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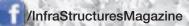
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A Brief Word...

Here we are again with the cold nipping at our noses and New Year's Eve is close enough to start booking our hotel rooms or plan a safe RIDE home.

How fast has this year whipped by? It is no wonder when you think of all the news and events that have occurred. Now we are trying to continue as normal only to have the weather making crews jump between asphalt and salt spreading as winter begins to make itself felt.

Although no one can predict the future accurately, InfraStructures is very predictable; reliable, informative, and in front of you ten times a year.

In this edition you will see goodies you can ask Santa to put under your tree. If not, you can start planning your 2018 with insights into shows and events that affect you and news that may help you be more productive.

Soon, the Queen's Speech and Christmas Pudding will be nicely digested and you will be thinking about what awaits you at Landscape Ontario's CONGRESS just after the holidays.

So the world turns and the wheel of life brings us back around to its apex where we can look at the year ahead and plan and dream of work that needs to be done and equipment that needs to be acquired.

Be safe, be kind and be happy and we will be back with the editorial content you have come to enjoy and rely upon in 2018.





On the cover:

Metal Pless organized a demo day where attendees were able to try different models of snowplows mounted on various types of equipment including a telescopic handler and articulated wheeled loaders big and small.

VOLVO FINANCIAL SERVICES CANADA CERTIFIED AS A GREAT PLACE TO WORK

For the first time, Volvo Financial Services Canada (VFS) has been certified as a Great Place to Work by the Great Place to Work Institute, a global authority on high-trust, high-performance workplace cultures.

"We are really proud of this accreditation, because it demonstrates our people recognize our efforts to create a shared culture of trust," said Steve Jugovic, vice president of Volvo Financial Services
Canada. "High-trust companies tend to have higher performing teams, and our success depends on our passion and ability to deliver the best service to our customers, dealers and sister business areas."

The review process to become a certified Great Place to Work includes an application which compiles information on company demographics, policies, practices and philosophy. The Great Place to Work Trust Index employee survey was then sent to more than 50 VFS employees across Canada to gather anonymous input.

Respondents to the Great Place to Work Trust Index survey for VFS Canada noted credible, respectful managers, clear and open communication, a supportive, collaborative environment, and active community involvement as factors that contributed to the company's certification.

"Being a Great Place to Work is the difference between being a good company and a great company," said Jes Schneider, vice president of Human Resources for VFS Region Americas. "Our employees are our most important resources, and receiving this honor can be attributed to their excellent work and accomplishments."

Great Place to Work Institute research shows that a high-trust, high-performance culture can help a company attract top talent as well as retain talent by promoting respect among colleagues and giving employees a deeper connection to their daily work. To learn more about Volvo Financial Services' workplace environment and career opportunities, visit the VFS LinkedIn and Volvo Group Careers pages.

Source: The Volvo Group

CATERPILLAR AND KENNAMETAL AN-NOUNCE CUTTING TOOL TECHNOLOGY PARTNERSHIP

Caterpillar Inc. is pleased to announce that an agreement has been reached with Kennametal Inc. to provide Caterpillar customers globally with special order rotors and diamond and carbide earth cutting tools for mixing and road milling applications.

"This partnership provides our customers, via our Cat® dealer network, access to world-class machines, a full line of rotors, outstanding earth cutting tool technology and industry expertise," said Paul Clark, worldwide product manager, paving, Caterpillar Inc. "It is another step towards ensuring a superior experience for our customers."

"This partnership capitalizes on the long-standing reputations Kennametal and Caterpillar share in the road rehabilitation industry, and it supports our joint commitment to providing end-users with the ultimate customer experience," stated Pete Dragich, vice president of Kennametal Inc. and president of the company's Infrastruc-



ture Segment. "By combining our proven products and expertise with Caterpillar's world-class machines and extensive dealer network, we will deliver unmatched earth cutting solutions to road rehabilitation customers around the world."

Kennametal products and support will be available at Cat dealerships immediately. Customers who would like to learn more about the full offering should contact their local Cat dealer or Kennametal representative.

Source: Caterpillar

CONCRANE SALES NAMES RECOM MORITSCH EXCLUSIVE TOWER CRANE DISTRIBUTOR

Concrane Sales Inc. has been named the exclusive distributor in Ontario for Recom Moritsch's new range of luffing jib cranes and low-top hammerhead cranes.

Recom Moritsch follows a path laid out over 50 years of experience by Ferruccio Moritsch, creator and founder of Comedil based in Fontanafredda (Pordenone), Italy.

"My family's technical and business experience dates back to 1962," explained Mariano Moritsch, managing director of Recom Moritsch. "Drawing on the experience we've gained has allowed us to pursue quality cranes featuring state-of-the-art technology."

"My family's relationship with Enrico Redigonda (president of Concrane Sales Inc.) began back in 1988 with my father, Ferruccio," explained Mr. Moritsch. "Enrico sold the first Comedil crane in Ontario, amongst many others, which went on to build much of the downtown core in Toronto. It's through Enrico's expertise and ability to work with us and the customer to deliver the right custom crane for their needs that makes us proud to continue our relationship after almost 30 years."

"We're thrilled to be the exclusive distributor for this brand new line of cranes that we're confident will be quite impactful in the Canadian construction industry," said Enrico Redigonda, president of Concrane Sales Inc. "Based on some of the issues we've seen with other cranes on the market, and the harsh Canadian weather, we've been working with Recom Moritsch over the last year or so to help make improvements and upgrades to a time-tested design. These truly are cranes that have been designed with the Canadian construction industry as a whole in mind."

Cranes are available complete with climbing system or top only if needed. An optional small transition section can be ordered to be used under the turntable from HA20 to the HD23 tower sections.

Recom Moritsch already has some luffing jib cranes in Canada with full range of luffing jib and low-top cranes, from 100 to 600 tm, available beginning 2018.

Source: Concrane Sales Inc.

CCPPA RELEASES ITS ENVIRONMENTAL PRODUCT DECLARATION

The Canadian Concrete Pipe & Precast Association (CCPPA) presented their newly-developed Environmental Product Declaration (EPD) to its membership at their Fall meeting held recently. Committing to sustainable development and environmental transparency, the CCPPA and its members developed, published and third-party verified this declaration that reveals the potential environmental impact of its concrete-based infrastructure products.

"Transparency is key," states Andy Dutfield, current Chair of CCPPA. "It really is a type of nutrition label for our customers and the general public who need to know the environmental impact of concrete pipe and related products made and available in Canada. It's our goal as an association to further develop environmentally compatible and sustainable construction products for now and for future generations."

This is a Canadian industry-average business-to-business Type III EPD that covers 3 product categories: Concrete Pipe; Concrete Box Structures; Manholes/Catch Basins.

The EPD takes a "cradle-to-gate" approach, covering the potential environmental impact of standardized life cycle processes from raw material supply, methods of transportation for all materials in each stage of production, and the manufacturing process to the point the product leaves the "gate".

The declaration also supports transparency for sustainable construction certifica-

Innovative JCB Products at ICUEE

JCB displayed its Teleskid, Hydradig 110W tool carrier, 3CX Compact backhoe loader and 48Z-1 compact excavator, at the 2017 International Construction and Utility Equipment Exposition (ICUEE) in Louisville, Kentucky, last October. The company also demonstrated its 509-45 Loadall telescopic handler with a radio remote-control work platform and previewed its new 503-13 Loadall sub-



compact telehandler, which will be launched in 2018.

"JCB is a full-line construction equipment manufacturer, offering more than 300 products from skids steers to telehandlers, and backhoes to excavators," said Ben Coleman, general manager of Product and Direct Sales for JCB North America. "The JCB machines on display at ICUEE 2017, including the Teleskid and Hydradig, are game-changers for construction and utility contractors and will radically improve productivity."

The JCB Teleskid is a revolutionary new product that can lift 8% higher and reach 60% further forward than any other skid steer on the market and – in an industry first – it is the only skid steer in the world that can dig below grade, to a depth of 91 cm. Teleskid is also the only skid steer to combine vertical and radial lift capability in a single machine and features a unique system to set and maintain the bucket level throughout the boom's range of movement.

JCB will be at Landscape Ontario CONGRESS, to be held in Toronto January 9-11, 2018. Source: JCB #1878

tion programs, such as LEEDv4, Envision, and other green purchasing programs that are currently under development.

