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A Brief Word...

By now, you will have started working on your building, digging, or landscaping projects.

As ever, InfraStructures is there to help you choose the best equipment for the job. By reading our pages, and visiting InfraStructures' website where there are even more article available to our English-speaking readers, you will have a pretty good idea of what is now available on the market.

Remember though, Jack, Frosty and the Olde Man lurk, and in our next issue, we will revive you with a chilling glimpse into the cold world of winter road maintenance equipment and technologies.

If you are in the business of making snow removal equipment, or linked in any way with contractors and public works department involved in winter road maintenance, you just have to be featured in the August issue of InfraStructures.

Take this opportunity to contact us to confirm your contact information, include a friend or colleague on our circulation list, or simply share an opinion or suggestion with us.

Enjoy your reading,
TAKEUCHI ANNOUNCES TOP LIFT AS NEW DEALER IN EASTERN CANADA

Takeuchi-US is pleased to announce that Top Lift Enterprises Inc. is now representing the full Takeuchi line of compact earthmoving equipment.

Top Lift Enterprises Inc. has several locations across Canada, and is now selling Takeuchi equipment at two of their locations, Stoney Creek, Ontario and St. Laurent, Quebec. Top Lift Enterprises Inc. was originally established in 1981 as a container handling equipment and service company. It has grown over time to offer machinery for material handling, construction, and forestry work. This strategy has helped Top Lift grow into a full equipment, parts, and service distributor for several product lines serving many industries.

“Over the years, Top Lift has successfully branched out and grown their business by listening carefully to the needs of their customers,” says John J. Vranches, National sales manager for Takeuchi. “Takeuchi has that very same mindset, and that’s why we are so thrilled to have Top Lift Enterprises, Inc. as a new dealer.”

“We feel there is no better time to engage in a partnership with the best excavator supplier on the market,” says Sylvain Auger of Top Lift Enterprises Inc.

Source: Takeuchi Manufacturing (US), Ltd.

GEOSHACK EXPANDS IN QUÉBEC WITH JOUBERT ACQUISITION

GeoShack North America, Inc. grows again with the acquisition of Ernest Joubert, Inc.

Ernest Joubert, Inc. was founded in 1981 and is located in Québec City, Quebec. Current operations will remain open in Québec City, but will begin using the GeoShack name.

“Ernest Joubert’s customers will notice very few changes initially. We will continue to carry the same great products, supported by the same great team. With the support of a much larger company, Ernest Joubert will be able to increase inventory and services to our customers,” stated Dan Hendriks, vice president and Canada regional manager for GeoShack.

GeoShack operates under the concept, “Everything for Jobsite Accuracy”. At each location clients can find a wide selection of construction lasers, total stations, robotic instruments, GPS Survey systems, optical instruments, 2D & 3D machine control systems, GPS based agricultural guidance and autosteer systems, variable rate control technology, software for a multitude of applications, and a complete line of supplies and accessories.

Source: GeoShack North America Inc.

GOLDER ASSOCIATES CREATES ENGINEERING SCHOLARSHIPS

Golder Associates Ltd. is creating scholarships at the University of Alberta and University of British Columbia to assist Canadian students and researchers in the field of mine closure and reclamation.

Funding for the new Golder Mine Closure 2011 Scholarship was raised through sponsorship and registration fees at the 6th International Mine Closure Conference, a not-for-profit event Golder Associates organized in 2011 for leaders in the mining industry.

“Our goal in creating this scholar-
ship was to encourage research in mine closure,” said Les Sawatsky, principal and director of Engineering at Golder Associates in Canada. “So we are very pleased to facilitate a $90,000 donation to be shared between the University of British Columbia and the University of Alberta. Both institutions have world-renowned programs that focus on the many mine closure issues that were discussed at the conference last year.”

“Golder has a strong commitment to sustainable mine closure and develops designs for it from many of our offices around the world,” Mr. Sawatsky explained. “That’s why we agreed to help plan the mine closure conference and why we wanted to create this type of scholarship legacy from it. We are very grateful to all of the conference sponsors for helping to make it happen.”

“We are extremely grateful for this very generous gift,” said Dr. Ward Wilson, professor of Geotechnical and Geoenvironmental Engineering in the University of Alberta’s Department of Civil and Environmental Engineering. “I think it’s quite remarkable to see proceeds from a conference used in this way. It will help our Geotechnical Centre support important scholarships for the brightest Canadian students to do mine closure research.”

Dr. Dirk van Zyl, chair of Mining and the Environment at the Norman B. Keevil Institute of Mining Engineering at UBC, expressed his gratitude for the funding as well. “This will allow us to appoint one or more graduate students to do further research on mine closure, more specifically to evaluate mine closure financial assurance policies and practices throughout Canada and a number of other international jurisdictions. This will help to better define this important area as well as preparing graduate students to enter the mining industry.”

Source: Golder Associates Ltd.

Jade Equipment Opens New Facility in Central Ontario

Just two years after opening in Mississauga, Ontario, Jade Equipment Company Ltd., is expanding its operations to a new facility on the outskirts of the City of Orillia. With rapid growth and space constraints at its 180 m² Mississauga facility, Jade has been looking for opportunities to expand its Ontario footprint. The company already had its eye on locations north of the Toronto region as a move towards a more central service hub for customers when Ric Ross, Jade’s vice president and general manager, spotted the property at the Forest Home Industrial Park.

Known as “Canada's Grader People”, Jade Equipment Company Ltd. serves a niche market supplying new, rebuilt and used parts for Champion and Volvo motor graders internationally, along with sales and rental of used road machinery. Jade will soon offer maintenance and repair services to Ontario’s grader fleets as well. “Because of space constraints, we couldn’t do that in Mississauga, but we’ve always had service bays at our original location in Edmonton,” says Mr. Ross.

With a 1,200 m² building on 1.13 ha fenced lot, Jade’s new Ontario base features office space, four over-sized service bays, a component rebuild area and detailing center and a large secure paved yard. “It has everything we need for this type of business,” said Ric Ross. “It’s clean, it’s very big, it has the right-sized doors – it has just about everything we had on our wish list.” Ross notes that the new premises will also provide room for future growth, including rentals of additional equipment such as wheel loaders and backhoes.

