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A Brief Word...

Every month has Ides, but thanks to Shakespeare, March Ides are the most commonly known.

They coincide with the middle of the pivotal month when Snow Removal and General Contracting overlap, and occasionally clash. Fleets and manpower must be managed to ensure outstanding commitments are fulfilled and new opportunities can be launched promptly. Any landscaper will tell you, March is the month to get the jump on the geraniums.

Unlike many critters over winter, and even more under lockdown, not everyone has been hibernating and you can catch up on some of these in our latest issue. The growth of AED into the Spanish marketplace and the dealings between manufacturers and their distributors have been much discussed behind closed doors during lockdown. We bring you details of many of these in this issue as they sprout new growth and poke up out of the snow anxious for the new season.

InfraStructures has been like a certain creature, sticking its nose up through the snow to smell what changes may be in the air as the new season rushes toward us. As Canada's publication for the equipment industry we don't go to sleep. Instead we stay awake and alert, burning the midnight oil through the long winter nights to bring you the news and information you rely on us to provide.

To paraphrase The Bard: "Friends, Countrymen lend us your eyes..."





On the cover:

despite the pandemic, the development of 5G technology has never stopped. The antennas are often located in remote and difficult to access sites, or in crowded jobsites where the use of a spider platform, with low weight and compact dimensions is strictly required. Furthermore, with the use of a winch the machine can be used as a mini crane.

AED JOINS FORCES WITH ANMOPYC

The Associated Equipment Distributors (AED) recently announced that the Spanish Manufacturers Association of Construction and Mining Equipment (ANMOPYC) had become the newest member of AED. Based in Zaragoza, Spain, ANMOPYC is a sector, private and nonprofit organization founded in 1982 to protect the interests of the Spanish construction, public works and mining companies and contribute to strengthening

their presence in foreign markets.

"We are pleased to welcome the Spanish Manufacturers Association of Construction and Mining Equipment to the AED family," stated AED president & CEO Brian P. McGuire. "We look forward to a long and fruitful relationship as we continue to provide resources and enhance the membership experience for our North American distributor members."

"We are confident our partnership

with AED will quickly impact the market development for our members in the North American market. AED is the best organization for our manufacturing companies to work with to develop their distribution network and know the current trends through the use of their services, industry knowledge and events like CONDEX at AED Summit," stated Jorge Cuartero, ANMOPYC director.

ANMOPYC participated in AED's 2020 Summit and the Conference Dealer Expo (CONDEX) in Chicago, Illinois, representing their members interested in bringing their products to the North American market for distribution. Look for ANMOPYC's Spanish manufacturers' pavilion at the 2022 Summit and CONDEX in Orlando, where they will be exhibiting with various member companies.

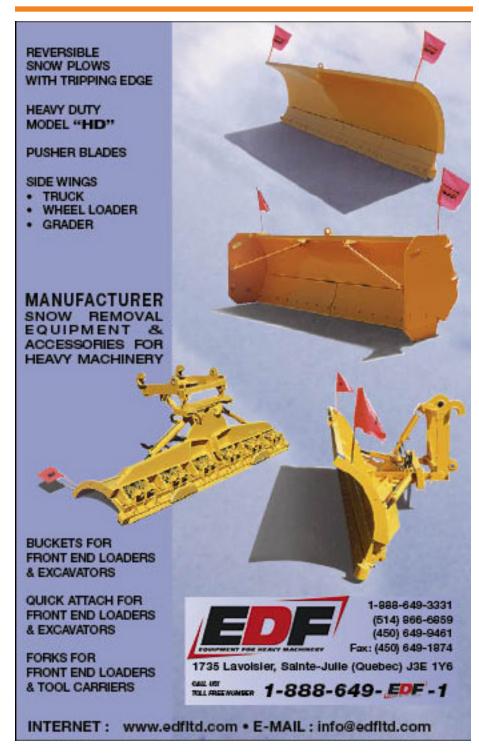
Source: Associated Equipment Distributors (AED), Spanish Manufacturers Association of Construction and Mining Equipment (ANMOPYC)

MASSIVE DEPOSIT OF BATTERY-GRADE NICKEL ON DEEP-SEA FLOOR GETS CONFI-DENCE BOOST WITH NEW DATA

DeepGreen Metals, which is exploring for deep-ocean polymetallic nodules as a lower impact and more costeffective alternative to terrestrial mining, recently announced an upward revision to the nodule resource reported within the NORI-D exploration contract area held by its subsidiary, Nauru Ocean Resources, Inc. (NORI). The nodule resource is now estimated as 4 million t measured, 341 million t indicated and 11 million t inferred mineral resources.

As countries invest in large-scale clean energy transition programs and begin to phase out internal combustion engines, securing the minerals required to build batteries for storing renewable energy and powering electric vehicles is vital. According to some academic forecasts, nickel demand for batteries is projected to jump 30-fold in the coming 3 decades.

DeepGreen is planning to produce metals from polymetallic rocks to power electric vehicles (EVs), and the company's updated 43-101 mineral resource estimate shows that the abundance of nodules in the company's contract area increased 5.4% compared to its 2019 estimation. In addition, the company reported a notable uplift in grades of



manganese (2.2% higher), cobalt (5.4% higher) and nickel (6.1% higher). EV manufacturers are moving towards increasingly nickel-rich chemistries which offer greater energy density than other battery types, while analysts warn that new land-based discoveries of battery-grade nickel may not keep up with the predicted demand.

The richer concentrations of metals noted in NORI's updated report were measured by combining the company's earlier seafloor mapping and survey work with boxcore sampling and footage taken during numerous research campaigns conducted since 2018.

"Unlike mineral exploration on land, resource confidence in polymetallic nodules is unusually high due to the two-dimensional nature of the resource. You can actually see the nodules lying on the seafloor," said Anthony O'Sullivan DeepGreen's chief development officer, who previously served on BHP Billiton's Global Exploration Leadership team. "We have done the sampling and research to understand the fundamental variance of the nodule resource and we've found that it is remarkably consistent. It's unlike anything that you see on land."

The polymetallic nodule fields in the CCZ of the Pacific represent the largest known, undeveloped nickel resource on the planet. A DeepGreen-commissioned white paper finds that nodules under exploration contracts in the CCZ contain more than enough battery metals to power one billion EVs and with a fraction of the social and environmental impacts when compared to land-based ores.

Nodules contain high grades of 4 battery metals in a single ore. This means several times less ore needs to be processed compared to land ores to get at the same amount of metal, resulting in much smaller ESG footprints and lower-cost production. And because deep-sea nodules do not contain toxic levels of heavy elements like mercury or arsenic, all of the nodule mass can be converted into products with economic value to society. Sourcing battery metals from nodules has the potential to generate zero solid waste and eliminate toxic tailings - a big problem for the conventional mining industry that generated over 189 Gt of waste in 2020. The mining industry is the single largest waste stream on the planet producing 95 times more

waste than all the world's cities combined. Source: DeepGreen Metals, Inc.

VERMEER CORPORATION ANNOUNCES MINORITY OWNERSHIP INVESTMENT OF MULTIONE

Vermeer Corporation has purchased a minority equity investment in MultiOne, a leading manufacturer of compact articulated loaders.

This investment comes a year after

Vermeer entered a distribution agreement with MultiOne to supply Vermeer-branded loaders to be sold, serviced and supported exclusively through Vermeer dealers across North America and the Caribbean.

Building on the early success of last year's agreement, distribution of Vermeerbranded loaders produced by MultiOne will now expand to Vermeer dealers worldwide beginning this year. MultiOne will also continue to provide blue, MultiOne-branded



loaders through its existing distribution partners outside North America.

"We are excited to take our partnership with MultiOne to this next level," said Doug Hundt, president of Vermeer Industrial Solutions. "The demand for compact loaders is growing worldwide, and this puts Vermeer in a great position with a lineup of proven products, attachments and dealers to help our customers reduce their labor needs and get more important work done."

MultiOne will continue under the leadership of Fiorenza Carraro and Stefano Zanini, with global holdings company, Lifco, taking on majority ownership. Its main operations and manufacturing will remain headquartered in Vicenza, Italy.

Source: Vermeer Corporation

FECON PURCHASES VERMEER FORESTRY MULCHING PRODUCTS AND ENTERS INTO GLOBAL DISTRIBUTION AGREEMENT

Fecon LLC recently announced the purchase of the Vermeer forestry mulcher product line and has established a global distribution agreement with the

company. This distribution agreement with Vermeer, which will be rolled out on a controlled basis throughout 2021, will provide their dealers access to the robust line of mulching equipment that leverages the best of Vermeer and Fecon mulching technology. This distribution strategy leverages the scope and size of traditional Vermeer dealerships by focusing on market segments with differentiated product needs. Blending the learnings and engineering expertise of both teams provides dealerships and customers with products that are easy to buy and own.

"Adding Fecon engineering and technology will make it easier for customers to buy the equipment best suited to their needs," said Bob Dieckman, CEO of Fecon LLC. "With their extensive coverage and high standard of customer support, as well as the professional and strategic Vermeer sales organization, we are certain that both organizations will benefit from the partnership."

