

Endurance

Bill Borger has it in life and business

Black Velvet

B.C. paver delivers a smooth ride

PLUS:

Prep for the CT660's big reveal

Day of Flames

Finning in Slave Lake

Whiz Kid

Venerable contractor, cutting-edge tech

HEAVY DUTY HUNTING NEW 2011 GEAR



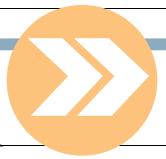
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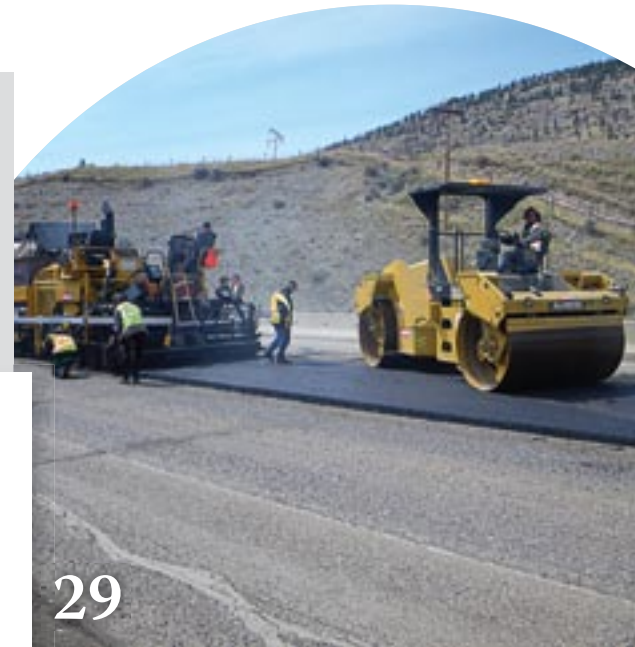
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Photo: Colin Way

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Courage to Care

Safety is part of the culture at BHP Billiton's diamond mine

BY JEN JANZEN
EDITOR-IN-CHIEF



According to Laura Tyler, the general manager for BHP Billiton's EKATI Diamond Mine, thinking that you'll get home safely isn't good enough.

"If there's any single element you can't guarantee, you need to look at it again," she said. "Your family's expectation – that you'll be home safely when your shift ends – should be yours."

With both open pit and underground mines, EKATI is located in the Northwest Territories, about 300 kilometres northwest of Yellowknife. Finning sells and services a large part of EKATI's fleet, and about 100 Finning employees work there in jobs ranging from service advisors to partspersons to technicians.

BHP BILLITON ENCOURAGES ALL PEOPLE ON-SITE TO WATCH OUT FOR THEMSELVES AND EACH OTHER. "WE CALL IT 'COURAGE TO CARE,'" EKATI GM LAURA TYLER EXPLAINS.

If you're looking for an example of impressive working conditions, EKATI certainly fits the bill. The Northern location brings bouts of extreme cold and the potential for wildlife

encounters (bears, wolves, wolverines and migrating caribou). In the summer, there's perpetual sunshine, which turns into extremely short days in the winter. Then there are the underground shops some Finning mechanics work in: workplaces literally carved out of the rock.

If not appropriately managed, these extreme conditions could pose a safety risk. But the conditions are managed well, and EKATI has the numbers to prove it. In fact, Finning's EKATI employees recently celebrated 5 million hours without a lost-time incident.

"I couldn't be more pleased with the partnership BHP Billiton offers our employees," says Finning's executive vice president of mining Dave Primrose. "Safety is the core of our jobs at Finning, and I'm happy that BHP Billiton works with Finning to create a culture where safety thrives."



BHP Billiton encourages all people on-site to watch out for themselves and each other. "Could you live with the fact that you could have done something to prevent an incident?" asks safety advisor Yves Levesque. Employees have the right to refuse unsafe work, and anyone on-site has total freedom to share safety concerns, even taking concerns all the way to the top.

"We call it 'Courage to Care,'" Laura Tyler explains, "because it does take courage. Speaking up is not always easy. Conversations are not always pleasant. But at EKATI, you can have a safety conversation with anyone, and it will be a good conversation. I guarantee it." 🗣️

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Venture
PUBLISHING INC.**FAN OF THE CRAFTSMAN**

That D10T on page five of the summer issue of *Tracks & Treads*... wow! I have a challenge for you: find this guy.

Larry Thompson

Spruce Grove, Alberta

THROWING DOWN THE GAUNTLET

Game on, Larry! We want to find out who the master builder of this little beauty is, too. To remind readers, these images came across the Finning desk, somehow detached from the information that could tell us who the builder is. Do you know? Do you recognize the handiwork? If so, please let us know.

Help us find the mystery builder and you'll earn yourself – and the identified builder – a \$50 gift certificate each to Finning's Heavy Duty Gear Store.

How's that for incentive?

– **Editors**

**Tell us what you think**

Tracks & Treads would love to hear from you. Tell us what you think of the magazine's stories, columns and look, so that we can improve it and make it a more interesting read.

Send your comments to editor-in-chief Jen Janzen by email at jjanzen@finning.ca or the old-fashioned way to: Jen Janzen, *Tracks & Treads*, Finning Canada, 16830 – 107 Avenue, Edmonton, Alberta T5P 4C3

www.finning.ca

FROM FINNING

Finning Canada implemented its new enterprise resource planning system on July 4, a move that will generate long-term operational benefits. The new system is now being used to transact business across the enterprise.

As with any change, there is an early learning curve and start-up challenges to overcome.

"We carefully planned for this change, trained our people and took steps to minimize the impact on our customers," says Finning Canada President Dave Parker. "We expected that there would be a period of adjustment and some typical start-up issues, but what we didn't anticipate was the level of impact to our parts distribution and warehousing areas. We are very grateful to our customers for their patience as we make the transition."

To address start-up issues, Finning has teams of employees and technical experts working around the clock to implement solutions. "In the meantime, we're taking other interim measures to move parts through our branch network to our

customers," notes Parker. Progress to rectify the situation is being made daily.

Finning Canada is among the first group of Caterpillar dealers to develop a new information technology system. Design got under way soon after Caterpillar announced that it would no longer support the Dealer Business System (DBS), the technology used by all Cat dealers in Canada and worldwide. "We took that announcement as an opportunity to develop something that would enable us to serve our customers better."

Carefully designed, configured and tested over a three-year period with a leading provider of enterprise resource planning solutions, Finning's new ERP should ultimately enhance its ability to provide superior customer service.



DAVE PARKER,
FINNING PRESIDENT

School Supplies

Students in the Heavy Equipment Technician program at NAIT will be rolling in style thanks to the Cat 277 track loader and Cat 305 mini excavator Finning recently donated to the program. It's part of a five-year, \$3-million funding agreement between the school, Caterpillar and Finning, with Finning providing NAIT with \$1 million in cash and \$1 million in equipment by 2012. The new machinery offers NAIT apprentices the chance to train on the kind of state-of-the-art equipment they'll find in the workplace. "It's not only hands-on, but hands-on with very new technology and equipment," says Dave Scott, Finning's manager of learning and development.

According to Scott, tight government budgets can put buying new equipment out of reach for schools like NAIT. "The colleges have a very limited budget they can spend not only on the program but on renewing older equipment," he says. At NAIT, "some of the equipment still being used in the program dates back to the '70s. Older wheel loaders, older excavators and that type of thing. Some of the equipment was so old that most of the stuff's been retired in the workplace."

Next year, Finning plans to cap off the funding commitment with a new Cat vocational truck and a Tier 4 emissions-compliant engine. The donations will keep NAIT students current in workplace technology for years to come. — R.S



New to the Family

Caterpillar is no stranger to mining. Its equipment has been making mining an easier task for decades. But now, Caterpillar is not just a part of the mining picture. With the recent acquisition of Bucyrus International Inc., Caterpillar is mining.

The company has made it a goal to offer more products to the mining industry, above and below ground. By bringing Bucyrus into the fold, "Caterpillar now has the widest product offering in the world for surface and underground mining equipment," says Robin Miller, formerly of Bucyrus, now Caterpillar's account manager for Canada.

"The customer has been looking for this for a long time," Miller says. Because there is very little overlap in product lines, plans are to keep Bucyrus products in play, marketed under the Cat brand. One important goal is to make the new mining equipment subject to the same great after-sales support and service customers enjoy with Cat. "Caterpillar's dealer network was very important," Miller says.

Just how Caterpillar will leverage its dealer network remains to be seen, but there is a transition plan in place that started in July 2011 and will continue for several months, says Miller. The goal is to minimize negative impact on the customer and maximize benefit, making the new additions seamless.

