Here we are, a new season and a new year, and a new edition of InfraStructures to start the year off with.

Landscape Ontario’s CONGRESS is just behind us marking the beginning of the 2015 show season.

What will this year hold in store for us with new products and innovations and the general state of the economy?

There are a few events in our own backyard this year, including the National Heavy Equipment Show in Toronto.

As usual InfraStructures will be bringing you news and informative editorial content on projects and applications that may just help you solve that tricky issue you have been avoiding.

You have come to appreciate the usefulness and practicality of our content.

What else would you expect from Canada’s leading industry publication.

Happy New Year!

On the cover: Les Excavations Payette ltée uses an Atlas Copco drum cutter on a jobsite situated in Little Italy, a neighborhood of Montreal, Quebec.

The drum cutter is ideal for trimming the vertical rock walls where it gives more control compared to hammers and blasting.
INTERMAT 2015 RIDING HIGH

With less than 6 months to go before the show opens, INTERMAT PARIS is ready to roll.

Demonstrating its capability of bringing together the sector’s leading players, the show can today confirm the participation of 38 out of the world’s 50 largest construction equipment manufacturers. These include: CNH Industrial, Doosan, Hitachi Construction Machinery, Hyundai Heavy Industries, JLG, John Deere, Kobelco Construction Machinery, Komatsu, Kubota, Liebherr, Liugong, Sany, Shantui, Terex, Volvo Construction Equipment, Wirtgen Group, Wacker Neuson, Zoomlion/Cifa.

The 2-day event Pre-INTERMAT organized ahead of the show is also shaping up to be a prime occasion to discover innovations and new solutions; to date, 90 companies have signed up for the event. During Pre-INTERMAT, the results of the Innovation Awards will also be revealed, with more than 80 innovations taking part in the competition.

INTERMAT 2015 is organized by S.E. INTERMAT, CISMA, SEIMAT, French trade organizations from the construction equipment industry, and Comexposium, France’s leading trade show organizer. The next edition will be held from April 20 - 25, 2015 at the Paris-Nord Villepinte Exhibition Centre, in France.

Source: Intermat

ICUEE 2015: AGC PARTNERSHIP BRINGS NEW EDUCATION, EXHIBITS PAVILION

ICUEE - The Demo Expo announces co-location of the AGC Utility Infrastructure Conference with the 2015 exposition. AGC, the Associated General Contractors of America, will also organize the AGC IT and Business Solutions Pavilion at the show.

The biennial ICUEE, the International Construction and Utility Equipment Exposition, will be held September 29-October 1, 2015 at the Kentucky Exposition Center in Louisville, Kentucky.

The AGC conference will bring together contractors and related businesses involved in every aspect of utility and infrastructure construction to learn the latest trends shaping the industry, discuss issues affecting the market, and to see what AGC is doing legislatively and how individuals can get involved.

The AGC exhibits pavilion will showcase utility construction solutions and products in areas including technology and BIM—Building Information Modeling processes, business and industry practices, and related construction/business products and systems.

With over 25,000 member firms, AGC of America is the leading association for the construction industry, providing a full range of services to meet the needs of members, as they improve the quality of construction and protect the public interest.

“Partnering with ICUEE for our annual Utility Infrastructure Conference provides AGC members and others involved in utility and infrastructure construction with a great opportunity to check out the latest equipment and educate themselves on industry best practices at one of the premier construction industry events focused on their market,” stated Scott Berry, director, AGC’s Utility Infrastructure Division,
Environment, and Trade.

“We are very pleased with AGC’s decision to co-locate its conference with ICUEE and strengthen the breadth of industry education and networking for all show attendees. And the AGC exhibits pavilion adds extra value to what attendees will find on the ICUEE show floor to help them run their businesses more effectively,” stated ICUEE Chair Tim Ford, president Terex Cranes, Terex Corporation.

ICUEE is held every two years and covers more than 25 acres of the latest equipment and product innovations related to utility construction, maintenance and rehabilitation. It is known for extensive hands-on equipment demonstrations in job-like conditions. The show serves an audience of utility professionals and utility construction contractors in the electric, natural gas, water/wastewater, and telecom/cable sectors.

Source: Association of Equipment Manufacturers

BAUMA CHINA: EXCEEDING ALL EXPECTATIONS

The 4 days of bauma China 2014, the 7th International Trade Fair for Construction Machinery, Building Material Machines, Construction Vehicles and Equipment, between November 25 and 28, were another resounding success at the Shanghai New International Expo Centre (SNIEC).

Despite the downturn in the market and the severe challenges facing the industry, bauma China still attracted 191,000 visitors (2012: 180,000) from 149 countries and regions. International buyers in particular were strongly represented at bauma China: their numbers rose by 12%. Eugen Egetenmeir, managing director of Messe München, was very impressed by the visitors’ enthusiasm: “After twelve years of development of bauma China, this show is now not only a platform for product presentation, but also a grand industry party for communication and cooperation for further growth.” Li Fangyu, vice president marketing China from Volvo Construction Equipment, spoke highly of the show: “bauma China 2014 is taking place in the midst of a recession in the construction machinery market. However, judging by the exhibitors and VIP customers we met here, the trade show is very encouraging. At such times, bauma China is giving us vitality, hope and spirit.”

bauma China once again occupied all of the exhibition space – a total of 300,000 m² – at the Shanghai New International Expo Centre. This year’s show gathered 3,104 exhibitors from 41 countries (2012: 2,718 exhibitors from 38 countries), which is an increase of 14%. Dr. Sun Changjun, vice president of Zoomlion, pointed out: “bauma China is the biggest and the most important construction machinery trade show in China. It attracts leading
construction machinery manufacturers from all around the world. It is significant to the industry and well-known among the industry professionals."

Taking part in bauma China 2014 were 2,097 Chinese exhibitors. Here they presented to the world their key products and standards of excellence. Exhibitors from outside China also featured strongly at the show, and interest in their innovations and advanced technologies was high. This year there was a further rise in the number of international exhibitors. After China, the top 5 exhibitor countries were Germany, USA, Italy, Korea and Japan. bauma China also featured 9 national pavilions, from Austria, Finland, Germany, Italy, Korea, Spain, Turkey, UK and the U.S.

This year, for the first time, a business matchmaking system was implemented at bauma China to facilitate contacts between exhibitors and visitors. Visitors were able to search detailed information the exhibitors had posted in the system, and thus target those exhibitors they were specifically interested in. Hundreds of advance contacts were made in this way and meetings arranged for the show.

The next bauma China takes place at the Shanghai New International Expo Centre from November 22 to 25, 2016.

Source: Messe München International

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**National Crane Beats Time Constraints for EPCOR**

It has been less than a year since the release of National Crane’s NBT15 series boom trucks, which offer the longest boom length and highest capacities in their class. The cranes are already having an impact, enabling efficient lifts and easy transport on and among diverse job sites.

EPCOR Utilities Inc., based in Edmonton, Canada, has been using its new NBT16 – one of 3 cranes in the NBT15 series, also including the NBT14 and NBT15 – to great effect in the energy sector. The company builds and operates electrical transmission and distribution networks in Canada. EPCOR oversees numerous electrical projects, working with heavy, high-voltage electrical equipment that needs to be lifted by a crane.

Time is always a major factor for the company. When it needs to work with live electrical equipment for a project, the power is often turned off, leaving a short window for EPCOR to complete its work before the outage ends and power resumes.

EPCOR’s time constraints are exactly what make its National Crane NBT16 so useful. With the crane’s efficient transport and setup times, the company is able to move in quickly, complete the required lifts and then rapidly pack up and head to the next job site.

Cory Fedoruk, who operates the NBT16 for EPCOR, said the new crane has been a welcome asset.

“We work on dangerous job sites where time is of the essence. We have to de-energize and ground the equipment we work on,” he said. “We have limited outages on most jobs, which results in a compressed timeframe to complete our work. The NBT16 can quickly move in and complete the lifts, whereas another crane would take much longer to set up and prep for the job, increasing the cost and time spent on a project.”

