

OFFICIAL PUBLICATION OF TIGERCAT INDUSTRIES INC.

BETWEEN THE BRANCHES

the

Bom Dia Tigercat

Tigercat recently made history in Brazil with the extremely successful delivery of its first logging machine in this country.

Imported as an 1800i track loader, the machine included the Tigercat 1800i operator and the Tigercat 180i skidding harrowing head. This allows the operator, throughout the flexibility of working the machine as a feller buncher or harrower.

The unit was initially set up as a harrower and successfully put to the test. Personal operators put the machine through its paces in the hilly and bushy of São Paulo's green hills.

Final jobs a logging operation forest located inland with 2 x 2 in (5.1 x 5.1 in) 8.3 or 9.5 in (21.1 or 24.1 in) spacing. Machine harvests around 1000 m³ per day in open areas with yields ranging from 180 to 200 m³ per day (1.77 - 2.76 tons). The 1800i feller buncher was used to harvest trees reaching heights of 25 to 30 m (82.7 to 98.4 ft) with 10 cm (4 in) average diameter and average volume of 0.13 to 0.23 m³.

Each operator's first task was to cut and to be large accumulating over the 1000 acres are commonly compared to the size they were used to felling with. Quickly accustomed, the operators were soon accumulating 7 - 8 trees in a single hour.

With superior reach and 180 capacity compared with other machines, the operators were able to harvest together with a new range of work using the track drive as the design that they are used to. By day 5, the operators were collecting a full truck which was up to 9 - 11 tons. Harvest operations were collecting 14 tons within working the track.

As the days went on, the operators were surprised by smaller, cheaper machines? To justify the additional cost of the machine had \$2.5 to save machine. This was achieved in the first hour of use. The first hour of use is commonly about 1000 m³ per day.

Each operator's first task was to cut and to be large accumulating over the 1000 acres are commonly compared to the size they were used to felling with. Quickly accustomed, the operators were soon accumulating 7 - 8 trees in a single hour.

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FROM THE *Editor*

A couple of milestones to acknowledge. First, as of January 2024, Tigercat Industries has built and shipped its 30,000th machine. From humble beginnings in 1992 when Tigercat had a single product, very little dealer representation, and produced just a handful of machines, the company has grown steadily, expanding both its production capacity and product breadth.

Today, Tigercat has the most complete full-tree product line-up in the industry, along with a growing range of CTL systems and harvester/processor heads. The company is developing a line of material processing products, including chippers, grinders and the carbonizer. The development of cable logging systems is cementing Tigercat's reputation as the go-to brand for steep slope harvesting solutions.

Bumping along the road, following all this growth and innovation, and telling the stories of how loggers and other contractors use the machinery to earn a living, is the official publication of Tigercat Industries. Between the Branches, first published in 2001, hits issue number 60.

This 60th issue is packed full of content. It is focused on technology and how it is improving every aspect of life in the forest including training, safety, productivity and machine uptime. But more important, it is focused on the people that apply the technology.

Jorge Victoria provides a spotlight on Chilean forestry with two features – a large scale load and haul contractor, and a harvesting company that is doing the most to leverage technology and information systems with the aim to improve productivity and safety in the plantations.

We cover a Tigercat simulator delivery to a remote northern community and learn how the school district is rethinking the ways in which it prepares young people for the job market. Read the stories of two young, accomplished processor operators, Sabrina Cantu and Amy Tourand as they relate the joys and challenges of learning the job and working in the front lines of the forestry industry.

A large Michigan contractor tells us how he got his start in logging and relates the importance of self-propelled Tigercat loaders to his woodyard operation. In the American south, we take a deep dive into the transition from pull-through delimiting to roadside processing, with perspectives from three different contractors.

Many things have changed as Tigercat progressed from a prototype in 1992 to 30,000 machines and counting in 2024. The steadfast focus on innovation and customer satisfaction, however, has always remained constant.

– Paul Iarocci

COMMUNICATIONS MANAGER AND
DEALER DEVELOPMENT

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Increasing Worldwide Product Support

Tigercat adds five product support representatives to the field team in Tigercat's ongoing efforts to provide the best after-sale support in the industry.

Tigercat welcomes Nick Whitman from Arkansas, Marcelo Antonio Pinto Goth from Chile, Chris Campbell from British Columbia, Travis Martin from Alabama, and Larry Nelson from Michigan.



Nick Whitman

Alabama, Mississippi, Louisiana, Texas, Oklahoma, and Arkansas

Nick has a strong technical background with over nine years of experience working on heavy equipment as a technician and supervisor.

"I am grateful and thankful for the opportunity to grow and develop with an industry leader. Tigercat's reputation for quality and service precedes it," says Nick. "I look forward to supporting this culture of value and innovation."



Marcelo Antonio Pinto Goth

Chile

Marcelo comes with a wealth of forest industry knowledge and technical expertise. He has eighteen years of direct experience with forestry equipment and a further sixteen years as a heavy equipment technician in the construction machinery sector.

"Marcelo is a well-known person in our market with excellent experience across different products and brands. He has a strong understanding of what customers are looking for, and the importance of good maintenance practices in order to achieve high machine performance and long life," says factory support representative, Pedro Venegas.



Chris Campbell

British Columbia

Chris has a decade of experience as a Red Seal Field Technician. His expertise in heavy equipment makes him a valuable addition to the team.

"Chris brings a high level of technical knowledge and experience to his role that will greatly benefit both the dealers and customers," says previous PSR for BC, Mark Tourand.

Chris is excited to be part of a team that is committed to building and supporting the best forestry equipment in the world.



Travis Martin

Alabama and Mississippi

Travis is a seasoned field service technician with over 25 years of experience in heavy equipment, ranging from forestry to railroads.

Travis is excited to return to the forestry sector and apply his expertise to support TigerCat’s customers in the southern US. “I am thrilled to return to my roots and immerse myself in forestry once again.”



Larry Nelson

Lake States, Appalachia, and Mid-Atlantic US Regions

Larry brings over ten years of experience in the heavy equipment industry.

District manager Jerry Smeak expresses his enthusiasm for Larry’s addition to the team stating, “It’s a pleasure to add Larry Nelson to the TigerCat family. I’ve worked with Larry for many years and have found him to be a competent, customer-focused individual. I’m excited to watch Larry grow and succeed in his new career with TigerCat.”

To read the full news release on each product support representative visit www.tigercat.com/news ■

New Sales Specialist for TigerCat AB in Sweden



Magnus Eklund

TigerCat AB welcomes Magnus Eklund as the new sales specialist for central Sweden.

Based in Borlänge, Magnus will work closely with service and sales manager Stefan Pålsson to support the growth of TigerCat’s cut-to-length product line.

Magnus is not new to TigerCat as he previously worked at TigerCat AB’s head office in Hede until 2010. With over thirteen years of sales experience, Magnus brings a wealth of knowledge to his new role.

Matt Roberts, TigerCat sales manager for Europe and Russia, is thrilled to have Magnus back on the team. He believes Magnus’s experience and background will serve the customers very well. Magnus looks forward to working with current and future forestry customers. ■

District Manager Promotion



Aaron Piper

Aaron Piper has accepted a new position as district manager for the states of North Carolina and Virginia.

Already a familiar face to Tigercat dealers and end users in the region, Aaron is based in Sunbury, North Carolina and has played a key role as a Tigercat product support representative (PSR) for the past nine years. He will remain heavily involved in product support and will expand his role with district manager responsibilities, including commercial dealer support and development.

“Aaron will continue to work with our dealers and customers to build on and expand our strong position in the area,” says US sales manager, Kevin Selby. “We are excited for Aaron and we are confident in his abilities to successfully manage and continue growing the area for Tigercat. We look forward to working closely with him in his new role.” ■

Product Support Changes in Canada



Mark Tourand

Mark Tourand, who has been part of the Canadian product support team since 2018, has relocated from British Columbia to St. Albert, Alberta. Mark will continue to provide outstanding technical support to the dealer network in his new territory including Wajax in Alberta and Manitoba, Redhead Equipment in Saskatchewan, and Torgerson’s in Montana.

Service director Martine Léveillé extends best wishes to Mark as he steps into his new territory. “Mark has shown great dedication and skill, and we are confident he will continue to add value to our organization and our dealer partners.”

District manager James Farquhar comments, “Mark brings not only years of Tigercat technical expertise but a lifetime of mechanical background. Mark has hit the ground running – supporting, training and mentoring technicians throughout Alberta, Saskatchewan, Manitoba and Montana. Our customers and dealers will benefit from his support and knowledge.”

Mark is excited about his new territory. “I am looking forward to supporting the Tigercat products, our dealers, and our loyal Tigercat customers in the area.” ■

TCi IN ROMANIA



The Alser Power SRL team with Albert Serban positioned front-centre.

Alser Power SRL represents TCi brand throughout Romania.

Alser Power SRL based in Braşov is now representing the TCi equipment brand at the national level in Romania. Founder and director general, Albert Serban spent many years investigating and consulting on forest practices in Europe and Asia. Recognizing the strong potential of the Romanian forest industry, he founded Alser Power SRL in 2008. The company has grown into one of the largest forest equipment dealers in Romania, focused on strong customer support.

The ability to offer the TCi range of steep slope harvesting systems in

Romania represents another great step forward in meeting customer requirements and expectations. “All your life you learn, and opening your eyes you can realize that sometimes you do not see the forest because of the trees,” says Albert. “Romania is one of the European countries with the most difficult forest harvesting conditions. 60% of our productive forests are located in high slope mountains with poor forest road density, and 60% of the tree species are beech and oak with an average diameter more than 60 cm. For such conditions no machine can beat a strong grapple skidder, and a strong directional

felling head on a tracked carrier which can do both felling and shovelling operations.”

Matt Roberts, Tigercat Industries sales manager for Europe comments, “The forest harvesting conditions in Romania are very similar to many of the steep slope applications our products are well proven to excel in. We are very pleased to be working with such an innovative organization as Alser Power SRL, and we look forward to providing reliable and productive harvesting solutions to the Romanian forest industry.” ■

SPARE PARTS RESPONSIVENESS



Tigercat opens west coast parts warehouse facility to improve responsiveness, decrease lead times and extend spare parts operational hours into Pacific time zone.

Tigercat Industries has opened a new 3 250 square metre (35,000 square foot) parts warehousing and distribution facility in Kelso, Washington with a current stock of inventory valued at \$3.5 million.

“We are excited about opening the western warehouse for many reasons,” explains Tigercat parts manager, Brian Jonker. “To have inventory closer to our western dealers and customers will reduce both downtime and freight costs. To be able to potentially service any customer for an extra three hours

of the day is also a benefit to the entire Tigercat network.”

Tigercat’s increased footprint in the Pacific northwest demonstrates ongoing financial commitments from Tigercat to grow its support capabilities and improve the customer experience. ■

LETTER TO BTB

My six-year-old son Parker loves the Tigercat magazine and calendar. His Grampa gave him his copy of the magazine and calendar. It makes great reading material during breakfast time.

Thanks,
Morgan



A little light reading for Parker this morning during breakfast.

Thanks Grampa for the Tigercat magazine and calendar

STEEP *Slope* ADVANCEMENT



Tigercat Debuts New LS857 at OLC 2024

To much fanfare, Tigercat unveiled the prototype LS857 shovel logger at the 2024 Oregon Logging Conference.

The new machine that will further advance steep slope harvesting was the most talked about new offering at the show by a wide margin. Based on the immensely popular and successful 855E platform, the LS857 shovel logger represents a reimagining by

Tigercat designers of what a steep slope carrier should look like.

The result is a machine with more leveling capability, superior cable management in winch assisted applications, and a series of design enhancements including increased boom lift and improvements to service access. The switch to in-tank hydraulic filters improves filtration and extends service intervals, and

the shape of the fuel tank increases usable volume.

The prototype was equipped with Tigercat's new live heel feller-director boom set. This new boom system is the best of all worlds with nearly 11 m (36 ft) reach, a live heel for added utility, and the versatile and highly productive 5195 directional felling saw pinned to the end of it. ■

New Mulching Head

FOR FIRE MITIGATION

Tigercat releases mulching head for swing carriers in response to fire mitigation equipment requirements in western North America.