According to mining.cat.com, the company anticipates that, over the next year or so, Cat dealers will have a role to play with all product lines. "The transition will occur in phases," according to the website, "based on the mining business opportunity and the population base of current Bucyrus products." Regardless of how the rollout takes shape, Bucyrus customers will soon have a one-stop-shop for surface and underground machines. – M.P.



SNEAK PEEK: Here's an artist's rendition of a Caterpillar 8750 dragline, soon to come your way in a becoming shade of yellow.

Hire Education

The Cat Rental Store's recent donation-in-kind, use of a packer and excavator to Olds College, gave a group of students some invaluable hands-on experience with Cat-brand heavy equipment. The machines, earmarked for the Women Building Futures Heavy Equipment Operator program, was on loan to the school from April to June 2011, and 16 women attending the program in Edmonton were able to train with it for approximately 150 hours – a total monetary value of \$13,000.

While donations like this help to ease the financial burden of such programs, the benefits of the partnership – and others between education and industry – run far deeper than that,

says Laurie Chicoine, the continuing education manager at the Olds College School of Trades and Career Studies.

"Olds College could not offer the programs we do without the assistance of industry. This assistance allows our students to benefit from training on state-of-the-art equipment and, in this case, it also benefits our training partner, Women Building Futures, a not-for-profit organization that helps women build better lives and achieve economic independence through training, employment and mentorship."

The co-operation between the company and the college fosters a mutually beneficial relationship, explains Chicoine. "The construction industry also benefits from skilled graduates," she says, "at a time when many qualified personnel are retiring from the workforce, creating an employee shortage in an industry that's vital to the infrastructure of Alberta." – R.S.



Rent it, Use it Safely

The Cat Rental Store (TCRS) makes sure that once you rent it, your guys and gals on site can use it safely. TCRS provides comprehensive, industry-recommended curriculum for Aerial Work Platform Safety Awareness Training. The program meets the criteria for WHS, OH&S for safe operation and competency and covers a classroom and a hands-on component. Courses can be held at your business location or at one of the many TCRS branches located throughout Alberta and British Columbia.

As an employer, you benefit from less damage to equipment, property and products, better skilled operators, fewer accidents, and meeting OH&S codes. Your employees benefit by learning new skills, having a greater familiarity and comfort level with machines and the ability to operate equipment safely. Learners earn a completion card, valid for three years, once they have proven they can safely and competently operate the equipment.

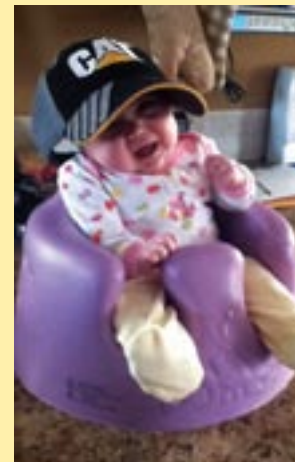
TRAINING SERVICES INCLUDE:

- Aerial Work Platform Operator Certification
- Oil Sands Safety Association Aerial program (OSSA-AWP) Accredited AWP training for the oil sands projects
- Telescopic Handler Operator Certification
- Forklift Operator Certification
- Skid Steer Loader Operator Certification
- Compact construction equipment familiarization
- Safe use of attachments and work tools for equipment
- Heating applications and heating equipment
- Load securing of mobile equipment



Show us Your Gear!

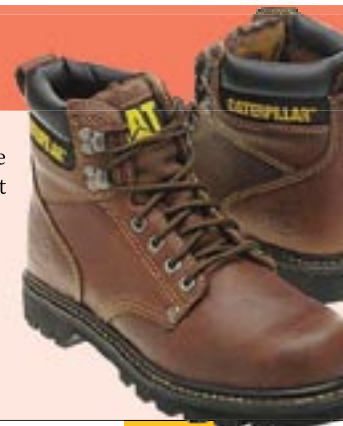
Congratulations to Charlene Morris, whose picture received 103 votes on the Heavy Duty Gear's Facebook page. Charlene wins a \$100 Heavy Duty Gear store gift certificate. The contest runs all year with winners being announced in June, September and December, so there's still time to submit a picture of you or a family member decked out in Caterpillar gear.



For more information and to enter, visit www.heavydutygear.ca/ShowUsYourGear.htm.

Bonus!

Contact The Cat Rental Store near you to set up an account and, after you spend your first \$1,000 in rentals, you get a complimentary pair of Cat work boots. The Cat Rental Store is a fit for your business – and your feet!



Homes at Last

Finning Canada employees are making themselves at home in their brand-new facilities at Tumbler Ridge, B.C., according to facilities director Drew Godley. Earlier this year, the company moved from the office trailer and tent facilities at the edge of town it had occupied since 2005 into a permanent office and warehouse structure in an industrial park in Tumbler Ridge itself.

Meanwhile, construction on the planned Finning facilities in Fort Mackay is right on track, says Godley. Ground was broken in April, and as of August, piles had been installed, foundations poured and steel erected. Godley expects the project, a 16-bay customer maintenance facility, to be completed in late 2012. – R.S.



MINING FACTS & STATS

You ought to know that mining in Canada:

- Employs 306,000 Canadians and accounts for 3.5 per cent of the gross domestic product
- Pays \$5.5 billion to governments in taxes and royalties
- Provides a market to 3,200 suppliers of mining goods and services
- Is the largest private employer of Aboriginal Canadians
- Made the country the top destination for global exploration in 2009, attracting 16 per cent of world spending
- Accounts for 19 per cent of Canadian goods exports
- Produces more potash and uranium than any other country and is among top five for nickel, aluminum, diamonds, zinc and salt
- Means the value of minerals and metals to Canada's economy has remained in the range of three per cent to 4.5 per cent of the country's gross domestic product for the past two decades

Source: The Mining Association of Canada

Wheel Deal

If you've been thinking about a wheel loader, now's the time. Finning's Caterpillar H-series medium wheel loaders are the focus of an extra-large good deal. Eligible models are the 950H, 962H, 966H, 972H, 980H and IT62H.

Super efficient, you can move more tons per litre with the H-Series. New performance series buckets, powershift transmissions, variable shift control and constant net HP are just some of the components providing best-in-class performance. Your guys on site are working more comfortably, too. The H-series medium wheel loaders boast the most comfortable cab in the industry.

Ground-level service points, electrical and hydraulic service centres, remote pressure taps and easy engine compartment access make servicing a snap. When it's time, your loader is built to be rebuilt. If you're ready to upgrade, your Cat medium wheel loader has the highest resale value. And it's all backed by the Finning parts-and-service network.

Until the December 31, 2011, you're eligible for great financing: **0.9 per cent for 36 months, 1.9 per cent for 48 months, 2.9 per cent for 60 months.** Or capitalize on Finning's free extended powertrain and hydraulic warranty and any combination of these options: parts credit, rental credit, additional Cat work tools, preventive maintenance contracts, additional warranty or financing.

By the Numbers

12

Number of songs on *Helplessness Blues*, the Fleet Foxes' newest album



96

Number of dollars it costs music-loving parents to sign a child up for Boutique Babysitting at the Green Man Festival in Wales



40

Length, in centimeters, of the largest flabby whalefish ever found



4.028

Height, in metres, of each tire on a Cat 797



47

Number of nuts attaching each wheel of a 797 to the axle

1

Direction the Pacific sand crab can crawl



1670

Year the Hudson's Bay Company was established

\$1,041,225,686

Box office total for Harry Potter and the Deathly Hallows, Part 2

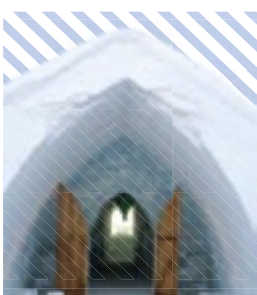


442

Number of yards of the second hole at Greenway's Greens in Watson Lake, Yukon

12,400

Tons of ice and snow used to build Hotel de Glace in Quebec



6,802

Number of yards of Gallagher's Canyon golf course in Kelowna

11

Actor Daniel Radcliffe's age when he starred in the first Harry Potter movie

22

Radcliffe's age in the last installment of the franchise

Versatile Iron

The first wheel loader brought about a revolution in new Caterpillar machines

➤ **Since Caterpillar entered the wheel loader**

market in 1959 with the 944, cutting-edge innovations and improvements have resulted in the most comprehensive loader line. Not only the start of a new product line, it was the start of rapid diversification by Caterpillar from a conservative line of earthmoving equipment in the 1950s to a broad line of new products that would appear during the 1960s.