CCPPA represents 14 member companies operating 23 precast manufacturing facilities in the provinces of British Columbia, Alberta, Saskatchewan, Manitoba and Ontario. Data was based on 14 surveys of CCPPA member facilities and took regional production, plant size and product type into consideration. CCPPA worked with Andrea Boddy Consulting and the team at Athena Institute to complete and verify the declaration.

Source: Canadian Concrete Pipe & Precast Association

HHCA HOSTS FIRST LEGACY BUILD 2020 FUNDRAISER

On October 19, 2017 the Hamilton-Halton Construction Association's Women in Construction Group hosted their first official fundraiser, *Lagers for Legacy* at Shawn & Ed Brewing Co in Dundas Ontario. The event raised money for the HHCA Legacy Build 2020; the sponsorship of a home build with Habitat for Humanity Hamilton

in celebration of the HHCA's 100th anniversary in 2020.

"We launched our first appeal to the HHCA membership in the late spring and the response has been truly amazing," said Sue Ramsay, HHCA general manager. "We're still a long way out from the Build but momentum is definitely building. With more than \$40,000 in donations committed to date, we're confident we can raise the \$200,000 necessary."

The casual celebratory and networking event attracted over 100 attendees including representatives from the Hamilton Port Authority, the City of Hamilton and CityHousing Hamilton. "It was great to see some of the local buyers of construction come out," said WIC member Nikki Laskin. "Everyone is happy to support the good work that Habitat Hamilton is doing in the community."

Habitat Hamilton was also out in force, with a large number of Board members and executive director Sean Ferris in attendance. "The local construction community has always been good to Habitat," said Mr. Ferris. "Events like Lagers for

Legacy don't just raise money, they raise awareness."

Founded in 1991, Habitat for Humanity Hamilton is an independent, not-for-profit housing program that works to break the cycle of poverty by building affordable housing and promoting home ownership. Habitat Hamilton has served 22 partner families locally since its incorporation and is one of Habitat Canada's fastest growing affiliates. Their mission is to mobilize volunteers and community partners throughout Hamilton and the surrounding region.

Source: Hamilton-Halton Construction Association

CULTEC RECEIVES CSA CERTIFICATION FOR STORMWATER CHAMBER IN CANADA

CULTEC, a Brookfield, Connecticut, company that specializes in providing chambers for stormwater management, recently received 3rd-party certification for its newest product to be used in construction projects in Canada.

CULTEC's largest chamber, the Recharger 902HD®, received certification after it passed a rigorous review process conducted by Intertek. Intertek found through its testing that samples of the CULTEC chambers meet the stringent requirements set by the Canadian Standards Association (CSA). Intertek tested the samples' structural capacity and durability during the process.

"We are happy that our Recharger 902HD chamber has passed the strict standards of the CSA," said Dan Gera, design supervisor for CULTEC. "We worked extensively on the construction specifics of this chamber, which is our largest one to date. We think that receiving this certification is critical to expanding our business within our neighbor to the north as well as here in the U.S."

Intertek's testing found that the Recharger 902HD samples met the standards set by CSA B184 Series-11 for polymeric subsurface stormwater management structures. During the process, engineers performed tests including measurement of short- and long-term physical properties of the material, live and dead loading, and a finite element analysis to determine factors of safety.

Michelle Zwick, a Quality Assurance engineer for CULTEC, said testing included large-scale in-situ live and dead loads. The





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chambers were instrumented with strain gauges and deflectometers to measure the chamber's response during the load tests. A shallow burial test involved driving an over-loaded truck over an installed chamber system then parking it for a week to determine the chamber's durability under this significant weight. A deadload test buried the chambers under 4.88 m of soil cover and measured its response over a 3-month period.

"The audits require strict, ongoing process control at our manufacturing facilities, including quarterly audits to prove continued quality," said Ms. Zwick. "Intertek found that our chambers stood up to the most strenuous standards established by the CSA. We are proud of the team at CULTEC that worked

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so tirelessly to design and construct a chamber that meets these standards."

"Stress Engineering Services Inc. (SES) completed a range of testing and analysis projects for CULTEC as they developed the Recharger 902 stormwater chamber," said Patrick Harrell, a professional engineer with SES of Ohio. "The Recharger 902 exceeded all the standard requirements, and performed well in both tests."

According to Michelle Zwick, CULTEC is one of only 2 businesses to meet 3rd-party certification to this standard in Canada.

The Recharger 902HD chamber is a 122 cm tall, ultra-high capacity chamber. It has been designed and tested in accordance with American Society for Testing and Materials (ASTM) F2787 "Standard Practice for Structural Design of Thermoplastic Corrugated Wall Stormwater Collection Chambers." Standards set by CSA are similar to those established in the U.S. by ASTM.

"This is an important development in our business plan in that it establishes CULTEC as an important player in the Canadian marketplace," said Dan Gera. "We feel that this opens the door for us to increase our global reach, and this chamber will be a key component to our company's growth."

Source: CULTEC

GOODYEAR CHEMICAL PLANT EARNS OSHA VPP STAR STATUS FOR SAFETY

The Goodyear Tire & Rubber Company recently announced that its Houston chemical plant has earned certification to Voluntary Protection Program (VPP) Star Status by the Occupational Safety & Health Administration (OSHA).

VPP certification recognizes companies for outstanding safety and health management systems and for maintaining injury and illness rates below national Bureau of Labor Statistics averages. It is attained only after intensive and lengthy preparation, extensive employee interviews and rigorous onsite evaluation conducted by health and safety professionals. Star status is OSHA's highest VPP certification level.

Goodyear Houston is the 4th of the company's 4 U.S. chemical plants to achieve VPP certification, underscoring Goodyear's long-term commitment to safety leadership.

"VPP certification is a major achievement and reflects the hard work and unwavering commitment of our associates to safety excellence," said Brad loerger, general manager, North America Chemical Operations for Goodyear. "We will expand on this success by engaging with other Goodyear facilities, as well as other VPP Star companies, in best practice sharing and proactive collaboration to continue strengthening our safety and environmental health capabilities and elevate safety practices throughout our industry."

Source: Goodyear

CLARIANT TO BUILD FLAGSHIP sunliquid® CELLULOSIC ETHANOL PLANT IN ROMANIA

Clariant recently announced the approval by its board of directors to invest in a new full-scale commercial plant for the production of cellulosic ethanol from agricultural residues using its sunliquid® technology. The new plant, with a production capacity of 45,359 t/y, will be built in the southwestern part of Romania. The facility will be a flagship site, confirming competi-



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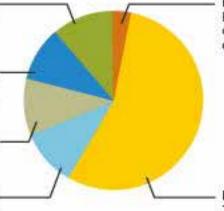
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tiveness and sustainability of the sunliquid® technology at commercial scale thus supporting Clariant's sunliquid® licensing business strategy.

"Clariant is continually investing in the development of sustainable products and innovative solutions such as sunliquid."
This pioneering process demonstrates the production of efficient and sustainable advanced biofuels and has great potential as a technology platform for a variety of bio-based materials. It is a further illustration of Clariant's successful innovation strategy, as this technology provides additional growth potential to an already strong portfolio," says Christian Kohlpaintner, member of the executive committee at Clariant.

In September this year, Clariant already



announced a successful step towards increasing the commercial attractiveness of its sunliquid® technology by signing the first technology license agreement with Enviral, a member of the Enviral Group.

Next steps are detailed engineering studies before the ground breaking and start of construction, which is planned for 2018. The plant is anticipated to deliver its first batch of product in 2020. Peak sales from the sunliquid® cellulosic ethanol plant are expected to be in the mid double-digit million range. This achievement is part of and results from Clariant's biotechnology innovation expertise.

At full capacity, the new plant will process approximately 227 000 t/y of wheat straw and other cereal straw, which will be sourced from local farmers. Co-products from the process will be used for the generation of renewable energy with the goal of making the plant independent from fossil energy sources. Therefore, the resulting cellulosic ethanol is an almost carbon neutral advanced biofuel.

Cellulosic ethanol is an advanced and truly sustainable biofuel which is almost

carbon neutral. It is produced from agricultural residue such as wheat straw and corn stover. The straw is converted into cellulosic sugars followed by fermentation of cellulosic sugars to cellulosic ethanol. By using agricultural residue, cellulosic ethanol can extend current biofuels production to new feedstocks and improved performance. Cellulosic sugars also have the potential to serve as a building block for future production of bio-based chemicals.