Wildfire is proving to be one of the greatest challenges facing foresters, landowners, governments and environmental organizations in the 21st century. The summer fire season over the last several years in North America has devastated millions of hectares of forest land, destroying wildlife

habitat and carbon sinks, while releasing massive amounts of carbon and particulate matter into the atmosphere. Excessive fuel build-up on the ground is having a devastating effect.

Tigercat recently released a mulching head designed to mount on a Tigercat LX830E carrier. This machine can tackle steep slopes and operate within dense stands to reduce build-up of woody debris as a mitigation measure to guard against future wildfires.

The new 4161-15 head has a 1,5 m (59 in) mulching swath, 130 degree wrist pivot, and a pin-on rake for added utility.

Like all Tigercat mulching heads, it is strength-to-weight optimized and fitted with large bearings.

Many of the components including the bearings, sprockets, seals and timing belt are common to the Tigercat 4061 series mulching heads and thus field proven. Hydraulic hoses are routed through the open tip boom into the top of the wrist, providing excellent protection. The replaceable wear liner is field serviceable. Removable covers allow easy access to all service points. ■

Scan to watch video



The LX830E carrier is powerful, compact and extremely capable on steep terrain.

NEW *Triangulated* HARVESTING HEAD



Tigercat adds fifth model to harvesting head line-up with the new three-wheel drive 573.

In late September 2023, visitors to the PLC live demo event held in Washington state got a sneak peak of the new Tigercat 573 harvesting head processing logs on the end of a Tigercat 875E logger. Since then, multiple units have been testing in far flung regions from Alberta to Australia and the results are in. The 573 is shaping up to be a high performing, reliable head for roadside processing and harvesting.

Best suited to medium and large tree profiles, the 573 has a 800 mm (31 in) maximum cut capacity and offers optimal performance in 400-600 mm (16-24 in) diameter timber. The feed rollers close to 60 mm (2.4 in), allowing the 573 to smoothly delimb and process smaller diameter trees and thus achieve higher value fibre recovery.

The compact frame design deftly

handles poor stem form and contributes to tidy delimiting performance. The triangulated feed wheel arm configuration operates in locked three-wheel drive. This, combined with timed knife arms, provide the operator with fast picking and positive stem control for high productivity in roadside processing applications. Independently mounted, trailing-arm length measuring ensures reliable tracking and accuracy.

The top knife and lower/back knife pivot on the same side of the chassis frame, aligning the position and flow of each stem centrally through the head. This arrangement promotes positive contact with all three feed rollers and the measuring wheel at all times. The result is better quality and accuracy, reduced fuel consumption, and greater processing speed. The

orientation also provides the operator with a clear sightline to the measuring wheel.

The 573 is standard equipped with continuous rotation for ease of use and superior hose routing and protection. Quick, stable WiFi connectivity between the cab and attachment modules reduces wire routing along the boom and provides excellent command response.

The Tigercat D7 control system is available with Priority or Optimization levels and is fully compatible and compliant with StanForD Classic and 2010.

The 573 is a great fit for the H250D, 850 and 875E for roadside processing applications and the H822E and H855E carriers for in-stand harvesting. ■

Becoming a **DISTRICT MANAGER**

– Chris McMillan

High level customer service sets Tigercat apart from its competitors.

It's common to see locally-based factory representatives along with factory-based customer service staff and engineers in the field visiting customers to address issues and collect feedback to improve future designs.

When Tigercat introduced the 726, and later the 720 drive-to-tree feller bunchers, the machine population was focused in the southern US. Early on, district manager Don Snively covered a swath of territory from Virginia to east Texas. As the machine population grew and Tigercat expanded into new markets, field support staff also expanded.

Rob Selby started with Tigercat as an engineering co-op student in 1994, around the same time that the prototype 853E feller buncher was being developed. Rob worked on the hydraulic layout, component sourcing, as well as the first fire suppression system for the new track buncher. Having worked at his father's trucking company when he was younger, Rob had his A/1 licence, and on occasion, he drove the Tigercat truck to deliver machines to the southern US.

Robert Selby, district manager – western North America.



Working for a small and young company, Rob had plenty of opportunity to get out to the floor and help with the assembly process. “In the early days I was able to spend some time working in the shop. Some of the old Tigercat veterans made it fun to come out from the office and stay late to help build the machines,” says Rob. Being familiar with the hydraulic layout on those early machines, Rob would assist in troubleshooting issues and travel to machines in the field when necessary. That knowledge helped Rob develop into a service manager role, a position he held for a year-and-a-half.

Go west young man

By 1997 sales of the 853E were increasing in BC, and the 845 feller buncher and 630 skidders were gaining popularity. The need for dealer development and customer support in the west became apparent, so Rob was asked if he would be interested in moving to British Columbia to be the western Canada district manager. He and his wife Dayna were newly married. Rob recalls, “Ken, Tony and Grant came to our wedding, and they were trying to float the idea to Dayna about moving west, while at the same time trying to recruit my brother [Kevin Selby] to come work for Tigercat.” Rob and Dayna decided to accept the offer and move to Kelowna, BC.

District managers represent Tigercat in the areas of service, sales and marketing, and provide a direct link between the dealer network and the factory. They also support and assist field service technicians and factory representatives whenever necessary and work with dealers on marketing and trade shows.

Rob was responsible for product support from Manitoba to BC. As the company grew, machine sales increased across Canada. In addition, long before Tigercat had established a dealer presence in the western US, used Tigercat machines were being sold south of the border. Rob recalls, “The US started to grow, even before we did anything official. We had some used machines resold into the US. There are a couple of customers I know in California and Oregon that we have a long relationship with because I went down to visit them before we even had dealers there.” Eventually, it was too much territory for one individual to handle alone. In 2000 James Farquhar made the move from service manager to district manager, taking over Alberta, Saskatchewan and Manitoba.

Dealer development

Today, Tigercat has strong dealer coverage in western North America with Inland in BC, Triad in Washington and Oregon, and Bejac covering California, Nevada, Arizona, and Utah. Rob comments, “Dealer development can be tricky. When we have dealers that carry other manufacturer’s products, we need to see how we fit into their offering and try to get the most out of them, but also make sure that we are doing our part in treating them fairly and making it easier for them to represent our products.”

He continues, “Our relationship with our dealers is important. With some of the specialty products we have now like yarders, grinders, and the carbonizer, we need to figure out how they fit in and how they will be supported. I’ve been doing this for many years, and it is still challenging and interesting for sure.” ■



Rob frequently accompanies dealers and customers on Tigercat factory tours and spends time at trade shows and other industry events.

VIRTUAL TRAINING IN ALBERTA



Andy Driedger, owner of Garden River Logging Ltd. (seated) takes the processor simulator through its paces. Philip Unrau, CEO of FTEN Group of Companies at left, along with Gregor Scott from the TigerCat electronic systems group, and forestry consultant, Jon Goertzen at right.

In early March Irfan Zardadkhan and Gregor Scott from the TigerCat electronic systems group, and district manager James Farquhar travelled to the remote community of La Crete, Alberta. Their mission was a TigerCat simulator start-up.

– Paul Iarocci

Millions of cubic metres and a significant portion of Alberta's annual allowable cut is harvested by contractors based in the northern Alberta community of La Crete. In addition, many highly skilled machine operators from La Crete have fanned out across the province and beyond to work in the logging industry. It made sense to me that such a place would have need for a highly realistic virtual

operator training system for forestry equipment. However, it was a surprise to learn that the simulator system was not delivered to an area contractor or a community college but to the Fort Vermilion School Division (FVSD).

I also didn't realize that I would travel to the 58th parallel, 700 km north of Edmonton to be introduced to the most progressive school system I've ever encountered anywhere.

It is the vision of superintendent of Fort Vermilion School Division, Mike McMann who is working alongside La Crete's community and business leaders to rethink and rebuild education with the aim to serve a much greater proportion of students in the catchment and deliver a product that is better aligned with the realities of the job market.

In addition to the communities of La Crete, Fort Vermilion and

High Level, FVSD serves very remote rural regions. For Mike and associate superintendent Karen Smith, the drop-out rate for students aged sixteen and above in these communities has been unacceptably high. The idea is to offer the students high quality programs that are more inclusive and keep kids in school longer. In addition to traditional academics, FVSD seeks to capture and retain students that might benefit from alternate streams, and who in the past may have been lost to the school system altogether.

The new career path oriented program is based on Alberta's collegiate school model, which offers specialized programming in a particular subject and provides a clear pathway into post-secondary education or a chosen career. Key characteristics are formal agreements with post-secondary institutions and the opportunity for real-world work experience.

The last piece is where local business is stepping up. Herman Wiebe, owner of Homeland Industries Ltd. is a successful local logging contractor. He explains that high schools in remote areas are competing against local businesses. "Unskilled kids are leaving school and taking minimum wage jobs. So let's partner with local business and logging contractors to keep them in school and provide a better, more highly skilled, more mature, resilient employee when they do eventually get into the workforce."

The new learning streams that Mike is working on are designed to give kids an edge and FVSD has run with this as an acronym: Explore, Develop, Grow and Experience. Starting in grade six, the children are exposed to various resources to introduce a



Learning to fly. Bryan Rempel, IT specialist at the De Oabeit campus in La Crete is seated next to Irfan Zardadkhan, product manager – electronic systems group (left) as he pilots the school's flight simulator. Ironically, Irfan is an aerospace engineer.

broad range of potential occupations. In grades seven to nine the students begin to develop practical workplace skills. Through grades ten to twelve, the students grow their knowledge in a chosen field. FVSD is aiming to add grades thirteen and fourteen, allowing students time and space to experience a chosen career path, continuing to earn college level and apprentice credits while still in high school. One student might graduate with a diploma and a first-year journeyman apprenticeship under her belt. Another student might be earning college level course credits in grade eleven without the financial outlay associated with college tuition.

Core subjects required for graduation like math, English and science are taught at the local high school. Career-specific training occurs at three other facilities in the district. The first Tigercat simulator was delivered to De Oabeit School in La Crete. The new 885 square metre (9,500 square foot) facility includes classrooms, a simulator lab and a full mechanics bay. Similar facilities have been established in Fort Vermilion

and High Level. Additional Tigercat simulators are budgeted for these campuses as well.

Bryan Rempel, IT specialist at the De Oabeit campus in La Crete, has taken ownership in implementing the technical aspects of the program. Bryan showed us around the La Crete campus, and we were all stunned upon entering the simulator lab. Laptop stations with advanced 3D screen technology allow students to rotate, manipulate and dissect objects that appear to be floating in space. In addition to the newly delivered Tigercat simulator were five networked construction equipment simulators, allowing students to work together. For instance, one student could be operating a rock truck while another loads it with an excavator. We tried out a fully immersive enclosed flight simulator for a single engine plane. The realism was enough to induce mild dizziness.

A Class 1 driving school currently aimed at adults provides tuition revenue to subsidize the collegiate student level programs. Students are

learning how to operate drones and in the process are discovering LIDAR technology and other advanced drone applications. In a well-equipped workshop, we saw heavy equipment axles and transmissions in various stages of assembly. Students were working together on the construction of a tiny house, while pursuing individual career paths in design, construction, carpentry, plumbing and electrical trades.

Plans are in the works to develop land upon which to place the tiny houses. It is hoped that this will be another real-world learning experience, exposing students in the equipment operator career path to an actual site development project. A business model will be developed to establish rental revenue – again operated by students. Bryan explains that instead of hypothetical projects, students will develop real businesses. The additional revenue streams will in turn lead to more program development.

“The community in La Crete is extremely impressive,” notes Gregor. “The partnership between the school and the business community is different from anything I know. I was amazed to see how closely local business leaders collaborate with the schools to help future generations learn practical skills that will in turn help the economy of La Crete grow. I saw a clear focus on providing all students with as many hands-on experiences in their coursework as possible.”