The company added two more loaders in 1960: the 922 and 966A. Standard buckets of Caterpillar's first three wheel loaders ranged from 1¹/₄ to 2³/₄ cubic yards, and engines from 80 to 140 flywheel horsepower. The loaders featured four-wheel-drive and power shift transmission with torque converter. The innovative front-mounted bucket arm pivot made possible an unobstructed operator's compartment, and eliminated the safety hazard found on certain competitive models where the arms pivoted behind the operator, causing them to pass dangerously close to the operator when he raised the bucket.

In 1962, the loader was upgraded to the 922B with increased weight and a standard bucket of 1 ½ cubic yards. In 1963, Caterpillar became a pioneering American manufacturer, recognized the advantages of articulated steering and when it released its first articulated-frame: the 988. It was also Caterpillar's largest wheel loader yet, carrying a six-yard standard bucket, and a 325-horsepower Caterpillar diesel engine. Today, all large wheel loaders in the industry and most small units employ articulated steering.

In 1968 Caterpillar introduced the 10-yard 992 wheel loader, almost doubling the productivity of the previous model. Power for the 992 came from a 550-horsepower V12 D348 diesel engine. Subsequent upgrades were followed in 1977 by the totally redesigned 992C. It sported Caterpillar's 3412 engine rated at 690 flywheel horsepower, and Z-type bucket linkage providing greater breakout force. Standard bucket size increased to 12 ½ cubic yards. The 992G in 1998, which featured a radical new boom consisting of a single box-section steel casting, improved operator visibility and overall weight reduction. The current 992K follows the same design with 15 cubic yards capacity and 800 flywheel horsepower from a Caterpillar 3508B engine.



FIRST FOR EVERYTHING: Still looking modern by today's standards, Caterpillar's first wheel loader was the 944, produced in 1959.

Caterpillar's top-of-the-line loader is the massive 994, introduced in 1990 with standard bucket of 23 cubic yards and operating weight in the 200-ton class. In 1998, this top-seller was upgraded to the 994D which included STIC (joystick) gear selection and steering control. The current 994F, introduced in 2005, tips the scales at 428,000 pounds when equipped with a 25-yard bucket. It is powered by a Caterpillar 3516B HHD EU engine rated at 1,463 flywheel horsepower.

At the opposite end of the range, Caterpillar first announced the small 65-flywheel horsepower 910 wheel loader in 1972. This nimble articulated 910 loader found a wide variety of uses from farming to street cleanup. Its standard bucket was rated at 1¹/₄ cubic yards, with a machine operating weight of 13,400 pounds. Upgraded to the 910E in 1989, and the 910F in 1992, the 910 reigned as Caterpillar's smallest loader until the company announced its new range of compact loaders in 1998.

Over the decades, the line has expanded to include a multitude of models and sizes – a machine for every job with attachments to broaden capability. Cat wheel loaders always incorporated the latest technology as new breakthroughs in operator comfort, engine efficiency and emission control evolved. Recent years have seen models upgraded to comply with tiered U.S. EPA and staged EU emission regulations, with improvements reflected in each upgrade and model. ●

Demystifying the CSA

A customer support agreement can increase productivity, decrease downtime and lower costs

➤ **Fewer repairs, less unscheduled downtime, lower operating costs and maximum productivity** – it's what everyone wants from their equipment. A customer support agreement (CSA) can help owners realize those benefits. Here's what CSA is all about:

What it is: A customizable agreement to meet your needs

A CSA is an agreement between the equipment owner and Finning to provide preventive maintenance at agreed intervals. Each CSA is for one machine and is tailored to the needs of the owner and to the application of the machine. CSAs are available for equipment of any size as well as for existing fleets, used equipment and certified or dealer-rebuilt machines

"Some customers prefer to do the 250-hour and 500-hour services themselves, and have us come out and do the really critical services at 1,000 and 2,000 hours so that they know that highly trained technicians are getting a good look at the machine every once in a while," says Aron Alberda, customer service manager, Preventive Maintenance Services, from Finning's Edmonton office. "We can build that right into the agreement."

Other customers benefit from a full-service preventive maintenance program. "A 250-hour service is essentially an oil change, but our techs do a lot when they change your oil," says Robb Stewart, a Finning product specialist in preventive maintenance in Edmonton. "They do technical inspections, contamination control and fluid analysis. They know these machines, so they can tell you if there are any problems much sooner than other service personnel."

While the big benefits are reduced downtime and improved operating costs, CSAs also reduce hassle, letting Finning keep track of maintenance schedules, often coming to your site to provide services.

It lets you concentrate on business.

What it is not: A lifetime commitment

When you're asked to sign a contract these days, you might feel nervous. "People think they're going to have to pay a penalty to get out of it, or that it will cost them in some way," Alberda says. "This isn't the case with a CSA. If the equipment is sold or retired, there are no cancellation fees."

Different payment options are also available. Some customers pay for services when they're performed. Others pay monthly for each hour the machine is running. "That way, expenses related to servicing the equipment match the revenue," says Stewart. "Owners know it's going to be so many dollars an hour and can budget for that."

To find out more about CSAs and how they can help your operation, contact your local Finning representative. ●



KNOW WHEN IT'S TIME

You are the expert when it comes to knowing your resources and abilities for carrying out your own maintenance. If your business is changing and it may be time to outsource, ask yourself the following questions. Your answers may reveal that it's time to explore a CSA.

1. Is your machine always available when you need it?
 yes no
2. Do you have a preventive maintenance program?
 yes no
3. Have you studied the recommendations in your owners' manual?
 yes no
4. Do you perform maintenance at all recommended intervals?
 yes no
5. Do you perform all of the recommended services?
 yes no
6. Are 20 per cent or more of your repairs after-failure repairs? (Before-failure repairs often cost less than half of after-failure repairs.)
 yes no
7. Is your per-machine operating cost too high or resale value too low?
 yes no
8. Do you spend too much time and money on the following: finding and training mechanics; tools, equipment and diagnostic tooling; disposal fees; employee benefits; parts inventories; shop upkeep and insurance; and service and lube trucks?
 yes no

In-House Invention

Tripping on tracks leads to a safety solution

➤ **He knew what he needed, but it hadn't been invented yet,** so five-year Finning employee Brent Einfeld set out to solve the problem. Einfeld, a heavy duty mechanic at Mildred Lake, fixes many dozers, which is where he noticed a persistent problem.

"The track pads on dozers stick up," says Einfeld, making it difficult to walk and work on the tracks. "You can trip on the tracks," he says. "It's worse in the snow, because those things get so slippery."

A slip can lead to a trip and a fall – and nobody needs a workplace injury. "You just step over one of the pads and if the heel of your work boot catches it, over you go," Einfeld says.

There was also the problem of kneeling on the tracks, says Bob Clarke, customer service manager. "When you're working around the engine compartment on a bulldozer you're usually kneeling on the tracks and they have different elevations so you can be kneeling on sharp edges."

Einfeld was certain he could devise a simple solution, so he started to build and use removable platforms. His platforms were initially made out of plywood and he could easily place them on the track each time he had to climb up and take them down once he was done.

It was when Einfeld was taking an engine out of a dozer and putting another one in, using a platform he made out of plywood he found around the site, that his invention really took off. Finning's oil sands general manager, Brent Davis, happened be on site that day and noticed Einfeld's device. "He asked if we could build those out of steel or aluminum," Einfeld recalls.

A welder on site used Einfeld's basic design to manufacture a metal prototype. "It's perfect," says Einfeld. "You can walk right up there and not trip on the pads." His invention doesn't have an official name – "a track walkway, or track Cat walk, I would call it," he says – but more of the platforms are appearing, with different sizes for different machines.

"The track itself is angled, so this platform creates a level area that you can kneel on," explains Clarke. There's also a rubber pad on top, to insulate it from the cold metal and make it more comfortable to work on.

Clarke says the platforms will now be built out of aluminum, making them easier to lift and place on the tracks. "There's big opportunity to use it throughout the Finning organization," says Clarke, noting more aluminum walkways are planned and information will be sent to other branches to make them aware of the new tool.



INVENTION TECH: Brent Einfeld shows the plywood prototype that led to the aluminum Trackwalker.



While Einfeld is excited by the attention his invention attracted, he points to one simple reason for creating the platform in the first place. "I was getting tired of almost tripping on these tracks and I knew that I had to be up and down this thing a million times, so I just decided to try and make my job easier and safer," he says. "Now I'm making other people's jobs easier too." 🍀

Build Your Team

Engage your employees to ensure the best results

BY CAITLIN CRAWSHAW | ILLUSTRATION BY STOCKWELL DRAWSON

For any new manager, the learning curve is steep.

A newbie must learn corporate culture while establishing a rapport with employees. “New managers are usually eager to prove themselves,” says Tom Armour, a former human resources executive who runs Toronto consulting firm High Return Selection. Insecurity leads some new managers to micromanage or take too much credit for their team’s performance.