Fecon will start the process with a select, yet global group of Vermeer dealers in 2021, as well as strategically specify prod-

ucts and methodically expand from there. The company will assume production and support of the Vermeer model FT100 and FT300 forestry mulching tractors, and has begun moving these functions to their Lebanon, Ohio factory.

"Fecon's forestry innovation and product lineup is a great complement to our equipment portfolio," said Doug Hundt, Vermeer president of Industrial Solutions. "With a lineup of products that support the land clearing, utility right-of-way and fire mitigation markets, their mulching attachments and tractors will give our dealers a broader portfolio to support those customers we are already working with in those markets."

Source: Fecon LLC

YOKOHAMA RUBBER TO UNIFY ITS OFF-HIGHWAY TIRE (OHT) OPERATIONS

The Yokohama Rubber Co., Ltd., recently announced that it will consolidate its various off-highway businesses into one single entity. This will include Alliance Tire Group (ATG), which Yokohama bought 4 years ago and Yokohama's off-the-road (OTR) tire businesses across the globe.

This new entity, named Yokohama Off-Highway Tires, will have a global footprint with leadership team distributed between Tokyo, Boston, Amsterdam and Mumbai. Yokohama Rubber's current medium-term management plan, the Grand Design 2020 (GD2020) includes a commercial tire strategy that targets "Positioning commercial tires as a pillar of growth in our second century and off-highway tires as a growth driver."

This consolidation will result in a closer integration of Yokohama Rubber's brand power, high quality, and global sales network with ATG's high growth potential, diverse product lineup, and superior cost competitiveness. In addition, the unified global entity will offer the full-range of OHT, from small forklift tires to ultra-large ROTR (radial off-the-road) tires to meet a wide range of customer needs in the global OHT market for tires used on construction and industrial vehicles as well as agricultural and forestry machinery.

As the first step in this consolidation, Yokohama Rubber's OTR tire business in the U.S. was be combined with Alliance Tire Americas Inc. (ATA) on January 1st, 2021. The combined entity is named Yokohama Off-Highway Tires America Inc..

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Integration plans for rest of the world are being finalized and will be communicated in the near future.

Source: Yokohama Off-Highway Tires America Inc.

COALITION URGES FEDERAL AND PRO-VINCIAL GOVERNMENTS TO DELIVER ON INFRASTRUCTURE INVESTMENTS

A coalition of construction sector associations have allied to urge the federal and provincial governments to deliver on infrastructure investments. The newly formed *Building for Recovery* coalition includes Associated Equipment Distributors (AED), the Canadian Construction Association (CCA), Association of Consulting Engineering Companies – Canada (ACEC – Canada), and the National Trade Contractors Council of Canada (NTCCC).

"The construction sector is ready to rebuild Canada's economy but all levels of government must deliver on infrastructure investments now to get projects started," stated Brian McGuire, AED's president. The Building for Recovery coalition was developed to encourage individuals working in and supportive of the construction sector to send a letter to their local representative at both the federal and provincial levels, asking for support to deliver infrastructure investments to help rebuild the Canadian economy in the wake of COVID-19.

"Despite billions of dollars of existing infrastructure commitments, these investments have been slow to roll out. Infrastructure Canada's website shows that of the nearly 17,000 approved projects, fewer than 900 have received funding," said John Gamble, president and CEO of ACEC – Canada.

While rebuilding Canada's economy from the pandemic's impacts will require a comprehensive stimulus plan, investing in infrastructure has a proven return on investment. The Public Policy Forum has found that for every dollar invested in public infrastructure, governments can expect to see a return of \$2 to \$4.

"History shows that investments in infrastructure are not only the best way to stimulate the economy, but they also create immediate employment opportunities and improve the economic and environmental quality of life for all Canadians," said Sandra Skivsky, Chair of the NTCCC.

"With federal and provincial governments working in collaboration with Canada's construction sector, we can ensure that we build back a stronger, more resilient country from the pandemic," continued Mary Van Buren, president of CCA. "The time is now to deliver on billions of dollars of investments so we that can start to rebuild our economy."

Source: Building for Recovery coalition

LEHIGH CEMENT DEVELOPS A SUSTAIN-ABLE BLENDED PORTLAND LIMESTONE CEMENT FOR THE CANADIAN PRAIRIES

Lehigh Hanson recently announced the launch of EcoCem®PLUS at its Edmonton cement plant in Alberta. EcoCem®PLUS is an innovative blended Portland Limestone Cement (PLC) available in Alberta, Saskatchewan and Manitoba. Lehigh's latest cement product provides strength and durability while significantly reducing the carbon footprint in concrete.

EcoCem®PLUS is produced by intergrinding clinker, fly ash, limestone and gypsum. Combining materials at the Edmonton cement plant provides the highest level of quality control and assures our customers, engineers and end-users consistent proportions.

EcoCem®PLUS outperforms traditional HS cement in resisting sulphate attack, a common concern found throughout the prairies. Designated as HSLb (High Sulphate Limestone Blended) by CSA, its superiority makes it ideal for use in most applications.

Furthermore, Environmental Product Declaration (EPD) for EcoCem®PLUS clearly states the immediate reduction in Global Warming Potential (GWP) versus other types of cement.

PRINOTH and McNeilus Introduce Off-Road Concrete Mixer

PRINOTH and McNeilus recently introduced a tracked concrete mixer destined for the off-road construction market. Originating from an increased demand for off-road placement of concrete, Multi Machine Inc., the PRINOTH dealer for Northeastern U.S. decided to add to their rental fleet a concrete mixer to allow contractors access in hard to reach locations.



The main benefits of this collaboration are time and cost considerations. Concrete is a perishable product so time is of the essence once you start mixing. A tracked mixer allows vehicles to quickly and easily move through soft soils or rugged terrain to get to jobsites almost or entirely inaccessible by a standard vehicle – saving time. Access to these jobsites can require a helicopter to haul and/or pour concrete, this mixer makes that cost unnecessary.

When Multi Machine Inc. of New Jersey received the off-road concrete mixer request, they decided to come up with a solid, reliable solution that would last and also create additional opportunities. Multi Machine turned to market leaders PRINOTH and McNeilus to complete this project and meet their desired goals. Engineering teams from both companies collaborated on this unique project, each adapting their equipment to suit the application and maximize mixer capacities while maintaining stability for an off-road application.

Source: PRINOTH AG



"The motivation behind the EcoCem brand of products is to reduce the embodied carbon of cement and concrete," said Shawn McMillan, vice president, Cement for Lehigh Hanson's Canada Region. "The introduction of EcoCem®PLUS to the Prairie market builds on our commitment to providing environmentally responsible types of cement that deliver excellent performance while dramatically reducing CO2 emissions."

EcoCem®PLUS can lower the carbon footprint by more than 22% (-184 kg CO2-eq) as compared to Lehigh's General Use (GU) cement and 32% (-308.5 kg CO2-eq) compared to the current industry average GU cement when comparing EPDs.

HeidelbergCement, Lehigh Cement's global parent company, has committed to reducing 30% of its carbon emissions by 2025 and providing carbon-neutral concrete by 2050. EcoCem®PLUS is the latest of several new products recently developed to help achieve those goals.

Lehigh Cement also announced it has published product and plant-specific EPDs for all of its cement products produced at the Edmonton, Alberta plant. Lehigh Cement worked with Climate Earth to develop the EPDs and they can be found at the National Ready Mixed Concrete Association (NRMCA) website: www.nrmca.org.

Source: Lehigh Hanson, Inc.

PERSTORP TO REDUCE CARBON EMISSION BY PRODUCING SUSTAINABLE METHANOL

Perstorp has developed a production concept to produce methanol from a large variety of recovered end-of-life streams and hydrogen from electrolysis. Project AIR will build a large scale, commercial Carbon Capture and Utilization (CCU) unit to produce sustainable methanol. The methanol plant will be unique in the sense that it is a combined CCU and gasification process where CO, residue streams, renewable hydrogen and biomethane will be converted to methanol. Perstorp plans to do this in cooperation with Fortum, Uniper and Nature Energy.

Methanol is one of the most important raw materials for the chemical industry. Project AIR aims to substitute all the 200,000 t/y of fossil methanol that Perstorp uses in Europe as a raw material for chemical products. The project would support companies downstream in the value chains in their efforts towards renewable/circular materials, reduced carbon footprints, and in their ability to offer sustainable, affordable products. If completed, Project AIR will reduce greenhouse gas emissions by about 500,000 t/y. The goal is to start producing sustainable methanol in 2025.