The sunliquid® technology offers a completely integrated process design built on established process technology. Innovative technology features like the integrated production of feedstock and process specific enzymes and simultaneous C_{5} and C_{6} sugars fermentation ensure best in class commercial performance.

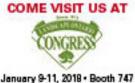
Source: Clariant International Ltd

GOODYEAR COMPLETES ACQUISITION OF VENTECH SYSTEMS

The Goodyear Tire & Rubber Company recently announced that it has completed the previously announced acquisition of Ventech Systems GmbH, a leader in







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automated tire inspection technology, from Grenzebach Maschinenbau GmbH to support its fleet services in Europe and other geographies of the world.

Ventech Systems provides a fully-automated tire inspection system that quickly and easily checks tire pressure, tread depth and vehicle weight for buses, trucks, cars and other vehicles.

The company, based in Dorsten, Germany, will be integrated into the Goodyear Proactive Solutions business in the Europe, Middle East and Africa region, where Goodyear's Proactive Solutions program is currently available.

Andre Weisz, managing director of Goodyear Proactive Solutions, has been named CEO of Ventech Systems. Andreas Pietsch, Ventech Systems COO, will remain in that position.

Last year, Goodyear launched Goodyear Proactive Solutions to provide a full suite of operations management solutions supporting fleet owners to improve safety, decrease fuel use, reduce their carbon footprint and support the digital transformation of their fleet.

The acquisition strengthens Goodyear's one stop value proposition towards fleets, including premium tires, advanced technology and mobile fleet solutions as well as a complete service package to allow them to optimize their total cost of ownership and efficiency.

Goodyear is one of the world's largest tire companies. It employs about 65,000 people and manufactures its products in 48 facilities in 22 countries around the world. Its 2 Innovation Centers in Akron, Ohio and Colmar-Berg, Luxembourg strive to develop state-of-the-art products and services that set the technology and performance standard for the industry.

Source: The Goodyear Tire & Rubber Company

HEXAGON ACQUIRES LUCIAD, A LEADING PROVIDER OF 5D VISUALIZATION AND ANALYSIS SOLUTIONS

Hexagon AB, a leading global provider of information technologies that drive productivity and quality across geospatial and industrial enterprise applications, announces the acquisition of Luciad, a Belgian-based software company specializing in the visualization and analysis of real-time geospatial information.

Luciad's visualization technologies support live connections to dynamic sensor feeds in a 3D environment. The result is a 5D digital reality – real-time, rapid fusion of multi-source content and the ability to perform analytics on-the-fly. These intuitive command and control systems benefit all kinds of applications – from public safety to smart cities to defense and intelligence – enabling users to make critical decisions based on changing information in real-time.

"This acquisition strengthens Hexagon's ability to deliver smart digital realities, enhancing our Smart M.App platform with 3D, 4D (real-time sensor feed integration) and 5D (dynamic analytics) capabilities,"

said Hexagon president and CEO Ola Rollén. "The ability to rapidly integrate sensor data in a visually compelling environment provides the geospatial location intelligence and situational awareness necessary for mission critical operations."

Luciad has over 100 highly-skilled professionals in 8 countries, with over 100,000 users of its technology globally. Its turnover for 2016 amounted to 16 million € (23.7 million \$). Luciad will be operating within Hexagon's Geospatial division.

Source: Hexagon AB



BAFFINLAND IRON MINES CONCLUDES RECORD-SETTING SHIPPING SEASON

Baffinland Iron Mines Corporation recently announced the conclusion of its 2017 open-water shipping program. From August 2 to October 17, Baffinland shipped approximately 4.1 million t of iron ore from its Milne Inlet Port to markets in Germany, the UK, and Japan. Fifty-six panamax vessels were deployed, carrying an average of 72,600 t of iron ore each. This marks the largest shipping program by volume ever executed in the Canadian High Arctic.

"Our record-setting performance was achieved through the hard work and dedication of our employees," says Brian Penney, president and CEO of Baffinland. "I also want to thank all of our partners involved in making this program a success, including our shipping partners, ice management experts, the Canadian Coast Guard, and the continued support of the North Baffin communities, in particular Pond Inlet, and the Qikiqtani Inuit Association."

World-leading health and safety control systems were deployed during the program and the company adhered to strict environmental standards and regulations. Baffinland also organized sophisticated environmental monitoring practices, combining scientific and traditional Inuit knowledge. No health and safety or environmental incidents occurred during the shipping program.

Source: Baffinland Iron Mines Corporation



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Construction Prototype for Ultra-Thin Concrete Roof

Researchers from ETH Zurich have built a prototype of an ultra-thin, curved concrete roof using innovative digital design and fabrication methods. The tested novel formwork system will be used in an actual construction project for the first time next year.

The shell is part of a roof-top apartment unit called HiLo that is planned to be built next year on the NEST, the living lab building of Empa and Eawag in Dübendorf. The penthouse will provide living and work space for guest faculty of Empa. Researchers led by Philippe Block, Professor of

Architecture and Structures, and Arno Schlüter, Professor of Architecture and Building Systems, want to put the new light-weight construction to the test and combine it with intelligent and adaptive building systems.

The self-supporting, doubly curved shell roof has multiple layers: the heating and cooling coils and the insulation are installed over the inner concrete layer. A second, exterior layer of the concrete sandwich structure encloses the roof, onto which thin-

film photovoltaic cells are installed. Eventually, thanks to the technology and an adaptive solar façade, the residential unit is expected to generate more energy than it consumes.



The building technique for the roof was developed by the Block Research Group, led by Prof. Block and senior researcher Dr. Tom Van

Mele, together with the architecture office supermanoeuvre, and tested out on a full-scale prototype. The prototype, which has already been dismantled to make space for future experiments, was 7.5 m high with a surface area of 160 m² (covering an area in plan of 120 m²). The thickness of the concrete has an average thickness of 5 cm varying between 3 cm along the edges of the

Images © Block Research Group, ETH Zurich) Michael Lyrenmann

roof to 12 cm at the support surfaces.

Instead of formwork using non-reusable custom-fabricated timber or milled foam, which would be needed to realize such sophisticated form, the researchers used a net of steel cables stretched into a reusable scaffolding structure. This cable net supported a polymer textile that together functioned as the formwork for the concrete. This not only enabled the researchers to save a great deal on material for construction, they were also able





to provide a solution to efficiently realize completely new kinds of design. Another advantage of the flexible formwork solution is that during the concreting of the roof, the area underneath remains unobstructed and thus interior building work can take place at the same time.



ALGORITHMS FOR CONTROLLING THE SHAPE

The cable net is designed to take on the desired shape under the weight of the wet concrete, thanks to a calculation method developed by the Block Researcher Group and their collaborators in the Swiss National Centre of Competence (NCCR) in Digital Fabrication. The algorithms ensure that the forces are distributed correctly between the individual steel cables and the roof assumes the intended shape precisely. The cable net weighs just 500 kg and the textile 300 kg; thus, with a total of only 800 kg of material the 20 tons of wet concrete are supported.

The construction of the roof would be inconceivable without state-of-the-art computation and fabrication techniques, but the project also heavily relied on the expertise and experience of several craftspeople. Experts from Bürgin Creations and Marti sprayed the concrete using a method developed specifically for this purpose, ensuring that the textile could withstand the pressure at all times. Together with Holcim Schweiz, the scientists determined the correct concrete mix, which had to be fluid enough to be sprayed and vibrated yet viscous enough to not flow off the fabric shuttering, even in the vertical spots.

PROOF THAT IT WORKS

Block's team built the prototype over the course of 6 months in ETH Zurich's Robotic Fabrication Lab. It represents a major milestone for the NEST HiLo project: "We've shown that it's possible to build an exciting thin concrete shell structure using a lightweight, flexible formwork, thus demonstrating that complex concrete structures can be formed without wasting large amounts of material for their construction. Because we developed the system and built the prototype step by step with our partners from industry, we now know that our approach will work at the NEST construction site," says Prof. Block.

The process to get to this point took almost 4 years, from the start of the project to the finished prototype, partly because Prof. Block wanted to involve several industry partners in development of the prototype. Next year, he plans to build the roof once again at the NEST building in 8 to 10 weeks. The individual components of the roof structure can be reused as often as needed. The cable net can be dismantled into a few parts that can be quickly reassembled and rehung.