For logging business owners like Philip Unrau, CEO of FTEN Group of Companies, the heavy equipment training and machine operator career paths are particularly appealing. Operating harvesting, heavy



Bryan Rempel surrounded by drones. Students are learning how to operate drones and in the process are discovering LIDAR technology and other advanced drone applications.

construction, piling and trucking companies, Philip is grateful for Mike’s enthusiasm and the speed in which he is pushing innovative ideas in education through to implementation. He estimates that somewhere around half of forestry machine operators in Alberta come from La Crete. “This program will have a provincial wide impact,” says Philip.

Expert operators Andy Driedger, owner of Garden River Logging Ltd.

and Willy Neufeld, owner of Northern Timber Management took time to visit the lab during the start-up and ran the simulator, providing Irfan and Gregor with valuable feedback on the new processor and feller buncher programs. “All the machine operators who tried the simulator were eager to provide feedback to help make it better. I have pages of notes,” says Gregor. The simulator development team is constantly improving the programs and attempting to design the most relevant and transferable

course content. Updates are delivered to the simulator units direct from the Tigercat factory through WiFi connectivity.

Jon Goertzen is a forestry consultant who has been working with FVSD and the local logging contractors on provincial government grant applications to fund forestry program expansion. He put in time researching different forestry equipment simulator systems and getting input from local contractors to ensure the program will best serve students while meshing with actual requirements in the real-world job market.

“The goal is to develop competency in forest equipment operations,” says Jon. “Simulators are an essential tool to help develop repetitive motions and to ingrain correct working procedures. Simulators will be combined with shop space for hands-on learning, and multi-use classrooms, providing students with machine operating, maintenance and safety training.”

The forestry machine operator program will be built around Tigercat simulators, starting off with programs for a track feller buncher and roadside processor. The actual machine controls sets can be changed out to switch from one program to another in minutes. All the contractors that visited the lab agreed that the ability to put actual controls in the simulator is one aspect that differentiates the Tigercat product from other simulators. Because La Crete area contractors have standardized processor controls, a student trained on a Tigercat simulator will be acquiring a very portable and useful skillset.

All the contractors we spoke with agreed on the obvious advantages of simulator-based training for their businesses: less wear and tear on the machines, less need to tie up a machine for many hours of unproductive training time, reduced fuel consumption and improved safety on the job.

Jon notes that there are many First Nations communities in the FVSD catchment. “Many of us here in La Crete grew up on a farm. So I’ve operated a farm truck, driven a grain truck, and I have some equipment experience. For someone who doesn’t have any experience, they’re already at a huge disadvantage. Some of the First Nations kids have not grown up with equipment, and you kind of set them up to fail because they don’t have the same type of background experience. It’s a big reason why we want a mobile unit to actually go to

the rural schools.” The simulators help to level out the playing field, advancing the goal of graduating every student in the district with additional credentials to help them succeed in life. “I really care about the local area. I care about kids having jobs in the future,” says Jon. “I have kids, and I have 35 nieces and nephews. We need to have proper training.”

Gregor emphasizes that he is excited to work with the school district and the contractors to help them get the most out of the simulator and to further develop the product. “Kids who complete the curriculum should take much less time to become proficient operators, and it will help kids explore local job opportunities. Plus, our work in La Crete will make the simulator a better product for everyone.” ■



The initiatives of the Fort Vermilion School Division are well supported in La Crete. Many members of the logging community came out to the campus to have a look at the new simulator and provide valuable feedback.

Loads of Success IN MICHIGAN



BTB travels to Michigan to visit Mike Delene, owner of MD Contracting to talk about the reliability and versatility of his Tigercat AC16 carriers for woodyard duties.

– Jorge Victoria

Mike Delene has come a long way since he started skidding logs alongside his father with a dozer and chains at age fifteen. Today, as owner of MD Contracting based in Baraga, he is one of the largest pulpwood haulers in Michigan's Upper Peninsula. MD Contracting is a well-respected company in the area, earning the 2020 Excellence in Trucking Award by the Michigan Association of Timbermen.

Mike manages 30 employees and a fleet of around 50 pieces of heavy equipment. Logging is just a part of what MD Contracting does and Mike has found success through diversification. As one of the largest contractors in the L'Anse-Baraga region, the company is involved in a variety of projects such as sewer and water main construction, road building, sand and gravel hauling, lowboy hauling, and shoreline work on Lake Superior. In winter, the logging work ramps up.

MD Contracting acquired its first Tigercat 234B loader mounted on the AC16 self-propelled carrier in 2017 after a visit to the Tigercat factory with Tigercat dealer Woodland Equipment. One of the main reasons for the purchase was the customizable controls. Mike explains, "When you're 50 years old, and somebody gives you a machine and the controls are different, you're going to say, 'the heck with this.' And that's what my biggest concern was, the controls.

Tigercat knew how to set them up, and it was smooth so I said, yeah, this will work. We'll get one." Today, MD Contracting has five Tigercat machines in its fleet: three 234B loaders mounted on AC16 carriers, an 822D feller buncher and a 625E skidder.

MD Contracting is a family business. Mike's wife, Mina, works full time for the company and does all the bookwork. Their son, Tyler plows snow and scales logs at the woodyard. Daughter, Nicole, doesn't work for the company but married a logger. Mike's brother also helps with the company. To separate family from work, Mike has one simple rule. "You've got to leave work at work and family gatherings is family. I try not to bring up work

at Thanksgiving or Christmas or a birthday party. With family I mean, if you got an issue, don't bring it up at Thanksgiving. Nobody needs to hear it."

Mike credits his father-in-law, Bob Turpeinen, for teaching him the ropes in running a successful logging operation. Bob logged year-round and ran a large chipping operation with many employees. "Way back when I started in business, my father-in-law was a logger, and he was my best source of information as far as how to do things and set jobs up. He actually let me use one of his feller bunchers because he had four of them. That's what I started with," Mike recalls.

Hearing his anecdotes about the old

days makes one realize how much forestry equipment and technology has evolved through the years. Mike's story resembles the many stories of loggers across America – humble beginnings, hard work, and resilience. In Mike's own words: "I used to use a bulldozer and a grapple because I could only afford one machine that would build roads and skid wood. It worked. I used to cut trees with a chainsaw. I just kept working at it. Within two years I had enough money to rent a feller buncher and a skidder and never looked back."

Mike's history with Tigercat goes back to 2003. An 845B feller buncher was the first Tigercat machine he bought, and he had to go all the way to Maine to get

"PEOPLE THAT PRODUCED A LOT OF WOOD WERE RUNNING TIGERCATS, AND I TALKED TO THEM, AND THEY LOVED THEM."

– Mike Delene



The AC16 articulating carrier is designed and built for woodyard duties with powerful tractive effort and durable construction throughout. Tigercat's WideRANGE drive provides quick travel speeds without the need to shift gears.

it. “People that produced a lot of wood were running Tigercats, and I talked to them, and they loved them. So that’s when I looked around for a Tigercat 845. It was used but for being a part-time logger, it worked fine for us,” Mike remembers.

These days, MD’s winter logging operation involves a feller buncher, two skidders, one loader, a bulldozer, and an excavator. For the most part, MD buys its own stumpage. Average volume sits at about 1,200 tons per week. The tree-length production is hauled to nine different mills in the Upper Peninsula.

Woodyard operation

MD has been contracted since 2008 to run a local satellite woodyard in L’Anse that serves two large paper mills. For this purpose, the company relies on three wheel loaders, a grader, a sweeper, and three Tigercat 234B loaders mounted on AC16 self-propelled carriers. The Tigercat loaders

unload incoming trucks and load train cars and eight-axle log semi-trailers. When MD started the woodyard contract, it had just one loader and two trucks, relying heavily on contract hauling. Today, MD owns fourteen trucks dedicated to hauling wood.

**“IT COSTS MORE.
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In addition to unloading, sorting, scaling and loading, MD also maintains the yard and plows snow. Average load-out volume is 5,000 tons per week. However, in

spring weekly tonnage increases up to 20,000 tons. On average, MD Contracting hauls twenty 55-ton loads per day. The pulpwood logs at the yard are eight-and-a-half foot (2,6 m) with a diameter range of four to thirty inches (100-765 mm). Several species are handled including spruce, balsam, jack pine, red pine, white pine and hemlock. Hardwood logs include aspen, maple, yellow birch, white birch and ash. The hardwood is bound for mills in Escanaba or Quinnesec. The softwood goes to Escanaba, located 130 miles from the woodyard.

Commonality matters

Mike explains that his previous loaders were sourced from different manufacturers. “The controls were different in each machine, so you had to have just one guy run this brand and another guy would run the other brand.” Switching his loaders to Tigercat was a way to ensure commonality. “Now, you can jump in any one of my machines and the controls are the same. That’s

Mike Delene along with his logging crew. (L-R) Josh Banister, Avery Pyykkonen, Kevin Knight, Mike Delene, Ray Hansen, Jordan Pyykkonen.





The Tigercat loaders are an excellent choice for the woodyard. With efficient load sensing hydraulics and a unique energy recovery swing system, Mike says that fuel economy is outstanding.

what my guys are used to. Like I said, as I get older, it's really difficult to have the lever do something different when you move it."

The AC16 carrier was another reason for switching to Tigercat. "I had so much trouble with a competitor carrier and that AC16 will push a truck out of the mud. It's got that much push power. The brakes always work. The carrier costs more, but it's worth more. I don't know how else to put it. It can pull a loaded trailer, it can push a truck. There's no issue with it getting stuck in the mud. It goes," Mike adds.

When a loader needs to achieve production targets, the proximity of the loader to the wood pile is not a trivial factor and the distance from the stabilizing pads to the wood pile is something that Mike has given ample consideration. "The footprint of the Tigercat loader when my operator puts his outriggers down is four feet less than that of the competitor brand," he explains. "Well, when you want to get close to a wood pile, even if you're two

feet on one side, that gives him more reach into that other pile."

Parts commonality is a very important consideration as well. "I've got three Tigercat 234Bs here. Well, we carry one set of filters that fit all the machines. And that's huge because I've got other machines from competitor brands, same brand and model but three years apart. They take different filters. All my Tigercats take the same fuel filter right now. You can't beat that. I only need to carry one. I keep fuel filters. I keep air filters. I mean, I don't want to have to go hunt one down every time I want to change oil or change an air filter," says Mike.

The Tigercat loaders cover an area of around 50 acres (20 ha). There is continuous movement in the woodyard. In spring, the machines are in wet, sloppy ground and Mike notes that traction is important. "They're excellent as far as getting around. We have no trouble with our carriers, not like a broken spring or a broken drive motor or lack of brakes. It costs more. But it's something you've got to look

at. Is it worth more? That Tigercat burns about half the fuel of the competitor," Mike emphasizes.

Greg Alessandrini, one of MD's Tigercat loader operators provides his opinion about the machine. "I particularly like the seat. It has many adjustments and it's very comfortable. When you sit on a machine for eight hours a day, it's important that you are comfortable and stay productive."

Mike tells us that he's grateful for his employees. "It's easy to get equipment, but you need good employees that can get along to do the work. I'm thankful I have a good crew." He concludes by saying that his operators have a clear preference for the Tigercat loaders. "They can run that competitor machine over there. They could have run that other one there. But they won't. They go to the Tigercats." ■

SOUTHERN PROCESSING

– Paul Iarocci

BTB went on a tour to visit customers in Alabama, Mississippi and Louisiana who have made the switch from pull-through delimiters to a Tigercat processor head. We wanted to understand the motivation for the change, the challenges involved and what benefits have accrued. We discovered that three different contractors are looking at it three different ways.



CLINT BRADFORD, CB TIMBER

H250D processor with 575 harvesting head

Based in Helena, Alabama, Clint Bradford grew up in the logging industry. He started his career as a project manager for a communications company during the initial manic build-out of digital infrastructure that occurred around the turn of the millennium. When the market crashed, Clint pivoted and went to the sector he knew best. In 2001, he purchased his first log truck and soon expanded to five trucks. By 2003, he owned a logging crew and in 2008 he started buying his own timber.