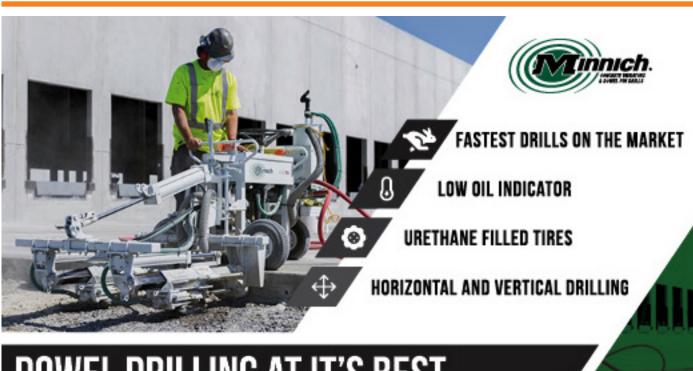
If the required fundings are granted, Perstorp plans to build the methanol plant in Stenungsund, Sweden, utilizing its own CO and residue streams, and using the methanol to substitute all the fossil methanol used in its production in Europe.

Fortum and Uniper plans to supply renewable hydrogen from a new electrolysis plant. One of the world's largest producers of biogas, Nature Energy will seek to supply biogas to Project AIR.

Source: Perstorp Holding AB

THE HOME CONSTRUCTION REGULATORY AUTHORITY LAUNCHES OPERATIONS

A new Ontario regulator, improving protection for new home buyers, recently



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started operations. The Home Construction Regulatory Authority (HCRA) is now responsible for regulating and licensing the people and companies who build and sell new homes in the province.

"The HCRA will enforce high professional standards for competence and conduct in the homebuilding industry, giving new home buyers confidence in one of the biggest purchases of their lives," said Tim Hadwen, Interim CEO of the HCRA. "We

will also ensure consistency across the sector, curtailing unethical and illegal builders and maintaining a fair marketplace."

In addition to licensing, the HCRA provides educational information for consumers on their home buying journey, and manages the Ontario Builder Directory (OBD) – the official source of background information about each of Ontario's more than 5,000 new home builders and vendors. The OBD provides current

information on each builder and vendor's licence status and specifics such as whether they have had any convictions, the number of homes they have built, and their warranty history. It also lists illegal builders and provides details about charges and convictions to better inform and protect consumers.

The HCRA is also implementing a streamlined complaints process, providing a clear, straightforward way for a new home buyer to raise real concerns about a builder or vendor's conduct.

An independent regulator, the HCRA takes over the licensing function from Tarion. Previously, Tarion was responsible for both licensing and warranty administration. Tarion will continue to deliver Ontario's new home warranty and protection program.

A separate licensing body was recommended by a major review of Ontario's homebuilding sector.

"In essence, the HCRA will ensure professional standards for the builder, and Tarion will backstop responsibility for the building," Hadwen said.

Recognizing that some consumers and builders may not immediately know where to turn, the HCRA and Tarion are committed to a "no wrong door" approach, seamlessly directing stakeholders to the right place to deal with their specific issues.

Source: Home Construction Regulatory Authority

Mack's PartsASIST Revolutionizes Online Truck Parts Ordering

Mack Trucks' new PartsASIST platform makes ordering Mack® truck parts and components online faster and simpler than ever.

The one-stop online solution gives Mack truck owners a more efficient service and support option to help improve uptime. Registering for PartsASIST and transitioning from the current



Mack SELECT Part Store will allow for quick and confident parts selection from the Mack Trucks dealer network in the U.S. and Canada as dealers join the program throughout 2021.

"The robust tools in the PartsASIST platform provide Mack owners with unprecedented remote access to parts ordering, fulfilment and management, bringing greater speed and efficiency to maintenance and repairs to help increase uptime," said Gordon Lindsay, Mack Trucks product marketing manager – aftermarket. "Available 24/7, the PartsASIST platform provides advanced features to improve efficiency and simplify asset management for fleet managers and dealer service managers alike."

Knowing that fleets and dealers often identify trucks differently, whether by VIN or fleet unit number, the new PartsASIST platform connects fleet unit numbers to individual VINs, resulting in quicker and easier tracking and documentation.

Integration of Mack's Genuine Parts and All Makes catalogs simplifies searching for model-specific components, while real-time data cross-referencing provides instant insight into inventory availability, helping to ensure that what customers see in the catalogs and purchase is what they will receive.

"Our investment in PartsASIST helps provide Mack owners immediate access to our full parts and components inventory, no matter where they are or when they're searching, like having an in-person experience at a dealership from anywhere, any time," said Mr. Lindsay.

Source: Mack Trucks

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ROTOTILT ENTERS GLOBAL COLLABORATION WITH VOLVO CE

Through a solution that provides smart integration between Volvo excavators and Rototilt tiltrotators, Volvo CE is providing end-users with the opportunity to more easily choose a Rototilt tiltrotator with all its smart functions.

"Volvo CE is partnering with Rototilt through a global development agreement," said Chris Copeland, Rototilt's general manager in Canada. "This is very positive and brings tremendous benefits to our customers with Volvo machines, as well as to Volvo dealers."

Excavators from Volvo factories can now be delivered ready for tiltrotator systems from Rototilt. This adds a number of benefits for both contractors and dealers. The main benefit for users is that Rototilt's control systems and sensors can now communicate with Dig Assist, Volvo's factory-installed excavation system, via a smart integration solution.

"The new platform is exciting and brings the best of what you can get today on the excavator market. Certain solutions, such as the Smart Connect solution allows different brands of TiltRotator to integrate seamlessly with our machine and Dig Assist, they are unique and bring significant customer value," said Kurt Deleu, head of excavator product management EU/INT Volvo CE.

"Contractors are demanding a more seamless integration of systems between excavators and the tiltrotators they choose," added Mr. Copeland. "With this integration now being provided on the excavators coming from the factory, this is a really good solution. In short – a solution that responds to customers' needs in a good way."

The result is a much safer, and consistently better implementation of the tiltrotator system on new machine installations. Something that will likely be appreciated by end-users.

The agreement applies worldwide, and the technical solution has been developed in a joint project with Volvo's development department during 2020 for introduction

in stages. Volvo's excavators EC250 and EC300 are first out and delivery will begin as early as the beginning of 2021.

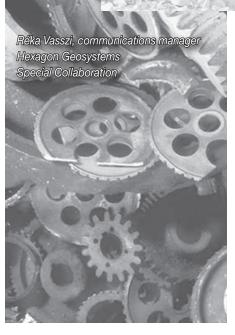
Besides the benefits above, users now also have access to safe technical solutions, such as Rototilt's award-winning, fully automatic, quick coupler system QuickChange™, as well as the quick coupler safety system SecureLock™.

Source: Rototilt Inc.





Working Smarter, Not Harder: Turning to Automation to Level the Playing Field



Many challenges face the construction industry today, but one of the biggest is the ongoing shortage of skilled workers. It has plagued the industry for years, and it impacts nearly every aspect of the jobsite. That is especially true for a role requiring the level of experience a skilled excavator operator brings to a project.

For such a labor-driven and labor-intensive industry, the deficiency can wreak havoc on companies and their ability to complete jobs and meet their bottom line. Companies cannot source talent with the level of experience they need, and recruiting and training new team members is not an option.

The COVID-19 pandemic has further exacerbated the shortage, and, to compensate, contractors are rethinking their relationship with technology.

Contractors need certainty. They are willing to deploy new, easy-to-use solutions that enable them to lessen how long they need to complete a project and reduce the probability of mistakes. It all comes down to the bottom line. The old adage "time is money" is especially true on the jobsite today.

Technology is a professional partner that complements existing team members' efforts, allowing them to fulfill more tasks without complicated additions.

The Civil Quarterly (TCQ), a publication from Dodge Data & Analytics, found 47% of contractors use machine control, and contractors that do so use it on 61% of their projects. Concurrently, many others are looking to go in that direction.

In the wake of COVID-19, machine control has again proven its worth on the jobsite. A more recent poll from TCQ revealed 32% contractors cite machine control as one of the most widely adopted new technologies helping them minimize negative business impacts amid the COVID-19 pandemic.

Larger companies tend to use technologies such as machine control 2-to-3 times more frequently than smaller operations. However, smaller companies are often adopting these digital solutions to grow their business and effectively compete. Because technology levels the playing field, smaller companies can turn to a larger base of prospective employees. It also allows smaller companies to compete on larger projects that might otherwise require deeper experience.

The excavator is perhaps the most complex machine on the jobsite. It takes years of experience for an operator to become an expert.

Someone who is not experienced at operating a piece of equipment such as an excavator will not be as efficient moving

materials around the jobsite. All too often, it requires an operator to revisit a location for additional work if they cannot complete the task correctly the first time, or the contractor must bring in an expert operator to redo the job and fix the mistakes.

Grade calculation errors are easy to make, and consider its impact on a contractor. An error could result in an entire run of pipe being dug up and re-laid at the contractor's expense, which could easily add up to tens of thousands of dollars.

That has a real impact on a contractor's time to completion and their budget. It can snowball to affect material overages or shortages. Or, even worse, an inexperienced operator might be more prone to striking an underground utility, which, aside from being time-consuming and costly to fix, can be deadly.

An excavator requires precision. An operator needs to control the position of the bucket and its attachments, and he or she must also manage the machine's speed, a potentially tricky task for novice operators to pick up.