Often, they don’t realize that their own success hinges on employee engagement. “The cream rises to the top,” says Armour, “meaning if you invest in the success of your people, you get pushed up with them.”

While “employee engagement” may sound like a pie-in-the-sky concept, it has concrete benefits. Employees who are engaged have a deeper concern for their work and their company. They attend carefully to tasks and are better with customers. Since they’re more likely to stay loyal and stick around, they form long-term relationships with clients and coworkers. Lower turnover rates save money that companies would otherwise spend on administration, firing, hiring and repeated training for the same position.

Engaged staff are productive, packing more into an eight-hour day and seeking new ways to approach old problems. “When people are passionate about what they do, they learn more about it,” says Armour. “They learn about it after hours and they bring new and better ideas.”

Armour argues that a focus on engagement is a 10-year trend, despite the layoffs that accompanied the economic downturn. The need for greater engagement has been exacerbated during the downturn, he says, since many companies are leaner and employees are busier than ever.

Employee engagement doesn’t require a lot of bells and whistles, but you need to adopt an active plan to keep them engaged over the long-term. For Armour, engagement starts with integrity. “When people go home at night, they want to feel good about who they work for,” he says. “Most employees are interested in an environment that offers learning, challenge, growth and recognition.”

Calgary business coach Kent Boehm, of Nine Business Group, recommends personality profiling, a tool that HR staff are familiar with that measures employees’ work styles – specifically how they respond to change, how conscientious they are and how they work with others. This tool helps managers determine different communication styles in a workplace. “Different people communicate and demonstrate engagement in different ways,” he says.

He also advises managers to be aware of their own behaviour. New managers need to communicate clearly and consistently, he says. “There’s nothing worse than working for someone who can’t make up



his mind.” And it’s important to roll up your sleeves and get your hands dirty. A manager’s job is to remove roadblocks for workers; this can mean stepping in to help with a task or teaching employees how to do it effectively.

But as much as a new manager needs to connect with employees, they also need to remove toxic employees whose lack of interest is creating problems for the team. While you might think engagement could wane after a firing, just the opposite is true, says Boehm: “You’d be surprised how not just engagement but morale goes through the roof when the bad apple is removed.”

TOP TAKEAWAYS TO ENGAGE STAFF

Learning. Provide a way for employees to learn new skills related to their positions. This could mean outsourcing professional development or it could mean in-house training sessions.

Challenge. Nobody wants to be bored. Find out the scope of your employees’ interests and challenge them within those parameters.

Growth. Give employees the opportunity to excel. Recognize that the skills and interests they have today are not necessarily static.

Recognition. Celebrate the milestones, even the small ones, with your staff on a regular basis.

Mind the Lines

Take the time to assess your worksite for underground and overhead cables and learn what to do if you encounter danger **BY CAILYNN KLINGBEIL**

No two job sites are alike but on all sites, you can count on obstacles, both hidden and obvious. On many urban or rural sites, underground and overhead power lines are a common threat. Working safely near power lines is about being prepared, including being aware of your surroundings and taking appropriate precautions before even entering the job site. Finning's heavy construction and mining applications specialist Brad Nunn offers tips for any operator working on a site with power lines.

Complete a Job Hazard Analysis

Look for potential dangers before you start the job, so you can be prepared for whatever comes your way. "You should identify all the hazards that may be around you, specifically electrical," says Nunn. Know the voltage and height of any power lines, other hazards that may be present, preventive measures to overcome these hazards and discuss worst-case scenarios for the work site.

Be Aware of Your Surroundings

"Always look up, down and all around," says Nunn. Find out what power lines are underneath you and also be aware of overhead power lines. Overhead power lines will sag in warm weather, bringing them closer to the ground, says Nunn, so your working distance from the line can change. It is important to know both the ambient temperature and the voltage of the power lines above you.

Call Before You Dig

Before you dig, know what's below. Each province has its own operating system, a local authority that contractors and homeowners can call before a dig project to locate and mark any underground infrastructure on the site. In British Columbia, call 1-800-474-6886 or visit bconecall.bc.ca. In Alberta, call 1-800-242-3447 or visit alberta1call.com.

Don't Panic

If something goes wrong, don't panic, says Nunn. If you've followed the previous steps, you're prepared for worst-case scenarios. If you've made contact with an overhead power line and can safely move the machine to break contact, do so. If the machine cannot be moved and there is no immediate danger or fire, don't try to climb out of the machine. Nunn says that the ground for quite a distance around the machine will be energized, so warn others to stay back a minimum of 10 metres. Have someone call the appropriate authorities to shut off the power.

In Case of Fire


If a fire starts and you have to get out of the machine, says Nunn, never step to the ground while any part of you is still in contact with the machine. Don't climb out of the machine like you normally would – instead, hop out and away from the machine with your feet together and continue to bunny hop away from the machine until you are at a safe distance – 10 or more metres away. 



ILLUSTRATION BY HEFF O'REILLY

BEFORE YOU START

The Government of Alberta provides occupational health and safety codes that outline the safe limit of approach distances intended to prevent injuries related to power line contacts. The code requires employers to contact the power line operator to determine the voltage of the power line if they plan to work within seven metres of an energized overhead power line. The voltage determines the safe approach distance.

Voltage	Safe approach distance
Above 750 volts insulated conductors	1 metre
750 volts-40 kilovolts	3 metres
69 kilovolts, 72 kilovolts	3.5 metres
138 kilovolts, 144 kilovolts	4 metres
230 kilovolts, 260 kilovolts	5 metres
500 kilovolts	7 metres

FLAMIE &

In Slave Lake, Finning and The Cat Rental Store are in it for the long haul – for their employees and their town

BY JIM VEENBAAS | WITH FILES FROM JEN JANZEN

PHOTO: CURTIS TRENT


“At three o’clock we were home. “The fire chief came on the radio and said everything was under control,” recalls Slave Lake resident Darren Green, an employee of The Cat Rental Store (TCRS).

It was May 15 and a fire, though close to town, was not considered a threat. Then the radio went out. “But that happens all the time in Slave Lake,” says Green. “We never thought anything of it.”

At four o’clock, the air was smoky, but not worrisomely so. Green’s wife had laid down for a nap and he was marinating steaks, getting ready for company and minding their toddler daughter. Green’s friend arrived at 4:45 p.m., but he was frantic. His friend said that his house – just a block from Green’s – was on fire, and that they all had to get out. Right then the sky started to turn a dark orange. Green went down the hall to get his wife and looked out the bedroom window, which faced the direction of the oncoming fire. “There were sheets of paper, shingles and birch bark blowing through the air on fire,” Green says. Green and his wife grabbed their toddler and a nearby basket of folded laundry and ran to their truck. Green didn’t even have a shirt or shoes on.

“Scary thing was I couldn’t find my keys,” he says. At this point, the flames were starting to roll in, jumping from house to house, propelled by 100-kilometre wind gusts. Green ran back to the house – the sunny day was now pitch black. “All I could think was, ‘Where are the keys? We’re going

Misfortune



to have to run.” He opened the door and couldn’t see a thing. Then he kicked something. “It was my keys. I heard them clink. It was a miracle.”

He jumped in the truck to flee the subdivision, navigating the cul-de-sacs to find the one way out. (The other was blocked by fire.) It had been just 10 minutes since his panicked neighbour arrived. In the rear-view mirror, he could see houses on fire and he could hear propane tanks popping. “People were driving on lawns, going through fences,” Green says. “People were panicking and getting out of their cars, leaving the doors open and running for their lives.”

While making their escape, the smoke was so thick that it was only Green’s familiarity with the neighbourhood that led him out. Green and his family made it, as did Finning’s two resident mechanics and one resident salesperson and the 12 other employees at The Cat Rental Store. But the massive fire consumed a third of the town and neighbouring communities before it was done.

The ferocity of the fire caught everyone off guard. People living in Slave Lake, 250 kilometres north of Edmonton, are accustomed to forest fires. Previous fires have come close, but firefighters have always pushed them back. In fact, when the fire started on Saturday, just east of town, firefighters thought they could protect the town. They built a fire guard as a buffer zone, but it wasn’t enough on Sunday when the winds suddenly surged and added fuel to the flames.

“This isn’t the first time we’ve had fires close to town, but you take for granted that you’ll be safe,” says Roy McIntyre, branch manager of The Cat Rental Store. “We usually have about six water bombers at the airport. We probably had five times that many up here for this fire, but with winds raging at more than 100

kilometres an hour and high waves on the lake, the water bombers couldn't get out there."