Today, Clint has three crews. Of his two high production crews, one is a traditional operation with two trailer mounted loaders and pull-through delimiters. The other has a Tigercat H250D processor paired with a T234B track loader. A small clean-up crew is deployed to smaller tracts or to jobs that are nearing completion after one of the main crews have moved on to the next tract.

Clint Bradford buys his own timber and markets several products to several different mills. For Clint, better merchandising pays.



No guesswork, no tape measures. The processor accurately measures diameters over the entire length of the log.

Clint markets several products to several different mills. The higher grade that he can achieve, the more revenue he can earn per tree. For Clint, better merchandising pays. He explains that depending on the tract, he might have two different poles, two or three logs, a chip-n-saw log and pulpwood. It is not uncommon to have six different products. Market conditions and quotas add additional complications. Optimal merchandising is critical in achieving the best possible value from the tracts he purchases.

“It was 2010 when I first started thinking about processors. I wasn’t quite ready at that point. Eventually I did demo one and kept it for about two or three weeks. I saw what it could do and the efficiency of it. The demo let me know what type of timber I needed, and what I needed to do to get to that point. Once we had enough timber bought up and I knew we could move it, I took the plunge.”

With thousands of hours of data to back up his assertions, Clint says that roadside processing is more productive than pull-through

delimiting. More important is upgrading the product. The value of his products has increased by fifteen to eighteen percent. “The thing is, it takes the guesswork out of it, because you’re not looking 40 feet ahead and guessing at a six or seven inch top. It’s exact and everything is precise.”

The flexibility of the roadside processing system adds consistency to Clint’s operation. It is easier to manage trucking flow when the system is consistently hitting the weekly load target – in this case, 120 loads. Separating the loading and merchandising function allows the loader to focus on turning trucks around quickly and efficiently. It adds flexibility when transitioning to a new tract. Clint can leave the track loader to load out the remainder of the wood while the rest of the system moves to the new tract. The processor is producing logs right away on the new tract and once the last load is gone, the loader moves to the new site and seamlessly loads the next truck. “You’ve got trucks coming back from the mill that just loaded off the other job. There’s really no downtime.”

It’s difficult to overstate the importance of the loader operator on a pull-through delimiting jobsite. His judgment affects the success of the whole operation. The product upgrading ability of the processing head rivals even the most seasoned loader operator. “You’re looking at it and your eye is telling you it’s pulpwood.” He gestures to the 575 head. “Well that thing is telling you that you are getting a chip-n-saw log. So you’re upgrading your product by knowing the size.” As mill tolerances and specs for logs and poles have become more precise, roadside processing becomes even more advantageous.

Clint’s operator, Tony Crocker, came off a knuckleboom loader and since the H250D is based on a track loader, he was already familiar with the base machine. He already knew how to merchandise and make a product. He also has a two-year forestry designation. The only new part was actually running a processing head. “The training went pretty well, and he caught on quickly,” says Clint. “It was really just getting used to the head.”



JIM ARD, JIM ARD TIMBER INC.

H250D processor with 575 harvesting head

Jim Ard is a contract cutter for a timber management company. He did not negotiate a rate bump when he transitioned from pull-through delimiting to processing and he looks at his operation through a different lens compared to a logger with a timber buyer on staff.

Like Clint, Jim buys his Tigercat gear from B & G Equipment. Before transitioning to processing, Jim

ran one 726G buncher, two 620E skidders and two knuckleboom loaders equipped with pull-through delimiters. Today, he runs the same size cutter with a single six-wheel skidder pulling to the H250D processor. A T234B is dedicated to truck loading. For Jim it is all about maintaining a balanced system and looking at capital cost expenditures over several buying cycles.

Even though the majority of Jim's production is long logs, the

processor system still makes the most sense. "When I went to the processor, we were cutting a lot of wood up and having a hard time keeping up with all the different sorts," Jim explains. "We don't cut much up anymore but the processor is still faster than running two pull-through delimiters."

Jim discovered he could balance his harvesting system by running a large Tigercat six-wheel skidder. "One regular skidder is not enough

Jim Ard, owner of Jim Ard Timber Inc. is a contract cutter for a timber management company.

for the processor and two is too many. If we went back to two regular trailer loaders, one skidder is not going to be enough – there is no way he can feed two loaders and keep the delimiters clean. So, yeah, I went to a more expensive bogey but it's still cheaper than two 620s plus one extra operator. And one more fuel and maintenance bill.”

Jim says that although the initial investment is bigger, the savings come by looking at it over a longer time frame. Jim based his analysis on the assumption that his replacement cycle for the loaders and pull-through delimiters is three years and with the processor and track loader, he can extend the interval to five years. (Jim is on his second H250D after selling his initial machine with just over 9,000 hours after five years of operation. At that time the 575 still had all the original pins.) By year nine, the capital cost expenditure for the processor system is looking much more favourable in comparison. “And

I'm doing it all with one less skidder,” says Jim. “In the overall big picture, the processor saves me money.”

Like Clint, Jim sees a big advantage in decoupling loading and processing. He also tends to leave the loader behind while he starts the next job, allowing the H250D a head start along with the rest of the system. Especially when working on wet ground, Jim appreciates the mobility of a track loader. “It's easier than moving a trailer loader around.” Jim says there is less waste and although the merchandizing doesn't impact his bottom line directly, it does contribute to a happier landowner customer.

Jim has had two different operators on the processor in addition to himself. Neither had prior experience and Jim estimates that two weeks of operation is sufficient to start to become productive. “I told them which buttons to use and put them in it. But there were only five functions I wanted them to

do when they first started running: your feed trigger for your feed wheel, the open and close for your knives, your saw button, the button to switch from top saw to main saw, and your find end. That's the only buttons I showed them. Once they got better with those buttons, I would start telling them what the other buttons would do instead of trying to overload them all at once.”

Jim says that the similarities to a loader – the option to have foot pedal swing control for instance – seemed to ease the transition. “I like the joystick swing, but I also like to stay busy. With joystick swing, if I want something to drink, I've got to turn my joysticks loose to open my water bottle and drink it. With the foot swing, if I drop a log over here and I'm going back to my pile I can get my water bottle while I'm swinging back over without having to stop. It made me more productive.”

When performing cost-benefit analysis for the processor, Jim is looking at system balance and capital cost expenditures over several machine life cycles.





Norman Ratzloff, co-owner of Ratzloff Logging Inc., switched from pull-through delimiting to roadside processing in 2017 with the aim to increase production without increasing his employee count.

NORMAN RATZLOFF, RATZLOFF LOGGING INC.

H250D and 850 processors with 575 harvesting heads

Norman Ratzloff has been logging in Louisiana for over 30 years, starting out with his father at age eighteen. He and his brother Glen are partners in Ratzloff Logging Inc. They bought out their father seven years ago. The brothers were early adopters of the roadside processing system. Since purchasing a used H822C in 2017, Norman has been running the harvesting operation with a single feller buncher, one skidder and one processor. To respond quickly to weather and soil conditions, the company always keeps both track and wheel feller bunchers in the stable. “We’ve got two bogey skidders, but we normally only run one. One TigerCat can skid 20 to 25 loads a day for us.”

Norman keeps the second skidder as a spare in case of a sudden breakdown, or in case the company encounters a site layout that necessitates very long skid distances. “We do a lot of mat logging, and so in the wintertime we’ll pull everything to one corner. We’ll build roads over the whole tract, extending skid distances. The last job we came off, it was a half mile to the far end of the tract.”

Aside from the harvesting equipment, the company owns five haul trucks and employs four drivers. With Norman as the primary processor operator and Glen driving a log truck most of the time, both men were always tied up with day-to-day work tasks.

With the company’s second H250D approaching 5,000 hours, the two brothers decided they wanted to

run the machine longer than three years. An additional processor would allow this, and a second machine and operator would take pressure off Norman allowing him to attend to other business during the workday. TigerCat dealer, Patrick-Miller Tractor Company happened to have a TigerCat 850 processor available, and Norman was willing to try it. “Our main reason was thinking that maybe we’d be able to run it longer because it’s a purpose-built machine for processing.”

They are only two weeks in with the new machine. Norman has been running it while his eighteen-year-old son Randy has started training on the H250D. “He is doing eight to ten loads a day no problem,” says Norman. “We plan on running them to higher hours before we trade. They won’t get as many hours

because we're not going to need to run them both full time to produce 20 to 25 loads per day."

Although Norman only had around 25 hours of seat time on the new 850 at the time of our visit, he is in a rather unique position to compare the two carriers – both equipped with the Tigercat 575 head. Norman noticed straight away that the swing is much stronger and quicker on the 850. "It seems to be stronger and it does seem to have more power or more pressure to the wheels. It is handling this bigger timber a little bit better," he says. "It is a heavier carrier, and a bit more stable. But on the other hand, the boom is a bit shorter." The H250D has seventeen inches of additional reach compared with the 850. "The

way I stack, I like all the length on my boom that I can get. Sometimes I'll have up to eighteen loads in one stack between the logs, the pulp and the long pulpwood. But like I said, I've only run it two weeks."

Norman also comments that he appreciates the layout and component access on the 850 and the centralized remote grease points. "It's a little easier to grease, and everything opens up where you can get right in there and work on it." He likes the larger and more refined 850 cab and the ease of entering the loader-style carrier with the walk-up platform is a great feature on the H250D.

Norman doesn't feel that the loader-style carrier is much of

an advantage for training new operators. "I don't think it is going to make any difference. To me they operate almost the same; except the big difference I see is the swing. It is just a lot quicker on that 850."

Ratzloff Logging cuts for Louisiana Timber Procurement. Any product upgrading that has resulted from his move from pull-through delimiting to processing has benefited the landowner. The rationale for the system switch was to increase production with the same employee count. "Yeah, they're more expensive, but you can do twice the work as you can with a knuckleboom loader. Even in the small diameter trees, it's still way quicker than the loader."

Ratzloff Logging recently purchased a new 850 processor. Norman and his son Randy are running the two processors side-by-side. With just a couple of weeks under his belt, Randy was already consistently producing eight to ten loads per day.





The 850 processor handling large pine.

Norman says they tend to get a better quality log compared with a loader. “You’re right there looking at it. Every log passes right in front of you. Some of the other crews around here are doing tree-length. There’s no question they would get way more out of a processor because it measures the diameter. They need to know the end diameter. When you’re in a loader, you just guess, and most of the time, you’re going to err on the big side.”

Norman stresses that setting up at a new site is much easier. “When you unload it off the trailer, it doesn’t matter how wet it is or how unlevel,

or how deep the ditch is. We just pull it up in the woods and decide where we are going to set it up. They’re just so versatile. You try to get a [trailer mount] loader off the road, through the ditch. A lot of times you end up using mats or something. It’s a lot easier with the processor. As my set gets full, if we are on a decent road, I can just move down and make another set. When you finish a tract, as soon as you get done processing, you can have the trailer there. You can walk out around your pile of wood. You don’t have to move wood around to get out. You just get on your trailer and go on to the next job.”

The processor does all the sorting on the landing. In fact, the company doesn’t even employ a loader operator. The drivers load their own trucks, and the wood is laid out to make it quick and easy. It’s a smart system that allows the company to produce the required volume with as little as three men. “It is just so much easier to merchandise and sort and stack wood versus the loaders. There is really no comparison, says Norman.” ■



One buncher, one six-wheel skidder and a processor makes for a balanced harvesting system in most situations.

DECOUPLING

All three contractors agreed that it was a great advantage to separate the loading and processing functions. It improves flow and the track loaders are versatile and mobile. It is a big advantage when moving to a new site to leave the loader on its own to load out the remainder of the wood while the rest of the crew gets started on the next tract.





Tigercat

Tigercat
675E

Tigercat

**“EVERY DAY I STRAP MY
BOOTS ON, I AM SO
THANKFUL FOR THE OLD
TIMERS WHO TOOK THE TIME
TO TEACH ME AND GUIDE ME
OVER THE YEARS.”**

Can-Do ATTITUDE

We caught up with Sabrina Cantu at the 2023 Pacific Logging Congress Demo. She was one of several operators who piloted Tigercat equipment during the demo. Sabrina operated Tigercat's newest harvesting head model, the 573, mounted on an 875E carrier, processing at roadside.