EPCOR uses its NBT16 to lift such items as current transformers, capacitance voltage transformers, lightning arrestors, capacitors, aluminum busses and transformer components. The NBT16 has a 16 USt capacity, which easily handles EPCOR’s lifting requirements.

EPCOR purchased the crane from the Edmonton, Canada, branch of Strongco, an Ontario-based seller and renter of industrial equipment for industries including construction, road building, mining and forestry. Strongco is one of Canada’s largest construction equipment distributors with an extensive network of branches across the country and in the Northeastern U.S.

Source: The Manitowoc Company, Inc.
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and we will enhance these services with additional equipment from NCSG’s crane and heavy haul operations,” said Mr. Hargett. “With access to NCSG’s team of 700 employees and fleet of over 290 cranes, 235 lines of hydraulic platform trailers, 300 conventional trailers and specialized rigging services such as jack & slide and hydraulic gantries, NCSG | H&H Crane will be able to take on larger projects/maintenance jobs and meet even more of our customers’ rigging, lifting and heavy haul needs.”

NCSG, based in Edmonton, Alberta, is one of the largest crane and heavy haul companies in North America.

Source: NCSG Crane & Heavy Haul Services, Inc.

**CAT® 303E CR Designed for Optimum Performance in Confined Spaces**

The new Cat® 303E CR mini hydraulic excavator, only 155 cm wide across the blade and having a compact-radius design that limits tail swing to less than 12.7 cm, is an easily transported machine that works efficiently and safely in small spaces and on congested job sites. With a maximum operating weight of 3530 kg, the 303E CR expands the Cat mini excavator line and gives buyers more choice in the 2.5-3.5 t size class. The new model’s 23.5 hp Cat C1.3 engine combines with a powerful load-sensing hydraulic system – delivering flows to 87.6 l/min – to provide productive, reliable performance in demanding applications.

Available both in cab and canopy configurations, the 303E CR is designed for the operator’s convenience and safety. A float function for the dozer blade allows the blade to follow ground contour and create smooth finish grades. When digging in confined spaces, the 303E CR’s offset boom provides added flexibility. A mechanical quick coupler is available for accommodating work tools such as augers and hydraulic hammers, and a thumb-ready stick is standard.

The 303E CR’s hydraulic system uses low-effort, pilot-operated joysticks that provide more precise, more consistent control than mechanical-linkage controls. For operator convenience, auxiliary-hydraulic controls are integrated into the joysticks, making the 303E CR work-tool ready with both a one-way-flow circuit for tools such as hydraulic hammers and a two-way-flow circuit when using work tools with cylinders or bi-directional motors. An in-cab pattern changer allows easily switching controls to suit operator preference.

Steel tracks are available for the 303E CR, as an alternative to the standard rubber tracks, for use in applications that require higher resistance to sharp debris.

Source: Caterpillar

**ASTM INTERNATIONAL DEVELOPS FIRST PRODUCT CATEGORY RULES FOR THE ASPHALT ROOFING INDUSTRY**

The Asphalt Roofing Manufacturers Association (ARMA) has partnered with ASTM International to develop Product Category Rules (PCR) for asphalt roofing in North America. The new PCR will provide consistent methodologies for asphalt roofing manufacturers to measure and report the expected environmental impact of their products. This new document can be accessed for free at ASTM International’s website (www.astm.org/certification).

PCRs provide guidelines for the development of Environmental Product Declarations (EPDs) for a specific product group. PCRs are valuable to any industry because they streamline the process through which products are measured and their environmental impacts communicated, creating globally consistent documentation. Asphalt roofing manufacturers can use these guidelines to review their own products and develop an EPD, which is a verified document that reports the expected environmental performance of a product based on its expected life cycle. An EPD uses the data collected through PCR guidelines to provide comparable environmental impact data for similar products.

ARMA and several of its member companies participated in the development of this PCR, titled “Asphalt Shingles, Built-Up Asphalt Membrane Roofing, and Modified Bituminous Membrane Roofing.” The guidelines cover asphalt shingles applied over underlayment, and low-slope roofing assemblies consisting of various combinations of factory-produced asphalt-saturated or coated base sheets, ply sheets and cap sheets together with specified viscous asphalt coatings, adhesives and surfacings.

ASTM began its PCR and EPD program in 2012 to provide an infrastructure that can be used for the evaluation and communication of a product’s full-lifecycle environmental impacts. ASTM develops PCRs in partnership with various segments of the building construction industry and in accordance with international standards. ARMA’s partnership with ASTM was an efficient way to provide a PCR to asphalt roofing manufacturers that is standard among researchers, developers, consumers and businesses.

Source: The Asphalt Roofing Manufacturers Association

ASTM International

**BRIDGESTONE OPENS FIRST U.S. GIANT OFF ROAD RADIAL TIRE MANUFACTURING FACILITY**

On November 18, 2014, Bridgestone Americas announced the opening of its first giant off road radial tire plant. Based in Aiken County, South Carolina, the 139,350 m² manufacturing facility produces various off road radial tire products used to equip heavy haul trucks in mining and aggregates applications.

In 2011, Bridgestone announced a planned $970 million investment to build the company’s first U.S.-based off road radial tire plant, as well as expand production capacity at Bridgestone’s steel
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cord manufacturing facilities in Clarksville, Tennessee, and Saga, Japan. The opening of Bridgestone’s new Aiken County Off Road Radial Tire Plant completes the largest portion of this planned investment. The Clarksville and Saga locations are suppliers of the Aiken County Off Road Radial Tire Plant, as steel cord is a key component used to build large and ultra-large off road radial tires.

Bridgestone’s Off Road Radial Tire Plant is the second tire manufacturing plant Bridgestone has built in Aiken County. The company has operated a passenger tire facility in Graniteville since 1998. Approximately 350 people now work at the new Aiken County Off Road Radial Tire Plant, and Bridgestone expects to create an additional 200 positions when the location reaches full production in the next two to three years. At present, there are approximately 2,000 people working at Bridgestone’s two tire plants in Aiken County.

The new Aiken County Off Road Radial Tire Plant was constructed with many sustainable features and materials in alignment with Bridgestone’s global commitment to the environment. The plant is built to LEED (Leadership in Energy and Environmental Design) Silver construction specifications. In addition, sustainable and advanced technologies from Firestone Building Products, a subsidiary of Bridgestone Americas, were used throughout the facility. The new plant relies on UltraPly™ TPO roofing, ISO 95+™ insulation, UnaFoam™ Insulated Metal Wall Panels, pavers and geomembrane for retention ponds and water harvesting areas.

Source: Bridgestone Americas, Inc.

**New, Streamlined Hydraulic Breaker Attachment Line**

Atlas Copco’s new, Essential (ES) breaker attachments give rental centers and contractors a fast return on investment by simplifying maintenance and operation.

Atlas Copco created the ES Range as an economical and user-friendly option for general construction projects and light demolition.

The new ES Range includes 3 models, the ES 60, ES 70 and ES 80. These models are remarkably narrow to promote good visibility and handling on worksites. The slim design also results in faster cleanup. For example, operators can cut narrow and precise trenches for plumbing installation applications without removing excess soil to accommodate the breaker’s size.

The ES breakers feature Atlas Copco’s exclusive, solid body construction that combines percussion and mounting components in one uniform structure. This eliminates the need for external fasteners, which allows rental center mechanics to quickly and easily replace wear bushing and seals, resulting in fast turnaround times for repairs and maintenance.

Atlas Copco designed the ES breakers with a central lubrication point that contractors can quickly and easily access to grease the breaker. The breakers also feature full-length floating bushings to ensure grease fully coats bushings and tool steel to minimize wear. The breakers enhance productivity with a nitrogen-gas assist system that works with the units’ hydraulic oil to accelerate the breakers’ pistons and achieve impact rates as high as 1,300 blows per minute.

The 3 ES breakers attach to a wide range of carriers in weight classes that range from nearly 3 t to over 12 t. Operators can use the breakers in conjunction with Atlas Copco’s tool steel, such as a moil point, chisel or blunt, to break through a variety of materials. The moil points and chisels are ideal for breaking apart sedimentary rock and soft to medium-hard metamorphic rock. They also help contractors work efficiently as they move from non-reinforced to reinforced concrete. The blunt tool can be used to shatter medium-hard to hard metamorphic rock and igneous material. And with Atlas Copco’s asphalt cutter tool, operators can accurately cut sections of asphalt or through frozen ground.