One common mistake that arises from an inexperienced operator is over digging, which has a ripple of adverse effects. Repairing an area that has been over excavated often requires testing to make sure the compaction of the dirt is correct, a potentially costly and time-consuming affair.

Automating the machine's movements allows an inexperienced operator a lot



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more confidence and effectiveness with equipment movement. The only requirement of an operator using an automated system is watching where he or she is placing the bucket down on the ground.

Using automatic controls is not inherently challenging, and it is not dramatically different than operating the machine in general. It does not feature any confusing interfaces or additional panels to distract from the task at hand. In fact, the solution eliminates a layer of worry for operators, as they can complete a job with peace of mind knowing it meets a job's requirements.

Because the solution requires less experience to operate, it enables contractors to tap into a larger pool of candidates. They no longer have to reserve specific tasks on the jobsite for a select few team members. In essence, even an employee on their first day can be as effective as a team member with years of experience.

Semi-automated excavator functionality for excavators, such as Leica Geosystems' iXE3 3D, is a flexible and easy-to-use solution that includes tilt and tilt rotator bucket



automation. It allows an operator to select auto boom control, auto bucket control, auto tilt control and autorotation control, or any combination, to suit the operator's choice and the task at hand. It enables an operator to execute complex tasks that would be difficult to manually complete and to dig faster and more accurately to cross slope and the target design surface.

The solution reduces manual controls, increases productivity, speed and accuracy of the work, even when used by less

experienced operators.

The semi-automatic configuration allows an operator to work 30% faster on a grading application than a machine equipped with a traditional machine control solution.

Automating the excavator on a jobsite increases productivity and accuracy and decreases operator fatigue and fuel consumption. A more focused and less fatigued operator is paramount to safer operations, reducing the risk of accidents and costly rework errors.



Koike Aronson Ransome recently introduced the ShopProXHD, a new CNC plasma cutting machine that offers premium features in 3 table sizes ranging from 122 cm x 244 cm to 183 cm x 366 cm (4'x 8' to 6'x 12').

The ShopProXHD from Koike is equipped with helical rack and pinion on both axes. Couple that with dual side drive servo motors and precision linear bearings, and the result is a smooth and accurate motion to produce consistent cuts. This machine features heavy curved table slats, providing fabricators with a stable cutting surface and reducing dross on parts. Other features include a laser pointer and all-inone motion controller with a 53 cm touch screen. The machine is fully manufactured in the U.S., allowing for accessible service, parts and support.

All Koike machines and services can be customized to specific needs or applications by working collaboratively with customers to find the right solution. Koike



offers a distinct advantage with free inhouse software and maintenance training at their headquarters in Arcade, New York.

Koike Aronson Ransome is a supplier of advanced laser, waterjet, plasma and oxyfuel cutting machines, welding positioning equipment, portable cutting/welding

machines and gas apparatus (cutting and welding accessories). Koike backs their machines with superior, localized service and support to ensure outlasting performance for years to come.

Source: Koike Aronson Ransome

Something for Everyone



Elastomeric couplings are pluggable, backlash-free and flexible shaft couplings. The connection or compensation element consists of a plastic star with involute teeth and a high Shore hardness. This elastic coupling star is electrically insulating and has a good vibration damping behavior. It is inserted in a form-fitting and slightly preloaded manner into 2 hubs with claw-shaped cams with high precision.

Jakob Antriebstechnik has various elastomer coupling variants in its product range, which can be put together as desired by means of a modular system. Custom-made products are also possible.

The EKM coupling comes with a radial clamping hub on both sides as a cost-effective, compact standard series. It covers torque ranges from 8-2,000 Nm and shaft diameters from 8-100 mm.

Source: JAKOB Antriebstechnik GmbH

Torque Limiter for Direct Drives



The safety couplings of the series SKB-KP, made by JAKOB Antriebstechnik GmbH, have been used for decades for mechanical protection of drive units. In hundreds of applications, particularly as collision protection in feed axes of machine tools, they are able to prove their effectiveness.

The flexible, backlash-free safety coupling of the series SKB-KP is a combination of metal bellows servo-couplings and the unique JAKOB safety coupling mechanism. The compensation of shaft misalignments, low residual forces, a low moment of inertia and an accurate transfer of the torque due to the high torsional stiffness are the salient characteristics of this type of coupling.

Source: JAKOB Antriebstechnik GmbH

Honda Launches CO-MINDER™ Carbon Monoxide Detection System Across Entire Generator Lineup

Honda Power Equipment, a business unit of American Honda Motor Co., Inc., is taking a bold step in generator safety by equipping all models in its portable generator lineup with CO-MINDER™, a carbon monoxide (CO) detection system designed to help protect users from injury or death from accidental carbon monoxide poisoning. The system continuously measures carbon monoxide levels in the air near the generator and automatically shuts down the unit before detected CO reaches a dangerous level. Honda Power Equipment is first in the industry to commit to installing CO detection systems on its full line of generator models.

The Honda CO-MINDER™ carbon monoxide detection system incorporates a robust, fast reacting sensor that continuously monitors for carbon monoxide in the air near the generator. If the sensor detects a CO level at or exceeding 800 ppm at a given time, or an average of 400 ppm for

10 minutes (per Portable Generators Manufacturers' Association [PGMA] G300-2018

standards), it triggers the generator to shut down automatically. A safety light on the main panel notifies the user that a buildup of carbon monoxide caused the generator to shut down. The system is not intended to be overridden or tampered with, and the sensors are designed to work even if they are accidentally blocked. The sensors, with the widest temperature operating range of any existing CO monitors for generators, match the design running temperatures of Honda generators.

Both moisture and dust resistant, the sensors are designed for years of use. Further, the generator sensor system automatically tests itself and is equipped with a built-in warning, alerting the user to replace the sensors prior to end of life. Finally, the sensors conform to the American National Standards Institute (ANSI) PGMA G300-2018 quality standard



established for carbon monoxide monitors for generators.

Source: Honda Power Equipment

Flex Fit[™] Wireless Controls Provide Flexibility for Mobile Hydraulic Applications

Columbus McKinnon Corporation, a designer and manufacturer of motion control products and technologies, recently announced the availability of Flex Fit™, the company's latest wireless radio control for mobile hydraulic applications. Offered in flexible designs with numerous programmable functions, Flex Fit is ideal for applications using on/off or "bang-bang" hydraulic controls. When compared to restrictive, hardwired pendants or stationary consoles, Flex Fit wireless controls help improve operator mobility. With wireless controls, operators are not tethered to equipment and are therefore free to move away from machinery and potentially dangerous situations while keeping equipment running efficiently.

"Built with reliability in mind, Flex Fit transmitters are sealed to withstand harsh indoor or outdoor environments. In the event a transmitter is dropped or damaged, a spare can be put into operation immediately," said Ben Stoller, global product manager for controls. "Wireless pairing

capabilities allow information and settings to be easily transferred between components, which greatly reduces the time it takes for new systems to get up and running."

With a comfortable feel, the Flex Fit is ergonomically designed to reduce operator fatigue, helping ensure accurate control and safe equipment opera-

tion. The force required to actuate and maintain a mechanical lift with Flex Fit is less than what is required with membrane-style transmitters. Flex Fit is compact and lightweight and includes additional accessories, such as protective rubber transmitter boots and a retractable belt clip, for added protection and flexibility.

The Flex Fit transmitter is available in 4-, 6-, 8-, and 12-button models with single-step control and can be configured to best suit specific functionality require-



ments. Transmitters are powered by either replaceable AA alkaline batteries or rechargeable AA NiMH batteries with a convenient charging cradle. Certain features of the Flex Fit are enabled when 4-, 6-, or 8-button transmitters are paired with the space-saving Magnetek MRX receiver. Full features are enabled when 12-button transmitters are paired with the Magnetek Flex 12 receiver.

Source: Columbus McKinnon Corporation

Kalmar and Belfast Container Terminal Extend Long-Term Collaboration With 6-Year Kalmar Care Agreement

Kalmar has signed a 6-year Kalmar Care service agreement with long-term customer Belfast Container Terminal Ltd in Northern Ireland covering the supply of maintenance support personnel for Belfast Victoria Terminal 3 (VT3). The order was booked in Cargotec's 2020 Q4 order intake with the agreement coming into effect at the start of November 2020.

Belfast Container Terminal Ltd (BCT), the largest container terminal in Northern Ireland, is located in Belfast Harbour and operated under concession by Irish Continental Group. In January 2019 Kalmar won the tender to supply a complete AutoRTG system to the terminal, comprising 8 AutoRTGs operated with Kalmar remote-control (RC) desks. Kalmar has also supplied a similar system to BCT's sister site in Dublin.

As part of the new service agreement, Kalmar will supply maintenance support personnel with a 24/7 presence to secure



the operational availability of all cargohandling equipment at the VT3 terminal, including third-party machines. In addition to the Kalmar AutoRTGs, the equipment fleet at BCT includes empty container handlers, forklift trucks and ship-to-shore cranes.

"Our relationship with Kalmar as an equipment and service supplier goes back

over 20 years, and we have always been able to rely on them to provide responsive and flexible support. This agreement will provide us with the skilled maintenance resources we need to secure the availability of all our critical equipment going forward," said Alec Colvin, terminal director, BCT.