– Paul Iarocci

25-year-old Sabrina Cantu's journey into the world of heavy equipment and timber harvesting operations began in 2019, when she enrolled in the Heavy Equipment Operations Certificate program at Shasta College. "I originally was going to school for an Ag business degree," says Sabrina. "But due to some life changes, I went after what I was truly passionate about – running heavy equipment." Sabrina excelled in her course work, graduated with a University Ag Science Degree, Industrial Technology Degree, Heavy Equipment Logging Operations Certificate, and a Heavy Equipment Operating Certificate.

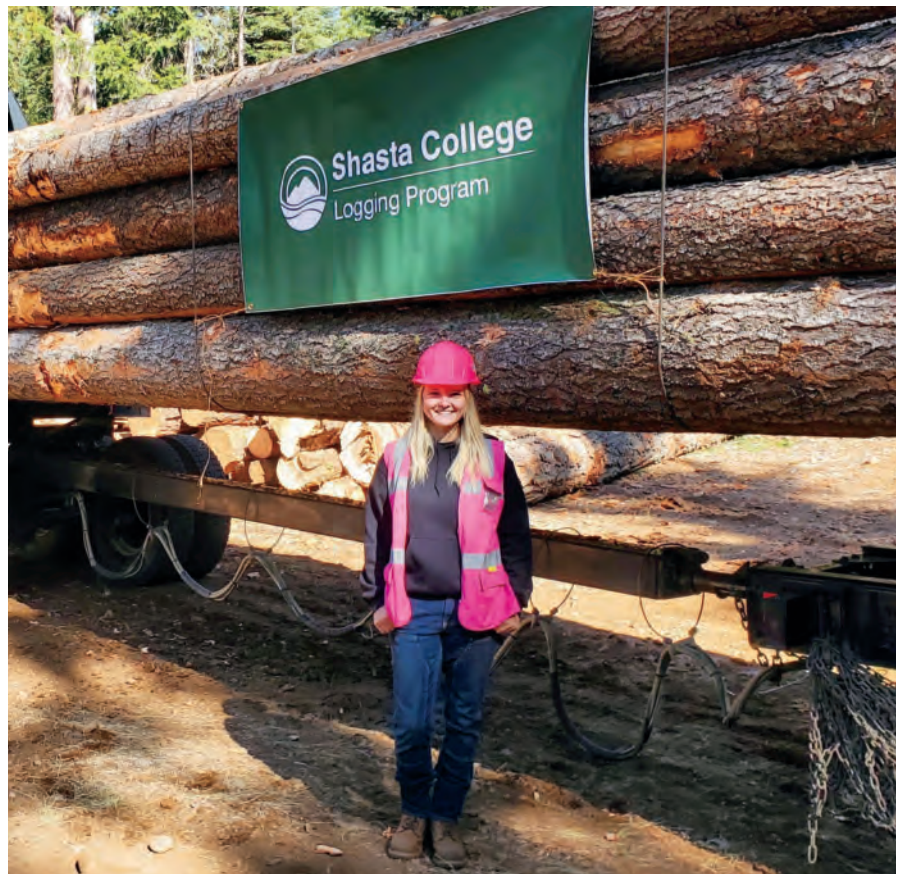
Sabrina grew up in Burney, a very rural logging town in Northern California. Choosing mountains and trees as her daily office view was an easy choice. "I have always been at home in the woods. Instead of fighting traffic and stoplights every day on my drive to work, I just have to slow down for the occasional deer and wild little timber tigers [chipmunks] that cross the road."

Sabrina's great grandfather and grandfather were both timber fallers and equipment operators and her great uncle John owned a

logging business. "By the time I was born my great grandpa and grandpa had passed away and my great uncle John had long retired, so I wasn't raised in the industry. But clearly logging was in my blood." At 21 years of age, Sabrina found herself as the only member of her

family to follow in their footsteps.

Over the years Sabrina has gained experience with many different types of machinery in a variety of applications from winch assisted forwarding on a CTL operation in Oregon to steep coastal



Sabrina graduated with a University Ag Science Degree, Industrial Technology Degree, Heavy Equipment Logging Operations Certificate, and a Heavy Equipment Operating Certificate.

shovel logging. She has even run equipment on wildfire operations. These days, she is an accomplished processor operator employed by Skyline Alterations, a California based harvesting company owned by Jody Sherman and Brian Parnell. “I like loading trucks, but processor is hands down my favorite,” says Sabrina.

Aside from the regular challenges – knowing the log lengths, understanding the requirements of the various mills, keeping a close eye on stem form – running a processor in fire salvage operations poses its own set of problems. “You have to know your species, especially in burnt wood. It’s really difficult because the bark’s gone, the limbs are gone and there are no needles. Nothing.”

Sabrina treats it all like a game, working quickly and efficiently, always trying to stay ahead of the skidders. “It makes it fun. And it’s like a video game. It’s just a bunch of buttons and muscle memory.”

Motivated to make a difference

A typical week for Sabrina starts with an early (super-early is how Sabrina phrases it) Monday morning alarm. She carools to the worksite with her co-workers, starts up her Tigercat LH855E harvester and loads Louis, her dachshund into the cab. “Then I’m just making logs all day long. At the end of the day, we go get fuel and food.” Sabrina sleeps in a tent at the harvest site from Monday to Friday to avoid a lengthy daily commute.

“The hours are not the best when you’re not a morning person and let me tell you I snooze my alarm quite a bit at two in the morning. But I wouldn’t trade it for anything in the world. Every morning, I see the sunrise and the world wake up around me. I get to see wildlife every day.”

Sabrina is motivated by a strong belief that what she is doing – managing forests – is having a positive effect on the world around her. “I get to be a part of conserving our forests and helping to thin and manage them correctly so we can get a better handle on wildfires.” She explains that without forest management, undergrowth and deadfall becomes excessive. “It’s all fuel for the fire.”

At last year’s PLC in Washington state, Sabrina operated a Tigercat 875E carrier equipped with Tigercat’s latest processing head offering, the 573.



“YOU JUST LOOK AT TIGERCAT AND IT’S KIND OF THE LOUIS VUITTON OF THE LOGGING WORLD. IT’S THE FANCY STUFF AND I JUST WANTED TO GET MY HANDS ON IT.”

– Sabrina Cantu

“Right now, we’re doing a lot of clearing for the burns, so we do a lot of clean up,” Sabrina continues. “We work for the California Deer Association and the National Forest Service. During the summertime when I’m not logging, I go out and I work fires. So much land has burned. A lot of my friends have been affected by the fires in California and have lost their homes.”

The thinning operations that Skyline and other California contractors are involved with are crucial to maintaining long term forest health. “Each tree is fighting with other trees to grow. When you thin the forest, they become bigger, healthier trees. There is more sunlight to come through, so there’s more growth for the wildlife. A lot of people don’t understand that. I wish that they could come out and see what we do. We don’t just kill trees to kill trees. People in the cities are not really understanding how everything works, and I think that’s why our fires have gotten so bad. Everybody wants to save the trees and take care of the trees,” she says. Perhaps it’s a case of loving them to death.

The machine

The Tigercat LH855E is an ideal processor carrier for Sabrina. “My gosh I love it. It’s such a good machine. It’s powerful. I have the leveling cab, so I don’t have to sit there and fight when I’m trying to

make logs. That machine is very comfortable. Heated and cooled seats and all the fancy stuff.”

A lot of Sabrina’s friends ran Tigercat machines well before she ever did. They talked highly of the brand. Over the years, I’ve heard loggers make various analogies about the brand – ‘the Cadillac of logging machines,’ that sort of thing. I’ve never heard anyone put it quite the way Sabrina does. “You just look at Tigercat and it’s kind of the Louis Vuitton of the logging world. It’s the fancy stuff and I just wanted to get my hands on it.”

When Skyline Alterations was in the market for a new processor, Sabrina appreciated it when Jody and Brian asked her preference. She didn’t have high hopes, knowing that her choice would be at the top end in terms of price. “I took a day off work, and we went to Bejac in Anderson, California. And I got to actually climb in my first Tigercat and walk it around. I didn’t want to try anything else after that. I was sold, I loved it. And now I’m lucky enough that I get to run it.”

Career satisfaction

It was a drastic change for Sabrina to complete two years of schooling toward an ag business degree, only to change her mind and enroll in a heavy equipment program. It was a scary decision at the time, “Kissing away two years of schooling,” as Sabrina puts it. She started off in construction equipment. Later on,

the program received funding to purchase an entire logging side. Sabrina’s class was the first to benefit from the acquisition. “So I got a little bit of a taste for it. I graduated top of my class and got hired in the industry before I graduated. And ever since then, it’s never stopped.”

What is Sabrina’s message to young women contemplating a career in the forestry sector? “Don’t be scared,” she answers. “It can be intimidating but ask questions and don’t give up. When I first started operating, I always asked questions – even when people told me that I was asking too many questions. They’re going to push you and they’re going to see how much you can take. If you’re confident in your operating and what you can do, I think you can go far.” Sabrina also speaks about taking advantage of opportunities. “Every door that opens, take a step inside and see what it’s like. If you get an opportunity to jump in a piece of equipment, take it and run with it.”

She stresses that technology plays a big part in the industry and makes the industry more accessible to more people. “You don’t have to be rough and tough. Physically, I’m not very strong, but I don’t have to be. The machine is my strength. It is my muscles. It picks up and does everything that I wish I could do.”

Sabrina says her long term goal is to own her own equipment. She

would like to be a female boss with a partially female crew. “It would be cool if women wanted to come work for me. It would be super welcoming and accepting but I would still have a bunch of my rough and tough guys that I’d want to hire too. I want my own stuff and it might be pink, it might not be pink, I don’t know yet.”

Sabrina is quick to give credit to others for her success and job satisfaction. “Every day I strap my boots on, I am so thankful for the old timers who took the time to teach me and guide me over the years. This job isn’t for everyone. It’s for the ones with free spirits and a little bit of a wild side. The ones that aren’t afraid of a little dirt and pitch. The ones that see the beauty

in the tall white firs and appreciate the smell of the fresh-cut pine. We might be a little rough around the edges, but a logger is who I am and who I am proud to be.” ■

Scan to watch video



On the weekend Sabrina rides her horses, Teddy and Osiris and competes in cowboy mounted shooting. “I shoot two colt 45 single action revolvers on horseback and shoot ten targets in different patterns. I sew all my skirts for my mounted shooting competitions and now have quite the collection.” She also enjoys hunting, fishing and cruising around on her motorcycle.





FLUID MANAGEMENT AND OIL SAMPLING

Fluid management refers to the efficient handling, storage, and monitoring of the fluids used in your equipment. This can include engine oil, coolant, gear oil, and hydraulic oil. There are a few key elements to managing fluids effectively. Proper labelling that shows the type and grade of fluids is important to prevent potential damage to equipment. Storing fluids in properly designed containers can prevent leaks and enhances overall safety. Maintaining a clean, controlled environment during handling can prevent contamination and avoid potential equipment damage.

Monitoring

The performance and longevity of any Tigercat or TCi machine depends heavily on following regular service and maintenance intervals, and using good quality fluids and components. Preventative maintenance programs should be tailored to the specific needs of the equipment.

Regular monitoring should include checking fluid levels to make sure they are within the proper ranges, inspecting and cleaning drain plugs during fluid changes, and checking seals for leaks. Filters should be inspected and changed as per the manufacturer's recommendations.

Proper lubrication

Proper lubrication plays a crucial role in extending component life and increasing efficiency. Lubricants absorb and displace heat that may be generated during operation, preventing overheating. Using the proper lubricants will create a protective film on moving components, thereby preventing premature wear and extending component lifespan.

Without lubricants to flush them away, contaminants like dirt and metal particles accumulate, leading to increased wear and possible damage. When friction between components is reduced, components

operate more efficiently, reducing strain and saving fuel.