Jade Equipment was incorporated in 1988 in Edson, Alberta by oilfield contractor John Dolanz. The business relocated to Edmonton after he passed it on to his daughter and son-in-law, Bonnie and Steve McCoy. Ric Ross began working with the McCloys in 2010, following many years in the Champion and Volvo grader business with its sales affiliate, Champion Motor Grader Sales Ltd. In 2010, the firm opened its first Ontario facility, with Mr. Ross managing regional operations.

Ric Ross, who hails from nearby Barrie, Ontario, notes that the new Central Ontario location offers more advantages to Jade’s business. “Geographically, we’re right on one of Ontario’s major north-south highways (Highway 11) and an important east-west highway (Highway 12),” he explains. “We still have great access to customers in Toronto and the southwest area, but we’re much more accessible for northern customers and it offers a stable workforce.”

Source: Jade Equipment Company Ltd.
Central Manitoba Railway Honored for Innovative Biodiesel Solution

The Railway Association of Canada (RAC) recently announced that Central Manitoba Railway (CEMR) has been chosen as the winner of its 2012 Marketing Award. The RAC Marketing award was created to recognize shortlines for their role in accelerating and increasing the flow of goods through the rail freight supply chain and successfully improve customer service.

CEMR won the award for its innovative mobile, biodiesel, fuel-blending solution which enables its customers to precision blend traditional diesel fuel with biodiesel fuel. The solution enables fuel suppliers to meet the requirements of Manitoba’s Biofuels Act which mandates that 2% biodiesel be blended into overall sales of diesel fuel. Biodiesel is recognized by Manitoba as the most effective greenhouse gas reduction technology.

 Shortly before the province’s biodiesel mandate was to take effect in 2010, the fuel industry was not yet equipped to meet the requirements. CEMR was approached by Astra, a diesel supplier, and Imperial Oil, Canada’s second largest petroleum company and Astra customer, to devise a rapid-response solution for transforming existing diesel fuel supplies into biodiesel blends in accordance with provincial regulations.

CEMR’s solution was multifaceted. On the technology front they commissioned the creation of a liquid blending and distribution unit that was capable of blending liquids at a rate of 1,200 l/min. The unit was also mobile by design so that it could be transported to any location, attached to up to four fuel sources and then used to create a blend from those sources into one final product.

Logistically, CEMR used its transportation center located 9.6 km from Imperial Oil’s facility as the blending location. CEMR transported Low Sulfur Diesel from Imperial Oil while shipping in biodiesel from the U.S. via Canadian Pacific Rail. Using only the liquid blending and distribution unit, tank cars and transloading track infrastructure, CEMR was able to mix the two fuel sources on-site without the use of expensive tanks, loading racks or piping systems, an innovative first in the blending process.

Using CEMR’s rail line, the company then transported the blended fuel back to Imperial Oil’s facility for distribution at only one of the province’s two fuel distribution terminals. The solution was so effective that over the past two years CEMR has blended all of Imperial Oil’s summer diesel.

The St. Lawrence & Atlantic Railroad (Québec) Inc. was runner-up with its plan for a distribution center for windmill parts.

Source: Railway Association of Canada

QUALICO ACHIEVES LEED SILVER STATUS FOR NEW HEAD OFFICE

Qualico Head Office building in Winnipeg has been awarded LEED® Silver certification. LEED (Leadership in Energy and Environmental Design) is an internationally recognized certification program and benchmark for the design and construction of green buildings.

“Achieving LEED silver status places Qualico on the leading edge of environmental design and construction practices in North American. It also demonstrates our commitment to the environment and long term sustainable development,” said John Daniels, vice president, Qualico Winnipeg. “Not only have we reduced the building’s impact on the environment, but we also reduced operating costs and improved the quality of the environment for our employees.

The Qualico head office is a 3-storey, 6,000 m² building located in Winnipeg Manitoba. The building also incorporates over 600 m² of outdoor garden and rooftop patio and is home to over 150 employees.

Qualico is a fully integrated real estate development company with corporate head offices in Winnipeg and operations in Calgary, Edmonton, Vancouver, Regina and Winnipeg. It is one of the largest real estate development operations in Western Canada.

Source: Qualico
In the Middle of Nowhere,
Or in the Middle of Everything.

Astec can configure a plant to fit your site, whether that site is in the middle of nowhere or in the middle of a major metropolitan area. And every Astec plant, no matter where it is located, is also backed by the Astec Service and Parts departments available 24/7 anywhere. Astec is the right choice.

Only Astec has the patented Double Barrel Green® System.
PHIL Rear Eject Bodies Are Engineered to Tackle Sticky Situations and Increase Productivity

Featuring safety, stability and increased productivity as hallmarks of its design, Philippi-Hagenbuch’s patented line of Rear Eject Bodies offer the ideal solution for challenging hauling applications from general construction, road construction and sand/gravel to mine reclamation and underground hauling situations where overhead barriers inhibit traditional dump bodies.

Easily adaptable to any make and model of articulated off-highway truck as well as a number of rigid frame trucks, PHIL Rear Eject Bodies curtail the challenges associated with traditional dump bodies. In eliminating the need to raise the body of the truck, the PHIL Rear Eject series allows for safely dumping materials while in motion and in the presence of overhead barriers. This versatility in operation increases efficiency without reducing stability by providing a lower center of gravity and allowing dumping on downhill slopes and conditions with a soft footing. Enabling trucks to spread material while driving further enhances efficiency. The ability to effectively empty the truck without raising the body augments safety where overhead barriers such as power lines, roof lines or bridges may pose as forgotten safety risks as well as in underground mining applications that have low overhead clearance.

Engineered to provide productivity enhancing solutions for the toughest hauling challenges, PHIL Rear Eject Bodies dump faster and easier – even in sticky applications. Without moving or raising the truck bed, the ejector blade pushes material toward the rear of the truck, while the tailgate lowers down and material is completely ejected. The unique sweeping action of the blade virtually eliminates all material – even that material prone to sticking to the sides or floor of the truck bed. This effective dumping action provides for more dumps in less time significantly increasing jobsite productivity.

