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A Brief Word...

Here it is Autumn upon us, Thanksgiving leftovers still haunting your lunch box?

Like March, October is a pivotal month with a looming change in conditions that affects your plans and messes up schedules. The surge to complete weather sensitive jobs, and the rush to prepare for winter commitments.

It is a time of year that highlights the deficiencies in preparedness. The calm of summer catches up on all fronts. Not just on-site but throughout most organizations. How many new trucks were ordered late putting pressure on fitting winter kit in time to be operational when the season starts? What other minor details have morphed into monsters in the time they have been left unaddressed.

Juggling priorities can be like guessing what is in your Trick or Treat bag after Halloween. Just like sorting out the sweet treats, you can have too much of a good thing, or a bad thing if it comes to it. Dealing with the details when they are fresh should avoid frustration and disappointment by everyone.

InfraStructures is an instrument you can use to inform you about emergent technology or techniques before your problem becomes a goblin. Call it your "Treat or Treat" tool.

The days are growing short so don't get caught short. Plan, prepare and pre-empt and the long cold winter nights won't be full of nightmares.

Pumpkin pie anyone?



On the cover:

the CityCat 2020ev from Bucher is the first electric compact sweeper of the 2 m³ category.

With an 8 hour range, zero-emission and a low noise level, it can be used at all time, day or night. The machine is ideal for historic neighborhoods such as Old Montreal, Quebec.

MCCLOSKEY INTERNATIONAL ACQUIRES LIPPMANN – MILWAUKEE

McCloskey International recently announced that it has acquired Lippmann-Milwaukee Inc., a privately-held international company that is a leading manufacturer of aggregate crushing equipment for processing applications. The products are sold across the aggregate, mining and recycling industries.

Headquartered in Milwaukee, Wisconsin,

Lippmann was established in 1923 and has dedicated itself to producing the highest quality crushing equipment on the market. Since its inception, Lippmann has become synonymous with highly productive and reliable heavy-duty jaw crushers that are built to last. McCloskey's complementary product offerings, including portable and mobile crushers, will allow market expansion for both companies, serving a broader base of customers worldwide.



McCloskey International has a dealer network that spans the globe, bringing the power of this distribution channel to the Lippmann product line. Both companies will be positioned for growth across customer bases, markets and geographies with the new entity.

"Lippman's reputation for quality is legendary," said Paschal McCloskey, president and CEO of McCloskey International. "We are excited at the opportunity to leverage the best practices of both companies while aligning the organization and operation for a customer driven model. Our success in the market has been built on quality products, along with dedicated employees. Looking at the similar values and culture between McCloskey and Lippmann, it's an excellent fit."

Headquarters for Lippmann will remain in Milwaukee, Wisconsin.

Source: McCloskey International Limited

TOPCON ANNOUNCES ACQUISITION OF THUNDERBUILD

Topcon Positioning Group announces the complete acquisition of ThunderBuild BV Group, expanding the portfolio of Topcon paving solutions. Based in Eindhoven, the Netherlands, ThunderBuild develops software related to logistics management with a primary focus in the asphalt market, as well as additional applications that pertain to the transport of bulk materials.

"We are very excited to add the depth of knowledge that ThunderBuild has developed in SaaS (software as a service) applications that can be incorporated with Topcon hardware to develop new and more advanced systems for the paving market," said Ewout Korpershoek, Topcon executive vice president for mergers and acquisitions. "The powerful ThunderBuild asphalt logistics software will be integrated with Topcon sensor data to provide end-toend visibility into the paving process."

"This acquisition allows Topcon to create asphalt paving solutions that will ensure time and cost savings for contractors as well as increase overall job quality. The ThunderBuild cloud-based system ties planning, logistics and resource data to paving jobs that can be accessed with desktop, smartphone and tablet interfaces," said Murray Lodge, senior vice president and general manager of the Topcon Positioning Group Construction Business Unit. "With access to information such as material quantities on the fly, overages or potential paver stoppages can be addressed quickly and before problems arise."

"ThunderBuild's goal has always been to create the best tools that help improve recurring processes, making them more efficient and sustainable. Enabling our clients and users to achieve better results and create more value. The entire team is excited to be part of and leverage Topcon's network and expertise to develop and deliver the best, futureproof tools and technology for the paving industry," added Diederik Mutsaerts, founder and CEO of the ThunderBuild Group.

Source: Topcon Positioning Group

SOMMERS GENERATORS TO EXPAND REGIONAL HEADQUARTERS IN DIEPPE, NB

Sommers Generator Systems, a leading manufacturer and distributor of premium quality generator systems, has announced plans to relocate its Atlantic Canada regional headquarters to larger premises.

Back in 2012, Sommers, based in Tavistock, Ontario, moved their Atlantic Canada offices and warehouse to the Moncton/ Dieppe region.

According to Chris McGregor, president of Sommers Generators, the expansion reflects the growing needs of customers in the Maritime region.

"The larger space on Ferdinand St. will allow us to expand our inventory of rental systems and give customers immediate access to in-stock inventory including generators, transfer switches and parts. In addition, the extra space allowed us to increase our mobile load bank capacity and ability to do more in house repairs," he explained. "We're also pleased that the new site will let us provide more welcoming offices to meet with customers to discuss and develop their needs for custom power solutions and a large showroom to display products."

Mr. McGregor notes that relocating within the Dieppe area was high priority in his search for new facilities.

"We have an outstanding staff in our Dieppe office," he says. "It's important to us to continue supporting their knowledge

Looking for a supplier's website? Visit **WWW.infrastructures.com** of Sommers equipment and of our customers in the region."

Source: Sommers Generator Systems

SIEMENS AND MORTENSON COMPLETE BIPOLE III HVDC CONVERTER STATIONS IN MANITOBA

The consortium of Siemens and Mortenson has successfully completed the ±500 kV Bipole III high-voltage directcurrent (HVDC) power converter stations for Manitoba Hydro. The HVDC converter stations are an integral part of the Manitoba Hydro Bipole III transmission project. The entire transmission line will act as an "electricity highway", bolstering the reliability of Manitoba's electricity supply by reducing dependence on existing HVDC transmission lines and converter stations, while also ensuring low-loss transport of renewable hydropower from northern generating stations to meet growing energy requirements. HVDC converter stations are specialized substations that support the conversion of electric power from high voltage alternating current (AC) to

high-voltage direct current (HVDC), or vice versa, a critical component to interconnecting separate power systems.

The Bipole III converter stations include the Keewatinohk Converter Station in Northern Manitoba near Hudson Bay, and the Riel Converter Station near Winnipeg in the southern region of the province. The converter stations have a transmission capacity of 2,000 MW - enough to meet over 40% of the province's peak electricity demand. HVDC transmission is the ideal technology to implement when electricity must be transported over vast distances from remote areas where it is produced to urban and industrial centers where it is needed, as HVDC transmission suffers much lower electricity losses than standard AC transmission.

"Siemens is a global leader in HVDC technology as Mortenson is in construction. With this combination of expertise and a joint effort within our organizations and Manitoba Hydro, we were able to complete this critical and challenging project on time and on budget," said Faisal Kazi,



president and CEO, Siemens Canada.

"We tailored the system to the specific requirements of Manitoba Hydro – including designing the solution and equipment for Canadian winter temperatures as low as -50°C," adds Hauke Juergensen, head of Large Transmission Solutions at Siemens Energy Management.

The Siemens and Mortenson consortium was responsible for the turnkey supply of the HVDC converter equipment and associated facilities, with Siemens delivering the system design and the manufacturing, supply and commissioning of the core HVDC technology while Mortenson provided design support and construction services for the supporting infrastructure, including converter station building, AC filters, and DC switchyards. The remote location of the Keewatinohk Converter Station, and the extreme winter weather conditions present at both sites provided interesting logistics and construction challenges for the team.

"The successful delivery of Bipole III required synergy between our customer Manitoba Hydro and the consortium of Siemens and Mortenson, a mutual respect for each other's expertise and a laser focus on the project goals and deliverables," said Mark Donahue, vice president and general manager at Mortenson. "The project management and construction experience we amassed through our years as a General Contractor and an EPC partner were fundamental to the project's success."