The HiLo unit is impressive not only because of its unusual roof design, but also due to its innovative lightweight floor system and a building technology with a positive energy balance. Energy is exchanged between the individual units in the NEST building. The HiLo unit is required to produce more energy than it consumes. As compensation, it can use waste heat from the other building units, as well from buildings in NEST's district network. This is where ETH professor Arno Schlüter comes in: the professor of architecture and building systems is developing a building system with sensors that uses heat at low temperatures to create a pleasant interior climate. For this purpose, he uses components of the structure, including the roof, that are thermally activated.

Source: ETH Zurich



Dynapac Launches New Product Visual Identity

Dynapac is proudly presenting its new visual product identity, consisting of 3 main colors: red, white and grey.

"Red has always been a significant color for Dynapac, and when investigating the brand values, the red color was among the top recognition factors," says Herman Matthyssen, global vice president Marketing. "The new colors also underline the uniqueness of the Dynapac brand, now part of the Fayat Group!"

The new colors support the future image and spirit of the Dynapac brand, underlining also the innovative character of its products, and the modern design lines.

"We are very proud of our new visual identity, it signals we are an independent brand with our own sales-channels, own technology and own product portfolio," says Mr. Matthyssen.

Simultaneously with the launch of the new visual identity, Dynapac is launching its new compact asphalt tandem roller, CC1100-1200. The 6th generation of these

rollers will immediately become avail-

able in the new colors scheme, from the very start. All other Dynapac products will have the new colors soon as well, as Dynapac will keep the full implementation period short.

The new CC1100/ CC1200 generation VI is designed to meet the construction industry's tough conditions with

the operator in mind resulting in a robust, comfortable and modern machine for best compaction results. The new machine has a unique design with its cross-mounted engine in combination with an excellent visibility and massive casted forks with built-in flexible lifting/towing/tie down possibilities.

"Our aim is to have all Dynapac products in the new colors before year-end, and

that seems very realistic right now," adds Herman Matthyssen.

"We are thrilled to unveil the new Dynapac product identity to the North America market. It's also with great pleasure that we welcome our employees, dealers, rental partners and end-users to the Dynapac North America family," says Brian Bieller, president of Dynapac North America.

Source: Dynapac







Ammann Unveils Forward-Moving Vibratory Plates

Ammann recently released a new line of technologically advanced APF Forward Moving Vibratory Plate Compactors, primarily for European countries. The plates provide industry-leading compaction power, maneuverability, forward-moving speed and climbing ability. They also are known for dramatically reducing unwanted vibration to operators.

The APF product line is the lightest of all Ammann plate compactors, with weights ranging from 69 kg to 107 kg and widths of 330 mm to 500 mm.

The plates fit a broad range of applications, such as gardening, landscaping and patchwork for road repairs. With an optional water sprinkler and vulkollan® mat, the machines are also suitable for asphalt applications and the laying of paving stones.

The APF line is powered by reliable and efficient Honda petrol engines. The largest plate is available with a Honda gas or a Hatz diesel engine. The diesel engine per-

forms well, even in high altitudes, and is a good alternative for owner who prefer diesel powered.

The plate compactors include a low-vibration handle, maintenance-free exciter system, full engine protection frame.

The bottom wear plate is designed to last, with thicker protection added toward the back of the plate where the most wear occurs.

An optional 10 I water tank is available on most of the plates. It can be mounted without a single screw to simplify adjustment and ease refilling.

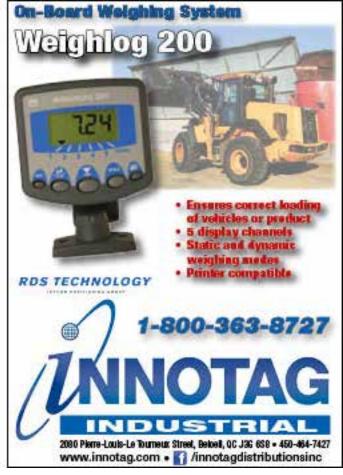
An optional mat, can be mounted in a few seconds, without tools, preparing the

machine for work on paving stones and protecting the stones' edges from cracking.

Finally, the transport wheels can be dropped with a foot release. This allows a convenient and quick transportation of the machine on site and protects the operator's back by eliminating bending and prevents fingers from being pinched.

Source: Ammann





Versatility in Tight Areas

ASV now offers the Posi-Track RT-30 compact track loader as a heavy-duty commercial machine in a small package. The radial lift loader is the industry's smallest sit-on model yet features the same productivity-enhancing qualities as larger ASV machines. This includes highly efficient hydraulics and cooling systems as well as best-in-class low ground pressure. In addition, the RT-30 provides a safer, more productive alternative to walk-behind and sit-on mini skid steer loaders. The ASV unit's small size makes it ideal for contractors, rental centers and homeowners looking for a commercial-quality, compact machine for work in tight spaces for applications such as landscaping, snow removal and construction.

The 1,633 kg RT-30 is 122 cm wide and has a 2.56 m lift height. Its compact size and 254 mm of ground clearance minimize the risk of property damage or damage to the machine while working in hard-to-reach areas, whether clearing snow

on sidewalks and through alleys or while completing landscaping or construction work in high-density housing areas. The machine's size also optimizes it for the rental market as the compact track

loader is easy to transport on a trailer pulled by a pickup truck.

The RT-30 offers a safe alternative to similarly sized walk-behind and stand-on skid steer loaders. The ASV unit's cab provides rollover protection and protects the operator from outside elements. The cab's seat also eliminates the fatigue that comes from standing. In addition, the compact track loader also features more ground

clearance and lower ground pressure than similarly sized machines on the market.

The RT-30's Perkins 1.5 I diesel engine provides more torque than smaller gas or diesel engines common in mini skid steer loaders. The RT-30 features a rated operating capacity of 300 kg and a tipping load of 862 kg.

Source: ASV Holdings Inc.





Takeuchi Launches TL6 Track Loader

Takeuchi-US recently introduced the TL6 compact track loader (CTL) to its lineup. The CTL is an agile, compact machine that is easy to transport, and features outstanding stability and performance. The TL6 is ideal for customers in the agricultural, general contracting, landscaping and rental industries.

Powered by a 65.2 hp Kubota 2.4 l engine, the TL6 features a radial lift loader design with a maximum lift height of 2.9 m, and a rated operating capacity of 835 kg. Additionally, the TL6 has a width of 152.4 cm and a height of 197.6 cm. The compact dimensions of the TL6 enable it to access and work efficiently in areas with limited space.

The TL6 features a newly designed cabin with an overhead color multi-information display and backlit rocker switches that control a variety of machine functions. A cab with a swing-out door, heat, and air conditioner is available for greater operator comfort. The CTL weighs 3,993 kg with a



canopy or 3,529 kg when equipped with a cab.

Takeuchi Fleet Management (TFM) system comes standard on the TL6. The TFM telematics system is available during the machine's warranty period of 2 years at no additional cost. It provides a variety of data points including machine health and condition, run time and machine location. The

user-friendly TFM system can help reduce downtime, control costs, perform remote diagnostics and schedule maintenance.

Source: Takeuchi-US



JCB Unveils New 210T and 215T Compact Track Loaders

JCB recently launched its 210T and 215T compact track loaders, offering the power and performance of large-platform compact track loaders in small-platform, easily towable machines weighing less than 4536 kg.

The new machines are powered by the 74 hp JCB Diesel by Kohler engine, requiring no DPF and no DEF. The radial lift 210T model has a rated operating capacity of 860 kg at 35% tipping load and 1,200 kg at 50% tipping load. The 215T vertical lift model has a rated operating capacity of 950 kg at 35% tipping load and 1,360 kg at 50% tipping load. The capacity of both models can be increased with an optional bolt-on chassis counterweight package, and both are capable of operating high flow attachments up to 113 l/min.

"The 210T and 215T are the latest in the company's range of skid steers and compact track loaders that are designed and manufactured in the U.S.," said Randy Tinley, JCB product manager for skid steers and compact track loaders. "The horsepower-to-weight ratio of these machines



make them ideal for confined work spaces where increased lift capability is required. These are the smallest compact track loaders available that can lift a standard pallet of sod or bricks, or a wet round hay bale."

Featuring JCB's unique single boom design, the 210T and 215T provide operators with 60% better visibility than conventional twin-arm skid steer designs, for safer operation and easier changing of attachments and placing or loading material. Entry to the cab, which is up to 46% larger than comparably sized compact track loaders, is also simplified and made safer by a wide-opening side door.