Source: Atlas Copco
Canada’s LARGEST Heavy Equipment Show

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riage parts (including rollers, sprockets, idlers and travel motors). Parts are in stock and purchase, as well as replacement parts such as rubber tracks, expendables and undercarriage components.

TRIMBLE REACHES MILESTONE WITH SITECH TECHNOLOGY DEALERS IN OVER 100 LOCATIONS WORLDWIDE

Trimble recently announced that it has established more than 100 SITECH® Technology Dealers worldwide. SITECH Technology Dealers are the first fully dedicated global distribution network focused on offering the most comprehensive portfolio of construction technology solutions available to the heavy civil and site construction contractor.

Trimble is committed to delivering value across the entire life cycle of heavy civil and site construction projects, providing enhanced information for improved productivity and uptime through real-time integrated information management on-site. Trimble technology is changing how construction work is performed – allowing contractors of all sizes and with mixed fleets to bid with more confidence, reduce rework, eliminate downtime, improve quality and manage costs.

SITECH Technology Dealers understand how to apply innovative construction technology to solve a variety of contractors’ construction challenges – from small site construction to large infrastructure projects. Through a greater implementation of technology across construction processes, contractors of all sizes can gain greater insight into their operations, enabling them to lower operating costs and improve accuracy, safety and productivity.

As part of building and maintaining a world-class partner for the contractor, Trimble is investing in continuous dealer improvement and development programs. Trimble works with each SITECH dealership to ensure long-term business viability and strong relationships at the local level. Combined with strong domain knowledge and understanding of the entire construction process, SITECH dealers are able to provide best-in-class customer support and service, training, system optimization and configuration, rental, installation and consultation to heavy civil contractors for their entire project and mixed fleet needs—regardless of machine brand.

SITECH Technology Dealers represent the Trimble® portfolio of Connected Site® solutions – grade, compaction and paving control systems, site positioning systems, fleet and asset management services, software and powerful wireless and Internet-based site communications infrastructure. In addition, SITECH dealers sell and support certain Caterpillar machine control systems.

Source: Trimble
Specializing in concrete and paving, Bevcon Construction has created a new finish for Hydromedia, Lafarge’s industry leading pervious concrete. Hydromedia with Aquatere combines the strength and function of Lafarge’s Hydromedia with Bevcon’s innovative Aquatere finish.

This enhancement provides both aesthetic beauty and increased functionality to paved surfaces. Using Lafarge’s Hydromedia as a base material, Bevcon has created Aquatere to provide an attractive look without compromising strength or function. Its flexural strength is comparable to that of conventional concrete pavements creating an ideal solution for managing storm water run-off from walkways, parking lots and driveways.

“We believe Hydromedia should be the industry standard for pervious concrete,” says Massimo Tutino, project manager with Bevcon. “With our Aquatere finish, we can now provide the added benefit of reduced maintenance in addition to increasing the aesthetic appeal.”

The use of Aquatere does not hinder the drainage ability of Lafarge’s Hydromedia, maintaining a permeability rating of 25 - 35%. This allows the system to rapidly direct water back into the natural sub-grade.

Landscape architects such as Kim Allerton of Northwood Associates Landscape Architects Ltd, a 33-year-old firm whose business focuses on public sector work such as schools and streetscapes, found it the ideal solution for a project at St. Francis Xavier Catholic School in Toronto.

“School boards have been experimenting for about 15 years with various solutions for treating water as a resource rather than waste – for intercepting surface run-off that conventionally is being directed off site and safely diverting it to on-site retention and infiltration zones where storm water would then be passively available for trees and other vegetation,” Ms. Allerton says. “Although permeable unit pavers have been used in the past, they have some distinct disadvantages.”

Using Hydromedia with Aquatere as the primary drainage system for the entire school parking lot and children’s play area has provided a solution that provides a safe hard surface for the 500 students who use it daily. It also keeps the surrounding trees well watered with natural irrigation.

“It has not only allowed water to go through to the ground below but has provided a very durable yet functional solution for the kids’ play area. And even for parking where winter snow storage and removal is a major consideration,” Kim Allerton adds.

While aesthetics may not always be a priority when drainage is the main concern, Hydromedia with Aquatere is able to achieve an aesthetically-appealing decorative surface that eliminates virtually all loose or unbonded aggregate materials typically found in standard pervious concrete finishes.

Hydromedia with Aquatere can level out any high or low spots for a more consistent finish. It can also provide variable surface traction levels.

Bevcon was last year’s winner of the 2013 Ontario Concrete award for material development and innovation.

Source: Bevcon Construction and Paving Ltd.

Going Digital: Terex Launches Distributor Support App

Terex Construction announces the launch of a new Distributor Expert support application and the enhanced terex.com/construction website. Both initiatives are part of a strategic focus on digital marketing technologies to improve the customer experience by providing easier access to information.

The new app puts all of the content that distributors need to support their customers at their fingertips. The app, which works on both Android and iOS platforms, stores all content locally on the device allowing users to access the information 24/7, even when Wi-Fi or cellular connections are not available.

The updated terex.com/construction now boasts a responsive design that adapts each web page’s layout to a visitor’s specific viewing environment. With responsive capabilities, visitors to the Terex Construction website can easily view the content from a desktop, tablet or smartphone – the web pages will automatically adjust to the device’s screen size, making content easy to read and instantly accessible.

As part of a focus on digital marketing technologies, Terex Construction continues to develop tools to support internal and external teams and continuous improvement in sales and marketing operations.

Source: Terex Corporation
Bosch Rexroth’s GoTo Focused Delivery Program, originally launched in the U.S. in 2009, is celebrating its 5th year of providing fast deliveries of Rexroth’s most popular Drive & Control products. To mark this important milestone, Rexroth has just added nearly 300 additional products to the program, shortened lead times even further, and released an all-new GoTo Products app for customers across North America.

The GoTo Program, which started with just over 1,000 part numbers in April 2009, now offers more than 3.5 times the original offering to customers in U.S., Canada and Mexico. Rexroth also continues to shorten lead times within the program; 98% of the products in the program ship in fewer than 10 days. Key new additions to the program include AA4G series 32 and AA10VG pumps for mobile hydraulics applications, as well as an expansion of the compact directional valve portfolio. Industrial hydraulics enhancements feature the addition of A15VSO and AA4VSO pumps – popular new pumps available from local U.S. inventories for the first time.

The latest GoTo update also boasts product additions across all Drive & Control technology product lines: Size 25 Roller Rail runner blocks are being included in the linear motion GoTo offering for the first time, as are new freely configurable Electromechanical Cylinders. Lead time improvements and increased quantity limits highlight of the electric drives and controls offerings, with MSK and MSM motors, as well as system cables now all available in 10 days. In the area of assembly technologies, the latest additions expand the GoTo range of accessories for ergonomic workstations, including an all-new line of ergonomic workchairs.

The updates are reflected in all of the latest catalogs at all 3 country websites. Most importantly, Rexroth’s popular GoTo Products app has been fully updated to support customers anywhere in North America. With the just-released version 4.0 for iPad, iPhone and Android, users can retrieve local pricing, find their local salesperson or distributor, add products to a cart and

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LoadMan Introduces In-Motion Weight Scale for Residential Cart Tippers

On November 19, 2014, at the Canadian Waste & Recycling Expo in Toronto, Creative Microsystems, Inc. announced its new LoadMan® In-Motion Weight Scale for cart tippers that uses state-of-the-art, patent-pending load cell technology. This latest in-motion scale addresses the growing residential waste management market and leverages innovative technology that LoadMan has honed over 25 years in the commercial waste management industry.

“We’re delighted to introduce our LoadMan In-Motion Weight Scale for cart tippers because we see a need for a highly reliable and durable product given the abuse that cart tippers withstand on a daily basis,” said Larry Santi, president of LoadMan. “We understand the challenges that haulers face and believe our new system will not only provide the accuracy that’s required to weigh individual waste carts, but will save time and money through our weigh-in-motion technology.”

