his business upon, Jimmy readily adds that his relationships with others are key to his success. One thing that has made Jimmy’s work a bit easier is his relationship with one of his major equipment suppliers. “Tigercat has been very, very supportive,” he said. ■

Incomparable service access.

# Reflections on the ER Boom

## Efficient reach, easy reach, energy recovery: Set to revolutionize tree harvesting

Tigercat has developed a new boom system called ER that promises to bring revolutionary improvements to tree harvesting not seen since the invention of the high-speed disc saw 20 years ago.

Alberta, Canada has a relatively high concentration of feller bunchers equipped with ER booms. Three contractors offer their opinions and findings. Their machines have been thoroughly tested, having spent the winter months in double shift operation.

Some background... Conventional boom systems are fundamentally inefficient at tree felling because two arcing motion functions must be mixed to achieve the desired reaching motion. (View a short animated movie at [www.tigercat.com](http://www.tigercat.com), illustrating this)

Conversely, the patent pending ER boom system allows the machine operator to extend and retract the boom on a horizontal plane smoothly and quickly using a single joystick. The stick boom or “reach” joystick controls both the main and stick booms simultaneously, resulting in the attachment moving either away from or toward the operator.

Fred Frolov, owner of Lov Logging in Plamondon, AB elaborates. “Picture a machine that is controlled with a virtual glove rather than joysticks. You reach your arm out and grab the tree. This machine is as close to that as we can get at this time. The interface between operator and machine, using one joystick, is excellent.”

The main boom and tilt functions operate in the traditional manner to adjust the height and angle of the attachment.

Important advantages of the ER boom system include improved fuel efficiency, increased production and reduced operator fatigue. Training new operators should prove a far less daunting task.

“The operator no longer has the mentally tiring job of simultaneously working the boom and stick controls to manipulate the attachment in and out in a smooth manner,” comments Grant Somerville, head of Tigercat’s track carrier engineering group.

“We have been testing the ER boom for over a year now and find the operators adapt almost

immediately to the ER, even in cases where we hadn’t explained to them that the boom operates differently.”

Felix Tchir, owner of Tchir Forest Products in Lac La Biche, AB purchased an 860 ER in January 2002. “This is the tool for training new operators,” says Felix. “The training period will be shortened and damage minimized.”

Key to the technology is reduced energy consumption. The ER system transfers energy back and forth between the main and the stick boom functions, reducing the total energy needed to move the boom system. This translates to reduced demands for power, pump flow and system cooling.

Operators who have spent time on ER machines comment on the speed, ease of operation and smoothness of the boom as well as the extra horsepower available for other functions and faster saw recovery.

“Best thing since sliced bread,” quips Terry Corey of Crater Enterprises in Grande Cache, AB. Terry has rotated all of his operators in the machine. All have commented that at the end of the day, they feel better.

Terry theorizes that the ER boom has improved saw performance because it achieves a more parallel cut. “The boom does not arc up or down and load or bind the saw blade,” says Terry.

“Give someone five minutes on an ER felling machine and he will never again choose a conventional one,” says John Kurelek, veteran forestry equipment designer. “We old time logging machine designers now have to apologize to loggers. For lack of this innovation, we have kept them using energy wasteful and difficult to run booms.” ■

An 860 feller buncher equipped with the ER boom and 5400 felling saw.



# Editorial

The patent is a complicated issue. We all know the value of the patent. Simply put, patents encourage innovation by rewarding the hardworking inventor or expensive R&D effort with a financial incentive - some future protection against interlopers if you will.

On the other hand, patents have gotten some negative press in the past few years, especially with respect to the drug companies. To the consumer, prescription prices often seem wildly inflated. It's difficult to distinguish whether drug companies are taking advantage of the law or using the law as it was intended to recoup the great cost and risk involved in developing and marketing new drugs.

Tigercat holds a number of patents and currently has patents pending as well. Big players in our market - in any market - will try to work around patents to get a piece of the action. Some might argue that this is good for the consumer because it prevents monopoly pricing and encourages competition. Unfortunately, it also discourages innovation. This is not good for the consumer.

Tigercat's first experiences with patents concerned the bunching shear, initially released in 1994. Later, the Tigercat 5000 and 5600 bunching saws were based on a similar concept.

Tigercat bunching saws and shears accumulate trees in parallel alignment in an offset pocket. This patented design was quickly copied by several of our competitors.

According to Tigercat Attachment Product Manager, Duane Barlow, "Some of our competitors, losing market share due to the superiority of Tigercat's design, proceeded to copy it - even to the point of incorporating reinforcement plates added by Tigercat due to a drawing detailing error."

No great disservice was done to the logging community, right? Now the logger could get the best type of felling head on the feller buncher make of his choice. But wait...

What our competitors did was wrong with respect to patent law. The competitors subsequently were compelled to change the design of the copies to maneuver around the patent.

One of the companies in question now claims that this modification is a design feature, meant to improve accumulating ability. We've heard otherwise from the field.

Unfortunately, if the "knock-off" felling head is purchased, not only is the customer receiving an inferior product, but because it is assumed that the two competing heads are virtually the same, (they look very similar) it actually ruins the reputation of the Tigercat head that works correctly.

It should be noted that the inventor of this felling head design has been performing pioneering work in the forestry equipment industry for over 50 years. Further note that our competitors had struggled with the problem of achieving good bunching properties for years. Tigercat came on the scene in the early nineties and accomplished in a few years what no one else had figured out in twenty.

Another interesting observation is how drive-to-tree feller bunchers made by different manufacturers have grown to look so similar over the past five years. The Tigercat feller buncher that once stuck out like a sore thumb at southeast US logging equipment shows now shares a surprising number of design features with competitive machines. Who set the standard? Who subsequently conformed to it?

To conclude, Tigercat has another innovative new product development in its stable along with the accompanying patents pending. In this *Between the Branches* issue, you will read about how the ER boom is improving productivity and reducing fuel consumption. How long will it be before the competition picks up on this development?

I suppose it depends on how much of a threat to track feller buncher market share 'ER' is perceived to be. Feedback thus far indicates that the ER boom may be the most significant innovation to hit the forestry equipment industry since the advent of the high-speed disc saw. Time will tell...

- Paul Iarocci, Editor

#### Tigercat patents:

US	5,697,412	CAN	2,143,155
	5,794,674		2,209,063
	5,931,210		2,090,319
	6,152,201		
	6,196,106		
	6,363,980		

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