The 7,000 residents of Slave Lake started to evacuate late Sunday afternoon, but power to the radio station was knocked out, making it difficult to communicate with residents. McIntyre himself was heading out of town when he was called back

IN THE REAR-VIEW MIRROR, DARREN GREEN COULD SEE THE FLAMES AND HE COULD HEAR PROPANE TANKS POPPING. IT HAD BEEN JUST 10 MINUTES SINCE HIS PANICKED NEIGHBOUR ALERTED HIM TO THE FIRE.

to The Cat Rental Store. "I had an employee at the shop and I couldn't leave him there so my wife and I drove over, through all the flames and fire and traffic jams. We picked him up and brought him to his truck. We were finally about four kilometres out of town when [officials from] the town called me and said they needed some more generators. I turned around and went back to the shop."

The shop is located on the east side of town, where much of the destruction was taking place. McIntyre waited there and watched the fire consume much of the town. He and another employee finally got the call to deliver generators to the water treatment plant, which had lost power. He left at midnight, when the fires were raging and flames were everywhere.

"The fire was right across from the shop, but we

were safe because the building is made of steel. We saw houses on fire with flames 200 to 300 feet in the air and we were driving right beside it all," says McIntyre. "By the time we got there, the fire was so hot it was breaking water lines all over town. The water treatment plant didn't fail. It was actually the water pressure downtown. As soon as some houses burn up, the water pressure puked all over the place. There was no pressure at the fire hydrants."

When the smoke cleared and the fire was finally doused, 374 properties had been destroyed and 52 others damaged. The town hall was completely gutted, as was the library, radio station, shopping mall and two churches. Another 59 properties were destroyed and 32 damaged in the surrounding communities. Insurable damage was estimated at \$700 million, making it the second most expensive insured disaster in the country's history, while total damages reached \$1.8 billion.

McIntyre never did leave. He and two other employees stayed behind, supplying generators and other equipment, including a wheel loader to help move debris from basements of burned-out houses. The store also supplied portable toilets to the more than 300 firefighters and clean-up crews that were dousing the last of the flames and restoring essential services to the community. The store even served as a makeshift animal rescue shelter.

Finning and TCRS were quick to offer support to the Slave Lake staff who were evacuated from the community. A temporary call centre was established to make it easier for staff to keep in contact with the company. Finning paid for a suite of hotel rooms in Edmonton near head office, allowing staff and their families to stick together, and even offered them money to buy necessities that were left behind in the fire.

"If anyone says anything negative about TCRS or Finning, I think they would have a bunch of people down their throats. What they have done for us is above and beyond. If you talk to other people around here, some companies didn't do anything. It's amazing what Finning and TCRS



JUST CHANCE: There was a randomness to the destruction in terms of what was destroyed or left standing.

PHOTO: KEITH LEVIT, CP PHOTO



PHOTO: KEITH LEVIT, CP PHOTO

CHARRED REMAINS: The fire was so hot in some spots that all that remained of homes like Darren Green's was a burnt out foundation.

have done for us," says Doug Horner, Finning's customer account manager in Slave Lake.

By working directly with staff evacuated outside of Slave Lake, Finning and TCRS helped McIntyre tremendously and allowed him to focus on the task of running the store with a skeleton crew. "They took care of our employees, made sure they were okay so I wouldn't have to worry about it. They took that off my plate, which helped out a whole bunch. My employees still phoned me every day, but I didn't have to tell them what to do, or where to get anything. It was all taken care of."

The biggest challenge now is finding housing for the 500 Slave Lake families who lost their homes. The provincial government has provided \$189 million in funding and purchased 400 modular homes, but the sheer scale of the effort will make it difficult to complete before winter.

"We are waiting on the government. They are supposed to get some housing up here, but will they get it all done before winter sets in? You can't make any plans because you don't know what's next," says Horner. "Everything is up in the air."

Finning and TCRS are now playing a crucial role in the rebuilding process. The already huge demand for equipment will likely grow as more workers arrive to build new houses and businesses. "We have equipment going out there and we're helping the community rebuild. We need to have the right equipment when they need it. Instead of having one unit or two units, we need four or five," says McIntyre.

As time stretches on, the disaster will become more

of a memory, but the staff will always remember the swift and generous support of Finning and TCRS. Even now, the company has provided trailers to Horner and Green, the two employees who lost their homes, as well as McIntyre's daughter, whose home burned down in Widewater, a small community about 10 minutes west of the town.

"Sometimes you feel guilty. We were treated so good and other people didn't have anything. They went from living in their own homes to sleeping in a cot by a stranger in a gymnasium. We were taken care of," says Green. "I knew I had a very good job to return to and a roof over my head. We couldn't have asked for anything more." ❖

FIRE FINDINGS

After a damp summer in British Columbia and Alberta, it seems hard to recall the dry spring. But in one weekend in May – the weekend the fires chewed through Slave Lake – there were 100 fires burning in Alberta, 23 of them classified as out of control. Those 48 hours saw more of the province's boreal forest consumed by flame than in the whole of the previous fire season.

Fire in a dry boreal forest is unpredictable, and added wind gusts can fan the flames and cause a fire to change direction or gain speed without warning. Fires burn hot enough to create their own localized systems, with convection columns reaching as high as the stratosphere. All it takes to get it started is one lightning strike.

The boreal forest is an ecology defined by fire. A mature coniferous forest is a temporary habitat, home to a number of species. Every several decades in Canada (Natural Resources Canada estimates say 50 to 200 years, with greater frequency in the west) a fire sweeps through, shaking things up. The longer it has been since a fire, the more dry litter there is on the forest floor and the more coniferous trees there are to spur it along. Many species are dependent on the cycle of fire that rejuvenates the land. After the burn, there's a succession of post-fire habitats that support a rich variety of life.





The

BIG Day



Before a new product hits the showroom floor, Finning has already been at work for a year to make the process seamless

BY DAVID DICENZO | PHOTORAPHY BY BUFFY GOODMAN

For Caterpillar devotees in Western Canada, the anticipation is building. Cat's first ever vocational truck – the CT660 – is getting closer to market and it's safe to say that the queue to get one is growing.

"Cat has always supplied the engine for a truck or a component but now it's going to be able to give the guy who loves his Cat stuff the whole truck," says Finning Industry marketing manager Duncan Schroff. "The whole thing is Cat. You don't have to buy somebody else's (product) to get a piece of the Cat. I've seen it and driven it myself. It's a very cool product."

Schroff points out that there is a certain set of people – Caterpillar aficionados – who are especially looking forward to the new product offering. "You don't see guys with Maytag tattoos on their shoulder but you will see guys with Cat tattoos. It's a culture, it's a lifestyle, it's a statement of who you are."

But customer loyalty and new-product buzz doesn't mean that the new CT660s just roll off the line, ready for sale. A whole lot more happens behind the scenes first. Before the trucks are available to customers, Finning and Caterpillar have to complete a process known as New Product Introduction (NPI). NPI brings together every department of the business that has a stake in the new product in order to compile a detailed checklist of required pre-market tasks and assign responsibility for those tasks.



“For each product that Finning buys from Caterpillar and sells to our customers, it has to go through our new product introduction process,” says on highway truck manager Harold Denenfeld.

“This introduction process is to be sure we can deliver product and customer satisfaction at the level expected from Finning and Caterpillar,” he says. “Together we are also introducing an NBI (new business introduction) to many areas of Finning. Having our own Cat truck and selling on highway trucks with bumper-to-bumper service will be new for Finning.”

Each department at Finning has a task and Denenfeld says that each has a broader area of accountability for the new product. There is staff in place to take ownership of each aspect of the new product’s introduction. For example, the market analysis on an NPI is done by the industry marketing manager, who also undertakes the marketing

THE NPI FOR THE CT660 BEGAN ON JANUARY 27, 2011 AND IS EXPECTED TO BE COMPLETED BY YEAR’S END: A PROCESS A FULL YEAR IN THE MAKING.

campaign and warranty process. Training falls to the sales department. Other personnel are assigned to oversee inventory and configuration, pricing analysis, branch notification, co-develop-

ment of the standards and to review the compatibility of existing works and tools.

“Everything is documented and put in a place and the customer can see the box is checked: ‘Yes, they have a warranty process – here are the contacts, this is how it works and this is where to go if you need it.’” Similarly, others are at work managing – for example – Transport Canada regulations, customs, freight, parts and service or product support.

“So when the customer takes the product in Inuvik, he goes online and says, ‘OK, all these boxes are checked,’” Denenfeld says. It gives clear instruction to the customer about what has been done in terms of paperwork and what he needs to do.

The NPI for the CT660 began on January 27 and is expected to be completed by year’s end: a process a full year in the making. The reasons for such a lengthy undertaking are many, though one of the most critical is to benefit the eventual customers with a reliable piece of machinery.