Source: JCB



GoTo[™] Focused Delivery Program Celebrates 4th year in Canada

For the 4th consecutive year in Canada, Bosch Rexroth's GoTo™ Focused Delivery Program continues to grow, now offering more than 5,000 Drive & Control products for fast delivery. More than 99% of the products in the program ship in 10 days or fewer, with the same lead times in the U.S., Canada and Mexico.

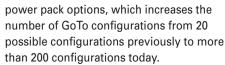
The latest round of GoTo updates features new products across many Drive & Control technology product lines, and now includes more than 5,000 products more than 4 times the original offering of 1,200 part numbers. The GoTo Focused Delivery Program is continually optimized and updated, so that the product offering



remains fresh and reflects the latest technologies while continuing to grow, even as older or less popular products are rotated out of the program.

The largest representative in the GoTo program

remains hydraulics, with a net addition of more than 100 components. These include a variety of AZPF and AZPN gear pumps for mobile hydraulics applications and a wide range of pump types for industrial applications. Hydraulics has also added many new series of proportional valves, check valves, and sandwich valves; a wide range of new filters, with crossover listings for customers wishing to upgrade; and significantly, a major increase in hydraulic



The electric drives and controls portfolio also experiences a significant expansion in the latest GoTo program update, with 140 additions. Highlights include larger offerings in IndraDrives (C/M, Cs and Mi) and associated firmware; a wider selection of EFC 3610 and 5610 variable frequency



About 700 guests from all over the world came to see the first SBM Expert Days on September 14 and 15 in Liezen, Austria. Clients, distributors and affiliated companies accepted the invitation issued by SBM Mineral Processing to come to the first in-house fair at the manufacturing



site. The exhibition area with 16,000 m² offered information on concrete mixing and mineral processing technology, live demos, and several pioneering technological novelties.

Almost all SBM systems – to process mineral raw materials as well as recycling materials – have recently been newly developed or redesigned from top to bottom. And each visitor could experience this up close in Liezen.

One mobile novelty on display was the entry-class model REMAX 300 with diesel-electric drive, a 1100 mm crusher and discharge chute below the crusher offering



a capacity of up to 300 t/h at a total weight of 30 t without secondary screen.

Also the new REMAX 400 middle-class model was attracting clients thanks to highlights such as new crushing, drive and transport characteristics including a dolly system. Its low transport height of 3.60 m and the optimized total weight of 40 t

without secondary screen, are convincing features providing immediately tangible benefits for SBM customers.

The VARIOMIX® and MINIMIX® mobile concrete mixing plants with their towers rising about 22 m high were visible from afar, but they were not there just for show-



ing of during the SBM Expert Days. Visitors could inspect the plants from the inside and from the outside thus assuring themselves of the compact build and the practical operation of the individual systems. The modular design of these plants and the small setting-up area they require, are amazing qualities in very confined building

A Smarter Way to Measure

drives; new MTX micro options for CNC; and the IndraControl XM featuring Open Core Engineering. Key changes in linear motion technologies are one-day lead times for size 15-45 Rail Seal with mounting clip, and the additions of size 100-XC Electromechanical Cylinder EMC and AOK Drive Units in sizes 20, 32 and 40. In the area of assembly technologies, new cover and end cap colors have been added to GoTo for the aluminum framing product line.

As before, Rexroth's popular GoTo Products mobile app is updated with the latest products to make it easy to check whether a specific product is available in the GoTo Focused Delivery Program. The app also allows users to instantly retrieve all of the updates by using the app's sync-ondemand feature, which has been improved to increase sync speeds, at any time after installation.

Source: Bosch Rexroth Canada

Digitize the entire measuring process with the new Hilti laser range meter PD-CS. Using an integrated laser module to capture and save measurements data directly onto photographs taken by its internal digital camera, the Hilti laser range meter PD-CS will help make contractors and site supervisors more productive, and eliminate the need for multiple devices – including paper and pencils.

The Hilti PD-CS allows the user to measure distances to 200 m with an accuracy of ± 1 mm and add context to store data with pictures and/or text. Collected information can then be shared in a single PDF report or spreadsheet using Bluetooth, Wi-Fi or a Micro USB connection. Two 5 megapixels cameras with zooming capabilities on the Hilti PD-CS make locating a target outdoors or at long distances very easy. The user can take direct and indirect measurements and calculate area and volume among many other applications. Notes can easily be added to measurements and photos, and users can create project folders for different jobsites.

The Hilti PD-CS uses an Android-based technology and has a color touch screen that is usable even with work gloves on. It has 8 GB of memory and will store more than 6000 measurements with photos. The unit has an integrated Li-lon battery with a 10-hour battery life.

Source: Hilti, Inc.

sites. Two EUROMIX® plants types 1600 and 3300 represented the supermobile stars of the SBM concrete mixing branch that is already the market leader in Europe due to its international know-how.

After work was done, it was time for entertainment. In the almost mystic night scenery of the exhibition arena, daredevil freestyle motocross pilots captivated the audience with their show and flew 15 m high through the air to the music of AC/DC. Pyrotechnics and the Dramatical Drummers made the event an unforgettable experience.

"Our product portfolio and the new plants exhibited for the raw material and recycling industries as well as for the concrete mixing technology to produce





high-quality concrete make the SBM Expert Days a unique big-impact show," said Erwin Schneller, SBM managing director, proud of the successful event and the SBM team. "We plan to host this event every 3 years from now on."

SBM Mineral Processing GmbH is a full-line supplier of mobile and stationary concrete mixing plants for ready-mixed and prefab concrete as well as for mineral

processing and conveying plants for the raw material and recycling industries, including service and support. Decades of experience in engineering and manufacturing make the company a strong partner to find sophisticated solutions. SBM plants are designed for year-round operation, even under adverse weather conditions.

Source: SBM Mineral Processing GmbH

Atlas Copco Adds High Flow Models to Expanded Dewatering Pumps Portfolio

Atlas Copco Construction Equipment North America has expanded its offering for the dewatering market with the launch of over 30 new heavy-duty, high-capacity pumps. This includes the addition of 3 high-flow models to its PAS range of centrifugal dry prime pumps. The new pumps are capable of accommodating flows of up to 1,400 m³/h.

"Since acquiring Varisco we've established a consistent presence in the dewatering market," said Joe Moser, product manager – Pumps at Atlas Copco Construction Equipment North America. "The new single-brand portfolio provides our customers with the best choice and widest flexibility when selecting a high-quality pump for their application."

Atlas Copco's offering for the dewatering market is comprised of highly efficient wet and dry prime centrifugal pumps for construction, drainage and emergency applications, plus specialized models for wellpoint applications and pumping abrasive liquids and bentonite mud. A new piston positive displacement pump has been launched that is specially designed to run dry without damaging internal components. It is ideally

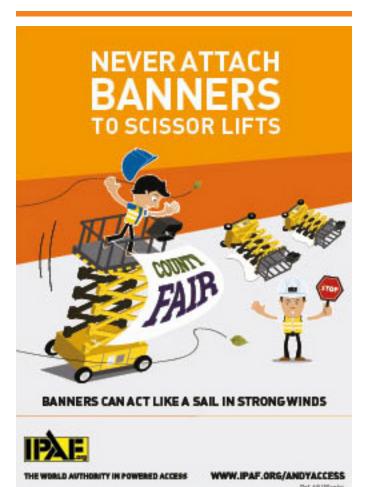
suited for wellpoint applications where the volume and depth of water is low.

The new pump range is Atlas Copco branded, although the Varisco name is retained as part of the VAR range of centrifugal wet prime pumps and will therefore remain synonymous with first-class dewatering solutions. The Varisco brand will also continue to be used exclusively for the industrial pump range.

To offer customers extra flexibility, all ranges can be supplied with a diesel engine or an electric motor as part of Atlas Copco's E-Pump concept. Furthermore, up to 6 modular configurations are possible per range. Dependent on the range, pumps can be supplied on a standard pump block, a basic or flexi-skid, or as part of a trailer, crate or fully containerized package.

As well as its 7 centrifugal and piston positive placement pump ranges, Atlas Copco offers portable submersible dewatering pumps as part of its WEDA+ range. The range recently underwent a design overhaul, resulting in the introduction of 5 innovative pumps that offer up to a 20% overall reduction in power consumption compared to previous models.