Which fluids to use

The viscosity of a fluid refers to its thickness, or resistance to flow. Low viscosity fluid is thin and flows easily while high viscosity is thick and does not flow as well. Viscosity is essential because it directly impacts the lubricating film thickness. Always use the correct viscosity as specified by the operator's manual.

The correct viscosity allows fluid to form the critical barrier between the moving parts. If the viscosity is too low, the fluid will not provide sufficient lubrication and metal-to-metal contact could occur. This will lead to premature failure.

A fluid with a viscosity that is too high could be too thick to flow through lubrication passages and may cause excessive heat. In cold conditions, start-up could be difficult, and the risk of seizing components is increased.

Always refer to the manufacturer's guidelines when selecting lubricants such as gear oil. Operating conditions such as temperature must be taken into consideration. Always look for gear oils that state that they meet or exceed the necessary API or OEM specifications. Be cautious of language like "may be recommended," as this does not guarantee compliance with the equipment's requirements.

Importance of oil sampling

An additional check that should be done periodically is oil sampling. Oil sampling can be an invaluable tool for detecting potential issues and monitoring the overall condition of the internal parts of critical components thus reducing machine downtime.

The benefits of oil sampling include:

- Monitoring oil cleanliness and filtration performance (Are the correct oil and filters being used?)
- Predicting and diagnosing potential failures (Measuring and quantifying abnormal wear debris)
- Detecting contamination ingress (Are dirt, water or other fluids present?)
- Determining optimal oil change intervals (Should intervals be reduced?)

TFA

Tigercat Fluid Analysis (TFA) offers a wide range of hydraulic, gear and fuel tests. This program uses the most modern technology available to analyze fluid samples. Most test results are available within 24 hours after receipt of the sample and are supplied in an easy-to-understand report, which calls for specific action and makes detailed recommendations. The report can be mailed, faxed, emailed, or viewed online.

The TFA program provides Tigercat machine owners access to an advanced fluid analysis program for all major machine components including engines, hydraulic circuits, axles, final drives, and gearboxes.

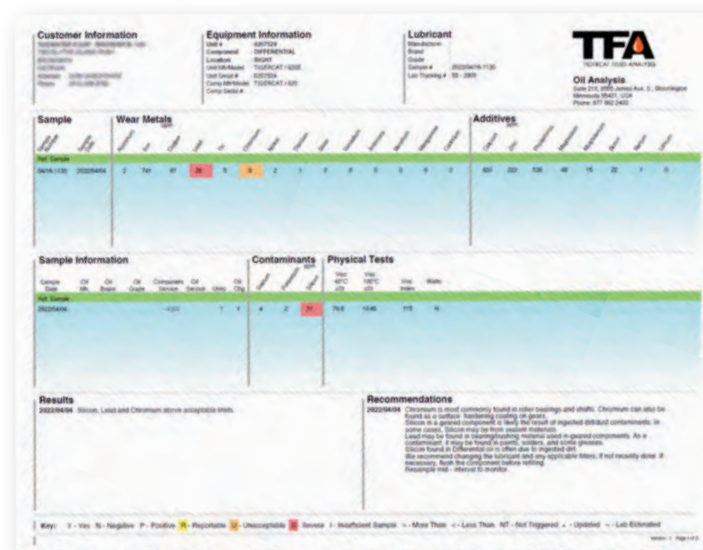
Tigercat Fluid Analysis kits are available from your Tigercat dealer parts department. If required, arrangements can also be made with your Tigercat dealer to supply and perform all the required follow-up fluid samples. ■



Tigercat Fluid Analysis kits are available from your Tigercat dealer.

The chart shows several elements that could show up on an oil sample report for a Tigercat axle. The possible sources and potential causes are listed.

ELEMENTS	POSSIBLE SOURCES	POTENTIAL CAUSES
Iron, Chromium, Nickel and Manganese (wear metals)	Carburizing steels (gears)	Gear failure (pinion, spider, planetary, etc)
Iron, Chromium, Phosphorus and Silicon (wear metals)	AISI E52100 steel (bearings)	Bearing failure
Copper, Lead and Tin	Bronze (thrust washers), Sintered material (diff-locks)	Differential lock failure
Titanium (wear metal)	Gear contact paint (Titanium Dioxide)	Assembly process (pinion and planetaries)
Aluminum and Silicon (wear/contamination)	External contamination (Dirt approx. 3:1 ratio)	Seal failure or poor fluid hygiene when filling or sampling
Water detected (free or emulsified)	External contamination (mud/water)	Seal failure or poor fluid hygiene when filling or sampling
Low or high viscosity	Lubricant condition (gear oil)	Hydraulic leak (oil dilution) Human error (incorrect oil) Exceeding oil service life (Thermal breakdown, additive depletion)



Most test results are available within 24 hours after receipt of the sample and are supplied in an easy-to-understand report.



Three GENERATIONS

For the Meadow Lake, Saskatchewan based Tourand family, operating equipment is in the blood.

– Paul Iarocci

It is 2020 and a teenager walks into the headquarters of Brander Enterprises in Meadow Lake, Saskatchewan, resumé in hand. She lands a part-time job cleaning up in the shop and office after school. The following year during spring break-up, she cleans the bunkhouses and completes other chores to prepare for the new logging season.

Brander Enterprises is a twenty-year-old company. Founders, Allen,

Kris and Jamie Brander, started out in 2004 with a load and haul contract for the Tolko OSB plant that started up in 2003. From there they expanded into harvesting, municipal road maintenance and real estate. Today, the company cuts and delivers a half million tonnes of fibre with a fleet of equipment that includes five feller bunchers, nine processors, seven skidders, seven loaders and 25 haul trucks. Including machine operators, truck drivers,

maintenance and support staff, Brander Enterprises employs 100.

Third generation

The teenager is Amy Tourand and after graduating high school the following year, she approaches Kris and Jamie about a full-time job. Amy has proven herself as a hard worker and she wants to run a processor. The Branderes see her potential. At age seventeen

Three Tourand generations in the bush. Amy flanked by her father Jeremy and grandfather Eugene.

Amy spends her first summer in the bush. She is trained by an experienced processor operator who also happens to be her father. Jeremy Tourand has been working for the Brander family for seven years.

“When I first came out here, I got to train with my dad,” Amy recalls. “He spent about three days with me on the 568 head and then he ended up having to go skidding for a while. I had a little bit of solo time but we were in the same patch, so he got to watch over me.” Amy’s dad would check in on her, ensuring that her piles were straight and the lengths were correct.

Amy is nineteen now. She exudes confidence yet speaks with an almost old-fashioned sense

of respect for her peers and a deference to experience. She remembers being with her father in a workshop at about the age of twelve. “We would go and pick my dad up and he would let us come into the shop if he was running a little bit late. We wouldn’t interact but we’d get to stand on the side and kind of watch what he was doing. I remember he was working on a processor, and he had moved it from the back of the yard. He let me climb up in there and he was explaining it all to me. I was fairly young but old enough to kind of understand.”

Second generation

Jeremy got an early start in the logging industry. “The first time I started working in the bush,

it would have been when I was about twelve years old; for my dad when he had his own contract. So anytime I wasn’t in school, I was out in the bush working.” Jeremy was hired by the Branders seven years ago. Like Amy, he is on the roadside. He pilots a Tigercat 850 with a 568 head.

“It was a shock when she decided she was coming to the bush,” Jeremy recalls. “The thing is, when she gets it in her mind that she wants to do something, you can’t tell her no because she won’t let it go.”

However, Jeremy thinks it was a good decision – good for Amy and good for the industry. “We’re always going to have to be cutting trees down, so there’s always going to be logging. Right now, it just

Making logs. Amy pilots a Tigercat H855E carrier equipped with the prototype Tigercat 568 processing head. The head has over 19,000 hours, most of which have been put on by Amy and her father, Jeremy.





At age 77, Eugene Tourand has been working in the bush for over 50 years. He is shown here doing what he likes best.

seems like there's not enough of the younger crowd. It's all of us older people out here now that are going at it."

Jeremy feels that it is not actually operating the machines that turns young people off the industry. It's what happens when something goes wrong. "Sitting in that machine is all fine and dandy. It's heated and air conditioned. But the minute a hose blows, they don't want to get out and pull a wrench. Amy's got a good work ethic. When she gets a leak in her machine, she'll actually get out and try and figure it out before she gets on the radio. If it happens to be a loose hose, she'll grab a wrench and tighten it up as best she can. And if it keeps leaking, well, then she'll call somebody and say, 'Well, yeah, I tried to tighten it, but I can't pull hard enough on that one.'" Jeremy can't hide his pride for his daughter's accomplishments. "A couple more years, and you wouldn't even have to worry about her. She'll be able to handle all that stuff on her own."

Amy says that it took about four months of operating to become proficient. She bounced around between different Tigercat H855E carriers, and in the process learned to operate both the 568 and the 575 harvesting heads. Brander Enterprises has a total of eight Tigercat carriers for roadside processing – seven 855 series carriers and one 850 model – with a mix of 568 and 575 heads. She finds the 575 to be a little better handling rough poplar. The 568 edges out in spruce.

With a lot of seat time in a processor, Jeremy has done a fair bit of operator training. "When it comes to the younger kids, the first thing I usually ask them is if they like to play video games," he says. "Because they're used to buttons. These processors, they've got a million-and-a-half buttons on each joystick, so there's a lot of memory there."

Attention span is another critical characteristic. When Jeremy is

training, he will operate while the rookie stands behind and watches. Then they will switch positions. "I'll run it for a couple of hours. That way then I can talk to them and describe what I'm doing while I'm doing it. And then I let them run it. I can kind of gauge how fast they're going to pick it up and I can predict what mistakes they might make right off the start. Amy picked it up really quick. This is only her second season, and she can cut just as much as I can."

Probably more so than any other machine in a forestry system, the processor – with its complex and high-functionality control system – provides an array of production data. The resulting performance indicators and real-time feedback is something Amy really appreciated, especially when she was starting out. "Of course you can get a pretty good idea of how your production is improving because I can see everything," she explains.

“WE’RE TRYING TO BRING UP A YOUNGER CROWD. IF I COULD HAVE FIVE OR TEN MORE AMYS, I’D BE LAUGHING.”

– Kris Brander

Amy performs her own greasing routines, takes responsibility for fluid checks, replenishes chain oil, and changes bars and chains. She keeps her cabin interior, windows and door handles clean. Kris appreciates that she is hands-on and takes care to maintain the machine – traits that are often difficult to find or instill in new operators.

“Our biggest issue is finding people,” says Kris. “We’re a small community of 5,000 people and with multiple people in forestry and the forestry sector. I mean there’s not a whole bunch of available

people out there that are operators.”

Building on Amy’s successful integration into the crew, Kris is on the look-out for more young people to seed the company. “We’re trying to bring up a younger crowd. If I could have five or ten more Amys, I’d be laughing.”

Kris stresses that the older segment of his workforce is going to age out. “We do have some older guys up here that are in their seventies. They continue to want to work here so we must be doing something right,” he says, while acknowledging that it can’t go on

forever. The oldest member of the harvesting crew is Eugene Tourand, Amy’s grandfather.

First generation

At age 77, Eugene has been working in the bush for over 50 years. He purchased a contract in 1985 and put together a three-man crew along with two cable skidders. He spent the next twenty years hand falling, manually topping and limbing, pulling lines and setting chokers. It wasn’t until 2005 that the mill decided it was time to move on to fully mechanized operations with feller bunchers and grapple

(L-R) Adrian Proulx, lead mechanic/bush foreman; Kris Brander; Chuck Miles, Redhead Equipment forestry salesman; Amy, Eugene and Jeremy Tourand; Iver Sheppard, forestry mechanic.





Amy completes her own daily maintenance routines and responds to typical issues like bar changes.



The Branders run seven H855 series carriers and one 850 model.

skidders. Eugene went to work for his brother-in-law, another Saskatchewan contractor, trading his old line skidder for the relative comfort of a grapple skidder. He has been operating one ever since.