PHIL Rear Eject Bodies are also versatile enough to be used as auxiliary feeders within quarries and mines, providing an alternative tool for delivering material to a crusher or asphalt plant if a primary feeder malfunctions or breaks down.

Continuing the company’s long-held vision of designing solutions that improve productivity while minimizing maintenance, PHIL Rear Eject Bodies are constructed with a single hydraulic cylinder used to operate both the ejector blade and the rear tailgate mechanism. As the ejector blade moves to the rear of the body, the tailgate mechanism located in the sides of the body begins to move to the rear of the truck. This motion, naturally supplemented with gravitational forces, lowers the tailgate simply and mechanically without the need for additional hydraulic cylinders.

To further simplify the design, PHIL ejector bodies employ exclusive ejector guides integrated into the inside of the body, which provide smooth operation, while eliminating rollers that typically break or bind. Additionally, the bodies are constructed of high strength, abrasion-resistant steel to withstand years of use with little maintenance.

Because there are no external rails or guides for the ejector to move on, the Rear Eject Bodies provide enhanced ease of loading and increased capacity. Incorporating customer feedback and more than two decades of experience, Philippi-Hagenbuch eliminated all grease points with the exception of one – only requiring lubrication once a year.

Source: Philippi-Hagenbuch, Inc.
The Vehicle that Goes Where You Work and Works Where You Go!

The new Panther T8 operates in off-road and weather conditions you cannot even imagine. Efficiently, reliably, cost-effectively. The Panther offers exceptional performance and versatility, in mining, construction, oil and gas as well as electric utility. The Panther’s widened chassis accepts virtually all implements without any modifications.

With its two-person cab, large deck space as well as ease of implement installation, the Panther is locked and loaded to perform without fail in the mining, electric and utility, oil and gas sectors. From construction to ROW (right-of-way) maintenance, in the middle of nowhere or within city limits, the Panther has the toughness, tenacity and reliability you need in a crawler.

PRINOTH is a competent partner for your sector. We know that your work require specialized maintenance and equipment to keep facilities and infrastructures both operational and safe. That is where the Panther comes in. It tracks into hard-to-reach worksites all year round with all the implements necessary for site preparation. From building access roads to exploratory drilling and pipeline installation, the Panther gets it done. Quickly, safely, economically.

With the ability to employ just about any implement, it is one very capable platform from which to work. All standard implements can be affixed to the Panther’s 860 mm truck-inspired chassis with little to no modifications. This makes installation simpler and easier, and gives you one less thing to sweat over.

PRINOTH is also exhibiting at the MINExpo International in Las Vegas from September 24 to 26, 2012, in booth #1435 (CAMESE Pavilion).

Source: PRINOTH Ltd

Force Measurements on Welding Guns

Spot welding is the most important method in automotive manufacturing, where parts of the car body have to be joined. The quality of the welding spot depends on the current, the welding time, and the force of the welding gun, which presses the two parts together. For reasons of quality assurance the welding guns have to be controlled regularly. The mobile test set from tecsis with measurement ranges of 1 kN, 10 kN or 20 kN, can be used to measure these electrode forces in spot-welding equipment. The set, which has a very robust design, consists of the force transducer and a display unit. To check the forces acting between the electrodes, the force transducer is placed between the electrodes, where the concave force transfer surfaces center the force transducer. The value of the applied force can be read off on the display unit and can be transferred directly into the control. Tecsis offers also a stationary solution, where the force transducer is installed near the welding robot. The test set uses the proven tecsis thin-film sensor, which are implanted in the force transducer. With this sensor an overall accuracy of 0.2 % can be reached in the mobile test set. The force transducer has an excellent long-term stability, is robust, and shows no creeping.

Source: tecsis GmbH

Winter is Coming in August!

The Annual WINTER ROAD MAINTENANCE & SPECIALIZED EQUIPMENT Issue

For many years InfraStructures has been the best way to reach Snow Removal Professionals. Our readership includes thousands of people involved in road maintenance all over the country. InfraStructures is the best way to get your message across to your target audience... All year round.

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Lacroix Equals Action

A 2 a.m. emergency call is not unusual for the owner of Lacroix Construction. In fact, it became a way of life 26 years ago.

That is when the company won the bid to clear the right-of-way, day or night, for rail-repair work in northern Ontario.

“My father, Charles Lacroix, started the business, based on the mining boom right in our town of Sudbury, Ontario,” says Murray Lacroix. “We were dirt-moving contractors for the mine. I am fortunate to be able to pass a good company on to my son, now a third-generation Lacroix owner, with a crew of great men, a fleet of good equipment, and an outstanding legacy.”

Northern Ontario has many riches. In the shadow of Toronto’s huge manufacturing base, the area north is often perceived as a mysterious land of unknown potential. In reality, the northern province is bustling with new mine efforts, new roads, growing communities, and busy railroad activity.

“I started up with my dad in 1967,” says Murray Lacroix. “He set me up to be a laborer first, then an equipment operator. Even though Sudbury is the hub of activity for most of the region, it’s a relatively small community. So, many of our company’s ongoing duties were whatever the town needed. That meant clearing parking lots from snow day and night, and digging basements or drainage in the summer.”

“As I took over management of the company, that concern about taking care of needs, regardless of the hour, stuck. And that attitude has served us well. Today, the 2 a.m. call is not unusual for us. And when it does, our first response is on its way within the hour anywhere in Ontario.”

The company continues to provide multiple maintenance and damage-control services to both railroads over a large area of Ontario. “There are two sides to the effort. We have crews and equipment designated to provide daily maintenance, ditching, and culverts as well as snow removal to the track. Then, there’s the more dramatic – the call for assistance for washouts and derailments.”

And that can be demanding as well as a logistics challenge. Lacroix Construction is called to help clear and repair the area. They initially rally the team and assemble the equipment, and then get to the site as soon as possible. The project manager usually flies or drives to the nearest point and works his way in, while the equipment is railed to the site with the company’s Hytracker – a self-powered lowboy truck/trailer package that allows a vehicle to be driven onto the trailer bed and run down the track.