Siemens has commissioned more than

Takeuchi Announces SMS Equipment as Dealer Serving Canada and Alaska



Takeuchi-US has announced SMS Equipment Inc. as a new dealer. Headquartered in Acheson, Alberta, the dealer has over 35 locations across Canada and one in Anchorage, Alaska to support Takeuchi. They will carry the full lineup of Takeuchi products, including excavators, skid steer loaders, track loaders and wheel loaders, in addition to stocking parts and performing equipment repair.

Established in 2008, SMS Equipment partners with world-renowned brands, providing equipment sales and services to the utility, construction, forestry and mining industries. The dealer promotes advanced equipment technologies that result in cleaner, more efficient ways to build communities, create infrastructure and develop resources.

"We have been in the Canadian market for a long time, and now with this new partnership with SMS Equipment we can continue to expand our brand in Canada and Alaska, and look forward to the opportunities that come with it," said Todd Granger, director of sales at Takeuchi-US. "The customer service at SMS Equipment is top-notch, and we have no doubt they will do a great job selling and renting Takeuchi machines."

"We are pleased to sell and support Takeuchi's line of compact equipment through our branches in Canada and Alaska," said Mike Granger, president and CEO of SMS Equipment. "Takeuchi provides solutions in the compact market that are highly customizable for construction and utility applications."

Source: Takeuchi

50 HVDC systems worldwide since the 1960s and conducted continuous research into the further development of the technology. In 2010 Siemens implemented the first project in the world using multilevel technology. This extremely networkfriendly and compact technology features additional closed-loop and open-loop control functions of the kind familiar from power plants. Siemens recently launched another innovation on the market with the so-called full-bridge technology, which allows operation with overhead power lines as well as underground cable connections and permits to clarify 98% of all faults without interrupting operation. In Europe alone, Siemens is currently implementing 7 HVDC projects. Another 6 HVDC links and 4 offshore grid connections using Siemens direct-current technology are already connected to the grid - combined these projects have a transmission capacity of more than 8,000 MW. That is 8 times as much as a reactor block in a nuclear power plant generates on average.

Source: Siemens Canada

CUMMINS ANNOUNCES TECHNOLOGIES THAT CAN HELP PREVENT DOWNTIME AND DELIVER SIGNIFICANT COST SAVINGS

Cummins Inc. recently announced that the company is offering its Data-Enabled Mining Solution (DEMS) plus Fleetguard Filtration Intelligence Technology (FleetguardFIT[™]) free-of-charge for 12 months on all new QSK50, QSK60 and QSK78 Tier 4 solutions operating in the U.S. and Canada. Through this program, Cummins will deliver its most advanced and connected diesel engines to the mining industry.

DEMS has proven to be a significant benefit to customers. For one mining customer, Cummins was able to reduce annual unplanned downtime costs by over US\$110,000 (\$145,000) per truck, and the early issue detection logic used in DEMS prevented progressive damage expenses by another US\$100,000 (\$131,000) per truck per year.

"These advancements are another step in Cummins' commitment to deliver solutions that help miners lower their cost of production," said Zach Gillen, executive director – Mining, Cummins Inc. "We have invested more than a half billion dollars developing a full lineup of Tier 4 industrial solutions and we are thrilled with the performance. Miners are relentlessly pursing lower cost per ton, and we are confident DEMS and FleetguardFIT[™] will deliver significant value, which is why we are making this available at no cost now. Cummins is committed to delivering new technologies that help our customers be as successful as possible."

By combining advanced hardware sensors and expert analytics, DEMS allows Cummins to monitor engine system performance and deliver accurate, realtime operating information. In addition, experts at Cummins Care facilities around the globe analyze the real-time data and provide proactive recommendations that enhance equipment productivity and reduce downtime and maintenance costs.

Miners taking advantage of this program will also have visibility into filter life and oil quality. FleetguardFIT[™] is a first-of-kind solution designed for Fleetguard filters. It includes pressure sensors for fuel, lube, air filters and a fluid property sensor that monitors oil quality. Intelligent sensing and advanced data analytics allow Cummins experts to offer site-specific recommendations to optimize filter and oil service intervals.

Source: Cummins Inc.

GROUNDBREAKING FOR CLARIANT'S SUNLIQUID® CELLULOSIC ETHANOL PLANT IN ROMANIA

Clariant recently started construction of the first large-scale commercial sunliquid plant for the production of cellulosic ethanol made from agricultural residues. At the flagship facility, the sunliquid technology developed by the company is being used on an industrial scale for the first time. The occasion was marked with a traditional groundbreaking ceremony in Podari near Craiova in southwestern Romania, which was attended by official representatives of the Romanian government, the Swiss Ambassador Urs Herren, and a Clariant representation headed by Christian Kohlpaintner, member of the Executive Committee.

"After more than a decade of research and development, Clariant is investing more than €100 million (\$152 million) in its first sunliquid plant. This technology is pioneering not only in Europe but also globally. Furthermore, in cooperation with European and national institutions, Clariant supports the industrial conversion of a region with this significant investment," said Mr. Kohlpaintner.

The realization of the plant represents the biggest industrial commitment by an international corporation in this regioni. At full capacity, the plant will process around 250 000 t of wheat and other cereal straw sourced from local farmers to 50 000 t of cellulosic ethanol annually. By-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. The resulting cellulosic ethanol is therefore an advanced biofuel that is practically carbon-neutral.

The plant testifies to the competitive viability and sustainability of the sunliquid technology on an industrial scale, and at the same time fulfills an important function as a reference facility for the worldwide marketing of sunliquid licenses.

The decision in favor of Craiova was due partly to the existence of a secure regional supply of feedstock and partly to the region's existing logistic and industrial infrastructure. Construction of the plant will provide a whole range of benefits for the surrounding region of Craiova.

It will allow local farmers to industrially market straw for the first time, which was previously practically unutilized agricultural residue. During the construction phase of the new plant, several hundred construction workers will be employed from locally based companies wherever possible.

After completion, the plant is expected to provide around 300 permanent jobs in supporting industries serving the site, and in the transportation and storage of the feedstock. The plant itself will employ a workforce of between 100 and 120. Clariant plans to recruit its workforce locally, and provide training both in its own laboratories in Planegg near Munich and at the pre-commercial sunliquid plant in Straubing, Bavaria.

Source: Clariant

SNC-LAVALIN AND ABB ANNOUNCE FOR-MATION OF LINXON, A JV COMPANY

SNC-Lavalin and ABB recently announced the formation of Linxon, a new joint-venture (JV), for the execution of

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turnkey electrical AC substation projects. The transaction was announced in December 2017 and Linxon commenced operations on September 1, 2018, with SNC-Lavalin having a majority and controlling interest in the JV.

Linxon will undertake turnkey electrical alternating current substation projects related to renewable and conventional power generation, power transmission and transportation solutions. Turnkey solutions will include project design, engineering, procurement, construction, management, commissioning and after-sales support. Linxon will have an opening order backlog of US\$340 million (\$440 million).

Frédéric Tréfois, currently responsible for Engineering, Procure-



ment, Construction (EPC) solutions within ABB's Grid Integration business has been appointed as the CEO of Linxon.

"Linxon will combine ABB's technology leadership with SNC-Lavalin's expertise in managing infrastructure projects to deliver enhanced customer value," said Claudio Facchin, president of ABB's Power Grids division. "This joint venture will help capture new business opportunities for both companies and reinforces our strategy of forging new alliances and business models, as part of the ABB Power Grids 'Power Up' transformation program."

Source: ABB Ltd

UNITED RENTALS TO ACQUIRE BLUELINE RENTAL

United Rentals, Inc. recently announced that they have entered into a definitive agreement under which United Rentals will acquire BlueLine from Platinum Equity for approximately US\$2.1 billion (\$2.7 billion). The transaction is expected to close in the 4th quarter of 2018. The purchase will increase capacity in metropolitan areas, and add to United's customer base.

BlueLine is one of the 10 largest equipment rental companies in North America, serving over 50,000 customers in the construction and industrial sectors with a focus on mid-sized and local accounts. The company has 114 locations in the U.S. and Canada.