“It’s a new product for Caterpillar, a new product line, so as we’re doing our NPI, they are doing their NPI,” says Schroff. “Caterpillar is probably just manufacturing the first trucks now, and they’re not at full production yet. There’s a learning curve for everything.”

“As they produce the information for sales training, sales literature, technical communications, warranty and parts, for example, they publish it and send it out to Finning, to our departments that are part of the NPI.”

Denenfeld sees NPI as a useful process designed to ensure that products are backed by the full capability of Finning sales and service.

Imagine buying a new car, Denenfeld says. You buy your car from a dealer and you drive away figuring you’ve got the latest and greatest. You’re on your way home and

a light comes on so you figure you better turn around and go see the dealer.

“You go back to your dealer and say, ‘I got this new car but what’s it doing?’” says Denenfeld. “The guy looks and says, ‘I haven’t got a clue. It’s brand new to our dealership and you’ve got the first one and we don’t even know where the parts book is.’” The long NPI process at Finning makes sure the heavy equipment version of that doesn’t happen.

The point of sale is the start of the customer relationship – not the end. “As a customer, you have expectations of having the support for the product that you paid for, and we better have the premium service ready for you.”



AT THE DRIVER’S SEAT

When Finning Canada launches a new product at a branch, a long list of departments and personnel have done painstaking work to make it possible. Finning’s New Product Introduction (NPI) process entails almost 100 steps, covering a number of areas, product support marketing, sales literature, technical communications and warranties, among others.

This proactive approach to a launch is a necessity.

“The biggest benefit is that we are able to support that equipment from the day that the first one goes out the door,” says Sarah Barbour, manager of product claims and NPI.

“We need to make sure that the shops are prepared,” adds Barbour. “If they need special tooling to repair a new product, we ensure that the tooling is there and they know how to use them. We make sure that we have an adequate stock of the first few parts a customer might require,” she says, “as well as a plan to build the stock.”

Similarly, Finning’s NPI supports service techs by providing them specialized training, and teaches the techs the best way to troubleshoot to achieve a solution for a product – including providing experts at a technical information centre whom techs can reach anytime, right from site.

From proper pricing to having the sales system prepped, a detailed NPI means having all the ducks in a row from day one when the new product hits the market.

Whiz Kid

BY ROBIN BRUNET | PHOTOGRAPHY BY GLEN DURRELL

The fourth generation of this family-owned company uses the latest technology to create a better way to grade

Business was good for Wiltech back in 2006. The Kelowna-based road construction and earth-moving company had contracts aplenty, but owner Willie Dobbin was tired of waiting for engineers and surveyors to map out the land so that the company's yellow iron could move in to get the job done.

"We were waiting up to two and a half months on any given job to get volume information from engineers," Willie says. "There simply weren't enough surveyors to go around, and that meant we had to do the job ourselves."

Willie turned to his son for a solution. Dustin Dobbin, then 24, was ready to start trying things out. Dustin was convinced that with a little tinkering, some of the newest grade/blade control technology might just eliminate the need for surveying and stakes altogether.

GPS grade/blade control technology had been on the market since 2002, when Caterpillar partnered with Trimble, the leader in mobile and work application development, to create the Cat AccuGrade system and the comparable Trimble Grade Control product lines. But achieving strict tolerances with these systems is tricky, as anyone who has used them during strong wind conditions or in other adverse situations can attest. So when Dustin told his father that he could make grade control work, Willie was skeptical. "I'm an old-school road builder who doesn't believe manufacturers' claims," he says. "On the other hand, my son is a genius with computers. So I didn't know what to think, but we had little choice other than to give the technology a shot."

Dustin, who is Wiltech's vice-president and operations manager, soon dispatched his solution. "I demo'd a robotic survey system that was very accurate, but it needed to be set up every single day and required line-of-sight, which is impractical," he recalls.

CLOSE PROXIMITY: "We try very hard to look professional," says Wiltech's Dustin Dobbin at the efficiently-run Highway 3A site. "In our industry you are only as good as your last job."



Dustin then experimented with an early version of GPS grade control that was difficult to calibrate but only required a single set-up. “Trimble and Caterpillar gradually improved the system and software, and before long I could drill from cut to fill without stakes,” he says.

Willie’s faith in his son paid off in spades. In August, Kelowna-based Wiltech had nearly completed work on a four-lane, 4.2-kilometre upgrade to Highway 97 near Lac le Hache, north of 100 Mile House. At times, dozens of Caterpillar machines were used on site and 12 were outfitted with GPS control and laser receivers that resemble a mutated form of whip antenna. The bizarre gear allowed the Dobbins to build lanes, turn-slots and deceleration lanes without using surveyors or stakes. “Surveyors wouldn’t have been able to keep up with the speed we’re working at,” says Willie.

Wiltech is also working on the Yellow Lake 3A highway improvement project, and since November 2010, it has blasted over 130 times and moved over 160,000 square metres of rock and earth. “It’s been a challenging job as it’s all within very close proximity to public traffic, and very few traffic interruptions are allowed,” says Dustin. “We have consistently employed over 25 people since the start of the project and kept the majority of our fleet at work.” The site is smartly-run and is a gear-head’s dream, with the work in clear view of the roadside as a veritable parade of yellow trucks move out the blasted rock.

The technologies also allow Wiltech to ensure accurate grading. Whether it’s done by laser, GPS, or other methods, the survey process will produce some deviance over the measured distance due to a variety of factors – even the curvature of the earth. The objective is to achieve “tolerance accuracy,” minimizing these deviances. Wiltech has achieved tolerance accuracies as fine as plus or minus one centimetre. “A lot of people have tried unsuccessfully to achieve this degree of accuracy,” says Dustin, “and it took us a lot of effort to get the results we wanted.”

Grade control works by using a GPS system to compare the blade position of a machine to a three-dimensional computerized site plan. A computerized system signals the operator, or the hydraulic system,

to raise or lower the blade to suit the design requirements. Cat and Trimble estimate that this technology can boost on-site productivity by up to 40 per cent.

Thanks to Dustin’s computer prowess, Wiltech, a fourth-generation family-owned road construction and bulk earth demographics specialist, became one of the first bonded companies in North America to use the GPS blade control system on bulldozers, excavators and graders. The company also uses an innovative approach to technical particulars, such as surface topography and subsurface exploration, in

order to maximize site balancing and minimize construction costs.

The first machine in Wiltech’s fleet to use blade control was a Cat D7R dozer. On the Highway 97 project, the Caterpillar equipment was outfitted with variants of the Trimble GCS900 grade control system include: 345 and 330 series excavators, a 627G scraper, a D8 Series II crawler tractor, a 140H grader, a CS573 compactor, a CS56 vibratory soil compactor, a D4G dozer and the D7 dozer. Vernon-based Finning sales rep Norm Roine says these additions have expedited the construction process: “The equipment combined with Dustin’s success in utilizing the blade control technology to his best possible advantage has resulted in cost saving and a road building process that moves very quickly.”

Roine is especially impressed by the precision performance of Wiltech’s excavators. “The computer tells the machine operator how far down to dig, which bypasses the standard method of digging down too far and then having to replace some of the dirt.”

Initially, the B.C. Transportation and Infrastructure ministry doubted that Wiltech’s Trimble-rigged fleet could perform as precisely as Dustin claimed. “But they double-checked our calculations and performance on Highway 97,” he says, “and now they’re true believers.”

Not surprisingly, Dustin won’t reveal how he fine-tuned the Trimble system to achieve such startling results. “We’re about \$1.5 million into this technology, so we’re keeping our cards close to our chest,” he says. Dustin has had to factor in various conditions that can inhibit accurate on-site calculation including GPS satellite drift, false signals that are generated when a true signal bounces off the ground or nearby struc-

INITIALLY, THE MINISTRY DOUBTED THAT WILTECH’S FLEET COULD PERFORM SO PRECISELY, DUSTIN SAYS. “NOW THEY’RE TRUE BELIEVERS.”



A REAL BLAST: Wiltech's site next to Yellow Lake has safely blasted more 130 times and moved over 160,000 square metres of rock and earth.

tures and signal refraction of radio waves as they penetrate the earth's atmosphere. The false signals problem can be corrected by something present at all Wiltech job sites: a base station, which is essentially a secondary receiving station about the size of a suitcase.

Dustin stresses that the Trimble system was invaluable to address the difficult working conditions the company encountered on the Highway 97 project. "We kept encountering endless uncharted obstacles in the ground, including lots of water, which forced us to install pipe and other forms of drainage," Dustin says. "Who knows how much longer the project would have taken were it not for grade control."