Winter logging in north Saskatchewan is not an easy life. The working hours are long, there is not a lot of daylight, and the locations are remote. Cell service is hard to come by. Amy says having family around – her father, grandfather, and her uncle Myron helps. She concedes it was a lot tougher for her grandfather, who for decades didn't have the benefit of mechanization and climate controlled cabs.

However, when young people are contemplating a career, they don't often benchmark the working conditions of two generations previous. To many, Amy's typical day might be viewed as arduous. It starts with a 4:00 am wake-up that gets her to the truck, lunch in hand for 5:00 am. After gathering fluids and supplies, it can be up to a

half-hour drive from camp to the cut block. At that point the nightshift operator is completing the shift change maintenance routine, putting Amy in the seat by 6:00 am. At 5:15 pm, Amy shuts down the machine and goes through the greasing routine, cleans the cab and windows and is back to camp for 6:00 pm.

Amy has persevered and now, two seasons in, she is an accomplished operator and a respected member of the crew. She earned respect by pitching in, pulling her weight, and helping others with anything and everything at every opportunity. And when Amy has run into the inevitable problems that come along with living in a bush camp during often brutal Saskatchewan winters, her efforts have been reciprocated by her team members.

Eugene Tourand doesn't just tolerate the Saskatchewan winter, he embraces it. Speaking of the difference between logging in the past versus today, he says he appreciates the modern

conveniences like a warm cab, but also doesn't complain about the days of setting chokers and tramping around the bush. All that physical activity kept him warm, he says with a hint of nostalgia.

Eugene likes being outside and enjoys doing things that are familiar and natural to him. The task that is most familiar is operating a skidder. "I've been outside all my life. I was born and raised on the farm. We would farm in the summertime and then we'd go to the bush in the wintertime." I ask Eugene how many more years he plans to work. He responds that he doesn't really know. "Until I can't."

Like his son, Eugene has a lot of positive things to say about Amy. "She amazes me. I'm so proud of her. She wanted to run a processor but she had to graduate first. She graduated and she came to work, and man she picked it up." Eugene says it's in her blood.

Amy also has a welding scholarship with Saskatchewan Polytech.



Brander's oldest Tigercat 575 head has 38,000 operating hours. It is double shifted throughout the season.

During last spring break-up, Amy leveraged her high school welding courses by working on some projects with Lee Dull, Brander's full-time welder. This year, once the season finishes, she

hopes to continue welding. "I honestly would really like to be a journeyman welder. Working on heavy duty equipment would be nice. I don't mind travelling. I don't mind being around this

big equipment, and a more male dominant crew and stuff like that doesn't bother me. It's not as scary as I thought it was going to be when I first came out here." ■



A pair of 865 loggers. The Branders also utilize an 875 in their loading operations.



Darío Gustavo Valdés Muñoz with his son, Darío Ignacio Valdés Martínez.

A COMPETITIVE *Drive*

Darío Valdés talks about passion for the forestry industry, growing and modernizing a company, and always aiming to win.

– Jorge Victoria

Transportes Valdés is one of the largest and oldest forestry contractors in the Chilean region of Maule. Hard-working businessman, Darío Gustavo Valdés Muñoz, is the owner and director. The company is headquartered in Constitución and has bases in Chillán and Arauco. A business that started with a single log truck has been transformed by Darío Valdés into a large company with hundreds of trucks, along with

equipment dedicated to loading and transporting forestry products.

The company was founded in 1972 by Darío Omar Valdés, Darío's father. Due to the scarce job opportunities in Constitución towards the end of the sixties, Darío Omar joined a group of locals, and accompanied by their representatives, they marched to demand that the Corporación de Fomento de la Producción (CORFO) establish its pulp mill in

Constitución and thus generate more jobs in the town. We all know that history is written by the victors, and the inhabitants of Constitución achieved their goal. In 1969 Celulosa Constitución S.A. was born. A couple of years later, Darío Omar, with a single truck, started what would go on to become a prosperous transport company. The early years were not easy. Darío Omar transported pulp to Valparaíso and Puerto San

Antonio, and each round trip took almost three days.

Then, in 1979, Celulosa Constitución S.A. and Celulosa Arauco S.A. (another CORFO-owned mill) merged, resulting in the creation of Sociedad Celulosa Arauco y Constitución S.A. – better known as ARAUCO – which is one of the largest forestry companies in Latin America. Over the years, Transportes Valdés has forged a strong, long-lasting relationship with ARAUCO and Darío attributes much of his company's growth to the Chilean forestry giant. "When ARAUCO was created, we also started working with them bit by bit." Darío explains that up until 2000, his company operated with single shifts. "But after 2000, we switched to double shifts. For me, there is an excellent relationship with the people at ARAUCO," says Darío.

To continue or not?

The death of Darío's father in 2013 marked a turning point for the company, bringing the inevitable decision about whether to continue operating the business. The decision about what to do with the company fell to Darío and his mother, Gloria Ximena. In Darío's words, "When my father passed away, I asked my mother: What should we do? Should we close or go on? If we go on, we have to turn the company around and professionalize it."

Darío's first move was to hire a manager focused on finding new contracts. He brought in Enrique Soto Valenzuela, who to this day has served as the company's manager. After ten years, Transportes Valdés has experienced exponential growth. The company went from 50 employees in 2013 to almost 500 today. Darío adds, "We

could have closed shop, sold the machinery and invested in other things. But the decision was made to continue, and in fact I think it was the best decision. After ten years, if you do the math, it's all positive news."

Today, Transportes Valdés has a workforce of almost 500 employees and a large fleet of around 200 forestry trucks and loaders, including self-loading trucks, log and pulp trucks, and truck-mounted loaders. Its impressive fleet of Tigercat loaders, including both 220D and 220E models, totals 26 units.

Darío tells us that the company's rapid growth presented him with a particular challenge: personnel management. The solution involved delegating functions, surrounding himself with a professional team, and setting up different departments with specific areas

A Tigercat 220E loader loads a truck in a tight roadside landing near Cauquenes, Chile.





Part of the truck-mounted 220 loader fleet at the company's headquarters in Constitución.

of responsibility and various administrative levels. “When you’ve reached a certain number of employees and a certain number of machines, you may no longer know all your employees. It’s not so easy to get to know 500 people. So, you have to delegate. And from there, what should a businessman do? Manage. Make sure that the things you want to get done, get done. Because you can’t do it all yourself; in the end you need the help of your people. And for that you need to have a good team, one that’s hopefully as professional as possible, because that ensures you do much better,” explains Darío.

Darío stresses that the growth of the company is directly tied to quality. “It’s true that you go in and bid for the tender, but you also must do a good job. As you acquire contracts, you must try to do the best work possible, because that’s

the only way you can present the company with good indicators, with good numbers. By doing our best, we’ve won many contracts and we’ve also grown a lot.”

Aiming for first place, every time

Darío Ignacio, Darío’s eldest son, has been involved in the company from an early age and currently works as head of pickup truck management. At age twenty, he is responsible for around 50 of the company’s pickup trucks. He’s passionate about the forestry sector, but also about car racing. “It’s more or less the same passion,” Darío says. “Just as there is the passion for forestry, there is the passion for racing cars.” Darío Ignacio convinced his father to help him race Fiat cars in the Fiat 600 category. So Darío Valdés, together with Arturo Veas Araya of Mecánica

Araya, formed the Transportes Valdés team. The Fiat 600s in this category are vintage cars from the sixties reconditioned for the track. They reach speeds over 125 km/h (about 80 mph).

Darío Ignacio, or ‘Tato’ as he is known on the track, has already achieved several victories. He was selected best new driver in his category by the Club de Automovilismo Deportivo (CAD) Cartagena in 2023. Without doubt, he has inherited his competitive character from his father. Whether on the track or in business, Darío Valdés is always aiming for first place. He has more Tigercat 220 loaders than any other contractor in the world. “The only problem I have is that I’m very competitive and like to take a gamble. When I’m passionate about something, I always try to fight for first place,” says Darío.



Darío Ignacio 'Tato' racing his Fiat 600.

Versatility in roadside loading

Truck-mounted loaders are crucial to the Chilean forestry industry. Due to Chile's rugged geography, this type of loader has proven to be a very efficient and appropriate solution, combining excellent mobility with small overall size – ideal for tight roadside landings on narrow, switch backed mountain roads. Darío emphasizes that the units have no problem accessing steep terrain. He also stresses that it is a more efficient and mobile solution compared to a wheeled excavator. "The truth is that this truck-mounted loader allows you to move to more places and a lot faster. We had an excavator on tires, but it turns out that they move at fifteen to twenty kilometres per hour (9-12 mph) on the job. A truck moves at 35 or 40 kilometres per hour (22 or 25 mph). I think that versatility is

what has led to the boom in these truck-mounted loaders here."

Transportes Valdés works mostly on ARAUCO company properties in the Constitución, Chillán and Arauco areas. The Tigercat fleet loads around 160 000 cubic metres per month but has the capacity to load 200 000 cubic metres during peak months. Each machine loads between twelve and fourteen trucks daily. Excepting routine maintenance, the entire fleet of 26 Tigercat loaders operates daily.

Darío claims that his Tigercat 220E loaders have lower fuel consumption than other brands, a direct result of model evolution, efficient hydraulics and the integration of FPT engines. He also says they are faster. Plus, they are quite comfortable – the machines of choice for his operators. "I like this machine. I feel there's no need to

switch to another brand because it does the job well."

Latin Equipment, a key partner

The desire to win and move his company forward has led Darío to look for key partners to help him achieve his goals and objectives. Latin Equipment is clearly one of them.

Transportes Valdés' experience working with Tigercat and Latin Equipment was satisfying from the start. Having seen Tigercat 220D loaders at work on other logging operations, Darío decided to talk to Latin Equipment representatives Cristian González and Rodrigo de la Sotta to take a closer look at the performance of Tigercat loaders. Satisfied with what he observed, in 2017 Transportes Valdés initiated its relationship with Latin Equipment by purchasing eight 220D loaders.



(L-R) Rodrigo de la Sotta (Latin Equipment Chile sales executive), César Espinoza (occupational health and safety supervisor - Constitución), Darío Ignacio Valdés Martínez (head of pickup truck management), Darío Gustavo Valdés Muñoz (owner of Transportes Valdés), Patricio Carrillo (operations manager - Constitución), Marco Contreras (loader operator), Luis Gutiérrez (loader operator), Pedro Venegas (Tigercat factory support representative).

Darío emphasizes that Latin Equipment’s agile structure was a determining factor in continuing to do business with them. He stresses that having Latin Equipment present in Constitución is a plus. The quick, efficient response and ongoing support has made Latin Equipment the ideal partner to meet the high demands and expectations of a company of Transportes Valdés’ stature. “I asked myself several questions after first doing business with Latin: How did Latin behave? Did they support us? Did they provide help? It is Latin’s simpler corporate structure. The competition – let’s call it that – is a bigger company. So, the

communication and paperwork are very cumbersome. In general, I don’t like that, because it wastes a lot of time. So, the fact is that the experience with Latin was good. If it hadn’t been good, we wouldn’t have gone back again for twice as many loaders.”

In the future, Darío hopes to continue the trajectory of growth and expand not only to other geographical areas but also to other markets. “We have a vision of continuing to grow. The pandemic affected us a lot in various ways. It put us on a kind of standby. And now, as we are getting back to normal, we’re trying to continue to grow.”

Darío adds the support provided by Pedro Venegas and Juan Velásquez, Tigercat’s factory representatives, has been crucial to the success of Transportes Valdés. “There are many factors to take into account. Having good service, having the parts when needed, having the support of the brand when needed; it all helps. And look, we have so many Tigercats because we really believe in the brand and we believe in the company that represents it, which is Latin. If we didn’t, we wouldn’t be working with them.” ■

CHILEAN COMPANY on the *Cutting Edge*



Jorge Victoria talks to Carlos Barrenechea Gutiérrez, operations manager at Agrifor Doña Isidora, to find out more about the various initiatives the company has implemented, such as the intensive use of telematics, and the training and inclusion of women in its workforce.



