

A publication for and about Power Equipment Company's customers • www.PowerEquipmenteer.com • June 2023

## Sons Construction Inc.

KOMATSU

Family business takes on large commercial and industrial warehouse projects

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**BLK Quarries Inc.** 

Justin Raper, Owner David Raper, Executive

## **Never Too Busy for Safety**



Andy Moon

A message from Power Equipment Company



Dear Valued Customer:

This time of year tends to be the busiest in the industry with lots of activity that involves manpower. It is easy to focus on the task at hand, but remember what's most important: your employees. I encourage you to review safety guidelines, from having the proper protection systems for your trenches to providing plenty of water and sunscreen to help your staff beat the heat.

To help get projects done on time, properly maintain your equipment. Fortunately, most new Komatsu machines come with complimentary Komatsu Care for the first three years or 2,000 hours. Our trained technicians perform the services at your convenience to help limit downtime — typically after normal work hours or when your equipment is not being used.

Komatsu Care also gives you certainty in your owning and operating costs. Learn about Komatsu's new program, Komatsu Care Cost Per Hour, in this issue. We believe it's well worth the investment.

We hope you were able to attend CONEXPO-CON/AGG this past March, but if not, there's a recap of the event inside this issue that provides information about some of the machines that were on display, such as Komatsu's new PC210LCE electric excavator.

You can also read about Komatsu's upgraded C144 harvester head and new grapples that improve performance with increased reliability for great productivity.

As always, if there is anything we can do for you, please feel free to contact us.

Sincerely, Power Equipment Company

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Andy Moon, President



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## Tennessee-based Sons Construction Inc. improves efficiency with Smart Construction solutions, iMC



Justin Raper, Owner



David Raper, Executive

Since its inception in 2005, Sons Construction Inc. (SCI) has grown into the robust general contractor it is today through the adoption of new technology. The company is led by owner Justin Raper and his father, David Raper, who has more than 40 years of experience in the construction industry.

"It started off as a general contracting business, and from there, it progressed into doing design builds and larger scale projects," explained Justin.

SCI is based in Madisonville, Tenn., and mainly works in Monroe, Knox and Loudon counties. The company prefers to take on large commercial and industrial warehouse projects, with recent jobs ranging from 50,000 to 450,000 square feet. From the design to the finished product, SCI is vertically integrated

David Raper lifts material with a Komatsu PC88MR excavator equipped with Smart Construction Retrofit, which is an aftermarket system that gives excavators 3D guidance capabilities. SCI owner Justin Raper commented, "I was using a robot, and it was taking an hour to set it up in the morning. GPS takes five minutes, so that's when we got Power Equipment involved. Retrofit and iMC are a lot faster and easier."



to handle all aspects of commercial builds, including site development and concrete work.

"Justin has helped take what we do to another level with 3D and GPS technology and the people he has brought in," noted David.

The Rapers collaborate with Project Manager/Estimator Billy Trammell, and David noted that without him SCI "wouldn't be where it's at."

#### **Time-saving technology**

To maximize its efficiency, SCI relies on two Komatsu excavators: a PC138USLC and a PC88MR. Both are equipped with Komatsu's Smart Construction Retrofit, which is an aftermarket system that gives excavators 3D guidance capabilities. SCI decided to acquire Retrofit after demoing it at Komatsu's Training Center in Cartersville, Ga.

"We weren't in the GPS field yet and didn't know how far we wanted to jump in the water," said Justin. "I took the Retrofit kit option, which was about half price compared to the others."

SCI saw a substantial uptick in its job site efficiency, thanks to Retrofit.

"We were doing footers in Knoxville on a warehouse, and I dug for about half a day without anybody shooting grade or cleaning," said Justin. "The Retrofit kit gave me more control over what I was doing, and that is great if I need to overcut, undercut, or dig outside the perimeters of the model. It allows you to cut a guy out, so you can cut your labor in half. Since you aren't guessing while operating and don't have to wait on someone, you can be more accurate and operate faster. You're going to save at least half your time."

The technology helps operators transition from traditional machinery to technologically advanced equipment.

"If you take somebody who's been operating a long time and you try to throw a lot of technology at them, it can overwhelm them," said Justin. "If you can put them into a Retrofit system and slowly ease them into it, they're more adaptive to do it. They still dig just like normal, but they have a screen they can follow. All they need to do is just look at a screen and



Operators push material to grade with a Komatsu D61PXi iMC dozer and a Komatsu D65WX-17 dozer. "The sloping of the hood on the D61 makes it a real winner," said David Raper.

read numbers, listen to chirps and whistles, and they get interested fast. I can set it up for them, and there's not a whole lot of a learning curve there."

SCI also utilizes Komatsu's Smart Construction Field app to clock employee hours and stay remotely informed on job site progress.

"We're doing all the daily reports on Field with pictures," said Justin. "That's a major deal because you can see the weather conditions and work progress on specific days. It allows me to resolve problems remotely."

In addition to the excavators, the company's fleet includes a Komatsu D61PXi intelligent Machine Control (iMC) dozer and a Komatsu D65WX-17 dozer.

"When you don't have to shoot grade, you can focus on digging, and that makes work really fast," said David. "It also makes more complicated grading easy. When you can grade a parking lot at an angle, it makes us so much more efficient — saving us time and money."

The D61PXi iMC dozer's updated features provide advantages for the operator such as excellent visibility, which results in higher accuracy.



"The sloping of the hood on the D61 makes it a real winner," said David. "Plus, the fuel efficiency allowed me to run it a few days before I ever had to fuel up. That reduces fuel costs."