"The acquisition of BlueLine meets all of our criteria for long-term, profitable growth at attractive returns," said Michael Kneeland, CEO, United Rentals. "We're executing our strategy of 'growing the core' in a strong demand environment to drive superior value for our customers and shareholders. Our company will be going to market with more talent, capacity and customer diversification than ever before."

United Rentals plans to pause its current share repurchase program upon closing the BlueLine acquisition to integrate the operations and assess other potential uses of capital. This is consistent with the company's approach during the integrations of NES Rentals and Neff Rental in 2017.

Source: United Rentals, Inc.

U.S. DEPARTMENT OF LABOR CITES 5 CONTRACTORS FOR SAFETY VIOLATIONS FOLLOWING FLORIDA PEDESTRIAN BRIDGE COLLAPSE

The U.S. Department of Labor's Occupational Safety and Health Administration (OSHA) on September 14, 2018, cited multiple contractors for safety violations after one employee suffered fatal injuries and 5 other employees sustained serious injuries when a pedestrian bridge at the Florida International University campus in Miami collapsed. The 5 companies collectively received 7 violations, totaling US\$86,658 (\$112,000) in proposed penalties.

OSHA's investigation determined that the companies failed to protect workers when indications of a potential bridge collapse were evident. Violations included exposing employees to crushing and fall hazards; and allowing multiple employees to connect to an improperly installed lifeline.

Under the Occupational Safety and Health Act of 1970, employers are responsible for providing safe and healthful workplaces for their employees.

Source: U.S. Department of Labor's Occupational Safety and Health Administration (OSHA)

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Toter Launches Redesigned Plastic Front-End Loader Line

Toter[®], a Wastequip[®] brand, has recently redesigned its front end loader (FEL) product line to reflect growing industry demand for heavy-duty, user-friendly alternatives to steel loaders. Adding to the revamped lineup of 1.5, 2.3 and 3.0 m³ containers, Toter has introduced a new 0.76 m³ size.

The new Toter FEL line offers the toughness and strength of steel FELs without the noise, corrosion or added weight. Features include steel rod reinforcement, ribbed bottom wear chimes for enhanced durability, double-walled lift pockets to distribute weight for maximum pocket strength and integrated bumpers to protect the container.

While plastic containers require virtually no maintenance, with no floors to replace or bottom channels to repair, the new models also feature quick change caster brackets and replaceable lift pockets. These pockets ensure that maintenance can be performed quickly and easily in the field with nuts and bolts, increasing uptime and



decreasing labor costs.

Manufactured with up to 50% recycled content and with ample space for custom marking or signage, the new FELs are also designed with a sealed rim to contain odors and eliminate leaks.

Load rated for up to 340 kg, the new FELs are available with or without casters and are perfect for facilities where space is limited and ease of use is critical. Less bulky and more easily maneuverable, the new 0.76 m³ size will save time and money while enhancing workplace safety. They are also fully stackable, even when assembled, to save storage space.

A Wastequip brand, Toter is the leading manufacturer of curbside refuse and recycling carts to waste haulers and municipalities throughout North America.

Source: Wastequip, LLC



SENNEBOGEN 870 E at SAUER Bau in Munich

Precision and agility is required for the demolition of buildings and industrial plants. The experts of the SAUER Bau und Projektentwicklung GmbH demolition specialists know this and as a result have decided upon the new SENNEBOGEN 870 E Long-Front Demolition Material Handler – a machine which, with a reach height of 33 m at 4 t load leaves little to be desired.

The first use of the machine was also highly symbolic, with the former CSU Party Headquarters in Munich's Nymphenburgerstraße giving way for a new building. Right in the tightly-packed inner-city zone, sure instincts are needed if a building is to be demolished piece by piece. In this case the hydraulic handler has considerable advantages over other dynamic demolition designs such as, for example, wrecking balls. Above all, in built-up areas buildings can be demolished without any vibrations. The machine can capture individual facade elements and entire building structures



with pinpoint precision using the demolition shears or grab and bring the parts safely to the ground. At the same time, the demolition material handler can also reduce and load the material on site. The driver has a perfect view of his working from the cab, which can be inclined by 30° and elevated 2.70 m, and additional cameras. In total the SENNEBOGEN 870 E, with its tripartite demolition equipment, gives a reach height of 33 m and a reach width of up to 20 m with comfortable load capacities up to 4 t.

"Delicate and precise work, as is often required in demolition, particularly if, as is the case here, it has to be carried out in extremely tight inner-city areas. Thanks to the cab that can be elevated and inclined, and with the help of several surrounding cameras, I always have my work site in view," said Heiko Striemke, machine operator at SAUER Bau und Projektentwicklung GmbH

Source: SENNEBOGEN

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Olofsfors Optimizes Quality, Sustainability and Production with Steel from SSAB

Olofsfors, a Swedish manufacturer of steel products for the forestry and construction industries, has reduced its material usage, optimized its production process and developed a lighter, more fuel-efficient product. How? By moving its production in house and switching to SSAB Boron 27 steel.

"We have transitioned from using premanufactured parts to buying steel that we press and manufacture in house," explains Maria Ragnarsson, Olofsfors' head of Purchasing and Logistics. "Now that we control our production process, we're generating less waste and making a more sustainable product."

In 2008, Olofsfors opted to bring the production process for its ECO-Tracks for forestry machines in house. In the search for a supplier to provide the steel for the side supports on the tracks, it chose SSAB Boron 27 steel.

"Quality is one of our top priorities,"

says Ms. Ragnarsson. "If we want to produce the right quality, the material we use has to meet the required quality standards.

"We chose steel from SSAB because it maintains a high, consistent level of guality and because SSAB is a sustainably-minded company that is also a relatively local supplier to us here in Northern Sweden," she continues.

In addition to optimizing fuel consumption as a result of the lightweight properties of SSAB's steel, the switch to SSAB Boron 27 has resulted in less material use. less waste and improved sustainability for Olofsfors.

"The material waste percentage from cut steel can be as high as 50%, but, with SSAB's steel, we've reduced that number significantly. Our material use is down too. We make some 400,000 side supports a year and, for each one, we're saving



between 0.5 and 1 kg of steel. So we're heating less steel and wasting less steel," says Olofsfors' Strategic Product developer, Mats Frangén.

"SSAB is committed to reducing its long-term climate impact and that's something we value when choosing our suppliers. With SSAB, we use and transport less material, all of which has a positive impact on our carbon emissions," concludes Maria Ragnarsson.

Source: SSAB

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Fuelling Electric Cars with Electricity from Wood Gasifiers

The German Federal Ministry of Economics and Energy regards electro mobility as the "Key to climate-friendly mobility" worldwide – especially if the required electricity is generated using renewable energy sources. The number of electric cars in Germany is rising continuously – albeit currently still below expectations. Nevertheless, there is a noticeable change in mobility that renowned car manufacturers have been experiencing for years.

Spanner Re² GmbH has been committed to renewable energies for over 10 years. The Lower Bavarian plant manufacturer develops and sells wood-based combined heat and power plants.



These generate electricity and heat from CO₂-neutral wood chips, pellets or briquettes. There are over 700 Re² wood-fired power plants in operation worldwide.

"Our technology has proven itself with over 20,000,000 operating hours and delivers energy reliably and independently, regardless of the weather," reports Thomas Bleul, managing director of Spanner Re² GmbH.

The electricity produced by the wood-fired power plants can be fed into the public grid for a fee. It can also be used for the supplying the power for electric vehicles. The heat can be used for heating buildings, providing hot water, in local heating networks or for wood or wood-fired heating systems and grain drying.

"Many of our customers would like their homes and vehicles to be energy self-sufficient, without the use of fossil raw materials. We supply them with environmentally-friendly technology, which they use to turn their own wood into an electricity and heat for their home and electric vehicles," explains Mr. Bleul.

Around 25 m³ of dry wood chips are sufficient to supply an electric car with electricity each year calculated at 30,000 km driven and a consumption of 20 kWh/100 km. This allows a newly registered conventional car with an average of 130 g CO₂/km to save about 3.5 t of CO₂ equivalent annually. With approximatively 9.1 t of CO₂-equivalent generated each year per capita in Germany, this corresponds to a reduction in CO₂ emissions of around 40%.