"This service agreement with BCT will





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Hiab to Supply Notterkran With 110 Hooklifts for the Swiss Army

put the deep knowledge and experience of our world-class maintenance experts at their disposal. The collaboration between our 2 organizations is a true partnership built on mutual trust and transparency, and we are delighted to be able to continue it," added Steven Russell, regional manager, Kalmar Ireland.

Kalmar, part of Cargotec, offers the widest range of cargo handling solutions and services to ports, terminals, distribution centers and to heavy industry. The company is the industry forerunner in terminal automation and in energy efficient container handling, with 1 in 4 container movements around the globe being handled by a Kalmar solution.

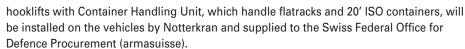
Source: Cargotec Corporation



Hiab has signed an agreement to supply the Swiss Hiab dealer Notterkran 110 MULTILIFT hooklifts for application by the Swiss Army. The order was booked in the 4th quarter of 2020.

This order is for a new generation vehicle family of the Swiss Army, whereby the Swiss Army is planning to procure more hooklift vehicles in the near future.

The MULTILIFT ULT21Z.59+SC



"We are proud that armasuisse has chosen our MULTILIFT hooklifts for the new fleet of vehicles. This order shows a continuation of a long-term cooperation between Notterkran and Hiab working together to develop the right solution for the Swiss Army. Hiab Government Business Operation and their long experience of defence systems made it possible to tailor the equipment to meet all necessary operational requirements, defense standards and specifications, which have been meticulously tested by armasuisse," said Frank van Dongen, director, Government Business Operations, Hiab.

Source: Cargotec Corporation



ence in the global infrastructure market-

durability and sustainability of concrete structures. Using its award-winning biochemically modified technology, Alchemco is introducing 2 cost effective products developed to provide 15 - 20 years of surface protection for concrete bridges... as well as a system designed to "fully waterproof" the concrete matrix beneath the bridge's surface for a minimum of 25 years.

These new BridgeDECK products: PROtectant, PROtectant Plus, and Waterproofing Agent provide long-term protection for concrete bridge surfaces, with a minimum of disruption to traffic flow - due to the fast and easy application of all 3 products.

"We're thrilled to be able to offer our unique technology to the city, county, state and federal highway markets in the U.S. and overseas. This technology will help the U.S. and many other countries make their

etary biochemical technology has

been protecting a wide range of exposed concrete structures since 1975, in over 75 countries around the globe. These products are spray-applied, and penetrate below the surface of the concrete to create a continuous barrier to moisture penetration. This technology has the unique ability to seal existing cracks in structural concrete. Preventing the water and chemicals from penetrating into the concrete helps prevent the premature deterioration of the structure. In addition to that, this formula remains reactive inside the concrete and can seal future cracks (cracks that happen after the application).

All of the state D.O.T.'s can now have an affordable long-term solution to preserve, protect and waterproof their concrete

bridges and tunnels. These products are ideal for bridge construction, major highway projects and other large-scale roadway infrastructure applications.

These newly introduced BridgeDECK products are all VOC-free, with a service life of between 15 and 25 years, and are potable water safe (passed NSF-61 certification at Underwriters Laboratories).

The addition of the BridgeDeck line to the Alchemco portfolio helps maintain its leadership as an innovator in the global construction market, while helping governments to protect their country's valuable infrastructure assets.

Source: Alchemco

Pouch Conveyor Belts Ensure Clean, Low-Noise Deployment for Flood Protection Projects in Tokyo

Pouch conveyor belts made by technology company Continental are being used in a flood prevention project in Machida, in the Tokyo Metropolis prefecture of Japan.

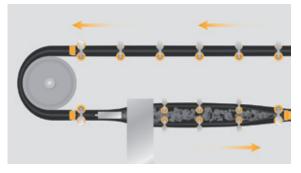
Over the years, numerous rivers in Tokyo have been built over or regulated

to create space to live. The risk of high waters and flooding is increasing as a result. In order to mitigate this risk and protect inhabitants' living space, the city is building an underground catch basin that can hold up to 150,000 m³ of water. Without it, this volume of water could flood residential areas, shut down public life and threaten

the existence of many people. Continental is contributing to this project and supplying a special conveyor belt that can be used to transport the material from the excavation of the collecting basin safely, cleanly and quietly from the construction

site in the middle of a residential area.

To build the basin – 20 m deep, 190 m long and 90 m wide – thousands of tons of earth and bulk material must first be excavated and transported out of the huge pit. In December 2020, the installation of



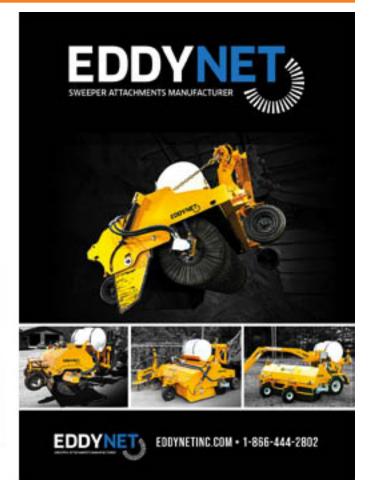
Sicon pouch conveyor belt with a length of more than 1,500 m into the steel structure of the plant was finished. The 280 t/h of material excavated are transported on the conveyor belt at a speed of 5 km/h across the residential area to a nearby main street,

where it is discharged onto trucks.

"The Sicon conveyor belt is a closed system from the feeding point to the discharging point. It can negotiate curves of up to 180°, making it extremely flexible when routing the line and adaptable to any environment. Corners and edges can therefore be bypassed without additional transfer points – curve radii of less than one meter can be achieved," explained Gabriele Hennig-Juman from Continental Sales for Conveying Solutions in the Asia-Pacific region. "By using a snaking route, the belt conveyor is also able to overcome large differences in height in a very tight space."

The belt is manufactured in Northeim, Germany, and shipped from there to Japan. The contractors on site are the local Japanese-German joint venture of Continental "Bando-Scholtz" and Furukawa Industrial Machinery Systems, a specialist in Japan in steel construction and industrial





equipment, which jointly coordinates and carries out all work for the end customer – the Tokyo Metropolis. An international service team from Continental and Bando Chemicals provides on-site support for the assembly and splicing of the belt and the commissioning of the system.

"The pouch conveyor belt meets particularly demanding requirements in terms of cost-effectiveness and environmental compatibility. This reliable and clean transport solution takes into account both ecological aspects and preservation of the quality of life for local people," said Masaaki Ogino, CEO of the Bando-Scholtz Corporation.

Without the conveyor system, countless trucks would have to drive through the residential area to the construction site over a period of months, resulting in a greater CO2 footprint and more noise pollution, as well as potentially increasing the risk of traffic accidents – particularly in the very restricted infrastructure of the



residential area. The no-noise and low-dust transportation of the excavation material using a pouch belt is therefore an effective alternative method of transport.

Tokyo has grown into one of the largest metropolitan areas in the world – with almost 10 million inhabitants in the city and another 30 million in the surrounding area. Space for living and working is scarce. Machida is home to around 450,000 people. Huge residential areas stretch

across the hilly area of the Tama Hills with the nearby River Tama. For many years, the city has been regularly affected by torrential rain, high waters and flooding – with power outages, damage to infrastructure and potential risks for the people living there. The underground catch basin on the Sakai River is intended to protect residents from flooding in the future. Completion is planned for 2024.

Source: Continental, ContiTech



Vermeer Enters Distribution Agreement with BRON

Vermeer Corporation recently announced that it has signed a distribution agreement with BRON that gives the manufacturer of utility track plows and plow attachments the rights to sell its products through Vermeer industrial dealers worldwide. The agreement establishes Vermeer dealerships as the exclusive distributor for 2 of BRON's tracked utility plows in the 200 hp and 300 hp class, and provides them the ability to sell the line of BRON utility plow attachments.

BRON is a family-owned company based in Woodstock, Ontario. The brand has supported utility and underground infrastructure installation markets for more than 40 years and has reliable, heavy-duty plows and attachments that include static and vibratory plows, trenchers, rippers, add-on plows and more.

Vermeer is teaming up with BRON to support customers who are working to keep up with major global investments in rural fiber and underground infrastructure.



BRON's products complement the Vermeer utility plow lineup by providing additional options for heavy-duty plows and attachments that are geared for some of the deeper and more extreme installation applications.

"This agreement positions Vermeer to better help our customers capture more of the underground telecom and energy work that will be required to provide more reliable access to critical infrastructure around the world," said Dave Wisniewski, vice

president of Environmental and Infrastructure Sales.

"As a fellow family-owned company, we are excited to deepen our partnership with Vermeer and its dealers around the world," said Robert Hall, president of BRON. "Our products, partnered with the reach and expertise of the Vermeer dealer network, put us all in a stronger position to support our customers with the tools and service they need to stay productive."