LoadMan scales deliver unprecedented accuracy, reliability and durability and are compatible with most cart tippers on the market. Dual load cells measure the angle, speed and load on the cart lifter every 10 ms, and the system’s high-speed microprocessor and proprietary algorithms make calculations and corrections all while the cart is in motion to deliver a highly accurate weight. LoadMan scales are built to maintain their accuracy within 2% of the capacity of the cart lifter over an annual period. In addition, the system’s rugged strength, with unique locking design and resistance to high and low temperatures, ensures the scales will maintain their original calibration over an extended period of time.

LoadMan In-Motion Weight Scale combined with LoadMan Load Management software provide a critical solution for haulers to access essential data for analyzing their business, tracking customer waste and recycling habits, and reporting waste diversion rates. LoadMan can connect with GPS or RFID readers to automatically track each customer pick-up with no driver intervention or distraction.

The LoadMan In-Motion Scale for cart tippers has been field tested and is now available in North America and Australia through its network of certified dealers. Detailed product information and specifications on the new LoadMan scale can be found on the LoadMan website.

Source: Creative Microsystems, Inc.
New Controller for SCARAB Windrow Turner

SCARAB International, LLLP recently announced the introduction of a new controller for all new SCARAB units manufactured since November 2014.

Murphy by Enovation Controls is the preferred supplier of SCARAB’s PV-780T PowerView™ 780 controller in conjunction with the PowerCore™ Intelligent Xpansion™ IX3212 PDM. They will also supply SCARAB with complete wiring harnesses for all makes and models machines manufactured.

These changes in SCARAB’s models will significantly increase the reliability and troubleshooting of SCARAB’s electrical systems. These products can be used with any engine manufacturer as per customer specification.

These units will also make operations of SCARAB’s world class windrow compost turners easier to operate. Most controls are either touch screen or hard button touch. Operations such as engine start, clutch engagement, hydraulic controls for height and rear flap, 3 rear camera positions can all be custom designed for any customer operation.

SCARAB International, LLLP is the world leader in self-propelled windrow compost turners. Over 470 machines built and placed into service worldwide. SCARAB International, LLLP builds machines that turn windrows from 2.4 m to 8.3 m.

Source: SCARAB International, LLLP
J. Clubb Ltd, a supplier of aggregates, sand and concrete in Kent and South East England, is trialling Brigade’s new radar obstacle detection system to provide drivers with clear warnings of people or obstructions in the way of maneuvering mobile plant.

J. Clubb’s company motto, “Doing it right”, is particularly apt when it comes to health & safety. They are continuously working to improve standards by trialling the latest methods of best practice. This includes vehicle devices to improve blind spots on large vehicles and machines and help the driver to maneuver more safely and efficiently.

Brigade’s BS-8000 sensor system controls the radar beam pattern, so the spread of the beam can be restricted to the width of the plant for the length of the detection area to minimize false alerts on a busy site or in a crowded mine or quarry.

“The good thing about Backsense™ is that the installer can adjust it. This gives you leeway when maneuvering especially in confined spaces,” said Mark Griffiths, J. Clubb’s wheel loader operator.

The in-cab display has a clear, easy-to-read visual warning with 5 LEDs corresponding to 5 distance zones from the vehicle. “It is really easy to use. It comes on automatically and the red lights show you how far away you are, which makes maneuvering easier,” Mr. Griffiths added.

The warning buzzer has an adjustable sound level of 65 to 90 dB making it audible in even the noisiest working environments.

The BS-8000 is a fully programmable product, the most flexible on the market, offering a bespoke detection area from 3 m to 30 m in length, with a width between 2 m and 10 m. The detection zones can be tailored to suit the vehicle and its surroundings. Parts of the plant intruding on the detection area can be programmed out, and all configuration is done with simple-to-use PC-based software; no expensive programming tool has to be bought separately. There are also 3 models with fixed detection areas: 3 m, 4.5 m and 6 m in length.

Brigade fitted the Backsense™ sensor using a new optional stainless steel bracket (BKT-017) which has multiple fitment options including under-slung, surface mounted or opposed.

Source: Brigade Electronics plc
Brokk remote-controlled demolition equipment brings Goliath-sized drilling power in a David-sized package for mining, demolition and tunneling applications with the latest TE160 hydraulic drifter rock drill from TEI Rock Drills.

When paired with the Brokk 100 or Brokk 160, the new drill attachment is far superior to the alternative for drilling in cramped spaces, jackleg drills. The Brokk / TEI combination eliminates fatigue caused by operating the heavy handheld tools, improves overall drilling accuracy and promotes safety by allowing operators to stand farther away from the drilling site.

“Heavy jackleg drills are difficult to move and can quickly wear out the operator. With the Brokk machine and this drill head, they won’t tire so easily,” said Peter Bigwood, vice president of sales and marketing at Brokk. “Instead, they can run powerful drilling equipment in tunnels, mines and demolition sites for longer and from safe distances.”

When miners use jackleg drills for drilling 41 mm diameter holes for blasting, for example, they stand within 1 m of the working surface, which puts them at risk of being hit by water-propelled, fractured rocks or falling debris. They also have to strain against jackleg drills for long periods of time, and the exertion can lead to injuries and inaccurately drilled holes. With a Brokk machine and the TE160 attachment, they can consistently drill to 6 m depths while standing well out of harm’s way.

Operators can take the 115 cm tall Brokk 100 units into areas with 182 cm height clearances, which make them great for workspaces with little headroom. In addition, when the arms and stabilizer legs are folded in, the Brokk 100 is less than 80 cm wide, narrow enough to fit through doorways or onto elevators at demolition sites.

At just under 66 cm long, the TE160 is the smallest drill attachment from TEI, yet it packs a punch. The TE160 delivers 47 to 80 J of impact energy at 5,000 to 6,500 blows per minute. The drill also produces 135 Nm (100 lb ft) of torque and reaches rotation speeds of up to 250 rpm, which makes it an accurate and faster alternative to jackleg drilling through brick, concrete and rock.

In addition to enhancing safety, power and speed, the new drill attachment complements other Brokk attachments to make the Brokk machines more versatile. For example, demolition crews can use the Brokk 100 or Brokk 160 with the TEI attachment to bore 60 mm diameter holes for splitter or cracking agents in non-explosive demolition applications. They can then quickly switch out the drill for a hydraulic breaker, shear or bucket to size and remove debris.

The hydraulic TE160 drill attachment is also quieter than pneumatic handheld alternatives. This allows construction crews to use the equipment in locations where noise-control ordinances are in effect, such as in and around apartment buildings and high-rise towers.

Brokk also makes the new drill easy to handle by integrating its controls into the Brokk machines’ control systems. “Operators can control the Brokk and the TEI drill with a single control rather than one for the machine and one for the attachment,” Mr. Bigwood said. “This makes the Brokk and drill combination more convenient and practical, and also frees up an extra worker who normally would be required to operate the second control.”

Source: Brokk, Inc.
Chicago Pneumatic Releases T4F 185 CFM Compressor to North American Market

Chicago Pneumatic Construction Equipment has released the CPS 185 KD T4F portable diesel compressor to the North American marketplace. The flexible and reliable 185 CFM compressor can be utilized for a wide range of general construction applications and is now available from authorized Chicago Pneumatic equipment dealers across the country.

Equipped with a 49 hp Tier 4 final (T4f) Kubota engine, the 185 CFM compressor delivers a versatile solution for the construction market by hosting a multitude of pneumatic construction tools on the jobsite.

“The CPS 185 KD is Chicago Pneumatics’ first T4f compressor and we have designed it with the operator in mind,” said Eric Massinon, business development manager at Chicago Pneumatic. “Not only is this machine powerful and efficient, but it also provides the user with a list of diagnostics and protective shutdowns. This is all done through a new intuitive controller that makes the transition to T4f easier by taking the guesswork out of the operation.”

The CPS 185 KD has an operating weight of 1,088 kg, and measures 333 cm long, 152 cm wide, and 140 cm tall. With a normal working pressure of 6.9 bar (100 psi), the compressor offers a maximum unloading pressure of 8.6 bar (125 psi), and features a 75 l fuel tank.