Source: Spanner Re² GmbH

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Volvo Pushes Load Assist Real-Time Onboard Weighing Accuracy to ±1%

Volvo Construction Equipment has updated the Load Assist application for its L110H to L260H front end loaders and, together with a new version of the Android platform, operators will now get real-time information on every bucket's load within $\pm 1\%$ accuracy.

"Load Assist, On-Board Weighing gives operations a level of accuracy that will improve their efficiency and productivity even more, helping to reduce over-loading, under-loading, reweighing and waiting times," said Eric Yeomans, product manager, wheel loaders, Volvo Construction Equipment. "Additionally, our system is dynamic, meaning wheel loader operators can weigh their loads on the move."

REAL-TIME INFORMATION

An operator accesses the real-time information by utilizing the on-board Volvo Co-Pilot display. This 10", high resolution touchscreen works in conjunction with the



On-Board Weighing app, which captures all load data via pressure and position sensors. While in operation, the operator can monitor the loading progress in real-time. The dynamic system measures the bucket load on-the-go to eliminate any disruption in workflow. Colored bars help the operator visualize the tonnage currently in the loader's bucket, tonnage already delivered, and tonnage that still needs to be delivered, while icons offer insight into why the weight is not locked properly.

In addition to the $\pm 1\%$ payload accuracy, there are a number of other updates in this version that include:

- New interface simplifying daily calibration, with step-by-step guidance;
- New view selector letting operators see load data and the rear-view camera at the same time;
- A-Z sorting function to make organizing lists such as work orders, customers and

Cat[®] GSH420/GSH520 Grapples Feature Design Refinements for Effectively Handle Bulk Materials

The new Cat[®] GSH420 and GSH520 orange-peel grapples, replacing the GSH15B Series grapples, are designed for a wide range of applications, including handling shredded scrap, such as long structural beams and car bodies; handling rocks at construction sites; and waste at recycling



and transfer stations. The performance and efficiency of the new Cat grapples help waste-handling operations, in particular, meet the challenges of increased environmental regulation, growing pressure to recycle a mix of materials, and stringent budgets.

The new grapples feature horizontal placement of the cylinders, thus creating a profile that allows for effective material penetration and efficient bulk-material handling. The design enhances the strength, reliability, and durability of the new grapples, which are available in 4-tine and 5-tine shell configurations and in closed or semi-open versions. In addition, the GSH420 and GSH520 feature a redesigned rotation system. The new grapples are designed to

work with the Cat MH3022, MH3024, and MH3026 material handlers.

The design of the GSH Series grapples features construction of high-grade, impact-resistant steel that protects vulnerable areas, such as hydraulic cylinders. For



added durability, high-quality bushings with lubrication grooves and hardened pins are used in all pivot points. Tines are configured with replaceable cast tips made from BHN 445-555 material that resists wear. targets easier;

 Can display payload in pounds

in addition to tons; and

New Android tethering function, allowing remote software downloads.

OPERATIONS MANAGEMENT

Using Volvo Co-Pilot, the system will feed information to the CareTrack® telematics system, giving remote access to the machine's data and performance to the manager who can then determine areas of opportunity to improve productivity and lower costs.

Source Volvo Construction Equipment

In addition, solid hinge-point construction and robust end-stops ensure long service life, and routing hydraulic hoses within the tines reduces hose wear. All mounting brackets has a solid pin to keep the bracket in an upright position for ease of installation. Also, the new GSH grapples feature a standard lifting eye on the bottom of the housing for expanded versatility, such as mounting a magnet.

The new HR10 rotation group, featuring a new swivel, significantly reduces hydraulic restriction by increasing returnflow capacity by 160% and by increasing open-flow capacity by 30%. Less restriction results in faster cycles and lower fuel burn.

Caterpillar supports its work tools with a comprehensive range of pre- and after-sales services, including advice about selection, operator training, equipment management, and a range of financial and insurance products.

Source: Caterpillar

Selecting the Right Magnet

Selecting the magnet matched to maximize your crane's lifting capacity is critical to the safety, efficiency and productivity of your operation. Mark Volansky, Winkle's director of sales has answers to the most frequently asked questions.

- How do I properly and safely size a magnet to optimize the capabilities of my crane?

Using the lift charts for your crane, determine the lift capacity when the boom is fully extended over the side at ground level. Then subtract the weight of the magnet as well as the maximum weight of the material (scrap) you are lifting. If the combined weight is less than the crane capacity, you will be operating safely.

– How do I properly size a magnet to a controller/generator?

If the cold amps of your magnet are less than the cold amp rating of your controller, you are sized correctly and safely.

For your generator, multiply the volts x cold amps and you will get a kW rating. This number must be below the kW rating of your generator.

- What is DUTY CYCLE and how does it affect the performance of my magnet?

Duty cycle is simply time on vs. time off. Duty cycle is generally measured in 10 minute intervals, so for a 50% duty cycle magnet, every 5 minutes the magnet is operating it should be off for 5 minutes.

For a 75% duty cycle magnet, the magnet can be operated approximately 7 minutes out of every 10.

Exceeding the duty cycle will have a negative impact on the productivity and life of the magnet.

– What are the main causes of magnet failures and are there tests that I can run to determine its electrical condition?

The main causes of magnet failures are heat and abuse. These 2 items can have a domino effect and cause a magnet to fail prematurely. Any time a magnet is not allowed to cool and dissipate the heat generated by the coil, it can cause premature magnet failure. Any mechanical abuse may also contribute.

You can test the resistance with an ohm meter and compare with the nameplate data to determine the integrity/condition of the conductor.

Also take a meggar reading to test for grounding between the coil and case.

These 2 field tests will give you a pretty good indication of what is happening inside the magnet.

- Are there any keys to extending magnet life?

There are things that can be done to help extend magnet life.

Two key components are operator training programs to help crane operators understand the consequences of mishandling/abusing a magnet, as well as developing and maintaining a consistent magnet inspection program.

Operators are the front line defense in preventing premature magnet failures, and if they truly understand the potential consequences of mishandling a magnet, as a scrap processor, they can be your best asset in extending service life.

Consistent and systematic inspection programs for magnets are keys in identifying a magnet that is in the early stages of failure.

Source: Winkle Industries





CM Labs Selected by Manitowoc as Training Simulator Partner for Next-Generation Crane Control System

Montreal-based CM Labs recently announced that they have been chosen by Manitowoc Cranes to develop and deliver a series of groundbreaking simulators that showcase Manitowoc's intuitive new Crane Control System (CCS).

Unveiled at Manitowoc's 2018 Crane Days event held June 3-8 in Shady Grove, Pennsylvania, Manitowoc's initial order of CCS-driven Vortex Simulators is intended to help dealers market and educate crane operators on the benefits and capabilities of CCS equipped models. Simulators are already being delivered to Manitowoc clients for operator training, including locals of the International Union of Operating Engineers (IUOE).

Manitowoc's CCS operating platform provides a common human-machine interface across multiple crane product lines. Each CCS unit features the same control layout, with standardized symbols, and is made up of several common components (crane controller, safety controller, small IO (input/output), large IO, joysticks, jog-dial and display).

Manitowoc engaged CM Labs to integrate the new control technology into a simulator, with the goal of allowing dealers and customers to experience and train with the CCS on a true-to-life worksite.

"Our design starts with a relationship with the machine so that the user interface feels very close to the real thing. This was important for Manitowoc so that the end product both looked and acted like their brand," said Drew Carruthers, product line manager for Construction Equipment.

"We selected CM Labs because they are the leader in crane simulation with their top-quality solutions already widely deployed at training organizations." said John Alexander, director of All-Terrain



Crane Service, Mobile Training & Telematics at Manitowoc. "Many of our own clients are already using CM Labs simulators every day."

The simulators not only replicate the functionality and behavior of a 35 t Grove RT540E crane as manufactured by Mani-



towoc, but do so under the control of an actual CCS user interface.