DEMOLITION EXPLOSION

The planning and experience required for the railroads’ remote maintenance and demolition efforts has led to additional opportunities within Sudbury and other northern Ontario townships.

“We have the expertise and the equipment,” says Mr. Lacroix, “and Northern Ontario is changing. Tearing down what is now obsolete gives an opportunity for something new to go up in a very good location.”

At the time this article was written, the company was involved in tearing down an obsolete school building, clearing the final trace of toxins, and then paving the area for a school-bus-loading area, complementing an earlier effort to help in the

Mark Joudrey, now project superintendent, has been with the company 15 years.

The self-propelled Hytracker Low-bed Rail Equipment Mover will handle 50 t and can run at speeds up to 40 km/h. This equipment is designed to reduce the use of work trains or car movers in moving equipment and materials to remote work sites. It is transported on highway with a conventional fifth-wheel attachment. It can be used as a working platform for mobile equipment such as excavators and cranes, as it is equipped with four hydraulic outrigger legs that provide added stability.

A NEW DISCOVERY

For decades, Northern Ontario has been a well-known, major source of mineral deposits. Sudbury became the hottest nickel-mining property in the world for a while during the 1960s, and underground nickel mining, right inside the township of Sudbury, continues without decline.

Gold as well as oil and gas, uranium, and rare minerals are also found in the northern areas of the province.

But the new discovery that has everyone buzzing is diamonds! Lots and lots of diamonds.

All this natural-resource activity easily translates into a huge need for exploration companies as well as the established mines to use. And there is the need for whatever is mined to be shipped out.

Sudbury is an outstanding community full of processing plants, equipment providers, schools, and community stores. Here both new and old housing communities easily coexist.
The company has a fleet of excavators with thumbs to do most of the heavy demolition work after they have sublet the first-removal efforts. They provide the trucking and disposal of all materials.

**SITE PREP AND UTILITY WORK**

“We started as dirt contractors, and that means that we’re simply equipment guys,” continues Mr. Lacroix. “If we can create something or clean a problem up with an excavator, a dozer, a wheel loader, or a dump truck, we can make you happy.”

The company pursues utility-work projects and aggressively uses their lightning-fast response to make quick work of each project.

**WHY HITACHI?**

“I’ve got to say, for years I was pretty solid with another brand,” says Murray Lacroix. “But Moe, the Wajax Equipment salesman here in Sudbury, kept talking to me about Hitachi. So finally I tried one, and I’ve never gone back to the other colors.”

“Hitachi is a good machine that has never let us down. We go into some pretty rough country for the railroads, so you’ve got to have a very good machine – and Hitachi has served us well. Plus Wajax has been a great dealer. So, we’ve had good success with Wajax and the Hitachi machines.”

Source: Hitachi Construction Americas
John Deere Adds Two Models to the G-Series

John Deere announced recently the introduction of two customer-inspired excavators (160G LC and 210G LC) models that build on the G-Series class. Led by the design of a more comfortable cab and interim Tier 4-certified engines, the new G-Series hydraulic excavators continue the John Deere tradition of reliability, power and productivity on the jobsite.

“The G-Series models provide impressive arm force, bucket force and lift capacity for applications such as stockpiling overburden, excavating basements, loading trucks, or placing pipe,” said Mark Wall, product marketing manager for excavators, John Deere Construction & Forestry. “These new easily transportable units provide contractors big productivity in a mid-size package.”

Source: Deere & Company

New Link-Belt® 210 X3 Series Now Available

The new Link-Belt 210 X3 Series Excavator is now available in North America in Standard and Long-Front models. The 210 X3 features an all new ROPS cab with new interior, new interim Tier 4 engine with 10% better fuel efficiency, 7% more lift capacity, 3% faster cycle times and improved serviceability.

An on-board diagnostic system quickly alerts the operator of potential trouble. Programmable, service interval reminders for 13 different service items can be tracked through the monitor to make planning maintenance easier. Remote-mounted filters and ground-level access carried over from the X2 Series, insure that this new generation Link-Belt Excavator Series will be the easiest to service ever.

Source: LBX Company LLC
The Zaxis 180LC-5: A New Model to North America

New to the North American market, the ZX180LC-5 is specifically designed to appeal to small contractors, water and sewer contractors, and those who dig basements and pools. It packs excellent productivity and fuel economy into a small package.

The ZX180LC-5 has a unique boom/arm configuration for greater lift capacity and a wide undercarriage for more stability. It is lighter and easier to transport than the next-sized up excavators, yet can perform much of the same work while saving diesel-fuel dollars.

The new 180LC-5 is also loaded with numerous customer-driven enhancements to deliver superior productivity and durability, while keeping operating costs low.

Source: Hitachi Construction Products

Doosan Provides DX350LC with Interim Tier 4 Updates

The Doosan DX350LC excavator is more than just interim Tier 4 compliant. Improvements span from more engine horsepower (281 hp) and torque to a turbocharger, upgraded cooling system and new hydraulic system.

The 7.6 l DL08K turbocharged diesel engine has been optimized for use with cooled exhaust gas recirculation (CEGR) system, diesel oxidation catalyst (DOC) and diesel particulate filter (DPF). It features a common rail design with direct fuel injection, electronic control and four valves per cylinder.

Cooling system upgrades include two variable-speed hydraulic fans. This allows the engine and oil cooling systems to be controlled independently, improving fuel efficiency and provides a quieter operator environment.

Source: Doosan Infracore Construction Equipment America
Brokk Offers Brokk 260 Demolition Machine

Brokk AB presents the Brokk 260 Demolition Machine to the North American market. The 3 t Brokk 260 was developed to fill a much-needed gap between the 1.9 t Brokk 180 and the 4.8 t Brokk 400. The addition of the Brokk 260 enhances the company’s complete line of remote controlled demolition machines, designed for use in industries such as cement and metal processing, construction and demolition, mining and tunneling, and nuclear, as well as other specialty applications.