(L-R) Victor Gonzalez (supervisor), Carlos Barrenechea (operations manager).

Sociedad Agrícola y Forestal Doña Isidora was founded in 1999 by forestry engineer Vasco Bustos. He named the company Doña Isidora after one of his daughters. Today, the company, based in Concepción, Chile has 165 employees operating from Talca in the north to Valdivia in the south. The company produces 950 000 cubic metres per year using the full-tree harvesting method.

At the helm of operations is Carlos Barrenechea, a forestry engineer from the Instituto Virginio Gómez, who also holds a master's degree from the University of Santiago de Chile. Carlos joined Doña Isidora in 2002 as an assistant to the operations supervisors. As his experience grew, he realized that it was vital to adapt to the rapid changes in the forestry industry. He has been committed to innovation ever since. "Companies have a duty to modify their strategy and how

they provide their services, and I understood that we had to be part of that change," Carlos explains.

Years ago, the harvesting systems were quite traditional and much more labour-intensive. Gradually, mechanization came to play a more important role and the company adapted to changes in the market in search of greater efficiency and improved safety for its workers. "The reality of our company today is radically different from what it was ten or fifteen years ago. Today, technology has taken on a leading role, not only as a tool to support planning, but also for the execution and control of operations. The evolution has fundamentally involved looking for ways to align with the requirements that today's world imposes."

This includes aligning with the requirements of the clients. To this end, the use of management, loyalty and administration tools provides

the company with consistent quality. And this differentiation becomes key when it comes to sustaining long-term relationships with its customers. "We are constantly seeking to differentiate the company in every area, from the smallest to the most strategic processes, and naturally, to always position ourselves among the best in terms of how we are perceived," says Carlos.

The technological tools that Agrifor Doña Isidora has implemented include digital mapping, satellite imaging and simulation models, among others. Telematics is also an extremely important tool for the company. It allows constant monitoring of equipment and a much more detailed understanding of issues including machine health, location, productivity and operational efficiency. In short, the implementation of these technologies has allowed the

Below: Doña Isidora's Tigercat 632H skidder must operate for 48 months, at a rate of 450 effective hours per month. This is what Agrifor Doña Isidora considers a triple shift. The company scales equipment utilization to levels 60-70% higher than other operations.

company to carry out increasingly detailed operational planning.

To process the large amount of data it collects, Doña Isidora has implemented an operational control platform managed by a technical department whose mission is to seek continuous improvement. "You must have a technical department that is up to the task; not only professionals in terms of their academic training, but also with the understanding that it is necessary to seek improvements on a daily basis. That means you must have a

team that is very well trained, that knows the technical tools, and has the acumen to be able to correlate information," says Carlos.

The Tigercat difference

Agrifor Doña Isidora's relationship with Tigercat began in 2012 with the implementation of a mid-slope contract, where the company opted for a configuration (unique in Chile at the time) consisting of an LS855 shovel logger together with the (since discontinued) 615 six-wheel skidder. Today, the company has a

total of eleven Tigercat machines, including three feller bunchers, four skidders, three shovel loggers and a harvester. "Today, Tigercat makes up a third of our fleet and the machinery is primarily intended for those applications that require extremely reliable equipment with good, sustained performance over the long term," comments Carlos.

Agrifor Doña Isidora's operators work eleven-hour shifts, so the ergonomics of the equipment is crucial. Carlos stresses that the technical design of Tigercat

"THE EQUIPMENT IS TECHNICALLY OF A VERY HIGH STANDARD. THERE ARE DESIGN VARIABLES THAT DIFFERENTIATE THEM. EVEN MORE SO IN THE SIX-WHEEL SKIDDERS, WHERE THEY ARE WORLD LEADERS. THE SHOVEL IS AN EXTRAORDINARY PRODUCT. HOWEVER, IT IS THE WARMTH, THE DEMONSTRATION OF MUTUAL TRUST AND THE WAY TIGERCAT DEALS WITH CONTINGENCIES AND PROBLEMS THAT MAKE ALL THE DIFFERENCE."

– Carlos Barrenechea





The team in charge of operational control at Agrifor Doña Isidora. (L-R) Carlos García (geomatic engineer), Cristian Cortes (software engineer), Cristóbal Leiva (civil engineer, head of department), Luis Toledo (forestry engineer).

machines is another important factor that impacts productivity levels. “In the case of the shovel, for example, the weight distribution, together with the design of the hydraulic system, lead to a much higher performance than other equipment we have used. And this is obviously good news for the operators, because they achieve better productivity levels with less effort, and at the same time this helps the whole harvesting chain.”

Carlos explains it is the relationship between the customer, the dealer and the manufacturer that makes all the difference. “In our opinion, the main advantage arises from the direct relationship with the factory. The equipment is technically of a very high standard. There are design variables that differentiate them. Even more so in the six-wheel skidders, where they are world leaders. The shovel is an extraordinary product. However, it is the warmth, the demonstration

of mutual trust and the way Tigercat deals with contingencies and problems that make all the difference.”

A world of information

Agrifor Doña Isidora has found telematics to be an essential digital tool for improving the management of operations and providing a basis for better decision-making. In addition, it has proven to be a tool that bridges the gap between the operational and administrative bases. Carlos points out that, for Doña Isidora, all the information provided by telematics is relevant and valuable. Knowing real-time information about the condition of the equipment, receiving failure alerts, and seeing fuel and lubricant levels, has allowed the company to improve its maintenance processes and reduce the likelihood of significant failures. In that sense, the company’s ability to react is improved.

“Nowadays, if you receive a fault code, you can go to the service manual or consult with the technical-mechanical team, and immediately know what the problem is. You can find out what the possible causes are, and you apply the service protocol. This leads to a much quicker response time, and a more precise diagnosis. So, for the operator and the maintenance staff, it’s a tremendous tool.”

The company has an operational control platform where a large amount of data from equipment and operations are collected and processed. “Today, thanks to telematics, we have objective information on the performance of each of the operators on each of our machines. We can obtain performance reports differentiated by morning and afternoon. We can find out in which conditions a certain performance level in terms of fuel consumption is achieved

compared to others. In other words, this level of detail is what allows us to determine what our true costs are and determines performance expectations for a certain machine or configuration.” Carlos explains that the historical data provided by telematics also allows his team to generate harvesting simulation models that help them to anticipate potential problems for new sites.

Another important aspect is geo positioning. By having access to information about the routes a machine takes, its operator, and the time of day, Doña Isidora can quickly implement changes to improve productivity. “We have detected that there are operators who tend to concentrate their movements in fewer areas than in others. We have detected that there are operators who use the rotating seat of the machine with a higher level of intensity than others, and this can be seen graphically because they trace different routes. And by controlling that, we have seen changes in productivity.” In addition, the company can ensure that it doesn’t impact areas that enjoy a special level of protection under Chilean environmental legislation.

Carlos says that, although Doña Isidora makes good use of telematics, it has not yet exploited its full potential. He estimates that the company takes advantage of just 30% of the potential that telematics provides. “There is a lot of information available, and in the first half of next year we’d like to have a model in place that allows us to automatically retrieve information from telematics and use it to feed our operational control platform. We’d like to have much

more detailed metrics, by operator, by shift, by workday and within the day, to establish when the curves start to decline and why, and to be able to work on that. There’s a world of information out there.”

Academia Isidora

To address the problem of an aging workforce and the lack of training and interest in forestry seen in the younger generation, Agrifor Doña Isidora launched the Academia Isidora in 2022. This training initiative started as a pilot program that resulted in the training of 58 young forestry workers between the ages of 21 and 24. The academy was made possible thanks to the participation of CMPC, a Doña Isidora client. Latin Equipment and Tigercat provided operator instructors for the learning process.

The program consisted of both theoretical and practical components – 160 hours in the classroom, and 350 operational hours. Graduate performance reached 40% of standard productivity. Employability surveys showed figures in the order of 80%. Of the total number of graduates, around 15% are currently working at Agrifor Doña Isidora. “With this initiative, our aim was to contribute to the rejuvenation of the labour market as well as professionalizing it, and also to contribute to the market by implementing models that can be replicated by companies or related institutions,” adds Carlos.

Carlos argues that one of the main deficiencies in the Chilean market is the lack of formal training opportunities focused on harvesting or forestry activities. “The learning process is implemented by each

of the companies with whatever resources they have, but in a rather inorganic, unstructured way. The competitiveness of the world market, the problems of recent years, COVID, the fact that companies are appearing in the Brazilian and Asian markets with very high pulp production, and with very high levels of productivity, means the Chilean market must seek ways to improve its overall productivity. The training of its workers is a key element, and there are no formal bodies doing this. Therefore, the initiative that we carried out was a contribution, albeit a humble one.”

Carlos believes in training. It improves safety and develops operators that are better informed about the company’s purpose and care for the environment. In addition, Carlos strongly believes women are important to the future of the industry. He remembers travelling to Uruguay ten years ago, where he saw female harvester operators and truck drivers working, something that was very unusual in Chile at that time. With this in mind, Agrifor Doña Isidora established a clear and concrete policy aimed at attracting women to the industry and encouraging them to join the company. “Levels of female unemployment are extremely high, and at the same time, the performance evaluation of the roles performed by women in many cases exceeds the performance of men. Therefore, it is a mistake not to consider them. Besides, it’s a global trend,” says Carlos.

The Academia Isidora played a very important role in the process of training and incorporating female staff into the company.

The initiative required that there should be 20% female students. By 2023, the percentage of women in the company reached 8% in roles ranging from processor and loader operators, to mechanics, administrative and operational control roles. This year, the company plans to reach 15% female staff.

It is clear that Agrifor Doña Isidora is a company that is committed to

innovation. The company's ongoing focus is on implementing cutting-edge technology to optimize its operations. I ask Carlos what challenges he faces. He replies that the challenge is to eliminate all probability of human error from the flow of information – to be able to absolutely trust the information that the machinery delivers, to eliminate analog inputs and achieve greater accuracy in the information that

is managed. “One of the projects we have, thanks to telematics, is to automate all the data input to our control systems. We’re already working with Tigercat to automate information retrieval. And then we will have everything to do with the machine, absolutely everything. Today, telematics is an absolute requirement for the purchase of any asset. We can’t conceive the purchase of any machine at any price that doesn’t have telematics.” ■

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A group of Doña Isidora female staff at a logging operation near Cabrero, Chile. (L-R) María José Urra Matus (mechanical technician), Javiera Díaz (site manager), Camila Sandoval (processor operator).

#TIGERCAT *life*

NEW STREET, FAMILIAR NAME

A ribbon cutting ceremony was held this past February for the opening of Iarocci Boulevard, honouring former Tigercat president, Tony Iarocci.

Tony was the first Tigercat employee. He led the company from 1992 to 2017, overseeing a period of incredible growth, worldwide market expansion, and a steadily increasing product line. The company is currently in the process of constructing a new facility in Paris, Ontario. As part of the process, a new municipal road was constructed, and it now holds the name Iarocci Boulevard.

“The new 276,000 square foot [25,640 m²] building will accommodate additional manufacturing capacity and will create more than 400 new jobs. Manufacturing activity is expected to begin in the fall of 2025. I thought it was significant to have the prototype 726 here. This machine created a



strong foundation for the company, and paved the way for many additional models and the associated expansion of the company, including the new facility here in Paris,” said Tony. “Needless to say, none of this would exist without owner Ken MacDonald’s hard work and impeccable business ethics.” ■

Tim Koniuch, one of Tigercat’s very earliest employees, was instrumental in the effort to build the prototype 726. He was the first to officially drive on the new road in the prototype machine. We are not quite sure if the 726 is street legal.

Scan to watch video



Ribbon cutting (L-R): general manager of development services, County of Brant, Pam Duesling; general manager of operations, County of Brant, Rob Walton; mayor, County of Brant, David Bailey; former president and current director, Tigercat, Tony Iarocci; former president and current director, Tigercat, Grant Somerville; founder and president, Tigercat, Ken MacDonald; vice president – supply chain, Tigercat, Martin Jennings.

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