Engineered with a low-maintenance design, the 185 KD has few moving parts that help minimize mechanical wear. While the engine makes for quiet operation at a 76 dBA sound level, the compressor also features a noise-reducing durable galvanized sheet metal enclosure that further reduces noise as well as corrosion. For added protection on the go, the compressor is designed for convenient transportation with an adjustable-height hitch for easy towing.

Source: Chicago Pneumatic
Hyundai Introduces Attachment Product Line

Hyundai Construction Equipment Americas, Inc. is pleased to introduce their first attachment product line to the North American market: a full line of hydraulic breakers. Consisting of 13 different models HDB10 through HDB450, the all new HDB series breakers perfectly complement Hyundai’s excavators of all sizes.

Hyundai’s HDB series breakers offer a powerful impact with a large chisel diameter from 4 to 16.5 cm. Operating weights range from 123 to 3713 kg and overall lengths range from 105 to 360 cm. The versatile breakers are suitable for a wide range of applications thanks to 4 chisel options – moil, wedge, blunt or conical.

Hyundai’s HDB series breakers are engineered with advanced technology for optimum performance despite harsh working conditions. An Anti Blank Firing (ABF) system, which prevents the breaker from continuing to strike once material has been demolished, comes standard on the HDB50-HDB450 models. This system helps protect the chisel pins, tie bolts and front heads from blank firing and increases the service life of all components. When the Auto Control valve is turned on, breaker operation will automatically start again by giving a small amount of pressure to the chisel. Automatic stop will take place once the chisel is lifted up or after breaking.

For maximum productivity, a Two Stroke Selector System comes standard on the HDB50-HDB180 models. This feature allows operators to change from long to short strokes according to their preference and the job at hand.

HDB series breakers feature NOK oil seals leading to a longer seal life. On the HDB210 to HDB450 models, an additional square buffer was added to increase the durability of the gas seals, step seals and the piston. This buffer seal also helps to minimize the piston’s shaking action.

An optional Auto Grease Bracket Mounted system is available on the HDB140 to HDB450 models, which allows for automatic greasing several times a day contributing to longer machine life, particularly for the chisel.

Source: Hyundai Construction Equipment Americas Inc.
Midland Customizes Bi-Fold Doors for Safe, Easy Access to New and Existing Buildings

Midland Door Solutions, of West Fargo, North Dakota, manufactures and installs durable, long-lasting bi-fold doors for large agricultural, aviation and commercial buildings. The company custom designs each door to fit any new or existing building for safe and easy access. Beyond installation, Midland crews offer continual service to ensure customer needs are met for the lifetime of the door.

Midland’s bi-fold doors contain heavy-gauge steel tubing and a unique truss system that are jig welded for exceptional strength and durability. The doors do not obscure the building’s opening, and equipment can use the full height and width of the doorway when entering or exiting.

A single-latch system with a safety switch comes standard on every door for easy operation. Once closed, users can easily secure the door with one latch in the center rather than one on each end. This saves time, and the safety switch eliminates the risk of damage that can be caused when a user forgets to open both latches. With an optional automatic latch, Midland bi-fold doors can be opened with the push of a button.

Midland designs all of its bi-fold doors to open quickly and safely. The opening system has a 5-to-1 safety rating – the cables and straps that open the door can withstand stress that is five times greater than the weight of the door. Customers can choose a cable, 6 mm or larger, or a 76 mm nylon strap that wraps over itself to lift the door.

Depending on the size of the door, power sources with outputs that range from 1.5 to 4 hp open the door. Optional integrated safety switches stop the door if anything interferes while it is opening or closing. Midland secures each door section with cold-formed steel hinges that are welded to the door’s frame and linked together with 16 mm and 19 mm cold-formed hinge pins.

Midland doors also provide exceptional protection from the elements. Three types of insulation are available. A cloth-inserted rubber weather strip provides a weather-tight dual-seal on each side of the bottom of every insulated door. Door colors can be customized to match any building. Door sheeting and trim is available in 26- or 29-gauge ribbed steel, and the interior liner panels also are 29-gauge ribbed steel. Midland paints each doorframe exterior to match the building’s trim color.

Midland offers several options for greater convenience and ventilation, as well. For example, a pre-hung walk door offers easy building access without opening the bi-fold door. Walk-doors are available in 24-gauge smooth-panel steel or 28-gauge textured-panel steel. Midland also can install custom-sized and insulated fixed or sliding windows. In addition, a remote control is available to make opening and closing the door more convenient.

Each bi-fold door is built to individual customer specification at Midland’s new 3,716 m² facility. Midland delivers the doorframe and other components to the customer’s site ahead of time to expedite the installation process. Its experienced and well-equipped installation crew lifts each door into place with a telescoping boom forklift, then welds or bolts the doorframe to the building. The crew then applies insulation and steel paneling to the interior and exterior of the doorframe on site. After the installation, Midland remains available for servicing the door to further ensure longevity and smooth operation.

Source: Midland Door Solutions

The Media Kit is available on InfraStructures’ website at www.infrastructures.com

InfraStructures reaches more heavy machinery and specialized equipment users than any other trade magazine in Canada.

Legacy Building Solutions and McTech Honored With DBIA Project/Team Award

Legacy Building Solutions, in collaboration with the Midwest office of general contracting firm McTech, has received a Design-Build Institute of America (DBIA) Project/Team Award for the new South Satellite Service Center building in Kansas City, Missouri.

The honor was presented at the DBIA Mid-America Region awards celebration on October 16, 2014. The DBIA award recognizes exemplary application of design-build project delivery, resulting in highly successful projects that achieve best value while meeting design and construction quality, cost and schedule goals. The judges for this year’s awards included two owners, one architect, one contractor and one engineer.

The South Satellite Service Center was engineered, constructed and installed by Legacy Building Solutions. The tension fabric building, owned and operated by the city of Kansas City, was designed to house 7,250 t of salt and sand for winter road maintenance. The enclosed facility features a high-quality, translucent fabric roof mounted on a 3 m-high, cast-in-place concrete wall, and includes large side doors for drive-through capability. Measuring 30 by 49 m, the fabric building provides ample room for loading and unloading trucks under roof, while also leaving additional space for liquid storage and a working area.

“It was a pleasure to partner with our entire design-build team on the project,” said Ali Karimi, senior vice president at McTech. “Legacy’s staff was very professional from onset of the project and very easy to work with. We are looking forward to the next great project!”

Source: Legacy Building Solutions
Conflow Secures First Columbian Contract

Conflow, part of the President Engineering Group Ltd, is a leading manufacturer of dust and fire suppression systems for the mining industry. The company has won a major new contract with Columbian producer of coking coal CI Milpa.

This is the first contract that Conflow has secured in Columbia, following brokering a relationship with CI Milpa through its sister company Bretby Gammatech.

A team from Conflow visited the CI Milpa mine in Bogota and fitted 2 dust suppression systems. They also fitted a Fire Suppression system on a roadway for Milpa in the other location in Bogota.

“This is the start of a very positive relationship with CI Milpa and we are looking forward to further developing our business in Columbia. Because of the large amount of mining in Columbia, we see it as a major growth area for our business,” said Mark Henley, managing director of Conflow.

“We are focused on continually improving the efficiency and safety of our production sites and the Conflow systems are an important part of this. We chose to work with Conflow, because of the company’s expertise in the manufacture and installation of dust and fire suppression systems and are very pleased with the result,” said David Fernando Jaimes Mojica from C.I. Milpa.

C.I. Milpa has been a customer of Conflow’s sister company Bretby Gammatech for several years, as the company has supplied a number of Ash Probes to enable it to monitor the ash content of coal using Natural Gamma radiation.

Conflow and Bretby Gammatech, as well as Bestobell Valves, are part of the Sheffield-based President Engineering Group Ltd, a world renowned manufacturer of solutions to the mining and energy markets.

Source: Conflow

Neal Manufacturing Storage Tanks Feature Quality Components, Impressive Agitation

Neal Manufacturing, a division of Blastcrete Equipment Company, offers long-term storage solutions for coal tar and asphalt emulsions with its skid-mounted Sealer Mixer Tanks.