Source: Vermeer Corporation

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1999 VOHL DV-4000. JD 275 hp engine, telescopic chute, ice screw, good condi-



1996 SMI 8400, GM / GM 700 hp, 4,000 t/h capacity, very clean \$105,000



SMI 7200, rebuilt 1997, GM V-12 engine\$48,500



1979 SMI 5250, GM/GM 6-71, 1990 SMI 5250A, two GM die- 1993 SMI 7250A, GM / new paint, ex-municipal



sels, 2,000 t/h capacity, very GM 410 hp, very clean \$39,000 clean, 3,300 h\$75,000\$105,000



FAE Renews Its Range of Soil Stabilizer Machines

Productivity and superb soil processing quality are among the key features of the 4 new FAE soil stabilizer models which are designed to meet the specific needs of each type of worksite. This is in addition to the top notch and robust build of FAE heads that results from selecting the most reliable materials and the innovative design that enables the new STABI lines to easily handle stony ground.

The STABI/FRS and the STABI/FRS/HP are the essence of stabilization. They feature a fixed-rotor system, operating depth up to 60 cm and are compatible with tractors from 300 to 500 hp. Suitable for small worksites and large infrastructures, the STABI/FRS features a brand new rotor design for improved stabilization with reduced power usage. The new mixing chamber allows

processing of all types of soil, guaranteeing an excellent end result. The structural frame, along with the use of special materials such as tungsten-carbide and Hardox, ensure great resistance against wear.



The STABI/H and STABI/H/HP offer professional stabilization without compromise. Designed for tractors between 300 to 500 hp, these machines feature a variable geometry chamber and operating depth up to 50 cm. The next-generation stabilizer, the STABI/H, is designed for the

most challenging applications including road building, highways, railways, parking areas, commercial zones, industrial plants and other infrastructural works. The newly designed rotor and innovative tooth holder developed by FAE, guarantee long working sessions under any conditions and unmatched efficiency. The variable geometry chamber and transmission built into the rotor allows for the soil to be processed with extreme precision and high quality.

For all 4 models, FAE offers the new teeth A/3 (standard) and A/3/HD (optional), in addition to F/3 and F/3/R range (optional). Both ranges can be used with the automatic FCS (full control system) for optimal mixing of soil and management of humidity (optional), a unique FAE solution for customers with the most demanding applications.

Source: FAE Group S.p.A.

New Models Added to VI Generation of Dynapac Rollers

Dynapac North America is proud to add 2 new rollers CC1300VI (4 t) and CC1400VI (4.3 t) to its successful VI generation compact asphalt roller range. Adding those newly-developed double drum and combi versions to the already released CC1100VI and CC1200VI completes the compact asphalt roller range of 2.2 t - 4.3 t in high demand from the North American asphalt paving community.

The CC1300VI and CC1400VI have been designed with the same mindset as the smaller models, to meet the commercial and highway paving industry's tough conditions. By keeping the operator in mind, it results in a robust, comfortable and modern machine producing the best compaction result.

The new generation VI machines have a cross-mounted engine. This is combined with an excellent visibility and massive casted forks with built-in flexible lifting, towing, and tie down possibilities. The CC1300VI and CC1400VI rollers also open new possibilities to select suitable compaction characteristics with optional dual amplitudes and dual edge pressers.

The machine features high frequency compaction with the possibility to choose

between dual frequencies (49 Hz/54 hz) depending on different conditions and applications. Dual amplitude (0.18 mm/0.5 mm) function is also available as an option for even more flexibility to compact different layer thickness. Equipped with an asphalt temperature meter (optional) to make sure compaction is done at the right temperature interval. Other optional

equipment includes, front right-mounted edge presser/edge cutter, dual front right and left edge presser/edge cutter, and an optional rear-mounted chip spreader. These machine models are also available in a combi-version with four static rubber wheels at the rear.

The range is powered by Kubota diesel engines which reach unbeatable performance with maximum uptime. For the North American market, a 50 hp T4f engine with ECO mode is offered. Patented efficient eccentrics system optimize compaction performance without drawing too much power from engine even in the toughest slope conditions resulting



in reduced fuel consumption and carbon footprint. The engine hood is large and it is possible to fully open almost 90° for full accessibility.

The cross-mounted engine is unique for optimal serviceability. The major daily service points under the hood are very easy to reach. All hydraulic hoses, sprinkler nozzles, water pumps and filters for the watering system can be accessed quickly and efficiently. The sprinkler pump and filter are easily accessible behind a cover above the rear drum.

Source: Dynapac North America

Flexible Solutions for Challenging Situations

DOLL is offering specially designed wind blade transport systems based on its proven series of trailers, suitable for all types of blades on the market. A grow-

ing numbers of renowned transport companies are being won over by the benefits of these systems, which combine mechanical or hydraulic lifting adapters with special bolsters and trailers.

Bolk Transport B.V. and Universal

Transport are recent additions to the roster of companies that have opted for DOLL's self-steering trailer combinations. Both chose hydraulic lifting adapters on a dolly, giving themselves enough reserve capacity to accommodate the steady increase in rotor blade length and weight that the industry is experiencing. With a dead weight of

approximately 7 t (depending on the choice of equipment) and a maximum 5th-wheel load of 30 t, the dolly has a remaining load

capacity of around 23 t. Working at the

put no fewer than 3 of these systems into operation recently.

"We collected the last 2 before Christmas," said Joop Savenije, managing



other end of the system, the 4-axle vario self-steering trailers boast a load capacity of around 32 t with a total technical weight of 40 t. Quite simply, these trailer combinations make it easy to plan for an extensive range of rotor blade sizes - even those approaching the 100 m mark.

Based in the Netherlands, Bolk Transport

director at Bolk Transport B.V. "Wind turbines have 3 blades, but it's not like you transport one to its destination, then go back for the others," he added with a touch of dry humor. "So you need 3 vehicles one for each blade."

Previously, Bolk had relied solely on telescopic trailers to transport wind power

Introducing the Stellar® TM28 Tire Manipulator

The Stellar® TM28 tire manipulator is the next evolution in mining tire service. By utilizing a forklift or loader as a tire handler, this new manipulator brings increased user efficiency and equipment value to the market.

The Stellar TM28 is available in either a long or short arm version. With a rated capacity of 12,700 kg, the TM28 is equipped to handle large construction and mine equipment tires. Featuring 110° body rotation and 360° continuous rotating pads, the TM28 allows operators full control, increasing efficiency and productivity.

"Stellar Industries is the worldwide market leader in truck-mounted tire manipulator machines and our customers have been asking us to enter the loader and forkliftmounted space for some time," said Tim Davison, sales and marketing manager at Stellar Industries. "It was important for us to make a product that could increase the productivity of our customer and not just create a product with the same value proposition as our competitors. We need to be able to give the customer more

features, better performance and more value for their investment."

There are many features to the TM28 that provide increased productivity for tire professionals, such as the optional side shift feature. This allows an operator to easily make small adjust-

ments for better control over the tire.

The TM28 provides added versatility through its ability to attach and detach to equipment. By adding Stellar's TM28 to existing equipment, professionals can increase equipment value by eliminating the need to buy dedicated equipment.

The features designed into the TM28 make it strong, robust and easy to use. The performance numbers speak for themselves but features like the accessory



mounting rail and fall back protection with integral lock ring catcher truly make the operator's job easier. Helping the operator be more productive is one of the core goals with every new product Stellar produces. With the TM28, Stellar has created the most productive loader-/forklift-mounted tire manipulator in the world.

Source: Stellar Industries

components. As rotor blades began growing to more than 65 m in length, however, it knew it had to find an alternative solution. In mid-January, the Seaport of Brake, Germany, provided the location for the first trial loading operation with project manager Emil Leushuis carefully monitoring progress and taking notes.

"What makes the trailer technology so good is that the rotor blade is self-supporting and there are much more flexible options for navigating obstacles," said Mr. Leushuis. "There's also a tiltable lifting adapter at the front, and the equipment is able to get round bends much more smoothly. The extensive slewing angle and attached turntable make it possible to position the dolly and self-steering trailer at an almost entirely transverse angle to the bolster, while the vehicle keeps on going."

The specialists at Universal Transport in Paderborn, Germany have been making use of their 3 latest DOLL self-steering trailer combinations since August 2020.



"We're currently using the trailers to carry rotor blades measuring as much as 65 m long, on vehicles with a total length of up to 77 m. The extendable cable and rope systems provide 120 m in length, so there's practically no limit to how far you can take the system – which isn't the case with telescopic trailers," said Ronny Knoblauch, one of the truck drivers. "As there's no telescopic beam, you're left with much more room to cross over obstacles

underneath the load."

"The goalposts in the wind energy industry are moving all the time," added Holger Dechant, managing director of Universal Transport. "We combine the trailers with different dollies to transport other long materials such as concrete parts and bridge girders. If rotor blades do get to the 100 m level, we'll have what it takes to cope with that."