Vortex simulators are powered by Vortex Studio, the high-fidelity physics-based real-time simulation platform that delivers unparalleled realism and immersion. This means that the simulation includes actual on-board crane computers and load moment indicators, different boom configurations, accurate simulation of machine behavior, plus cable physical property simulation for winch line, slings, and load, and multiple rigging options.

As with all Vortex simulators, high quality visuals and sound effects complete the immersive experience. This overarching accuracy ensures skills learned on the simulator will transfer better to the live equipment.

"CM Labs works well with OEMs like Manitowoc because of our ability to leverage authentic OEM control sets and programmable logic controllers and control systems," said Arnold Free, chief commercial officer of CM Labs. "This Manitowoc CCS simulator is an effective way for dealers to easily demonstrate the capabilities of the CCS hardware and for operators to get the expert training they need."

Dealers and operators of Manitowoc Cranes who are interested in purchasing a Vortex Crane Simulator enhanced with CCS to use for customer training can do so through Manitowoc Crane Care.

Source: CM Labs Simulations

Victoria Calgar

MTU Engines from Rolls-Royce for New Hellgeth Timber Harvester

Rolls-Royce and specialist vehicle manufacturer Hellgeth are to collaborate for the first time on the supply of MTU engines for Hellgeth's new timber harvester. The innovative TC 624 tracked vehicle is to be powered by 4-cylinder Series 1000/ OM 934 engines. It is to be used mainly

as a forwarder, taking harvested timber through wooded areas to forest roadways for loading onto trucks. The MTU engines are certified to EU Stage V requirements.

The articulated timber harvester from the German manufacturer is fitted with rubber

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wetland-compatible tracked drives which go particularly easy on the forest floor. The Hellgeth TC 624 has a full-suspension,



adaptable drive system able to spread



loads evenly on uneven terrain and avoid damaging the ground surface, e.g. when driving over roots. The combination of the MTU Series 1000/ OM 934 engine, a powersplit transmission and a full-suspension chassis, enable much higher driving speeds than conventional machines

both on and off-road. The vehicle can reach speeds of up to 40 km/h.

The engines also deliver on Hellgeth's sustainable technology goals. The 4-cylinder Series 1000/ OM 934 achieves 170 kW of power output. The engines are known for their low fuel consumption while delivering high levels of torque, making them highly suitable for use in forested areas. Thanks to its characteristics, the TC 624 is also able to open up poorly accessible areas which remain out of bounds to wheeled vehicles.

The prototype has been tested in continuous operation since August. The vehicle was also showcased at this year's INTERFORST event, the leading international trade fair for forestry and forestry technology held in July, will be brought up-to-date on the very latest innovations in the world of forestry.

Source: Rolls-Royce Power Systems AG

Port Power from Wood Pellets

The journey from tree to power station can be treacherous for the humble wood pellet, but there is a lot riding on the successful delivery of this biomass fuel to power stations across the world.

The cornerstone of the journey of these wood pellets are the ports that import this valuable cargo to be delivered to power stations across the UK. So, what would happen if these ports where to lose mains power supply? That is exactly what happened to a port in the North of England, causing a shortage of biomass fuel for neighboring power stations.

The delivery of fuel has one of the biggest effects on businesses and society. The journey begins in vast working forests in the U.S., where huge masses of wood pellets are loaded onto container ships for a transatlantic journey. When the ships pull into ports in the UK, these wood pellets are removed from the ship's hold and transported onto conveyor belts, before being loaded onto a train.

This process operates like clockwork. In fact, the 4 major biomass fuel ports in Britain process up to 12 million t of biomass every year combined.

From here, the trains carry large loads of pellets to the designated power stations across the country. Once at the final destination, conveyor belts carry these wood pellets from rail storage domes and into the furnace. The pellets are then combusted, which boils water to create steam that turns a generator,



and "hey presto, we have power".

Power stations rely on this seamless transportation process to operate, so it makes sense for a power station to invest in this delivery and distribution infrastructure. Several power stations have done just that, including a large 2017 civil engineering project, which saw a total of £300 million (\$500 million) invested into infrastructure of a well know port in the North-East of England.

The relationship between port and power station is more important than ever before. Ports handle millions of tonnes of fuel, from coal to wood pellets every year. Therefore, if anything were to go wrong at the port, it would have huge knock-on implications for the power station later down the line.

With ambitions for improved energy security, environmental





sustainability and an increase in jobs, it could be argued that it is crucial that the infrastructure of ports, an essential part of the energy supply chain, is reinforced.

Ironically, it is the power supply of ports in Britain that will be a huge factor in this investment. If the port is without power, the conveyors will be down, and power stations could be without fuel. So, what kind of investments and systems are being put in place to prevent this potential cause of downtime?

Most facilities will have some sort of UPS system in place, a back-up power system that uses charged up batteries. However, the duration of autonomous power supply will vary depending on the UPS product.

As part of a larger infrastructure investment, CP Automation recently installed a UPS system at a bustling UK port to improve the duration of its power supply. But first, the company needed to determine the correct UPS system for its site.

Before implementing a new UPS system, the installer has to determine whether the customer needs a single- or 3-phase UPS. This requires examining the loads the UPS will protect and assessing voltage range or kVa value. Generally, loads of 20 kVA or less can safely use a single-phase UPS, whereas larger loads will likely need a 3-phase UPS.

For port conveyor applications like this one, a 3-phase UPS is usually required. The next consideration is whether to use a 3/1 or 3/3 configuration. A 3/1 UPS takes in 3-phase power and outputs a single phase, while a 3/3 takes in 3-phase power and delivers 3-phase to the downstream loads.

In 3-phase systems, the power circuit combines 3 alternating currents that vary in phase by 120°. As a result, the power would never drop to zero, making it possible to carry more load, delivering more pellets to the power plant, more quickly.

Most businesses choose a 3/3 phase UPS, but for an application used to keeping critical equipment in a port up and running, it could be argued that a longer UPS duration is needed.

With this in mind, CP Automation installed a Riello 3/1 phase UPS system at 40 kVa to improve the ports power supply, complete with 80 rechargeable batteries. This provided the port with 1.5 hours of power autonomy during power outage, much longer than it would have been if a 3/3 UPS alternative had been chosen.

The batteries are charged by the rectifier; so that if mains power fails, the UPS uses this energy source to power the inverter. This means the associated power stations waiting on fuel supplies do not feel the effects of unplanned power outages at the port.

CP Automation also installed active harmonic filters at the site to mitigate harmful harmonics at the facility. A total of 6 Comsys ADF P300 Active Filters were fitted to ensure the harmonics from all the variable speed drives (VSDs) on site were eliminated.

With this type of investment, whether by the port itself, or the associated power stations, the power station should see rapid return on investment (ROI) generated by decreased downtime and reduced delivery hold ups.

Source: CP Automation

Spanner Re² Celebrates 10 Years of Biomass CHP Innovation & Experience

Founded in 2004 as the "Renewable Energies" division of the Spanner Group, Spanner Re² manufactured biomass boilers for renowned manufacturers. In 2006 Spanner Re² began to work on the development of a production-ready wood gasifier. The basis for this was provided by Bernd Joos, who had been privately working on a functioning plant for more than 30 years. Two years later, Spanner Re² introduced their first wood gasifier to the market. From then on, the



company continued to develop woodpower-technology.

Together with its customers, Spanner Re² has continuously developed its wood-



power-technology in terms of performance, comfort and efficiency and has established itself as one of the leading manufacturers of wood-based Combined Heat and Power (CHP) plants worldwide. Spanner Re² offers solutions tailored to requirements in a power range from 9 kWel to 2 MWel for almost every area of application.

On the occasion of the anniversary, Spanner Re² offers a limited, turnkey container solution with pre-installed wood gasifier (49 kWel / 111,2 kWth), including fine and coarse sieving in the conveyor unit and an automatic wood chip drying system.