Neal manufactures its storage tanks with high-quality components and heavy-gauge materials for impressive durability, reliable agitation and exceptional material transfer. In addition, they allow contractors to save money by purchasing material in bulk and they can store it safely at their sites for quick and easy access.

Neal Manufacturing’s storage tanks are formed with high quality I-beam or channel steel skids. For extra support, the company manufactures the tanks with corner braces to keep them securely fastened on the skids.

The storage tanks’ agitators are manufactured with a solid steel shaft. Not only is this design stronger, but it also enables the unit to mix thicker materials and break up settled product to optimize mixing power. Further, with the unit’s exclusive offset agitation, 2 of the 3 blades are submerged in the material at all times. This is crucial when it comes to breaking up settled material. In addition, Neal uses a 100-tooth sprocket that is more than twice the size of competing storage tanks to propel the agitation.

A Ranger™ gear pump reliably transfers materials out of the tank and into sealcoating equipment. The operator control panel serves as the control for both pumping and mixing. A 60 cm manway allows easy access for cleaning and maintenance.

The unit is equipped with an 18-hp Kohler Command gasoline engine, which delivers over twice the power of competing units. The Kohler can be replaced with an electric motor for indoor storage tanks near a power source.

Neal has been leading the mechanized asphalt sealcoating equipment industry since 1977. The company pioneered the development of ride-on squeegee and self-propelled machines, as well as 380 l/min electrically-controlled super sand pump (ESSP) hydraulic piston pump systems, which were industry firsts.

Source: Blastcrete Equipment Company
Parker Hannifin introduced GlobalCore – 5 hydraulic hoses and 2 fittings series that significantly reduce engineering and service complexity by providing the first comprehensive product family across the most commonly used constant working pressure classes.

Designed to meet the most common working pressures in industry, GlobalCore is built and tested to the ISO 18752 specification. With GlobalCore hoses tested to twice the ISO 18752 standard, high performance in rugged environments and high-impulse applications is ensured.

“GlobalCore is a unified system that delivers hoses built on the ISO 18752 specification, which was developed on how hoses are specified and used by customers – by pressure range and not by construction,” said Doug Gilbert, marketing manager, Parker Hose Products Division. “GlobalCore expands our range of ISO 18752 hoses and provides options for the most critical sizes and pressure ranges – 200 bar to 400 bar (3,000 psi to 6,000 psi) in sizes 4 through 32.”

Parker’s GlobalCore hoses are manufactured in North America, Europe and Asia, thereby supporting the equipment they serve regardless of where it was originally manufactured, or where it is today.

“The GlobalCore system is simple. With only 5 hoses, OEM and MRO customers alike will enjoy selecting the right hose based on working pressure. Selecting the fitting is even simpler – the 43 Series or 77 Series, depending on the hose and working pressure selected,” Mr. Gilbert said.

Parker’s leading hose design enables it to be half the bend radius of conventional hose, which makes installation and routing much easier. GlobalCore is compatible with Parker’s Parkrimp family of crimpers and features no-skive, premium abrasion-resistant covers, providing users with less downtime and longer intervals between replacements.

Source: Parker Hannifin
Continental CST Launches ContiPressureCheck™ System for Specialty Tires

Slow and continuous loss of tire pressure is one of the most common causes of tire punctures in port logistics and other goods handling locations. The consequences of tire damage and the resulting vehicle breakdown are enormous: high costs for fleet managers and significant problems in the supply chain are just a few of them. Continental Commercial Specialty Tires (CST) provides a remedy. The division has unveiled the proven Continental tire pressure monitoring system ContiPressureCheck™ for specialty tires. The innovative technology is reliable and prolongs the tire’s useful lifetime. The tire pressure monitoring system can be mounted on almost all types of industrial vehicles. Another advantage is that the system works with pneumatic tires from all tire manufacturers.

“Regular maintenance checks on the tire pressure are time-consuming and cost-intensive, and therefore often neglected – with serious consequences”, says Dr. Michael Maertens, managing director of Continental CST. “With the introduction of ContiPressureCheck™ for specialty tires, we offer our customers a cost-effective alternative for measuring the tire pressure that also increases the efficiency and the safety of vehicle fleets in all industrial sectors. The technology is yet another customized solution extending our portfolio that meets the requirements of our customers and reduces costs.”

In contrast to comparable systems, ContiPressureCheck™ is used inside the tire. The tire pressure monitoring system is thus deployed where a lack of inflation pressure has an immense impact. If the inflation pressure decreases, the tire might be subjected to greater stress as it rolls, causing it to heat up. Heavy loads, as they occur in port logistics, increase the loading quite considerably. This can damage the tire or, in worst case, lead to a blowout.

ContiPressureCheck™ uses a sensor inside the tire to continuously monitor the inflation pressure and tire temperature to prevent this from happening. The sensors and a communication and processing system are integrated into a module fitted with a rubber container to the inner surface of the tire. In this way, more accurate results can be achieved than with comparable systems that collect data with sensors outside the tire. Here, measuring errors can occur due to heat radiation of the brakes. The data is sent by wireless transmission to the central receiver (central control unit – CCU), which processes the data and sends them directly to the display in the driver’s cab. The difference between the stipulated and actual tire pressures shows the driver immediately when to restore the correct tire pressure.

Whether in harbors, at airports or in underground mining: ContiPressureCheck™ can be retrofitted to different specialized vehicles types and trailers – regardless of the vehicle size, since the sensor and receiver can be positioned flexibly. Also, vehicles with a high unladen weight, such as heavy forklifts or straddle carriers, can be equipped with the tire pressure monitoring system from Continental. ContiPressureCheck™ is quick and easy to install, enabling rapid deployment and short downtimes in daily operation. This is particularly advantageous in harbors, where fast loading times are important. Due to automatic monitoring of the tire pressure, the risks of blowout accidents are reduced. This offers more safety for both driver and vehicle. A correct tire pressure is also important from an economic point of view: It not only leads to lower energy consumption of the vehicles, but to an increased mileage capability. Fleet operators can significantly reduce their operating costs and increase the efficiency of their fleets by using ContiPressureCheck™. At the same time, the environmental impact is downsized, since CO₂ emissions are reduced and the life of the tire is extended.

New EDGE® 3-Pt. Rotary Brush Cutters

CEAttachments, Inc. recently announced the addition of all new EDGE 3-Pt. Rotary Brush Cutter attachments for compact utility tractors.

The new EDGE 3-Pt. Rotary Brush Cutters feature a beavertail style rear deck panel constructed of heavy duty 11-gauge steel that deflects cut material downward as it cuts. Two heavy-duty blades cut brush and grass efficiently, and are mounted to a tough stump jumper pan.

The rear wheel assembly features 3 height adjustment settings to cut grass and brush between 25-280 mm from the ground.

EDGE Rotary Cutters also feature shear-bolt driveline protection, side skid shoes to help the deck glide along the ground, and front and rear chain shielding to help keep material under the deck while being cut.

These standard-duty Rotary Cutters require 20-40 hp and are available in 1.5 m and 1.8 m cutting widths, ready to attach to your CAT I/II compact utility tractor.

Source: CEAttachments
Big Improvements for Hitachi’s Next Generation Wheeled Excavators

The next generation of Hitachi’s wheeled excavator models from Hitachi Construction Machinery – Americas, the ZX190W-5 and ZX230W-5, are rolling out with a certified EPA Tier 4 interim (T4i)/EU Stage IIIIB Isuzu engine, power mode buttons for three work modes, automatic exhaust filter cleaning, auto shutdown, an enhanced monitor, centralized remote oil/fuel filter location and more.

Mobile and maneuverable, Hitachi’s wheeled excavators sit on a short wheelbase that makes it easy to move in tight spaces – unlike unwieldy truck-mounted excavators.

“The Dash-5 wheeled excavators are packed with improvements designed to provide more efficient power, greater reliability, enhanced durability and a more comfortable cab environment,” said Mark Wall, product marketing manager at Hitachi Construction Machinery – Americas. “The two new models are another example of how Hitachi leverages its excavator expertise and legacy of meeting demanding mining applications to deliver an unmatched experience for operators.”