Willie views grade/blade control as an ideal complement to his Caterpillar fleet. "We rely on it almost as much as we do our machines," he says. "Wiltech's relationship with Caterpillar goes back to the 1940s, when my father bought his first Cat and was instantly sold on its reliability. We depend on that reliability more than ever today."

Dustin's next objective is to "do away with density testing altogether. That could occur within the year and will be a great benefit." This time, instead of being skeptical, Willie is excited about the prospect. "I'm proud to say that Dustin makes me feel inadequate almost on a daily basis," he says. "I credit him as the person who has finally connected the dots in the road building sector." 🗣️

A GRADE ABOVE

Whether it's Caterpillar AccuGrade or Trimble Grade Control, scrapers, excavators, blades and tractors that use a grade control system work basically the same way. Grade control technology uses computer imaging to put the site plan, including design surfaces, grades and alignments, inside the operator's compartment.

The desired grade at each job site is provided by a special file containing a triangulated surface (TIN) with 3-D elevation for every location at the site. A GPS receiver on each piece of equipment measures the exact position of the blade or bucket in real time. An on-board computer uses the position information and compares it to the TIN file in order to compute the cut or fill to grade. The information is displayed on the screen in plan view, cross-section view or text.

The cut/fill data then go to the GPS lightbars, which guide the operator up or down for grade and right/left of a defined alignment. The cut/fill data help drive the valves for automatic blade control, and also go to the lightbars to provide additional visual guidance to the operator for up/down and right/left alignment.

TRAINED FOR Enduran

Bill Borger heads a venerable family business and knows about keeping an eye on long-term goals, both professionally and personally

By Craille Maguire Gillies

Ten years ago, itching for a challenge, Bill Borger Jr. decided to log some hours towards training to swim the English Channel. Though he was an accomplished swimmer, Borger, now president of the construction sector of the Borger Group of Companies, comes from a family firmly rooted on the land.

The 36-year-old Calgarian is the fourth generation to take the reins of the company, which started in Winnipeg in 1919. Borger is Calgary's largest underground contractor, installing sanitary and water lines, feeder mains and trunk lines. Recently, it added earth moving operations to its portfolio.

Bill Borger's stock-in-trade is moving the ground, not parting the sea.

Yet parting the sea is precisely what he did. To prepare for swimming the 35-kilometre-wide English Channel, Borger trained in the pool and at the gym for three hours a day, every day, for two and a half years. Near the end, his longer training swims saw him in the water for as many as eight hours at a stretch. In addition to completing the passage (in 12°C water without a wetsuit) on his second attempt – his first was squelched by 14-foot waves – he raised more than \$100,000 for the Canadian Mental Health Association. It was a personal best he would later top.

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ASCEND: Bill Borger used his remarkable achievements to raise money for his favourite charitable causes.

In 2002, Borger left his job as a chartered accountant with KPMG to join the family business. He eventually left swimming, too, and took up a hobby he could do in his backyard: mountaineering. In the decade since swimming the channel, he has climbed 35 mountains around the world, from Alaska's Mount McKinley, the highest peak in North America to Mount Ranier in the Cascades to Mont Blanc, the highest peak in the Alps. Two years ago, he decided to do the big one: Mount Everest.

"I wanted to take climbing to the next level," he says. "I've climbed more technically difficult mountains, but never anything at that altitude." Borger chronicled his expeditions on his personal website, borgerpeakandpond.com.

The trip was more than a personal challenge. Climbing neatly brings together his personal and professional lives. The family business prides itself not only on good service – it boasts the industry's quickest turn-around – but also on being a model corporate citizen. Borger used his Everest attempt to raise funds for Calgary HandiBus, a group that provides door-to-door transportation for people with special needs. Customers, suppliers and friends of The Borger Group donated upwards of \$449,500. Finning Canada added \$2,500 to the pot, which Borger predicts will top \$500,000 by the time he wraps up fundraising.

"I wanted to give the money I raised to a cause that had longevity," Borger says. Calgary HandiBus will use the money to buy five new buses, which will be on the roads for the next 10 years.

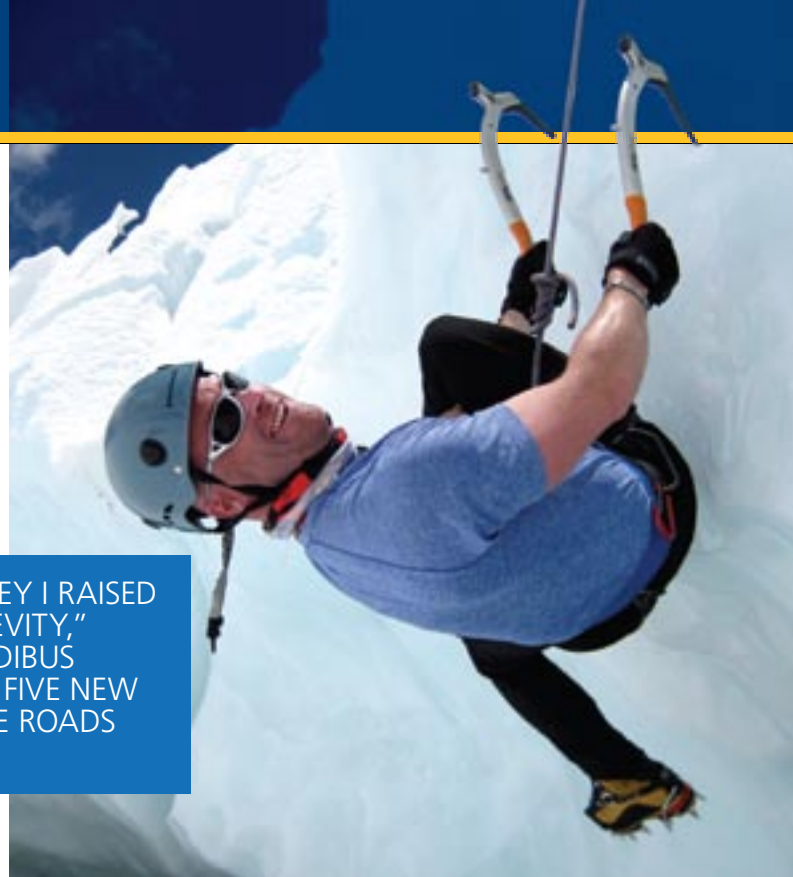
"The obstacles that people who use the HandiBus face every day are so much greater than the obstacles I will face on Mount Everest," he said before the climb last spring.

Borger began his 8,848-metre ascent on May 9 with a Canada West Mountain School guide, and three local guides, all with Everest experience. (Two others, a cook and cook's assistant climbed as far as base camp.) The group spent several weeks at base camp acclimatizing before the ascent. Still, as Borger entered what's known as the Death Zone, at 7,925 metres, he arrived at what he describes as "a very desolate place." Even with oxygen tanks, his breathing plummeted and his heart rate soared. It wasn't the last of his troubles.

At 8,686 metres, the team entered a whiteout and had to fight for their lives. "We had near-zero visibility and many of the ropes were completely covered in snow," he recalls. "On the way down, I stepped off the ridge onto a cornice and popped through. I found myself tumbling towards Tibet." He plummeted seven metres before the rope caught him. He went on to reach the south summit on May 12.

The feat made Borger the first Canadian to both swim across the English Channel and scale the world's highest mountain. People often ask Borger what it's like to stand on top of the world. "For me it was like standing inside a ping pong ball," he says. "And it's anti-climactic, because you're only halfway – you still have to climb back down." Fortunately, he had the training and stamina to see it through. 🏔️

"I WANTED TO GIVE THE MONEY I RAISED TO A CAUSE THAT HAD LONGEVITY," BORGER SAYS. CALGARY HANDIBUS WILL USE THE MONEY TO BUY FIVE NEW BUSES, WHICH WILL BE ON THE ROADS FOR THE NEXT 10 YEARS.



GROWING FROM THE GROUND UP

As an extreme athlete, Bill Borger Jr. shares something with his family's construction business: endurance. "More than 20 people have worked here for more than a quarter century and one employee has been with us for 50 years," he says. "In a transient business like the construction industry, we're really proud of those statistics."

That endurance is partly thanks to smart decisions about how to expand the business. When Borger wanted to add an earth-moving division to bolster underground services, Finning sales rep Trevor Wiebe organized a site audit similar to those used by mining operations.

Wiebe brought in engineers from Caterpillar to visit and videotape Borger Earthworks operations. They assessed if the company was moving dirt efficiently and buying the right machines for the job.

"It's a way to see if they're running the equipment correctly, cycle-timing it correctly, if they have the right machines in rotation – that kind of stuff," says Wiebe.

"We're not a start-up," Borger says, "but it's nice to get affirmation that we're doing it in an optimal fashion."