Biomass CHP pays for itself. In Germany, for example, a monthly income of €6,000 (\$9,100) can be achieved with a full feed-in according to the current EEG with an annual running time of the plant of 8,000 hours. The heat income is generated on top of that as well. Using the electricity or heat for your own use is possible at any time. With Spanner Re²'s Jubilee package, a ROI of 3.8 years with 8,000 operating hours per year is consistently achievable. Source: Spanner Re²

UMaine Engineers Unveil, Test Innovative Bridge System

The University of Maine (UMaine) recently unveiled an innovative, rapidly deployable bridge system at the Advanced Structures and Composites Center.

Engineers, Maine Department of Transportation officials, business leaders, investors, researchers, members from Advanced Infrastructure Technologies (UMaine's licensee for the original "Bridge-in-a-Backpack") and staff attended the event, at which a bridge span was strength-tested in the laboratory using computer-controlled hydraulic equipment that simulates the heaviest highway truck loads.

The strength-test was conducted for the first time to prove the design modeling predictions, and demonstrate the bridge system can withstand the truck loading specified in the American Association of State Highway and Transportation Officials (AASHTO) Bridge Design Specifications.

The patent-pending system, developed at the UMaine Composites Center, utilizes composite material girders and precast concrete deck panels to reduce the time and logistics to build a bridge.

The lightweight highway bridge superstructure can be built in 72 hours, a considerable improvement on the time it normally takes to build a bridge.

In addition to significantly reducing construction time and logistics, the new bridge girders are designed to last 100 years, and the precast concrete deck is designed to be easily removed and replaced. The bridge system can be used for highway bridges, pedestrian bridges and military applications. The design is targeted for short- to medium-span bridge applications, up to 24 m unsupported spans.

"Today's bridge test exceeded our expectations. The composite bridge withstood forces equivalent to more than 80 cars stacked on top of each other, and more than 5 times the HL 93 design load specified by AASHTO. The composite bridge girder exceeded twice the collapse strength of steel and concrete girders. Today was truly a remarkable engineering achievement made possible by research sponsored by the U.S. Army Corps of Engineers and the dedication and hard work of University researchers," said Dr. Habib Dagher, executive director of the UMaine Advanced Structures and Composites Center.

"This bridge system takes advantage of the unique properties of both composite materials and precast concrete, and it is designed with construction logistics in mind. The bridge girders weigh only 1-2 t for 12- to 24 m spans, so that they can be erected with locally-sourced common

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rental cranes, making them easy to deploy in most locations.

"The unique girder shape was designed to be nesting and stackable. As a result, 3 to 4 bridges can be transported on a single flatbed. This bridge system continues the University of Maine's commitment to be a world leader in developing advanced, innovative solutions to address our nation's infrastructure challenges. We thank the U.S. Army Corps of Engineers for sponsoring the research work."

"As the commercialization partner of the Center's composite arch bridge system, today's event allowed us to showcase this new technology with potential investors as well as DOT partners and executives. We're ready to go to market," said Brit Svoboda, Chairman and CEO of AIT Bridges.

"We are delighted to see the University of Maine preparing to test yet another important innovation," said U.S. Senators Susan Collins and Angus King in a joint statement about the bridge system test.



"Maine, New England, and our nation need innovative technologies that will accelerate bridge construction, reduce traffic disruptions, increase the lifespan of infrastructure, and decrease costs to the taxpayer. The private sector partners and DOT officials attending the test will help to ensure that such critical technologies are quickly brought to market. As longtime supporters of UMaine R&D, we applaud the University for its continued leadership in transportation and infrastructure innovation." Source: University of Maine

Hyundai Guarding Package for HL960HD Wheel Loader

Hyundai Construction Equipment Americas recently announced the availability of a guarding package for its HL960HD wheel loader.

Developed to protect the machine from jobsite hazards found in various wheel loader applications, the guarding package for the HL960HD wheel loader helps ensure the operational integrity of key systems and components.

Hinged steel front and rear cabin guards protect glass from damage, while enabling quick access to the windows for cleaning and maintenance. A radiator grille guard protects against hazards such as debris, falling objects and collisions with stationary or moving objects, but also provides quick access to the cooling system and engine compartment. Guards for exterior lights, the bucket cylinder, axle seals, attachment hoses, engine belly and front-chassis undercarriage complete the package.

The Hyundai HL960HD wheel loader is a heavy-duty version of the standard HL960 wheel loader. It features as standard equipment a heavy-duty axle configuration plus front and rear axle-oil coolers. The HL960HD is well suited for the tough demands of niche applications such as logging, scrap handling, waste/ refuse, and oil and gas pipe handling, in



addition to traditional applications when extreme working conditions justify the machine's heavy-duty design features.

The HL960HD wheel loader is powered by a Tier 4 final Cummins QSB 6.7 engine, producing 222 hp and 1,070 ft lb of torque at 1,500 rpm. This compares to the tuning of the same engine on the standard HL960 model that delivers 770 ft lb of torque. Equipped with a standard 3.3 m³ bucket, the HL960HD wheel loader has a standard operating weight of 20,000 kg and a rated tipping load of 14,375 kg.

An extended reach version is available, designated as HL960HDXT, featuring longer lift arms that provide approximately 40 cm of additional dump height and reach.

Source: Hyundai Construction Equipment Americas

The Unimog-Club Gaggenau e.V. Celebrates Its 25th Anniversary

There are many stories surrounding the "Universal-Motor-Gerät" – also known as the Unimog – from Mercedes-Benz. From helping to fight forest fires in the South of France, as an expedition vehicle in the vast expanses of the Gobi desert or as a reliable service provider for local authori-

Between 1951 and 2002 over 320,000 Unimog vehicles were produced at the Mercedes-Benz plant in Gaggenau...



ties. There is hardly another commercial vehicle that is as popular as the Unimog and there is no other vehicle that appears in so many different guises. The Unimog-Club Gaggenau e.V. (UCG), which is celebrating its 25th anniversary this year, shows just how much enthusiasm surrounds this 70 yearsold vehicle concept. The Club



was founded around the idea of sharing the fascination with this outstanding automobile in a community. The founding Chairman and initiator of the group, the former head of Communication at the Mercedes-Benz Gaggenau plant, Michael Wessel, initially had in mind to create a regional club for members within 25 km of Gaggenau, but soon the club life was accessible for everyone with many Unimog enthusiasts across national borders to join the association from Gaggenau.

From the small industrial town of Gaggenau, which will celebrate "125 years of automotive construction" in the upcoming year, a network of regional groups with an active club life throughout Germany has been formed over the years. The Unimog-Club Gaggenau e.V. developed into an international association of over 6,600 Unimog and MB-trac friends in 34 countries of the world.

Source: Daimler



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More Safety in London's Construction Traffic

Tarmac, the largest British roadbuilding company, has ordered 25 new Mercedes-Benz Econic 3235 L concrete mixers and tippers for use on London construction sites. To comply with the company's high safety standards, the number of transport companies and owners-operators who work for Tarmac on a contracting basis and are changing over to concrete mixer and dump trucks based on the 4-axle, 32 t, Mercedes-Benz Econic chassis is constantly increasing. As recently as June 2018, Tarmac received the "Tipper Safety Trophy" in the Tip-ex and Tank-ex Awards for the high standard of its tipper (dump truck) safety features.

The Mercedes-Benz Econic is particularly well-known for its safety in road traffic: Its design with the low position of the "DirectVision cab" ensures that the driver is at eye-level with pedestrians and cyclists, and can therefore make eye-contact at any time – a decisive safety feature. A good view of other road users is



also assisted by generously sized windows – including a glazed folding door on the co-driver's side.

Apart from ensuring good visibility of other road users, the low-floor cab scores with outstanding ease of entry. The low entry height reduces the risk of the driver sustaining injuries by slipping during frequent entry and exit in construction site operations. The benchmark highlights of the low-floor cab also include the high, wide-opening driver's door, the large, panoramic glazed areas of the windscreen and side windows and the folding door on the co-driver's side, which is glazed down to floor level.

The truck is offered in North America as the Freightliner EconicSD[™] for the waste collection industry. Source: Daimler



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Morbark Offers New iQ-View[™] Auto-Feed Controller

Morbark, LLC is now offering the iQ-View Smart Controller on its 3.0 I gas engines for the Beever[™] M12R, M12D and M12RX models.