Created to be similar in weight and dimension to the popular Brokk 250, the Brokk 260 is an ideal replacement, and features a host of new technological and design updates to meet greater demands in the industry. It also features an improved design for optimized power and capacity, allowing greater precision and performance.

Designed for use with a variety of attachments, the Brokk 260 achieves best results when paired with the included SB302 hydraulic breaker. The combination delivers a maximum reach of 5.8 m, as well as impressive hitting force. Furthermore, when equipped with the CC520 concrete cutter, the machine delivers a cutting force of 48 t.

With a compact design, featuring a height of 150 cm and width of 119 cm, the Brokk 260 goes into the most difficult-to-access areas. Furthermore, the machine is powered by a 22 kW electric motor, allowing safe, emissions-free operation for use in small, confined spaces. The portable, lightweight remote control box permits operation from a distance, keeping the operator safe from falling debris and other hazards.

The Brokk 260 can be equipped with a variety of attachments, including buckets, crushers, drills, grapples and shears. Recommended maximum weight of attachments is 420 kg.

In addition to the 260, Brokk offers eight models, ranging in size from the Brokk 50, at just 500 kg, up to the Brokk 800, at 11 t. The company also engineers and builds custom machines with special equipment such as cameras, extended arms, side-angling devices and cable drums.

Source: Brokk AB
Bergkamp Inc. offers the M212 truck-mounted slurry seal and micro surfacing paver that increases production capabilities and minimizes potential greenhouse gas emissions. The M212 is Bergkamp’s largest truck-mounted paver, holding more aggregate, asphalt emulsion and water to increase the surface that can be paved per load. Ideal for jobs where distances from the stockpile are farther, the M212 delivers one of the most efficient methods of preventive maintenance for highways, roads and parking lots – which can extend the life of pavement by up to seven or more years.

The truck-mounted M212 can carry 9.2 m³ of aggregate in a level struck load, 2,616 l of asphalt emulsion and 2,616 l of water and features a 246 l stainless steel additive tank. The pugmill, conveyor and all liquid material tanks are removable for easy cleaning. All tanks are bolted in rather than welded, adding extra durability and improving ease of maintenance. The asphalt emulsion and water tanks are separate components, eliminating possible rust-through and contamination of products. The M212 has a full-width working platform that allows operators to easily see both sides of the unit, the spreader box and the material being placed. In addition, a remote sideshift control lets the spreader box operator control the box from the ground.

Pavement preservation methods such as the slurry seal and micro surfacing treatments applied by the M212 use fewer natural resources (e.g., aggregate, binder, etc.), consume less energy and reduce overall greenhouse gas emissions when compared to traditional pavement reactive maintenance and repair methods.

The M212 has a proven design with convenient control locations and good operator visibility. It is powered by an on-board 99 hp Cummins diesel engine. The unit provides flexibility to better manage legal load weight restrictions by adding additional axles, including one behind the drive axle – which increases the wheelbase and helps meet the Federal bridge law. Source: Bergkamp Inc.
The New VARIOKIT Cantilevered Construction Kit: Fast and Accurate Through to Bridge Completion

Through some additional, newly developed system components, the VARIOKIT engineering construction kit can now be also used for the balanced cantilever construction method. For the realization of a new bridge near the town of Tarnow in Poland, the new cantilevered construction equipment was used for the very first time. Thanks to the easy-to-use mechanical solution, the jobsite team achieved 4 to 5 day cycles for the up to 5 m long concrete sections. At the same time, meeting the high requirements concerning the very small tolerances for the variable bridge cross-sections could be comfortably met. The compatibility with the PERI UP modular scaffold furthermore ensured safe working platforms and access to all working areas.

Near Tarnow – about 80 km to the east of Krakow – a highway bridge with an overall length of 600 m is being constructed. Twelve pairs of piers support the two lanes of traffic, each of which is 13 m wide. Falsework carried the formwork for the hollow box superstructure of the foreland bridges – consisting of girder wall formwork units together with the proven, high loadbearing GT 24 lattice girders. Depending on the support height and load, different PERI shoring solutions were used including ST 100 stacking towers as well as shoring towers on the basis of frame-connected MULTIPROP slab props.

The 210 m long section between the seventh and the tenth piers was realized in 48 casting segments using the balanced cantilevered method. For this, building contractors Dragados used four cantilever construction units based on the VARIOKIT engineering construction kit. This equipment carries the fresh concrete loads into the supporting structure and moves the formwork from section to section. In order to handle the cross-section variations of the hollow box cross-sections, a formwork solution comprised of girder wall formwork was used.

The aim of the development was to expand the application range of the proven VARIOKIT engineering construction kit with as few additional system components as possible. These new system components for the longitudinal direction of the cantilevering construction were optimized for 5 m long concreting sections; this length corresponds to current project requirements in general. In the transverse direction, the maxim was to use the existing system components of the engineering construction kit whilst simultaneously allowing maximum adaptability for a wide range of different bridge sections. The result: cantilevered construction equipment with a high degree of flexibility for the forming of the bridge cross-sections that is also simple to use. In particular, the moving procedure to the next concreting section is extremely user-friendly as this is possible to carry out with very little additional manual work thanks to a newly-developed mechanism.

Apart from the ease of use, safety was very much the focus during the development. The compatibility achieved with the PERI UP modular scaffold ensured the provision of safe working areas with a minimum of effort for the construction team as the scaffolding can be connected to the VARIOKIT components by means of simple connection parts.

One particular advantage of this new type of cantilevered construction solution is that all the components can be reused in future projects without requiring any further modifications – most of these can even be used for the realization of other types of civil engineering structures (e.g. tunnels). As a result, the VARIOKIT engineer construction kit has a particularly broad field of applications with only a minimum of standard system components. In addition, nearly all components are available in PERI rental park stocks. This not only ensures fast availability of all components but it also increases the cost-effectiveness of the solutions for the construction company.

A total of four cantilevered construction units were used for the building of the bridge superstructure near Tarnow; the construction of the superstructure moved forward symmetrically in both directions from the starting point of two piers in each case. 3.50 m to 5.00 m long sections were concreted alternatively until the gap was finally closed.