The expansion into dirt-moving is an example of the agility Bill Borger Jr. brings to the business. "He'll look outside the box and say, 'if you can show me how I should be doing it I'm completely open to changing,'" Wiebe says. Cat experts recently completed a similar assessment of Borger's underground divisions.

Borger Earthworks went on to buy standard earth-moving machines, from 14M motor graders to D6T XW dozers and 815 F-series 2 soil compactors. But part of moving forward with the business meant moving forward – literally and technologically – with equipment options. That took the form of a new D7E track-type tractor, the first that Caterpillar has made with an electric drive train.

Borger Construction is the first Calgary contractor to introduce the D7E for earth moving. It's quieter, more fuel-efficient, and has fewer moving parts, Wiebe notes, but has just as much stamina and endurance – something this 92-year-old family business knows well.

Black VELVET

**A long-time Finning customer
discovers the benefits of
the new Cat paver**

BY LINDSEY NORRIS

The long-standing buyer-seller arrangement between Finning and Dawson Construction Ltd. is one that most sales and service departments envy and most customers wish for.

Dawson Construction, a Kamloops-based company, began operations in British Columbia in 1922. It has built some of the province's most significant transportation networks, including the Roger's Pass Highway, the Fraser Canyon and, mid-century, the essential Yellowhead Highway that stretches between Alberta and B.C.

The company has been a dedicated Finning customer since the Cat dealer opened its doors in 1933. When Finning opened a Kamloops branch in 1964, Dawson Construction was one of its dealership's first customers.

Like Finning, over the years Dawson Construction has continued to grow in size and scope. It remains a well-known company in the province for its many highway construction projects, but now operates several divisions, owns and operates four asphalt plants, three crushing spreads and is the general contractor on various real estate developments and city projects.



DAWSON DUTY: The Cat paver earned the company its coveted "ride bonus."

Its Kamloops equipment yard is a veritable small army of heavy equipment. Purchasing manager Sam McGee estimates that about 90 per cent of its 200-strong fleet is yellow iron.

So Ed Lingel, a rep with Finning Kamloops, was disheartened to drive into the yard one day and see a non-Cat paver amid the sea of yellow in the equipment yard. "When I asked about it, they were quick to compliment our rollers, but said they

weren't going to risk switching pavers when their existing paver was proven," Lingel says.

Undeterred, he made it his mission to get one of the new AP series pavers in the Dawson lineup. He didn't have any doubts of the paver's ability to do the job. "In 2008, the AP series underwent a major upgrade," Lingel says. They upgraded the engine, reworked the screed on the back end and increased the quality of the overall machine itself."

However, his path to convincing McGee and others

at Dawson that the new, improved D-series pavers were the right way to go was anything but smooth.

The road construction industry is fiercely competitive. Sometimes several dozen companies may bid on the same job. To win the contract, the bidder must be lean and efficient, and to win any repeat contracts, the job has to be done on time and meet increasingly rigid quality control specifications.

In B.C., the government department responsible for awarding highway construction contracts is the Ministry of Transportation. Like many agencies, they have adopted both a carrot-and-stick policy to encourage roadbuilders to strive for smooth surfaces.

"These pavers have to lay a perfect road so the driving public can enjoy it," Lingel says. "As a contractor to the government, construction companies are graded on the ride of the road when they lay it down, and they are paid a ride bonus on a particular job based on the asphalt mix and how smooth the job is."

When competition is intense and many players are involved, it's common for companies to quote the job at cost and rely on the ride bonus for the profit. So there is no room for error, and that can make purchasing managers leery of switching from the brand of paver

ASIDE FROM BETTER PERFORMANCE FOR THE OPERATORS, THE CAT PAVER HAS PROVEN ITS METTLE ON THE JOBSITE, ACHIEVING AT LEAST 96 PER CENT SURFACE SMOOTHNESS.

that has been doing the job adequately. When the formula is working, why change one of the variables?

With the profit margin on the line, Lingel knew that to convince the crew at Dawson to switch, he would have to prove that the Cat paver could perform on two levels: reliability and finish. A paver is often used in far-off locations where even cell phone service is sketchy, so a reliable machine that can be maintained in the field was a must.

Since Dawson was a long-time customer, Lingel knew he didn't have to sell the purchasing team on Caterpillar's reliability. The battle would be in proving that the newly redesigned Cat AP paver would do a better job than their current paver.

"It involved a lot of sales calls, a lot of persistence," Lingel explains, "talking with the management group and the guys in the field, and continually letting them know that we had major improvements done, that Cat has the majority of the market share and we're the one to go with."

Ultimately, purchasing manager Sam McGee says the choice to give the AP 1055D a chance was due to Dawson's longstanding relationship with Finning. "It was mostly the sales personnel, and the service," says McGee. "We have always received really good service from our Kamloops branch."

So, after nearly two years of discussions, in December 2010 Ed Lingel had the satisfaction of signing an order for an AP paver. It was delivered in April 2011, and Dawson Construction quickly put it to task on two major projects in the B.C. Interior: a stretch of highway near Clinton and the other called the Gibraltar Mine Road near Williams Lake.

To Lingel's relief, Dawson Construction's crews quickly noticed the improvements of the revamped AP line.

"It's very operator friendly," says Jason Shank, Dawson's paving superintendent. "The comments I've been getting from the operators is that it's quieter and there's less smoke. Cat also implemented some new ideas for placements of seats. Overall, it makes it really user friendly." (The AP pavers have dual operator stations, which can be positioned in one of four different locations to increase visibility.)

Aside from better performance for the operators, the Cat paver has proven its mettle on the jobsite. On the two jobs for which the AP 1055D has been the primary paver, Shank says it has achieved at least 96 per cent smoothness, and netted the company its ride bonus on both jobs.

The paver is still relatively new, with less than 500 hours – and so far, it's performed well. "It's needed nothing beyond regular greasing and maintenance," Shank says.

Ed Lingel is very happy to have helped get a paver back in the lineup in the Dawson equipment yard.

"Dawson is a well recognized contractor in the paving industry, and this was a big win for Finning and Caterpillar to get them to try our paving products," Lingel says. "Moving forward, I'm confident that we'll be able to maintain and build on our business together." ●



NEW TIMES: Everything about the paver has been revamped.

THE SCIENCE OF SMOOTH

An optimistic person once said, "the bumps on the road just make the ride more fun." That person clearly wasn't responsible for maintaining a roadway.

When it comes to asphalt, the smoothness attained affects more than the pleasure of the ride. All roads naturally deteriorate into a rougher state over time, so the smoother it is in the beginning, the longer it will last. Smoother surfaces can also lower fuel consumption, noise levels and, according to some studies, even annual maintenance costs.

So the stakes are high, and calculating the precise roughness of a road surface has become something of a science, involving software and mathematical calculations and even the World Bank, which continued research begun by the University of Michigan in the 1980s in order to standardize smoothness across borders.

But if you aren't a highway researcher, this is basically how it works: "At the end of the job, the road is measured by a smoothness gauge, which is a device that is hooked to the back of a truck," explains Jason Shank, paving superintendent at Dawson Construction Ltd in Kamloops. "It measures how many bumps there are per square kilometre, and you're only allowed so much variation. After a certain number of bumps you get a penalty." Every bump could potentially cost the company in the form of the provincial government's ride bonus program that offers cash incentives to companies to pave smoother surfaces.

A series of calculations are applied to the data taken from a section of road and its overall smoothness is calculated. In most of the world, the standard for measuring pavement smoothness is the International Roughness Index, or IRI. The lower the IRI number, the smoother the ride.

Kevin Brunsch is new

to Finning, but he's an old hand in the industry. With an 18-year track record in heavy equipment sales and an ability to lead, Brunsch joined the Surrey branch as sales manager last year. A few months ago, he became branch manager, overseeing a staff of 200 Finning personnel at work in sales, parts and service. Brunsch's branch serves a big cross-section of customers, including agriculture, forestry, construction and long-shoring. It's the kind of challenge that he was looking for. Brunsch describes his industry as "a relationship business – it's all about how well you serve the customer." As a manager, he tries to treat people fairly and encourages staff to focus on their strengths and on the areas they can make a difference. But he knows that every customer-facing staff member is responsible for sales at some level. "We all represent the company and we are all responsible for customer service," he says. He has come to the right place. "Finning is a leader in the industry. It's known for its programs and product support." Away from Finning, Brunsch and his wife Julie maintain a busy household, which includes their two boys, Kyle and Josh, age 10 and 12. 📍



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The entire female staff of the Kamloops office hams it up with the branch's pride and joy – a genuine two-ton tractor. This photo was taken in 1967, but the machine was getting to be an antique even then – these tractors were manufactured in 1926.

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