Source: DOLL Fahrzeugbau GmbH

TII Group Provides Suitable Transport Solutions for Wind Turbines Components

Wind energy is considered a safe, lowemission and inexpensive power source and thus a key driver of the energy system transition process. Experts expect a significant expansion of capacities especially in North America. As a result, transport needs are undergoing a similar increase. At the TII Group subsidiaries, customers can find the right transport solution for each of these components.

Tax benefits for new wind turbines and ambitious government sourcing goals for electricity from wind energy have given the North American wind energy industry a major boost. Offshore plants, which are particularly powerful and feature correspondingly large components, are also expected to increasingly contribute to the generation of electricity from renewable sources. In addition to the components required for generating energy such as the rotor blades, star and hub, tower segments, machine housing and the so-called nacelles, the anchoring used to secure the towers to the seabed must be moved onto

the transport barges and then taken to the designated location at sea. This includes gravity foundations made of concrete, steel tripods and monopiles. Transition pieces also feature: connecting elements that securely fix the

installation to the foundations.

The transport of components for onshore installations places additional demands on vehicle technology. In this respect, the infrastructure often presents the greatest challenge. Passing through narrow streets and negotiating obstacles such as buildings and trees, even the most bulky components have a destination that must be reached. The versatile, self-propelled platform vehicles from the SPMT and InterCombi series from SCHEUERLE and K25 from KAMAG are also suitable transport solutions for these assignments.

The proven pendulum axle technology ensures a high level of stability and, thanks to the large steering angle, great maneuverability too.

Source: TII Group



ContiOnlineContact for OTR and Agricultural Tires

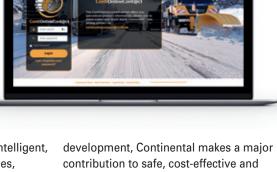
Continental expands the digital online dealer portal ContiOnlineContact. The portal now lists the entire Off-The-Road (OTR) and agricultural tire portfolio. This enables dealers and customers from the agricultural, industrial, earthmoving, port and airport sectors, among others, to order tires flexibly and on demand. With the expansion of the dealer portal to include OTR and agricultural tires, service performance will be continuously improved and tire ordering will be catering to the individual needs of the customers. The new products are available both as ad hoc orders with delivery directly from the regional warehouses and as direct shipments from the factories.

Via ContiOnlineContact, dealers and customers can search the complete range of Continental commercial specialty tires and accessories and access product information and technical documentation comfortably and at any time. After selecting a tire for the individual application, the portal

can be used to check availability and to place and track an order. In addition, product updates and marketing material keep dealers up to date with the latest developments at Continental. Further developments of the portal are already in the pipeline.

Founded in 1871,

Continental offers safe, efficient, intelligent, and affordable solutions for vehicles, machines, traffic and transportation. The Tires business area has 24 production and development locations worldwide. Continental ranks among the technology leaders in tire production and offers a broad product range for passenger cars, commercial and special vehicles. Through continuous investment in research &



Source: Continental, Commercial Specialty Tires

tires.

ecologically efficient mobility. The portfolio

of the Tires business area includes services

for the tire trade and fleet applications, as well as digital management systems for





ZF Invests in North American Transmission Manufacturing

ZF recently announced a \$200 million investment in commercial vehicle transmission manufacturing in North America. Beginning in 2023, ZF will produce the ZF PowerLine 8-speed automatic transmission at its manufacturing facility in Gray Court, South Carolina.

"ZF is a 106-year-old technology leader that has been in the U.S. for many decades, and this investment in U.S. manufacturing of sustainable driveline technology further proves our commitment to the North American commercial vehicle market," explained Dr. Martin Fischer, president of ZF North America and member of the Board of Management. "Together now with WABCO, ZF offers customers around the world an unrivaled product portfolio that includes driveline, steering, braking, ADAS technologies and telematics, coupled with a full-service network."

The ZF PowerLine transmission is designed for medium-duty commercial vehicle trucks, buses and heavy-duty pickup trucks. The transmission is based on ZF's 8-speed automatic transmission benchmark design, which provides maximum spread with fewer moving parts, reduced friction and less fluid. ZF PowerLine

provides an incomparable total cost of ownership (TCO) with minimal maintenance, best-in-class fuel efficiency potential in the double digits, and highly integrated shift algorithms that promote up to 15% enhanced acceleration performance.

"ZF PowerLine proves equal, but in most cases, higher performance and efficiency than other transmissions with 9 and 10 speeds. It will set the new benchmark for automatic transmission technology in the strategic North American commercial vehicle market," explained Christian Feldhaus, director Commercial Vehicle Driveline
Technology North America, ZF. "With its modular design, PowerLine is prepared for mild hybrid and plug-in hybrid variants, making it a true technology bridge to future mobility."

ZF began production of the PowerLine 8-speed automatic transmission at its global headquarters in Friedrichshafen, Germany, at the end of 2020 and made its first supply to North American customers in 2021. In 2023, volume production will begin in the U.S. and will exclusively serve



North American market demand.

The U.S. home of PowerLine is ZF Transmissions Gray Court, located just outside of Greenville, South Carolina, home to BMW, Michelin and other top global suppliers. Since opening in 2012, the facility has produced 5.5 million automatic transmissions. ZF has been producing gears since 1915 when the company was founded to manufacture components for the Zeppelin airship.

Source: ZF Friedrichshafen AG

Yanmar Develops New Industrial Diesel Engines

Yanmar has developed 2 industrial diesel engines, the 3TN86CHT and 4TN86CHT, that comply with EU StageV and U.S. EPA/ CARB Tier 4 emission regulations.

The new engines integrate the latest diesel engine technology born from Yanmar's extensive engine development experience to deliver a high power density. To increase power output, a new turbocharger design has been implemented, along with higher strength in various engine parts. As a result, the 3TN86CHT and 4TN86CHT have 20% and 14% more power output, respectively, than TNV models of the same displacement with intercooled turbo in the current lineup.

The compact outline of the engine was designed in consideration of engine bay dimensions, making it easier to install in the manufacturers' equipment. In addition, increasing the output of the exhaust gas

after-treatment system without making it larger contributes to improved operator's visibility and comfort.

The new engine is equipped with Yanmar's proprietary DPF system for capturing particulate matters. This system, which has been well received in the market, works well at high altitudes and at low temperatures, and under all work conditions, from light to heavy loads. In addition, the DPF cleaning service has a long interval of 6,000 hours.

With beginnings in Osaka, Japan, in 1912, Yanmar was the first to succeed in making a compact diesel engine of a practical size in 1933. Then, with industrial diesel engines as the cornerstone of its enterprise, Yanmar has



continued to expand as a provider of small and large engines, construction, agricultural and marine equipment, energy systems, machine tools, and components.

Source: Yanmar Co., Ltd.

Scania Industrial Distributors Assigned Additional Territory for the West Coast Region

Effective February 1st, existing Scania industrial distributors, Collicutt Energy Services, Hamilton Engine, and Loftin Equipment have expanded their respective industrial territories to include areas in the West Coast region of the U.S. and Canada.

Collicutt Energy Services, Hamilton Engine, and Loftin Equipment currently represent Scania Tier 4 Final industrial engines ranging from 275 hp to 770 hp. These engines can be found in various applications in the U.S. and Canada, including stationary, construction, agriculture, ground support, and more specifically for pump power solutions used in the oil and gas segments.

Collicutt Energy Services, based in Red Deer, Alberta, previously leading all sales, service, and dealer development for Scania industrial engines in the Canadian Prairies and Northern Territories, now assume responsibility for Alaska, British Columbia, and Yukon.

Hamilton Engine, based in Sun Prairie, Wisconsin, previously the distributor for Scania industrial engines Midwestern operations have expanded their responsibilities to include Idaho and Montana.

Loftin Equipment, based in Phoenix, Arizona, previously responsible for sales and service network development for Scania industrial engines in

the Southwest and parts of the Southeast of the U.S., have increased their territory to include California, Oregon, Hawaii, and Washington State.

Scania's commitment to service and support is reflected in the choice of Collicutt Energy Services, Hamilton Engine, and Loftin Equipment. They were assigned additional territory based on their thorough knowledge and understanding of customers' needs, engineering and fabrication



capabilities, and their location of operations.

Scania U.S.A.'s distributor and dealer network are constantly evolving to ensure top quality service for OEMs and end users. It is comprised of 7 industrial distributors, over 260 strategically placed dealers, and over 700 highly skilled technicians who are trained on the latest industrial Tier 4 technology for off-highway applications.

Source: Scania U.S.A. Inc.

Towing Capacity

The 2021 Ram Heavy Duty is the most powerful, most capable pickup in the segment with a towing capacity of 16,828 kg with a gooseneck hitch.

"Ram regains capability leadership by delivering the highest ever torque rating for a diesel pickup truck and heaviest gooseneck towing capacity," said Mike Koval Jr., Ram Brand CEO - Stellantis. "We understand the attributes that are most important to our customers within the heavy-duty segment; they demand hardworking, long-lasting capability."

Working closely with Cummins, the diesel engine improvements for 2021 include higher limits for boost from a variable geometry turbocharger and flow rate increases in the fuel delivery system. This enables the 6.7 I I6 to produce an additional 75 lb ft of torque. This improvement ranks the Cummins engine ahead of the competition with 1,075 lb ft of torque, while maintaining the diesel's hallmark durability and efficiency.