Source: Atlas Copco Construction Equipment North America



For LUBE-A-BOOM®, It's New Products, New Show, But Old Reliability

Easy, clean machine maintenance is a key factor in equipment uptime, especially for utility and lifting contractors.

LUBE-A-BOOM participated at ICUEE for the first time ever, last October. With the introduction of a brand-new product, LUBE-A-SHINE™, the timing was right to exhibit at the Louisville show this year, particularly after a good experience in Las Vegas at CONEXPO-CON/AGG in March.

"Our frictionreducing lubricants and complementary products are being embraced more and more by customers beyond



our traditional crane and lifting markets," says Jo Roberts, vice president of operations at Lube-A-Boom. "Those sectors enthusiastically adopted the vision of our late founder Harley Wilson, and it is so rewarding to see others doing likewise."

Mr. Wilson's final product development, a liquid version of the LUBE-A-ROPE™ chain and cable lubricant, was brought to market this year. Penetrating drive chains, sprockets, cables, wire ropes and other component surfaces, LUBE-A-ROPE Liquid acts as a corrosion inhibitor to provide long-lasting protection against saltwater immersion and atmospheric moisture.

Source: LAB, LLC

EDDYNET Tow-Behind Sweeper Now Available with Tier 4 Final Engine

The EDDYNET tow-behind sweeper is now available with the EPA Tier 4 final certified diesel engine. The only sweeper of its class that is "made in Canada", it is very economic from an operational point of view. This is due to the down pressure regulator that will guarantee sweeping performance while minimizing the energy required and maximizing the brush life. This optimal setup requires only a small 20 hp engine for up to 2.75 m wide sweepers and a 27 hp for 3.0 to 3.65 m models.

The tow-behind sweeper can be equipped with the optional water injection system and wireless control unit. Paired with almost any pickup truck, this sweeper is ideal for cleaning road shoulders, big parking lots or industrial complexes.

EDDYNET Inc. is a Canadian company that designs and manufactures sweepers with quick attachment for all types of equipment – from the small front-mounted mowers to the big wheel loaders, includ-



ing self-propelled models for forklifts and towed behind for pickup trucks and frount-mounted models for 6 or 10 wheel trucks.

EDDYNET can answer all your sweeping needs with industrial-grade quality products. Since they do not require a dedicated vehicle, sweeper attachments help optimize the use of your equipment year-round.

For over 20 years, Eddynet has been the benchmark in the field. Investing continuously in innovation to make its products more and more efficient and sustainable,

EDDYNET's ambition is to "clean America one road at a time".

Come and see one of EDDYNET's bestseller – the pickup sweeper attachment – at Landscape Ontario CONGRESS, to be held in Toronto, Ontario, January 9-11, 2018.

Source: EDDYNET Inc.







Terramac® Launches New Compact RT6 Crawler Carrier

On October 3rd, Terramac introduced its latest model, the RT6, at ICUEE 2017 as the company's most compact unit yet.

The new RT6 is built to be nimble while providing the power needed to accomplish the task at hand. This unit features a compact footprint, delivers a 5,443 kg carrying capacity and boasts travel speeds up to 10.5 km/h, ensuring quick cycle times to keep productivity levels on point. And, a 130-hp QSB 4.5 Cummins engine allows the RT6 to tackle a wide-range of general construction, pipeline, utility, and environmental applications with ease.

In addition to power and efficiency, the RT6 showcases Terramac's rubber track technology. This unit's fully-loaded ground pressure is a minimal 0.38 kgf/cm² (5.4 psi), making it ideal for loose and wet ground conditions where heavy, wheeled machines are likely to get stuck. The flotation from the rubber tracks of the RT6 not only allows the machine to work in adverse ground and weather conditions, but also



allows for faster climbing on mountainous and hilly terrains with reduced slippage.

Designed to provide an unprecedented degree of customization, the RT6 accommodates a wide variety of support equipment, such as: digger derricks, bark blowers, cranes, vacuum excavators, generators and tanks. Standard units are available with either a flat bed, dump bed or rock dump bed.

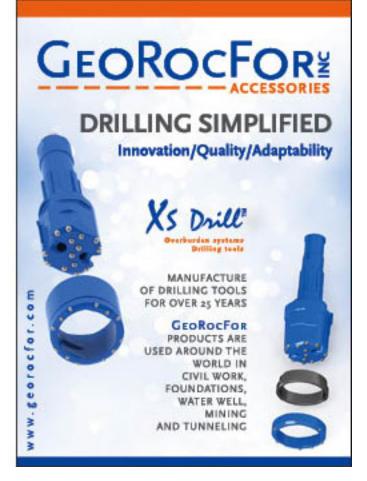
"The biggest feature that sets the RT6 apart is its compact size," says Matt Slater,

director of sales at Terramac. "The RT6 is an excellent solution for jobs that are in tight spaces but don't require the payload of a larger unit. And it can be easily loaded onto a tag trailer and hauled by line trucks from jobsite to jobsite."

Terramac offers the RT6 with both openand closed-cab options, while rollover protective structure (ROPS) and falling object protective structure (FOPS) come standard.

Source: Terramac® LLC







A legacy of hard-working trucks since 1897

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.

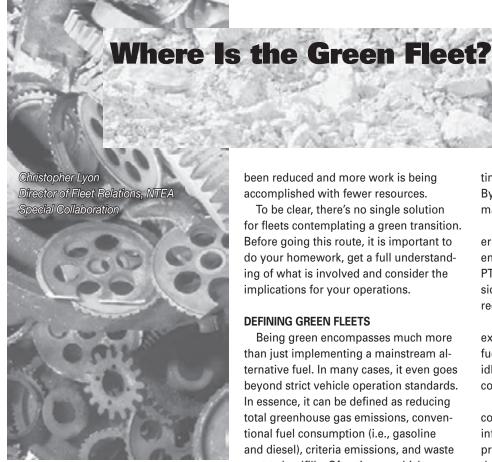




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Going green does not always mean mainstream alternative fuels. Although they do play a key role, with today's low conventional fuel prices, many fleets are having a difficult time justifying adoption of alternative fuel vehicles. Some of the offerings can be expensive, and, given current fuel prices, it is possible to not get a return on investment (ROI) in the life cycle of vehicles being purchased. It is important to note, while alternatives can be more expensive to purchase, the cost factor is not necessarily the end of the story.

Factors like lifetime maintenance costs and the possibility of fuel price fluctuations during the deployed life of the vehicle can mitigate purchase price differences. In some instances, the vehicle's life cycle can be extended due to different maintenance requirements and effects of using cleaner fuels on the life of the powerplant. In general, being green or sustainable means significant environmental effects have

been reduced and more work is being accomplished with fewer resources.

To be clear, there's no single solution for fleets contemplating a green transition. Before going this route, it is important to do your homework, get a full understanding of what is involved and consider the implications for your operations.

DEFINING GREEN FLEETS

Being green encompasses much more than just implementing a mainstream alternative fuel. In many cases, it even goes beyond strict vehicle operation standards. In essence, it can be defined as reducing total greenhouse gas emissions, conventional fuel consumption (i.e., gasoline and diesel), criteria emissions, and waste sent to landfills. Oftentimes, vehicles are the most publicly visible part of a green or sustainability program. However, shop operations can contribute to any green initiatives.

It is important to start with a top-down look at shop operations and find viable ways to embrace green practices. Suggestions include using re-refined/recycled lubricants and non-toxic cleaning compounds. These are just a few examples demonstrating the many activities that can further sustainable and green efforts, besides converting vehicles.

GREEN CONVENTIONAL TRUCKS

As fleet professionals, it is easy to overlook the conventional truck. Significant fuel savings can be achieved with some forward thinking and design exploration. When matched with the proper drive cycle, this approach can be very effective. To start, idle management opportunities represent relatively simple (and, sometimes, low-cost or cost-free) action items. By definition, idle management implies the main powerplant is not in use.

When the work gets done while the powerplant is not running (when using a stored energy solution like electric or hydraulic PTO operation, for example), vehicle emissions, operation costs and maintenance requirements are significantly reduced.

Vehicle idling is a similar concept except it includes a running engine and fuel consumption. Mitigating unnecessary idling yields instant payback at little or no

Powertrain optimization (matching components correctly) can have a huge influence on overall fuel economy. A properly designed powertrain guarantees the truck engine will operate within its peak efficiency band in most operational environments. Optimizing powertrains for ultimate fuel economy is not difficult but will require a little more thought and planning by the fleet specification team (internal and external resources).