The 16,260 kg ZX190W-5 and 23,275 kg ZX230W-5 are powered by a 159 hp, 5.2 l Isuzu engine that uses a rudder frame block design with dry cylinder liners. The 4-ring design helps reduce oil consumption and blow-by gases into the crankcase while improving lubrication. In addition, the oil-cooled crown efficiently aids with heat dissipation.

Both machines now feature a Power Dig function, which enables the operator to give extra hydraulic pressure for eight seconds at a time. An Auto Power Lift feature engages when only the boom is raised, giving operators extra lift while craning with no need to push the button.

A new Power Mode button allows operators to easily select between three work modes. The high power (HP) mode deploys when extra horsepower is needed for rolling in the arm or booming up during excavation work. Economy mode and Power modes can be used to lower the engine rpm and burn less fuel.

The spacious and comfortable cab comes equipped with an easy-to-navigate enhanced LCD monitor that lets an operator easily access a wealth of machine info and functionality. Other features include an integrated radio, HVAC, Imperial and metric units and 31 supported languages.

The integration of a rear-view camera enhances visibility behind the machine, making it less likely the excavator will be damaged from swinging or backing into objects.

Finally, on both the ZX190W-5 and the ZX230W-5, filters are now conveniently located in the pump compartment for easy and quick servicing.

Hitachi’s next generation wheeled excavators feature a proven Isuzu exhaust after-treatment system.

The engine’s diesel oxidation catalyst reacts with exhaust gases to reduce carbon monoxide and hydrocarbons, and the diesel particulate filter (DPF) traps particulate matter. In-cylinder fuel dosing occurs when a certain amount of fuel is injected near the bottom dead center, close to the exhaust stroke of the 4-stroke cycle. The harder the machine is run, the higher the exhaust temperature. This in turn will result in more “Passive” filter cleaning which does not require fuel dosing.

“Auto” filter cleaning happens as needed but requires fuel dosing to raise DPF inlet temperature.

The auto-shutdown feature is also new to both wheeled excavators. This fuel- and money-saving feature will automatically shut down the machine if predetermined conditions are met.

Source: Hitachi Construction Machinery Co.
Hercules Concept Excavator Awarded the "Best of Best" Red Dot Award: Design Concept 2014

Students at Coventry University, in the UK, have beaten over 4,790 entries from 63 countries to win what is considered an “Oscar” of the global design industry. The students, who study on the University’s Design and Transport and Industrial Product Design master’s courses, received the coveted award on September 26, 2014, during a glittering ceremony at the Red Dot Museum in Singapore.

Hercules Concept Excavator overcomes the inefficiency of a traditional excavator by an integrated excavation process that incorporates a rotary cutting head and continuous soil removal. The spoil is transferred to the receiving vehicle through a combination of augers and a discharging conveyor belt.

Hercules Concept Excavator has an innovative design to eliminate the inefficiencies of existing excavators. It uses the principle of continuous rotary cutting and soil extraction and eliminates the energy-wasteful dead cycles. These dead cycles - during which the excavator boom needs to be swung to dump the soil and returned again - are an innately inefficient part of traditional excavator operation. The move to a continuous mode of operation eliminates these dead cycles and so confers significant efficiency, energy and time savings.

The excavation process begins with a cutting head that rotates and moves in three dimensions. The soil is drawn inward by the cutting blades and transferred through the booms via internal augers. Finally a conveyor belt transfers the soil to the receiving vehicle at the rear end of the excavator.

Increased efficiencies are achieved through a combination of continuous operation and by the use of hybrid power source in place of a traditional internal combustion engine. Hercules Concept Excavator utilizes a plug-in hybrid electric system in conjunction with a conventional engine. Batteries store energy from the engine that would otherwise go to waste, and these can also be charged through the grid with renewable source of energy. An all-electric system of actuators and motors reduces the maintenance cost and increases the efficiency compared to high-pressure hydraulic equivalents as the power is only consumed when it is necessary. Indeed, there is no need for hydraulic oil at all, which in itself provides further cost and environmental benefits.

Hercules Concept Excavator also features a detachable cabin that makes the operation safer for the operator. The elimination of soil transfer swing cycles makes Hercules ideal for confined space operations. The zero tail swing feature also increases efficiency and also safety when others are close to the excavator. A further novel feature of the Hercules system is the use of pre-excavation ground-penetrating radar surveys. The terrain is scanned and potentially hazardous or problematic obstructions are identified and can then be safely excluded from the resulting excavation map. The intelligent control unit calculates the most efficient map of excavation and with the commencement of excavation; the cutting head follows the pre-calculated tool path, in a manner similar to a CNC machine.

Team Hercules is a multi-national team of graduate’s from Coventry University. Selin Koşşan, Chi Liu, Danny McElchar, Apostolos Papamatthaiakis, Rahil Rupawala belong to Turkey, China, Ireland, Greece, India respectively. Selin Koşşan and Chi Liu have completed Msc Industrial Product Design whereas Danny McElchar, Apostolos Papamatthaiakis and Rahil Rupawala are Msc in Design and Transport.

Source: Hercules Concept Excavator
PERI Apps Make Construction Site Operations Easier

PERI Apps and Tools deliver genuine added value to users for construction site operations: quickly complete simple calculations, access important and up-to-date information in seconds, create necessary documentation directly as a PDF and send via email – just a few of the functions that make day-to-day operations a bit easier on the construction site with PERI.

CALCULATE CONCRETING SPEEDS FOR WALL FORMWORK

Calculating fresh concrete pressure has become ever more important since use of highly flowable concrete became more common. This presents the construction site team with the important and often difficult task of calculating how quickly and with which concrete and which wall formwork concreting can be executed.

The PERI Formwork Load Calculator helps professional users calculate the correct fresh concrete pressure and the maximum rate of rise in accordance with the standard DIN 18218 “Pressure of fresh concrete on vertical formwork”. To do this, the Formwork Load Calculator takes into account the possible concreting speed for defined PERI wall formwork systems depending on the selected concreting height and the deformation requirements.

PERI wall formwork systems which presents the available pieces of equipment. Furthermore, it has more than 15 consultants available to assist you across Canada.

Pascolift is working hard to become a reference in the online business, providing free electronic books (in PDF format) on parts, service and operations. The electronic books are presently available through a very simplified search engine especially developed by Pascolift. Many different lifting equipment manufacturers are currently on the site, presenting their lifting equipment models.

Whether you are a prospective vendor or seller and you are looking for valuable information, take a look at pascolift.ca.

In order to facilitate transactions, Pascolift.ca offers lease-financing solutions from specialized institutions in the field.

Moreover, Pascolift will simplify the whole process by managing shipping and customs clearance, if necessary, for you.

Source: Pascal Houle, Pascolift.ca

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Source: Pascolift

SAFELY DEFINE KEY VALUES FOR SHORING SYSTEMS

The PERI ST 100 Stacking Tower Configurator helps users to define key values safely for shoring systems. With the ST 100 Stacking Tower Configurator users can quickly determine the permissible leg loads and the minimum loads against sliding with ease and precision. Results are based on the Type Test TP-12-004 of the German Institute for Building Technology (DIBt) and on PERI’s performance data.

The tool enables users to choose from extensive configuration scenarios for various head spindle types, and to consider wind effects on the shoring and the use of diagonal bracing into the calculation. This app provides solutions for tower heights between 2.00 m and 22.29 m.

Source: PERI GmbH

Official Opening at pascolift.ca

On September 15, 2014, Pascolift officially launched its operations. Its website proposes the sale and purchase of lifting equipment.

Pascal Houle, the owner, has had much experience in the domain with over 14 years of extensive working experience in the field of lifting equipment, such as are used in various sectors of the construction industry. He designed a new type of website, which presents many simplified and customized solutions for buyers and sellers of lifting equipment.

Pascolift facilitates access to the sale and purchase (the brokerage) of lifting equipment such as scissor lifts, boom lifts, tele-handlers and used vertical lifts. The online business also provides a paper magazine which presents the available pieces of equipment. Furthermore, it has more than 15 consultants available to assist you across Canada.