The iQ-View, produced by Industrial Electronic Controls (IEC), is a smart display and controller that presents engine and machine parameters to the operator as well as controls the chipper's auto-feed function. As a display unit, the user can



select 4 parameters to display simultaneously. A second screen can be set to display 4 additional parameters. Either screen can easily be selected for viewing. With the simple push of a button, the chipper operator can select 1 of 3 preset speed settings – for brush, wood or factory setting – plus a custom setting, to maximize machine throughput and productivity, eliminating



cumbersome and complicated speed changes. No computer is required for field configuration.

"We saw the need for operators to have an easier way to adjust the feed for the different types of material they're chipping," said Casey Gross, Morbark director of Tree Care Product sales. "The settings are designed to optimize chipper efficiency, improve output and reduce downtime."

Simple yet extensive on-screen diagnostics allow the user to quickly troubleshoot system issues, minimizing downtime and maximizing productivity on the jobsite. This will also reduce the need and expense for field tech support. The unit also features J1939 CANBUS messaging to alert the user of potential system issues like



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Bucher Municipal CityCat 2020ev

engine overheating, high oil pressure, low battery voltage and other critical operating issues that can affect uptime, performance and equipment life.

"We are very excited to launch this new product enhancement with Morbark. They are really in touch with the user experience, and they understand their customers' needs and challenges," said IEC CEO Joe Benjamin. "Engineering in our iQ-View Smart Controller gives them a significant market advantage."

Additional input/output provides the ability to easily add future functionality to the chipper without adding additional devices. This allows for greater flexibility in incorporating future capabilities and the ability to quickly meet new market demands.

Morbark expects to expand the use of these units to other gas-powered chippers and then to its diesel-powered chippers.

Source: Morbark, LLC

Accessories Machinery Limited has brought a unit of the CityCat 2020ev from Bucher Municipal for a series of demonstration in select Canadian cities. The zero-emission electrically-driven compact sweeper is the first of its kind in the popular 2 m³ class.

Quiet and emissions-free, the CityCat 2020ev is a major boon for ecological and economic sustainability.

A lithium ion battery supplies 56 kWh – enough power for 8 hours of use. Thanks to the strong onboard charger, the battery can be



charged within 2 to 3 hours without any problems on public and private infrastructure. Externally, the CityCat 2020ev has the same dimensions – and the same excellent maneuverability – as the standard CityCat 2020. The operation of the vehicle and brushes is also the same, so drivers can switch from diesel to electric models and feel right at home. Although it offers the same sweeping and suction performance as the diesel variant, its operating noise under 2000/14/EC is a mere 92 dB(A) – a good 10 dB(A) quieter than the average conventional machine with a diesel engine.

Source: Accessories Machinery Limited

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AGF Access Provides Access Solution for Gordie Howe Bridge Power Line Relocation

AGF Access - Windsor, a division of AGF Access Group, Inc., was selected by EHV Power, a Quanta Services company, to supply and install a customized access solution of scaffolding and tarping for relocating power lines as part of the new Gordie Howe International Bridge – a cable-stayed bridge and border crossing across the Detroit River connecting Detroit,



Michigan, and Windsor, Ontario.

The construction of the new bridge requires the dismantling and undergrounding of over 7.5 km of high-transmission voltage power lines. AGF Access' reusable, all-around scaffolding system and tarps allowed workers to build enclosed transformer pods to access the high voltage lines. Six of the 12 power cable termination pods have been completed.

"Scaffolding was the right access choice for this project," said Brian Jean, supervisor, AGF Access - Windsor. "Scaffolding can give you safe access to places you can't get to with lifts and ladders and provides a stable floor to walk on – you don't even notice you are working at height."

> The pods, which were located at various heights from 6 m to 45.7 m, provided a clean, environmentallyenclosed working environment. The temporary scaffolding was anchored to compact 1814 kg blocks tied off with cables to support up to 15 workers at one time. A tarping system allowed EHV Power to work through the harsh Ontario winter, providing a water and snow resistant environment for workers.

"The access solution was very important, yet an easy-to-use option for this massive undertaking," said llario lacoucci, engineering manager, EHV Power. "AGF Access was able to deliver their product and service on time and on schedule. We wouldn't hesitate to use them again."

The new bridge is symbolically named in honor of Canadian ice hockey player



Gordie Howe, who played for most of his career for the Detroit Red Wings. Mr. Howe died on June 10, 2016. The Gordie Howe International Bridge is scheduled to be completed in 2022.

AGF Access - Windsor is one of 25 locations in North America providing the rental, sales and service of access and scaffolding equipment, including Hydro Mobile and Winsafe. The "one-stop shop" rental stores provide access products ranging from scaffolding, mast climbers, scissors lifts, boom lifts and swing stages.

Source: AGF Access Group, Inc.



an electrically powered and completely redeveloped Transporter might change the world of LCVs. This innovative zeroemission panel van could be launched as early as 2021.

The transporter concept was presented at the IAA Commercial Vehicles in Hannover, Germany. It is a sibling of the I.D. BUZZ concept, which was presented in 2017 in Detroit, Michigan.

Both models are members of the I.D. Family – a new generation of fully connected electric vehicles delivering long ranges, a futuristic design-DNA and impressive space. Another key unique selling point of the I.D. Family is the scalability of its batteries. The models can be delivered with different battery sizes according to the vehicle's purpose and budget. The battery is integrated into the vehicle floor, lowering the vehicle's center of gravity and significantly improving handling.

Source: Volkswagen of America, Inc.

NTEA Releases Enhanced Vehicle Certification Resources

NTEA enhanced the Commercial Vehicle Certification Guide and U.S./Canada Federal Lighting Guide to capture the latest regulatory information in the U.S. and Canada.

"NTEA is pleased to share upgraded guides with the work truck industry to help multi-stage manufacturers, upfitters and alterers navigate the vehicle certification process," said Bob Raybuck, NTEA director of technical services. "These resources align with our mission of furthering the knowledge, growth and profitability of the commercial vehicle community."

The 2018 edition of Commercial Vehicle Certification Guide offers a more complete representation of compliance mandates and implications facing work truck industry companies in North America. Content addresses safety certification and labeling requirements vital to conformance with National Highway Traffic Safety Administration and Transport Canada regulations.

"The Commercial Vehicle Certification Guide supports companies in satisfying the complex standards relevant to intermediate and final-stage manufacturers and alterers," said Steve Spata, NTEA technical assistance director. "This is your resource for all aspects of labeling."

New in this edition:

- Section addressing Canadian regulations;
- FMVSS and CMVSS compliance worksheets with updated requirements;
- · Revised U.S./Canada Federal Lighting Guide chart; and
- Improved organization for readability and search functionality.

The U.S./Canada Federal Lighting Guide provides illustrations indicating specific lighting requirements for commercial vehicles.

An online, interactive version is available to NTEA members for free.

NTEA – The Association for the Work Truck Industry represents more than 2,050 companies that manufacture, distribute, install, sell and repair commercial trucks, truck bodies, truck equipment, trailers and accessories.

Source: NTEA

Hiab Launches a Renewed Range of JONSERED Recycling Cranes



At IAA 2018 exhibition, held last September in Hanover, Germany, Hiab, part of Cargotec, launched the upgraded JONSERED recycling crane range for heavy-duty recycling. This is a part of Hiab's long-term strategy, where Hiab bundles its expertise and offering for the Waste Management & Recycling segment. The new range of upgraded JONSERED recycling cranes will be a part of Hiab's comprehensive offering for waste and recycling applications.

The recycling crane range consists of 6 crane models within capacity range of 10 to 16 tm. The JONSERED recycling crane together with the MULTILIFT hook lift can be combined into one remote-controlled unit for ease and efficient material handling operation.

The JONSERED recycling cranes are renowned for their durability and productivity, offering solutions and features that prolong the life expectancy of the equipment. The 2 new safety systems, Safety+R and Safety+RS, secure JONSERED crane customers' safety, but also their opportunity to choose the most suitable option. Safety+R includes all essential safety features, whereas Safety+RS offers additional features for more efficient and convenient crane operation.