Many truck dealers and suppliers have software that matches engines, transmissions and final drive gear ratios to achieve maximum fuel efficiency without sacrificing performance requirements. Aerodynamics, reduced rolling resistance tires, weight reduction and driver behavior modification are other areas of opportunity. Another significant option involves finding ways to decrease the operating



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

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



weight of the vehicle, ultimately reducing energy required during a truck's life cycle.

ADOPTING ALTERNATIVE FUELS

In the conventional fuel market, we have seen more price volatility in the last decade than in the previous one. As prices began to inch higher, beginning in 2005, alternative fuels became the topic of conversation and delivered an easy-to-visualize ROI. In 2008, when prices reached record levels, fleets that had adopted alternative fuels (like compressed natural gas and propane autogas) were hailed as money savers and environmental stewards – a definitive win-win for the fleet community.

As markets cooled off and fuel prices stabilized a year later, the alternative fuels buzz followed suit. This pattern has become cyclical. When prices rise, enthusiasm for alternative fuel and advanced technology increases. As prices fall, interest and action tend to fall by the wayside.

Many fleets that have not yet adopted an alternative fuels position take a waitand-see approach. With low conventional fuel prices, they are having a hard time justifying the financial commitment to enter the alternative fuels market; they are not seeing the ROI.

Looking at historical trends, it is worth asking whether or not it is affordable to look into alternative fuels and advanced technologies. Although current conventional fuel prices are low, standing on the sidelines and waiting for a market shift may prove costly as vehicle fleets are currently averaging 9 years of service life. Barring any unforeseen major conflicts or disruption in the oil supply, indicators suggest a few more years of low fuel prices.

After reaching what was considered an all-time high in 2007, EIA data indicates peak fuel consumption in the U.S. is now climbing beyond the 2007 level. Ultimately, this will just put upward pressure on fuel prices; fuel prices will rise, the global economy will expand, and all commodity prices will increase (including oil).

Recognizing these opportunities now and installing a well-crafted plan to implement correct technology for specific applications can put many fleets well ahead of the curve. Knowing the drive cycle can help identify the right technology for certain applications. Understanding duty cycle will determine if a proposed alternative is doable from operational and



economic standpoints.

A drive cycle refers to how vehicles are used and is often plotted graphically as a series of data points representing vehicle speed versus time. It can include:

- · Maximum/average speed;
- · Start/stop;
- · Idle time;
- · Engine-off time.

Duty cycle gauges how much or how often a vehicle is utilized. This metric assesses:

- · Hours per day;
- · Days per week;
- · Average miles per cycle;
- · Total miles per cycle.

Once you grasp these dynamics, you can identify the alternative fuel and/or advanced technology that best aligns with your organizational goals.

DETERMINING OBJECTIVES

Regardless of the direction your fleet takes (making conventional trucks more efficient, maintaining status quo or investing in alternative fuels/advanced technologies), it is imperative to define organizational objectives before moving forward. Common company priorities include:

- · Fuel cost reduction;
- · Lower total cost of ownership;
- · Public image;
- · Continuity of fuel supply;
- Regulatory compliance.
 Other factors to consider in the decision-

making process include required capital investment, desired return on investment, vehicle and technology availability, and fuel access in a given geographic area.

LEARN MORE

NTEA offers tools and information to help fleet managers optimize their operations and benchmark with others in the vocational community.

Visit ntea.com/fleetresources for articles, training offerings, regulatory information, and more.

Keep in mind, Green Truck Association (GTA), an NTEA affiliate division, offers a variety of resources to educate its members on techniques and technology that can improve fleet efficiency, reduce emissions across time, and lower the risk of fuel price volatility driving up operating expenses. GTA fleet members can get involved in a data logger drive and duty cycle program that provides information on how vehicles operate in varying environments; find details at greentruckassociation.com.

Visit worktruckshow.com/fleets to explore the many sessions, events and opportunities for fleets at The Work Truck Show® 2018, held from March 6–9, 2018 in Indianapolis, Indiana. Green Truck Summit and Fleet Technical Congress – held in conjunction with North America's largest work truck event – will address fleet-specific issues.

ADDRESS CHANGES

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Goodyear Unveils Revamped OTR Tire Website

The Goodyear Tire & Rubber Company has completely overhauled its OTR tire website – www.goodyearotr.com – to provide an enriched user experience and help mining, construction, quarry and port operations discover how Goodyear can help enhance their efficiencies and lower their operating costs.

Optimized for all devices, including mobile phones and tablets, and featuring robust search capabilities, the new site contains detailed information about Goodyear's full portfolio of OTR products, including tires for mining, construction, quarry and port applications.

It also contains details on Goodyear's worldwide support capabilities – including its global network of manufacturing plants, dealers and distributors – and management tools, such as Goodyear's EMTrack OTR tire performance monitoring system.

"The site's navigation and functionality have been optimized to help users find the information they are looking for quickly," said Jose Martinez, senior digital and solutions manager, Goodyear. "To locate specific products, users can search by tire size and rim diameter, and can drill down into other specs, such as individual tire features and benefits, load/inflation tables and warranties. Users also can compare features, benefits and specs of up to 3 Goodyear OTR tires at a time."

The site's powerful dealer locator recognizes the user's geographic location and automatically displays a list of – and map to – the nearest Goodyear OTR tire dealers in North America. "And users can contact Goodyear tire experts for consultation through the site," added Mr. Martinez.

In addition, the site contains information about exclusive Goodyear OTR tire technologies, plus a collection of videos, tips and best practices about OTR tire selection,



maintenance and other topics.

"Goodyear's goal is to help end users enhance their productivity while lowering their operating costs," said Mr. Martinez. "Our newly revamped site will play an important role in helping achieve this. It's one more valuable resource that we offer to mining, construction, quarry and port operations."

Source: The Goodyear Tire & Rubber Company

Trelleborg Demonstrates Excellence in Tire Solutions for Construction and Extreme Environments at Steinexpo

Trelleborg Wheel Systems industrial and construction tire operation, showcased the ground-breaking quality and reliability of its solid and pneumatic tires at Steinexpo held in Homberg/Ohm, Germany, from August 30 to September 2, 2017.

Amongst the products on show were the company's latest radial and diagonal pneumatic tires for construction loaders and graders, and its solid tires for harsh environments.

For extreme environments such as scrap metal recycling, waste transfer stations and underground mining operations, Trelleborg's solid tires deliver durable, cut resistant solutions that eliminate downtime caused by flats and sidewall cuts. These solid tires also offer excellent ride comfort due to the patented elliptical aperture design. This helps reduce equipment wear and operator fatigue, for safer, longer operation.

Trelleborg also highlighted its premium pneumatic tires for use by loaders and graders. These all steel radial construction



tires deliver optimum durability and maximum productivity. Providing enhanced traction on sand, mud and gravel while reducing vibration on concrete and asphalt, they offer trusted quality and reliability regardless of terrain or weather conditions.

"Trelleborg has always stood for the best quality products, especially our solutions for the Construction industry," said James Pick, marketing communications director at Trelleborg Wheel Systems. "We believe that 'Excellence begins here' and we demonstrated that excellence with the groundbreaking quality and reliability of the products we had on show at Steinexpo."

The next Steinexpo will take place from from August 26 to 29, 2020 in Europe's largest and most impressive basalt quarry.

Source: Trelleborg Wheel Systems

Cometto Partners with Scania

The goal to always offer the best product quality at Cometto, member of the Faymonville Group, will be enhanced through a new partnership with a leading company in engine manufacturing. After a meticulous and focused research, the choice fell on the global player Scania.

"Scania's proposal to the Cometto management was to provide a complete and rational solution to their needs," explains Riccardo Moraglia, Italscania's sales manager for industrial and marine engines.

They fulfill the requirement in available space of Cometto Power Packs, used on modular self-propelled, shipyard and steelwork transporters, in order to fit different displacement engines. Another positive argument is the accordance to the current emission legislation with Scania engines.

Modular self-propelled electronic trailers, better known as MSPE's, must be sufficiently low in height to allow them to pass beneath a load bearing structure in



order to then lift it.