The single-cell hollow box cross-section of the superstructure varies in height from around 2.50 m up to 6.10 m although the width remains constant throughout. The resulting is a continuous change in the angle.
between the outer side of the web and the cantilevers which meant the formwork had to be therefore readjusted for each concreting section. Regarding this standard requirement for bridge constructions, PERI has developed a simple and practical solution: a formable steel sheet connects the two girder formwork elements with the result that the angle between the web and carriageway formwork can be constantly changed by means of spindles. Following the change in the cross-section, the slab formwork of the web is fixed at its respective height whilst the element of external web formwork remains unchanged.

With this construction, the required low dimensional tolerances for the bridge cross-section could be met without any problems. The jobsite team achieved the best possible results for the entire span with this solution and each individual segment could be realized on a customized basis.

Furthermore, the crane-independent moving procedure was also optimized in terms of workload: after only a few simple steps, the frame could be moved forward to the next section through the use of hydraulic presses. For this process, the construction team needed only 2 hours on site. After the respective gap closure between two piers, the cantilevered construction units were moved back to the starting point on the pier head where they were dismantled.

PERI took on the responsibility for the customised planning and static calculations of the complete solutions for the falsework-supported superstructure as well as the cantilevered construction. As a result, all systems and processes were therefore optimally matched. The solution also included technical documentation along with providing constant back-office support for the construction team throughout the project. In addition, the on-site presence of the PERI supervisor accelerated building progress.

Source PERI GmbH
Insuring the Wind

The growing Canadian wind energy industry presents a world of opportunities for project stakeholders – and for insurance, an interesting set of risks for every stage of a wind project from cradle to grave. Wind energy is big business, from planning to parts manufacturing, supply and repair, transportation, turbine construction, operation and repair, right through to disposal. Each one of these project aspects encompasses a unique and multifaceted set of perils to be considered in the underwriting process. As a global company, RSA has been insuring wind energy projects at every stage of development for over 30 years; as the Canadian market becomes increasingly wind-friendly, we have collected a few lessons from our European counterparts in addition to some homegrown experience. Here’s a little bit of what we’ve learned about the dynamic and complex business of insuring wind.

According to the Canadian Wind Energy Association (CanWEA), the total cost of a large scale wind farm ranges from $2.2 million to $2.8 million per installed megawatt of generating capacity, with the wind turbine making up 70% to 75% of the cost, and engineering, site service and construction creating the balance. For a project of this scale, the comprehensive planning phase alone generally takes more than two years, during which a long list of possible pitfalls is presented. With so many moving parts, there is potential for project delays at any stage in the planning process. Leading up to construction, project development includes municipal consultations, wind resource assessment, design, environmental assessment, land acquisition, permitting and public consultation, economic and financial analysis, manufacturing, and eventually site preparation. Within each of these steps are rigorous approval and administrative processes involving legislation, multiple stakeholders, consultants, and government bodies. Although insurance (including physical and liability related risks) comes into effect once the project is started, understanding this rigorous process and the potential delays is part of knowing the client’s business and the challenges they face.

Once all approvals are satisfied, the site is ready to be prepared and insurance comes into play. The site preparation process can include constructing access roads for transporting parts, clearing areas where turbines will be erected, and finally, preparation of the foundations including excavation, formworks installation and pouring concrete and rebar. When a turbine is ready to be erected, construction happens on-site, assuming all turbine parts, from the tower to the nacelle and blades have arrived on time and ready for attachment, along with specialized construction equipment required for assembly.

To put the scale of a wind turbine project into perspective, consider the following specs for a 1.8 MW turbine, provided by the Canadian Wind Energy Association (CanWEA):

- The nacelle (generator components) is the size of a small motor home and weighs 63,000 kg.
- Each blade is 39 m long – the same length as a Boeing 737, and the 3-blade rotor weighs 35,000 kg.
- The 65 m tower is made up of rolled steel and comes in three pieces. The entire tower weighs 132,000 kg and contains enough steel to manufacture 206 average cars.
- The foundation concrete is 9-10 m deep and 4 m across, 102 tension type bolts run the full depth of the foundation.
- Swept area of the blades is 5,024 m² the size of 3 NHL hockey rinks combined or about 0.5 ha.
- Total weight of the entire turbine is 230,000 kg – about the same as two diesel electric locomotives.

The massive turbine parts can be a significant burden for transport ships, trailers, and the routes on which they travel, creating a significant risk for damage or loss en route to the site. Possible issues that could arise during water transportation of a wind turbine include a load shifting on a ship, which can cause damage to the blades, or a piece of equipment falling into the water at the port. Potential snags with land transportation include a truck hauling equipment getting stuck in soft soil, a landslide or road collapse due to the weight of the equipment, or a trailer overturning during transport, causing equipment to fall off the trailer entirely. Identifying the necessary turning radius and ensuring roads are suitable for handling the weight of the equipment is critical.

As wind projects continue to grow in scale, turbines are getting bigger, and so is the equipment required to build them. There is currently a limited supply of contractors’ equipment that meets the needs of the wind sector within Canada and around the world. Supply chain issues related to availability of turbine parts and construction equipment are added risk factors to be considered. A well thought out site delivery plan, including contingency planning, is critical to ensuring a smooth construction process.
cies for unavailable equipment, is imperative. It is also important to have a good knowledge of experienced construction companies, contractors and well-made construction equipment.

When a wind turbine is operational, ongoing preventive maintenance is vital to sustained production and business continuity. At this point it is necessary to have access to equipment and spare parts for repair when available or required. Common operating issues include breakdown within the nacelle, including the generator, gearbox or transformer units, all of which are critical to turbine function. Timely access to cranes and replacement parts is crucial in the event of equipment breakdown. Failure to obtain access to a crane or replacement equipment in a timely manner can seriously impact business continuity as turbine replacement can take up to an average of two years. To minimize the business interruption element as much as possible, it is important to understand what parts are stored nearby, or at least in the country as opposed to parts that may have to be sourced from Europe or other overseas warehouses.