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Source: Pascolift
Ledcor Purchases Two-Hundred Natural Gas Vehicles

The Ledcor Group of Companies recently announced they will take ownership of over 200 compressed natural gas (CNG) vehicles, creating one of the largest fleets of CNG vehicles in Canada. The 2014 and 2015 Ford Transit Connect cargo vans have been converted by G.W. Anglin Manufacturing to incorporate CNG fuel systems from Altech-Eco, making them the first vehicles of their kind.

“Converting a significant portion of our light-duty vehicle fleet makes good economic sense for Ledcor and is aligned with our sustainability goals,” said Scott Lyons, COO, Ledcor Technical Services. “We estimate we’ll reduce our annual fuel costs by about 30% and reduce our greenhouse-gas emissions by approximately 23% or 2,000 t of CO₂e per year.”

Ledcor has invested over $10 million in natural gas vehicles to date. Each vehicle incurs a significant upfitting cost associated with converting the vehicle to run on CNG. The costs are partially offset by FortisBC’s incentive program, for the vehicles deployed to operate in British Columbia.

Ledcor also owns 15 Class 8 liquefied natural gas (LNG) trucks. The CNG vehicles will be deployed throughout British Columbia, Alberta and Saskatchewan.

“By making a commitment to a compressed natural gas vehicle fleet, Ledcor is an innovator, benefitting the environment and our gas customers,” said Doug Stout, vice president, Market Development & External Relations at FortisBC. “Natural gas is a cleaner-burning, lower-priced fuel that is abundant in British Columbia, and we are dedicated to working with industry leaders like Ledcor to take advantage of the opportunities for this fuel source.”

Natural gas vehicles have significantly lower exhaust emissions than typical vehicles. The vehicles also see less corrosion and wear in engine parts, resulting in a more durable, productive and reliable vehicle fleet.

“Ledcor is setting the bar high and showing the way for other fleet owners in Canada. Not only were they one of the first fleets in Canada to operate factory-built natural gas highway tractors, their new fleet of Ford Transit Connect cargo vans is unprecedented in scale, Ledcor is well-positioned to start to reap the benefits of lower cost fuel and a reduced environmental footprint from their operations,” said Alicia Milner, president of the Canadian Natural Gas Vehicle Alliance.

Pioneering an entirely new vehicle type presented many challenges for Ledcor and its suppliers, including crash testing a newly converted vehicle to meet Transport Canada requirements.

“The arrival of the popular Transit Connect has given consumers a reliable, durable and versatile vehicle for small business proprietors and large fleets alike,” said Mike Traub, director of Fleet Sales, Ford Motor Company of Canada, Limited.

“We are thrilled to have Ledcor building its CNG project around our product as we continue to offer our fleet customers the power of choice that best suit their business needs.”

The Ledcor Group of Companies is one of North America’s most diversified construction companies, serving the building, oil & gas, infrastructure, mining, power and communications sectors. The firm also owns operations in wastewater treatment, property investment, forestry, and transportation services.

Source: Ledcor Industries

Gaz Métro Salutes Saint-Hyacinthe

Gaz Métro is delighted with the initiative of the City of Saint-Hyacinthe – the first municipality in Quebec to recover organic materials via biomethanization and to use the renewable natural gas produced to meet its energy needs. Gaz Métro is also proud to include the City of Saint-Hyacinthe as its first client municipality to have selected natural gas to fuel its municipal vehicles.

“Gaz Métro is proud to use its gas network for this promising project, to allow all its clients to take advantage of locally produced renewable natural gas,” states Martin Imbleau, vice president, Development and Renewable Energies at Gaz Métro. “Choosing this energy to fuel vehicles is another step toward the intelligent and systematic recovery of organic materials in Québec, by creating an infinitely renewable cycle. We hope that this project will inspire many other municipalities to follow suit.”

Note that natural gas generates savings on fuel of up to 40% compared with diesel, in addition to reducing greenhouse gas (GHG) emissions up to 25%. By opting for renewable natural gas as a fuel, GHG emissions decrease by more than 99.4%, considering the fuel’s complete life cycle.

Gaz Métro has been working with many partners and road transport companies since 2010 to make sure Québec carriers benefit from the major economic and environmental advantages of switching from oil products to natural gas. To date, there are 350 natural gas vehicles on Québec’s roads.

Gaz Métro is the largest natural gas distribution company in Québec, where its network of over 10,000 km of underground pipelines serves 300 municipalities. Gaz Métro is also present in Vermont, where it operates in the electricity production market and the electricity and natural gas distribution market.

Source: Gaz Métro
A newcomer in the Class 7 & 8 Cabover category

The oldest North American truck brand, Autocar®, enters the Class 7 & 8 cabover market with a range of trucks designed for heavy work such as road maintenance and heavy pick-up and delivery, the Autocar Xpert.

The Autocar Xpert is designed to ensure the best sight lines in any cabover or conventional truck. The spacious cab features a huge windshield, side, and rear windows.

The Autocar Xpert can be equipped with an OEM dual steering system. With all controls placed either in the middle, or duplicated and mirrored on both sides.

The high performance dual steering gear system is designed for an extra tight turning radius, and the electrical system is designed for dual steer from the ground up, with no third party splicing into a wire harness.

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### Appointments

**Jerome Lentz** of Challenger Lifts has been elected chairman of the **Automotive Lift Institute (ALI)** Board of Directors for 2015. Voting took place at ALI’s annual membership meeting November 3 in Las Vegas. Mr. Lentz’s 2015 term will be his third as chairman of the ALI board.

“Under the direction of Jerome Lentz, ALI has achieved many milestones,” says R.W. “Bob” O’Gorman, ALI president. “The past two years have seen significant growth in the ALI Lift Inspector Certification Program, the successful launch of the online version of the Lifting It Right vehicle lift safety training course, and the formation of significant partnerships with other vehicle service industry organizations. I look forward to working with him again in 2015.”


New members include Stan Poweska of PKS Equipment & Engineering, Inc., Matt Webster of Vehicle Service Group, and Associate Class representative Gary Wainwright of Weco, Inc.

Representatives on the ALI Board of Directors are drawn from the North American-based vehicle lift manufacturers that belong to ALI. ALI’s Associate Class membership is comprised of North American service organizations supporting the service bay with at least one ALI Certified Lift Inspector on staff. Associate Class members vote to elect their representative to the Board.

Source: Automotive Lift Institute (ALI)

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**Terex Cranes** announces the appointment of **Dean Barley** as vice president and general manager, North America Cranes. Over the past year and a half, Terex Cranes has been working to improve customer and product support, reduce cost and complexity, and become easier to do business with. The company has aligned its resources and focused the organization to achieve these objectives.

In his role Mr. Barley, will continue to grow and expand the company’s ongoing customer-focused efforts and strengthen customer relationships, before, during and after the sale of all product lines offered by Terex Cranes in North America.

Dean Barley brings an impressive resume to Terex Cranes, having served with the Terex Construction team in a series of leadership positions in both the UK and the U.S. Notably, he served as director of sales for North America, was promoted to Terex Construction Americas general manager and became vice president & general manager for the Construction Americas & Global Aftermarket business in 2012.

He assumes this role from Dan Slater, who has accepted the role of vice president, Terex Business System (TBS) and Manufacturing Strategy, Terex Cranes, based in Schaffhausen, Switzerland.

Source: Terex Corporation

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**Hirschmann Automation and Control (PAT)** is pleased to announce that **Jason Dean** has joined the Mobile Machine Control Solutions (MCS) division as technical sales engineer. In his new position, Mr. Dean’s responsibilities include OEM sales, engineering support, and identifying new markets for the MCS product portfolio. Hirschmann’s MCS division supplies information, monitoring, and control systems that meet OEM and aftermarket requirements in lifting applications.

Jason Dean has extensive experience with Load Moment Indicators (LMI) including system design, customer specification, and field reliability. Prior to joining Hirschmann, he worked in the crane industry as a product design engineer focusing on all aspects of machine design and support with a special focus on LMI systems, HMI interface, software, and electrical control systems.

Source: Hirschmann Automation and Control
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