The rear portion of Ram Heavy Duty's



frame includes fully boxed rails and the rear-axle structural crossmember, with provisions for a 5th-wheel and gooseneck hitch, has been upgraded for 2021 to accommodate the increased towing capacity. The optional hardware is fully integrated into the production box floor and includes 5th-wheel pucks, gooseneck bolt plates and gooseneck center castings. Additionally, the standard 4/7-pin trailer connector at the bumper and an additional 7-pin connector are integrated into the rear of the bed to easily wire a trailer (included in 5th-wheel/ gooseneck option).

An available covered external power source (400 W 115 V, 3-prong) is located at the left rear corner of the bed. This plug features a water resistant lid and includes a 400 W inverter.

The towing uprating is made possible by an in-house hitch design from Ram Engineering. The upgraded capability allows the Ram 3500 to haul the heaviest travel trailers in the industry. Maximum conventional hitch maximum trailer weight ratings for 2021 is 10,432 kg.

Source: FCA (now Stellantis)

Electric Fire Trucks on Their Way to Customers

Fire trucks featuring Volvo Penta electric drivelines are on their way to fire departments in Berlin, Amsterdam and Dubai to begin real-world customer testing.

Volvo Penta has developed an electric driveline for leading fire service vehicle manufacturer Rosenbauer's pioneering fire truck, named "Revolutionary Technology" (RT). The truck was officially launched at an event in Austria.

By walking away from conventional commercial vehicle concepts and developing an electric solution for the truck's driveline, Volvo Penta and its customer Rosenbauer have introduced a completely new vehicle architecture which is set to transform the fire service industry. With its electric driveline, the fire truck boasts excellent ergonomics, functionality, and safety, as well as high loading volumes, compact dimensions and one-of-a-kind agility. The Volvo Penta electric driveline also brings benefits such as zero exhaust emissions and significantly reduced noise

levels.

Firefighters
responding to
a call need a
vehicle capable
of high speed,
rapid acceleration,
hard braking and
maneuverability.
The RT's electric
driveline, paired
with independent
suspension and a
hydropneumatic
chassis, delivers a
high standard of

safety and great driving performance.

The Volvo Penta-powered RT features 2 electric motors that have the potential to provide a total output of up to 360 kW (490 hp). The truck's energy storage system allows for an electricity-powered journey with ample time for operation at the rescue location. In addition, there is a backup



diesel engine on board, providing sufficient energy supply should the journey or operation take longer.

Source: Volvo Penta

2022 Nissan Frontier Stays True to Its Heritage

With more than 6 decades of experience bringing compact and mid-size trucks to Canadian customers, the 2022 Nissan Frontier brings what drivers need to take on both weekday work and weekend adventures.

The new Frontier design is inspired by the Nissan Hardbody, a truck that bur-



nished its rough and rugged reputation in the 1980s and 1990s.

Building on a proven chassis and frame, the engineering team refined and tuned the powertrain, steering and suspension.

The standard 310 hp 3.8 l V6 is rated at 281 lb ft of torque. The 9-speed automatic

transmission
is designed
to maximize
efficiency and
provide strong
acceleration.
The hydraulic
rack-and-pinion
steering has
been retuned to
provide better
on-center feel
while the steering gear ratio

has been increased by 16%.

All Frontier models sold in Canada feature a shift-on-the-fly 4-wheel drive system with a 4-wheel limited-slip system, which helps transfer power to the drive wheels with more grip on low traction surfaces. The PRO-4X model adds an electronic locking differential, Bilstein off-road shock absorbers and underbody skid plates.

Towing capacity is rated at up to 2,944 kg (when properly equipped). New for 2022 is standard Trailer Sway Control, which



detects sway and automatically applies the brakes to eliminate it.

Addressing common customer needs, designers gave the new Frontier a new interior that combines versatility with functionality.

A 5' bed is standard on the PRO-4X Crew Cab with a 6' bed standard on Crew Cab SV Long Wheelbase models. A 6' bed is also standard on all King Cab models.

Source: Nissan



Appointments

The Ontario Asphalt Pavement Council (OAPC), a council of the Ontario Road Builders' Association, elected John MacKay, general manager, GTA Construction and Materials Engineering Aecon Infrastructure at Aecon Group Inc., as Chair of the Council during OAPC's 5th annual general meeting on January 28 via ORBA's virtual Summit - Forging the Roadway Ahead. Mr. MacKay takes over the helm of the



Council Board from Ivan Levac, assistant manager - City and Commercial Division at R.W. Tomlinson Limited, who served as OAPC's Chair from February 4, 2020, through January 28, 2021.

"I am very much looking forward to fulfilling my role as Chair of OAPC as well as working with the newly appointed Council Directors in 2021," said Mr. MacKay. "It is an honor to be chosen to represent a group of people, directors and staff, that really do exemplify a sense of community, drive and willingness to improve our industry. It is through the strength of exemplary work of the Council, and the Association we will build upon our success and will continue to face challenges that lie ahead, just as we worked together to overcome the unprecedent challenges of this past year."

John MacKay got his start in the construction industry early, at the age of 17, with KJ Beamish Construction in Lindsay, Ontario. In 1996 he joined the Aecon Group where he has held numerous positions with increased responsibility in highway paving and heavy civil construction including quality control, materials engineering, contract management and estimating.

It was in 1998 when he attended his first Fall Asphalt Seminar that Mr. Mackay became involved with Ontario Hot Mix Producers' Association (OHMPA). In 2015 he joined the OHMPA (now OAPC) Board of Directors. In addition to his involvement on the Board of the OAPC, he is the Chair of the OAPC's Hot Mix Asphalt Technical Working Group and is on the Hot Mix Paving Committee.

Source: The Ontario Road Builders' Association (ORBA)

Dust Hog® Pro LLC recently announced the addition of Patrick Mullins to its leadership team as Chief Customer Officer.

Mr. Mullins is best known within the building construction industry for his role in founding and growing the CMP brand of floor preparation cement products. Mr. Mullins is leaving Bostik, Inc. the global adhesive company to which he sold CMP in 2016, after successfully integrating the business.

"My true passion lies within starting new ventures and building them into laser-focused, customer solutions providers," stated Mr. Mullins. "The Dust Hog Pro is a solution that solves one of the greatest challenges still remaining in our industry, dust control, and I am excited to be part of taking the company global in 2021."

The Dust Hog® helps protect installers and HVAC systems from

airborne particulates and in compliance with OSHA respirable silica dust safety regulations. Invented by a professional contractor, the field- and independent laboratory-tested tool is made of high-visibility, rugged, polypropylene plastic in the U.S. The Dust Hog® utilizes proprietary Vortex Suction Technology™ to create a high-velocity, circular air current throughout the mixing container. Its patent-pending design has been specifically engineered with dual intake ports extending below the container rim, greatly enhancing vacuum suction performance.

The Dust Hog® easily fits on and off pails and drums used for mixing self-leveling underlayments, repair patches, mortar, joint compound, and other powdered materials on commercial and residential jobsites.

Source: Dust Hog® Pro LLC

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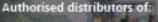
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Agenda

Because of measures taken in many countries to counteract the coronavirus pandemic, it is essential to check whether an event you are interested in will take place and... on what date.

The ARA Show

Rescheduled to October 18-20, 2021 Las Vegas, NV USA

bauma CONEXPO INDIA

Rescheduled to 2022 Greater Noida/Delhi, India

inter airport south east asia

Rescheduled to September 22-24, 2021 Singapore



Intermat INDIA

Rescheduled to October 18-20, 2021 Mumbai, India

Work Truck Show

Rescheduled to March 8-11, 2022 Indianapolis, IN USA

World of Asphalt

Rescheduled to March 29-31, 2022 Nashville, TN USA

Atlantic Heavy Equipment Show

Rescheduled to April 13-14, 2022 Moncton, NB Canada

stein expo

Rescheduled to September 2023 Homberg/Nieder-Ofleiden, Germany



INTERMAT Paris

Rescheduled to April 2024 Paris, France

InnoTrans

Rescheduled to September 20-23, 2022 Berlin, Germany

The BIG Event Canadian Mining Expo

Rescheduled to an undetermined date Timmins, ON Canada

AORS Municipal Public Works Trade Show

June 2-3, 2021 Barrie, ON Canada

World of Concrete

Exhibits June 8-10, 2021 • Education June 7-10, 2021 Las Vegas, NV USA

International Rental Exhibition (IRE) / APEX access show

June 15-17, 2021 Maastricht, the Netherlands

Hillhead

June 22-24, 2021 Buxton, Derbyshire, UK

The Utility Expo

September 28-30, 2021 Louisville, KY USA

inter airport europe

November 16-19, 2021 Munich, Germany



IFAT

May 30 - June 3, 2022 Munich, Germany

Svenska Maskinmässan

June 2-4, 2022 Stockholm, Sweden



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*We apologize for the misprint in last months issue.





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