As the industry grows in Canada, some European parts manufacturers have established Canadian operations, which make it easier to meet supply needs. To anticipate potential shipping delays, it is useful to know which manufacturers have set up shop in Canada, as opposed to those who operate overseas only.

If the list of considerations seems daunting, keep in mind a few key questions: How remote is the location and what are the limits to access? What are the issues with the supply chain for parts and construction equipment? What is the transportation method, and are there additional considerations (i.e. building road access) to be factored in? Who are the manufacturers, construction companies and contractors, and what issues exist with quality or availability of parts or services?

For an underwriter, it is important to be familiar with the multitude of factors influencing each phase of a wind farm’s life cycle. The potential challenges outlined in this article are certainly not exhaustive, as each project is unique and we continue to build our knowledge and expertise in this emerging industry. With these challenges comes vast opportunity; with increasing government support and investment in Canadian wind power, this sector will continue to grow, promising a diverse and interesting set of risks to write.
PostAuto Schweiz AG has become the first company in Switzerland to deploy fuel-cell technology for public road transport. Since the end of 2011, five Mercedes-Benz Citaro FuelCELL Hybrid models have been serving on routes in and around Brugg as PostAuto vehicles. Over the next five years, PostAuto will test the fuel-cell drive, using clean hydrogen as fuel. The dense network of routes operated by PostAuto around Brugg is ideally suited to the test in terms of both topography and routing, with a mixture of city traffic, country roads and village streets. The routes will be operated by the PostAuto company Voegtlin-Meyer AG, which will also service and refuel the five fuel-cell post vehicles at its garage location. Aargau Canton is supporting the fuel-cell bus project with a subsidy of CHF 1.5 million ($1.6 million) from the Swisslos lottery fund. PostAuto expects to save some 2,000 t of CO₂ during the five-year test phase.

Improved fuel-cell components and the hybridization with lithium-ion batteries result in a reduction in hydrogen consumption of almost 50% for the new Citaro FuelCELL Hybrid compared with the previous generation.

The operating range of the fuel-cell bus is over 250 km. With these diverse technical advances, buses running on electric power alone with fuel cells as energy generators are now a major step closer to production maturity.

With more than 140,000 operating hours and a total distance travelled of over 2.2 million km, Mercedes-Benz buses have demonstrated the practical application of the eco-friendly fuel-cell drive.

Source: Daimler AG
The back-mounted VIESA Internal II cab cooler maximizes its cooling performance being mounted at the back of the truck’s cab. Away from the sun’s rays, VIESA Internal II optimizes cooling conditions allowing to operate the system day and night without the need to run the truck’s engine. VIESA Internal II is especially designed for high-roofed trucks, transforming the truck’s cab into a comfortable, quiet environment with lots of fresh and cool air. The economical and maintenance-free VIESA cab cooler eliminates idling costs and expensive A/C repairs. VIESA Internal II features programmable on-off operation. Automatic operation allows the system to self-adjust to exterior temperature conditions. Its exclusive automatic vent opening and closing system prevents dirt and dust from entering the cab.

VIESA delivers cool air to the cab without running the truck’s engine. It consumes only water and it makes no use of chemical coolants nor emits gases into the atmosphere. VIESA is totally ecological and provides the driver with a healthier rest and comfortable driving condition, increasing driver satisfaction and retention rates.

Truck engine idling consumes significant amounts of fuel to provide cooling. Eliminating idling saves much of this fuel and reduces C02 emissions and operation costs. According to the Center for Transportation Research (U.S.), a typical Class 8 truck idles 218 days for cooling at 4.5 h/day consuming 3.8 l/h, which translates into an estimated expense of $2,700 per year. And truckers find no alternative when anti-idling laws threaten hefty fines for running the truck’s main engine.

Air conditioning maintenance is a growing expense in all fleets; industry estimates put the cost of maintaining A/C units in $800 per truck per year. Because VIESA works even with the engine stopped, it also decreases wear and tear on engine parts. VIESA operates from the truck’s existing battery with low amperage draw. The system automatically shuts-off on low battery and incorporates polarity and surge protection.

Source: Viesa Canada
INTERROUTE&VILLE is an essential event for the road community. To be held from October 2 - 4, 2012, it will welcome to Lyon all players who work in regional planning, all within a framework of sustainable mobility: project managers, contractors, private companies and suppliers of materials, equipment, machinery and solutions dedicated to transport infrastructure.

This means that nearly 250 exhibitors and over 7,000 visitors are expected for this edition of the trade show which will be highlighting information and communications technologies (ICT) that benefit sustainable mobility.

Four months out from the event, and with set-up in progress, our objectives have already been 70% met, and a third of confirmed exhibitors to date are new to the event. Leaders in major sectors have already put up their hands:

- Construction: Colas and its subsidiaries, Eiffage TP, Eurovia,
- Roading design and engineering: Technilab, Vectra, Ginger CEBTP,
- Equipment: Fayat, Claas, Rousseau, Arvel,
- Materials: BASF Construction Chemicals, Shell, Total, BP France, Saint GobainAdfors,
- Signage: 3M, Aximum, Signature Group, Signaux Girod

Their presence will help provide accurate responses to the recurring and daily questions confronting moving infrastructure managers and policy managers: design, construction, security, development, maintenance, upkeep, management and running.

Even though the road remains the essential mode of transport for freight (88%) and people (87.5%), for several years now, it has been undergoing massive changes both technically and technologically as well as in its operating method. France has over one million kilometres of roads, creating the most dense roading network in Europe and also acting as a pillar for the country’s economic, tourist and cultural life. Furthermore, at the Grenelle de L’Environnement, one of the principles announced was the modal shift which consists of improving travel mode synergy in order to optimise the flow of freight and people. However, this transport mode synergy cannot occur without the contribution of ICTs, especially since innovations have contributed so much over the past few years to the implementation of intelligent roads, which notably combine improvements in maintenance and geolocation.

Consequently, innovation is at the heart of the 2012 trade show, starting in the intelligent infrastructure village which will host energy, information technology and communication themes as well as interlinking software. But equal emphasis will be placed on materials which respect the environment.