"Working in the waste and recycling industry means taking on a lot of responsibilities. As a sustainable operation, our customers come under scrutiny and their end customer's expectations are high. Therefore, we put a lot of emphasis on developing a crane range that can endure heavy intense load cycles, long work hours with continuous operation and that can answer to our customers' needs for high performance, efficiency and sustainability in their operations," shares Hans Ekman, vice president of LOGLIFT and JONSERED forestry and recycling cranes, Hiab.

Sustainability is central to Hiab's longterm business strategy. In order to reduce customers' CO₂ footprint, the cranes may be configured for a variable pump hydraulic system which prolongs hydraulic oil life and reduces fuel consumption during crane operation up to 20%.

Source: Cargotec Corporation



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Appointment

Navistar, Inc. recently announced that David Giroux has been named Chief Communications Officer and will lead the company's Corporate Communications department.

"David is an experienced and respected leader in the North American truck industry, and we are proud to have him join the Navistar team," said Walter Borst, CFO. "David brings new insights, high energy and excel-



lent leadership to our team, and I am confident that his proven experience in our industry will help further enhance Navistar's reputation."

David Giroux comes to Navistar with a wide range of communications experience. He spent nearly 7 years with Daimler Trucks North America, where the majority of his tenure was as director, Corporate Communications and Corporate Marketing, and was responsible for corporate positioning, communications strategy, executive communications, employee communications, media relations and digital and social media strategy.

Before joining Daimler, Mr. Giroux was director of marketing and communications for Peterbilt. He also spent nearly 7 years at Meritor in roles of increasing responsibility within the company's communication and marketing groups.

"The future is undoubtedly bright at Navistar, and I look forward to amplifying the news about their products, strategy and partnerships aimed at becoming the industry leader," said David Giroux. "There is simply no better time to join the company. The Navistar team is exceptional, and I am looking forward to sharing my knowledge about the industry and making a positive impact going forward."

Source: Navistar International Corporation

National Heavy Equipment Show Returns to Mississauga

The National Heavy Equipment Show is getting ready for another edition, with dates being announced for March 28 and 29, 2019 at the International Centre in Mississauga.

Coming on the heels of its 20th anniversary in 2017, the biennial event features cutting-edge products and big machine displays from the leaders of the heavy equipment industries.

With attendance in excess of 13,000 and booth space selling out year-to-year, this event is a can't-miss opportunity to get your fair share of the sales, leads, and networking. You will see your customers for sure and more importantly, thousands of new potential customers. The 2019 edition of the National Heavy Equipment Show will place you face to face with industry professionals who are interested in getting the BIG projects completed, on time and on budget.

Source: Master Promotions

World of Concrete Attendee Registration Open

World of Concrete (WOC) attendee registration has officially opened and expectations are this will be the largest WOC event in over a decade. With a strong economy, a viable and active construction sector, the concrete & masonry industries will converge in Las Vegas January 22-25, 2019 – Seminars 21-25 – for this highly-anticipated annual event.

With a few months remaining until WOC 2019, organizers are anticipating significant growth over World of Concrete 2018 – which was the largest event in 9 years, with 58,000 registered professionals featuring 1,564 leading-industry suppliers exhibiting across more than 69,300 m² of space.

"There are some very positive changes to the show floor for 2019. We have moved the Masonry area to Central Hall, and Technology to the North Hall, to accommodate both of these growing sectors of our industry. We look forward to filling what is left in available booth space throughout the fall, culminating in another action-packed event for our attendees. We also have several new events in the works, and a multi-day expansion of the Masonry Madness events happening in the Bronze Lot," said Kevin Archibald, show manager.

The world-class education program will include 180+ sessions including 90-minute seminars, 3-hour seminars, 40+ industry trainings & skill-building events, along with more hands-on training opportunities and interactive workshops than ever before.

Source: Informa

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Students from Singapore Take Top Honor at the Stockholm Junior Water Prize

Xylem Inc. congratulates Caleb Liow Jia Le and Johnny Xiao Hong Yu of Singapore, the winners of the 2018 Stockholm Junior Water Prize (SJWP), the most prestigious international student competition for water-related research. The award was presented during the 22nd SJWP ceremony at the annual World Water Week celebration in Stockholm, last August.

The 2 students developed a project entitled, "A Novel, Eco-friendly Synthesis of Reduced Graphene Oxide (rGO) from Durian Rind and Sugarcane Bagasse for Water Filters". Their study utilized durian rind and a sugarcane bagasse to produce rGO, a material that can effectively purify water. Their innovative model is low-cost and more environmentally friendly than traditional methods of producing rGO.

H. R. H. Crown Princess Victoria of Sweden presented the winning students with the top prize of \$15,000 and a prize sculpture, and their school, Ngee Ann Polytechnic, will receive a \$5,000 grant. Xylem has been the founding global sponsor of the SJWP international competition since its inception 22 years ago. Today, the competition draws entries from students in 32 countries around the world.

"All of the Stockholm Junior Water Prize finalists bring enormous energy and focus to this event along with their innovative ideas," said Patrick Decker, president and CEO of Xylem. "Each year, we are inspired by their impressive work that pushes the boundaries of what's possible, which makes us so proud to support this unique competition. Their drive to solve a water



issue that may be close to home or across the globe illustrates that working together, we can overcome these challenges. Supporting their studies, vision and ideas will yield a more sustainable environment for generations to come."

The Diploma of Excellence was awarded to Tatsuyoshi Odai and Narumi Sakamoto of Japan for their project entitled "The New Green Revolution: Hybrid System of Phytoremediation and Food Production in Eutrophicated Ponds/Lakes." Their work focused on developing an integrated system for eutrophication to purify water and produce food by combining plants, nitrifying bacteria and mycorrhizal fungi. This team received an award of \$3,000.

The international SJWP is presented each year to students between the ages of 15 and 20 for outstanding water-related projects that focus on topics of environmental, scientific, social or technological importance. Winners from 32 countries competed for the international honor in 2018, which was awarded by an international jury of water professionals and scientists.

The prize is administered by the Stockholm International Water Institute. Source: Xylem

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Agenda

Waste & Recycling Expo Canada/Municipal Equipment Expo Canada October 24 - 25, 2018 Toronto, ON Canada

World Demolition Summit 2018 November 7 - 8, 2018 Dublin, Ireland

IRF / R2T Global Expo & Conference November 7 - 8, 2018 Las Vegas, NV USA

Tree Care Industry Association TCI EXPO 2018 November 8 - 10, 2018 Charlotte, NC USA

Congrès INFRA 2018 November 18 - 21, 2018 Quebec City, QC Canada

The Big 5 Dubai November 26 - 29, 2018 Dubai, UAE

bauma CONEXPO INDIA 2018 December 11 - 14, 2018 Gurugram/Delhi, India

Landscape Ontario Congress January 8 - 10, 2019 Toronto, ON Canada

World of Concrete 2019 January 22 - 25, 2019 Las Vegas, NV USA

World of Asphalt 2019 February 12 - 14, 2019 Indianapolis, IN USA

National Pavement Expo 2019 February 27 - March 2, 2019 Nashville, TN USA

The Work Truck Show March 5 - 8, 2019 Indianapolis, IN USA

National Heavy Equipment Show March 28 - 29, 2019 Toronto, ON Canada

bauma April 8 - 14, 2019 Munich, Germany

Canada North Resource Expo May 24 - 25, 2019 Prince George, BC Canada

Atlantic Truck Show June 7 - 8, 2019 Moncton, NB Canada

MATEXPO 2019 September 11 - 15, 2019 Courtray, Belgium

ICUEE - International Construction and Utility Equipment Exposition October 1 - 3, 2019 Louisville, KY USA

inter airport Europe 2019 October 8 - 11, 2019 Munich, Germany

APEX Asia co-located with CeMAT ASIA October 23 - 26, 2019 Shanghai, China

bautec February 18 - 21, 2020 Berlin, Germany

CONEXPO-CON/AGG 2020 March 10 - 14, 2020 Las Vegas, NV USA

stein*expo* August 26 - 29, 2020 Homberg/Nieder-Ofleiden, Germany

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