"Italscania was able to meet our requirement, thanks to their concept of modular construction and reduced-height cooling package," explains Fabrizio Lippi, Head of Engineering at Cometto. "In this way we can produce a single chassis, independently of the Scania engine and its emissionscontrol system to be used. This enables us to make considerable savings during the design and production stages."

The DC09 and DC13 engine families with EU Stage IIIA and Stage IV / EPA Tier 4f emissions ratings, are fitted to Cometto's medium/large modular vehicles. For special vehicles or more specific applications, Cometto is awaiting the opportunity to install more powerful propulsion units, power that only the famous and prestigious Scania V8 can guarantee.

Source: Faymonville Group

Briggs & Stratton Upgrades and Expands Its Commercial Series Engines Line

Briggs & Stratton Commercial Power introduces an upgraded and expanded line of Commercial Series V-Twin engines. The light-duty commercial line now includes 9 models, ranging from 16 to 27 hp (gross)*.

"This line of engines has always been a great value and a bridge for those wanting to step up to commercial engines. With the redesign, the line offers many premium features and components while maintaining a price point that makes it ideal for light-duty commercial applications," said Jim Cross, marketing manager for Briggs & Stratton Commercial Power. "It's a versatile workhorse and our confidence in the reliability of this engine is evident in the new 3-year commercial limited warranty."

Briggs & Stratton's patented Integrated Cyclonic System offers unmatched air handling to help the Commercial Series stand up to demanding, high-debris applications. A rotating debris-chopping screen cuts debris into smaller pieces while a robust fan forces the debris particles down and

away from the engine. Further, a series

of baffles and an ejector chute prevent dirt and large debris from reaching the air cleaner housing, which ejects dust and fine debris through a duckbill-shaped valve. The engine's large cyclonic

air cleaner filter

lasts for 250 hours
of operation and requires
no tools to replace. An
optional high-flow static cover further
improves airflow in high-debris applica-

Enhanced features for structural integrity include a commercial-grade liquid sump gasket – the same gasket engineered for the Vanguard™ 810 V-Twin – as well as a 3rd dowel pin to ensure a rigid, lasting seal at the sump joint. For added versatility, a

wide range of muffler options is also available for repowers. In addition

to enhanced features, Briggs

& Stratton expanded the range to include 16-, 18- and 20 hp (gross)* models with optional rewind start. This accommodates the growing commercial, wide-area walk-behind mower market.

The Commercial Series lineup now includes 9 models with

displacements of 656 cm³, 724 cm³, or 810 cm³. The 656 cm³ and 724 cm³ engines are available for propane conversion through Propane Power Systems.

Source: Briggs & Stratton

*All power levels are stated as gross horsepower at 3,600 rpm per SAE J1940

Appointments

Arjun Mirdha has been appointed to the position of Genie chief commercial officer for Terex Aerial Work Platforms (AWP). In this newly created role, Mr. Mirdha will have global responsibility for all aspects of the commercial side of the Terex AWP business for the Genie® brand, including sales; commercial operations; marketing; parts; services and lifecycle solutions. He will be based in Redmond, Washington, and assumes the role effective immediately.



"The Genie brand has a leading reputation and position in the global marketplace, and in this new role, Arjun's goal will be to grow our organization and opportunities in all the industries we serve," says Matt Fearon, Genie president, Terex AWP. "As chief commercial officer, Arjun will have an immediate focus on addressing our customers' needs, including implementing unified solutions that expand on our commitment to be easier to do business with. His experience in the industry will play a vital role in developing deeper customer relationships and improving our commercial operations capability worldwide."

Before joining Terex AWP, Arjun Mirdha spent 21 years at JCB, most recently as president and CEO of the company's North America business. He has extensive work experience in Europe, Asia and the U.S. Mr. Mirdha previously served as a board member of the Association of Equipment Manufacturing (AEM).

Source: Terex Corporation

Acrow Bridge, a leading international bridge engineering and supply company, recently announced that Mark Joosten has been named president over the Acrow group, in addition to his ongoing role as CEO. At the same time, Paul Sullivan has been named senior vice president – International. The changes were announced by Acrow CEO Bill Killeen. Mr. Joosten will be based in the company's Parsippany, New Jersey, headquarters and Mr. Sullivan in Acrow's International headquarters in New York City, New York.

"Mark and Paul are exceptional leaders who, together, have more than 3 decades as members of the Acrow management team," said Mr. Killeen. "Working with them in their new roles, I am confident that Acrow is well positioned for continued growth in both domestic and international markets. As always, we are committed to meeting the bridge and transportation infrastructure needs of government agencies and contractors in more than 80 countries around the world."

Mark Joosten began his career in 1990 as a project manager and was most recently executive vice president, in addition to his ongoing role as COO. He earned a Bachelor of Science (B.Sc.) degree from Fairleigh Dickenson University and is a member of the American Welding Society and the nonprofit technical organization Heavy Movable Structures Inc. In addition to his

experience with bridge structures and shoring on the global stage, he has demonstrated a specialty in emergency response for bridge failures such as those experienced after Hurricane Ivan in Florida, Hurricane Katrina in Louisiana and after an earthquake in Concepcion, Chile devastated the road infrastructure.

Paul Sullivan has successfully led Acrow's international business expansion, most recently as vice president of International Business Development. Before joining Acrow in 2007, Mr. Sullivan practiced as a corporate attorney in the U.S. and Latin America. He earned his Juris Doctor (J.D.) from Duquesne University and his Masters of Legal Letters (LL.M.) from King's College London, with a specialization of finance and foreign investment in emerging economies. He also served as a Judicial Clerk for the Supreme Court of Ireland. He is a frequent speaker at international development conferences and has served on a number of international trade committees.

Acrow Bridge has been serving the transportation and construction industries for more than 60 years with a full line of modular steel bridging solutions for vehicle, rail, military and pedestrian use. Acrow's extensive international presence includes its leadership in the development and implementation of bridge infrastructure projects in over 80 countries, covering Africa, Asia, the Americas, Europe and the Middle East.

Source: Acrow Bridge

Steve Lalonde, general manager of J.R. Brisson Equipment is pleased to announce the appointment of Dave Garneau as machine sales representative; and David VanMoorsel as parts, yard and building manager.

Dave Garneau will be responsible for the development of the western territory of Ottawa, more precisely the counties of Fontenac, Lanark, Leed & Greenville, Renfrew, Lennox & Addington. Mr. Garneau has a wide range of technician and sales representative experience in the heavy equipment industry. His expertise and professionalism are great assets for the company.

David VanMoorsel will be in charge of the parts development for the Ottawa and Vars locations. Mr. VanMoorsel's great experience as Parts manager in a machinery dealership as well as a Parts and Service Sales manager for

Dave Garneau



Case New Holland (CNH) will contribute to enhance the development of the parts department.

The whole J.R. Brisson Equipment team welcomes them and wishes great success!

Source: J.R. Brisson Equipment



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Agenda

December 4 - 6, 2017 Montreal, QC Canada

Power-Gen International

December 5 - 7, 2017 Las Vegas, NV USA

Landscape Ontario's Congress '18

January 9 - 11, 2018 Toronto, ON Canada

InfraTech

January 10 - 12, 2018 Essen, Germany

World of Concrete

January 23 - 26, 2018 Las Vegas, Nevada USA

bautec 2018 - International Trade Fair for Building and Construction Technology

February 20 - 23, 2018 Berlin, Germany

PDAC 2018 International Convention

March 4 - 7, 2018 Toronto, ON Canada

World of Asphalt 2018

March 6 - 8, 2018 Houston, TX USA

The Work Truck Show 2018

March 6 - 9, 2018 Indianapolis, IN USA

BAUMA CONEXPO AFRICA

March 13 - 16, 2018 Johannesburg, South Africa

Atlantic Heavy Equipment Show

April 5 - 6, 2018 Moncton, NB Canada

INTERMAT Paris

April 23 - 28, 2018 Paris, France

Expo Grands Travaux

April 27 - 28, 2018 Montreal, QC Canada

IFAT Munich

May 14 - 18, 2018 Munich, Germany

bauma CTT RUSSIA 2018

June 5 - 8, 2018 Moscow, Russia

AORS Municipal Trade Show

June 6 - 7, 2018 Belleville, ON Canada

Hillhead 2018

June 26 - 28, 2018 Buxton, England

The 11th annual WSI conference and expo

October 3 - 5, 2018 Las Vegas, NV USA

MATEXPO 2019

September 11 - 15, 2019 Courtray, Belgium

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