Within the trade show framework, the first IDDREM conference will bring together project managers, companies, suppliers, contractors, research and training bodies, and associations which partner the infrastructure sector. Participants will be exchanging ideas around the theme of the future of land-based transport infrastructure in order to imagine tomorrow’s roads and mobility.

“The last few years have seen massive changes in the use of roads. Finished are the ‘cardoximi’, with preference now going to ‘decumin’,’ in which we now phone, work, and eat. And the roads which no longer all lead to Rome are now safer due to technology’s extraordinary evolutions. In addition, remember that France has maintained its exceptional leadership in the area of know-how dedicated to roading in general and sustainable roading in particular. Additionally, this know-how is an excellent asset in terms of exports!,” states Maryvonne Lanoë, exhibition manager.

Every two years, INTERROUTE&VILLE brings together professionals who design, build, maintain and operate motorway infrastructure, urban road networks and public transport platforms, and who develop public spaces.

Source: Comexposium

Key Roading Figures
2011 France turnover: €15.2 billion ($19.6 billion)
International turnover: €8.4 billion ($10.3 billion)
1,400 companies employing 96,178 workers

Market distribution by client type:
- State: 4.7%
- Communes: 37.6%
- Departments: 14.5%
- Regions: 1.7%
- Public companies: 5.1%
- Motorway SOEs: 4.8%
- Private sector: 31.6%

1 Source : FNTP 2010

CONEXPO Russia at CTT 2012 a Success!

CONEXPO Russia at CTT 2012 concluded a successful run May 29 - June 2, providing exhibitors with direct access to quality buyers and potential business partners in this important marketplace.

The Association of Equipment Manufacturers (AEM) is CONEXPO Russia organizer and offered exhibitors a high-profile location that allowed manufacturers and their exclusive dealers to control their corporate brand and marketing messages.

AEM helped facilitate CONEXPO Russia exhibitor travel planning and logistics and offered cost-effective exhibit options, so members could more easily expand their presence internationally. The association also provided its signature high level of customer service and manufacturer input to exhibit planning.

Russia’s growth plans include billions of dollars allocated for infrastructure growth, including projects related to the 2014 Olympic games in Sochi.

Source: Association of Equipment Manufacturers (AEM)
bauma is Fully Booked!

Already – eleven months before bauma opens – all space at the show is fully booked. This International Trade Fair for Construction Machinery, Building Material Machines, Mining Machines, Construction Vehicles and Construction Equipment has a waiting list for all sections of the exhibition. And this, despite the fact that the exhibition space allocated to the event has been extended to a record 570,000 m².

For this event, the biggest trade show in the world – taking place in Munich from April 15 to 21, 2013 – a further 15,000 m² of space has been made available in the north-west corner of the exhibition site. Georg Möller, Exhibition Group director at Messe München International: “With this additional space we can now admit more exhibitors than at the last event. Nevertheless it is still not possible to accommodate all those who want to take part, or to meet in full the space requirements of all participants.”

bauma 2013 is well on track for exceeding the results of the previous event. In 2010, bauma welcomed 3,256 exhibitors from 53 countries, and over 420,000 visitors from more than 200 countries.

Source: Messe München International

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Accessories Machinery Ltd Phone: 1-800-461-1979

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2001 JOHNSTON 610 vacuum sweeper, mounted on Freightliner FC70 cab over chassis.
Stock H93469 Price: $52,500
Accessories Machinery Ltd Phone: 1-800-461-1979

1997 JOHNSTON 605 vacuum sweeper, single sweep right side, mounted on Ford cab over chassis.
Stock A41005 Price: $24,500
Accessories Machinery Ltd Phone: 1-800-461-1979

2004 JOHNSTON VT 650 vacuum sweeper, catch basin cleaner, mounted on Freightliner FC80 chassis, 66,986 miles. Stock N10707 Price: $69,400
Accessories Machinery Ltd Phone: 1-800-461-1979

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Agenda

21st Century Asphalt Pavements conference
June 19 - 20, 2012
Cincinnati, OH USA

Hillhead 2012
June 19 - 21, 2012
Hillhead Quarry, Buxton, United Kingdom

International Roof Coatings Conference
July 16 - 19, 2012
Baltimore, MD, USA

Plug-In 2012 Conference & Exposition
July 23 - 26, 2012
San Antonio, TX USA

FESTIRAIL de Charny
August 25 - 26, 2012
Charny, QC Canada

DEMO International® 2012
September 20 - 22, 2012
Saint-Raymond, QC Canada

64th IAA Commercial Vehicles Hannover
September 20 - 27, 2012
Hannover, Germany

MINExpo INTERNATIONAL® 2012
September 24 - 26, 2012
Las Vegas, NV USA

INTERROUTE&VILLE
October 2 - 4, 2012
Lyon, France

INTERMAT Middle East
October 8 - 10, 2012
Abu Dhabi, United Arab Emirates

Canadian Waste & Recycling Expo
November 14 - 15, 2012
Toronto, ON Canada

Expo FHOG & Expo-Paysages
November 14 - 16, 2012
Saint-Hyacinthe, QC Canada

32nd Annual Canadian Pool & Spa Conference & Expo
November 28 - 29, 2012
Niagara Falls, ON Canada

Bauma China 2012
November 27 - 30, 2012
Shanghai, China

Ecobuild America
December 3 - 7, 2012
Washington, DC USA

BAUMA CONEXPO SHOW - bC India
February 5 - 8, 2013
Mumbai, India

bauma 2013
April 15 - 21, 2013
Munich, Germany

National Heavy Equipment Show
April 18 - 19, 2013
Mississauga, ON Canada

bauma Africa 2013
September 18 - 21, 2013
Johannesburg, South Africa

International Construction and Utility Equipment Exposition (ICUEE)
October 1 - 3, 2013
Louisville, KY USA

CONEXPO-CON/AGG and IFPE expositions
March 4 - 8, 2014
Las Vegas, NV USA

Journée Expo-Bitume
April 3, 2014
Saint-Hyacinthe, QC Canada
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