SCI's fleet includes a Komatsu PC138USLC excavator equipped with Smart Construction Retrofit. "It has been very groundbreaking for us," said Project Manager/Estimator Billy Trammell. "The efficiency, the speed, and especially the financial side of having that technology allow us to produce our projects faster with less errors."

## 'Power's support has been exceptional'

... continued



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Justin Raper, owner of SCI, sets up a model on Smart Construction Retrofit. "You can be more accurate and operate faster [with Retrofit]," he commented.





SCI's Justin Raper (right) asks Power Equipment's Matthew Lewanski a question. "Matt's been with me on everything in the field that requires GPS," noted Justin.

### **Reliable assistance**

For all its equipment needs, SCI depends on Power Equipment Company with specific support from Territory Sales Manager Aaron Dockery and Technology Solutions Expert (TSE) Matthew Lewanski.

"Power's support has been exceptional," said Justin. "Aaron's been there for anything that I need from service, sales and everything in between. Matt's been with me on everything in the field that requires GPS. It's an open door. Anytime I need to call them, I can. If they see an issue I don't see right off the bat, they'll point it out."

SCI views the open dialogue it has with Power Equipment as a great resource.

"Sometimes you can't see everything that's going on around you," said Justin. "I believe the only way you have a successful business is to have a good core group of people around you, and that is what we have with Power."

## **Building a foundation**

In the future, SCI wants to continue to adopt new technology, upgrade and innovate its fleet of machinery, and build the foundation of an enduring company.

"Our family has been at it for 41 years, so I'm excited to see where we can get to in 40 more years," said Justin. "I think if you stay up with technology, and stay up with times, it can only make things easier and faster for your operation."

(L-R) SCI's Billy Trammell, Justin Raper and David Raper work with Power Equipment's Matthew Lewanski and Aaron Dockery.





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## BLK Quarries Inc. hosts local elementary school field trip to teach kids about construction and mining



Discover more at PowerEquipmenteer.com

For an afternoon, the cacophony of a work site was replaced with children's excitement as students from Arkansas' Quitman Elementary School arrived at BLK Quarries Inc. to get hands-on experience with construction and mining equipment.

"We have grandkids in the Quitman School District, so it was a perfect fit for us to bring the kids here," said Cynthia Kennedy, who owns BLK Quarries as well as two other companies with her husband, Bobby. "We thought it was a great opportunity for them to see a quarry from the ground up."



(L-R) Bobby and Cynthia Kennedy are the owners of BLK Quarries.

Power Equipment's Greg Brown answers students' questions about a Komatsu PC170LC-11 excavator.



Bobby added, "We've lived here all our life. My wife went to school here. Our parents and grandparents went to school here. We can afford to give back to the school, so that's exactly what we want to do — to help them out any way we can."

The Kennedys founded their first business, Bobby Kennedy Construction, in 1985, then they added BLK Quarries and CK Asphalt, which all work hand in hand.

"It helps the flow of the business to go more smoothly," explained Cynthia. "We can do projects timelier because we're the ones in the planning process of doing the dirt work, rock and paving. We have a better financial and operational flow to our business now."

With a turnkey operation, the Kennedys' target highway construction.

"Our primary focus right now is the Arkansas Department of Transportation," said Cynthia. "We do contracts through the highway department for our construction business and our asphalt business. We haul some gravel for the highway department, but most of the gravel will be sold to other businesses."

With about 100 employees collectively, the three companies typically complete projects within a 60-mile radius of Quitman. The Kennedys' asphalt plant and a quarry are in Rose Bud, Ark. To better service the area, the Kennedys are opening a quarry in Guy, Ark., which was the location of the field trip.

"As the new quarry site starts out, we're developing the road system to go in," commented Cynthia. "The first thing that must be developed is the pit. They take all the topsoil off the pit to be reused, then they take all the field dirt off the pit to be reused. We'll sell the topsoil and the field dirt from this location. The kids will get to see how a business is run with big equipment."

#### **Students on-site**

During the field trip, Quitman Elementary School's third and fourth grade students — including the Kennedys' granddaughter, Brooklynn — were able to see the development of the new quarry and interact with machinery by asking questions, hopping into the operator's seat, and even honking horns.



Quitman Elementary School students check out a Komatsu HD325-8 haul truck.

While some may see the event as just a fun field day, Bobby hopes it encourages some of the children to pursue a career in construction.

"Our goal is to get kids used to heavy equipment and allow them to see what's going on in their community," said Bobby. "Some of them may make a career out of it someday, and they may not, and that's okay too. We want them to be able to see what's out there."

The machines on-site included a Komatsu WA500 wheel loader, a Komatsu PC170LC-11 excavator, two Komatsu HD325-8 haul trucks, and a Takeuchi TL12V2 compact track loader.

"My first dozer in 1985 was a Komatsu," said Bobby. "We have Komatsu machinery at our other quarry too and have had great reliability and use out of them, which is why we wanted to use them at this new location, and it's great to be able to share these machines with the kids."



BLK Quarries' Bobby Kennedy speaks to the Quitman Elementary School students as they depart from the field trip. "Our goal is to get kids used to heavy equipment and allow them to see what's going on in their community," said Bobby.

### An evolving partnership

To make the event happen, BLK Quarries partnered with Power Equipment Company, especially sales representative Corey Southerland.

Continued ...

## 'We loved working with Corey on this project'

... continued



Billy Ham, Power Equipment

"Corey was a leader in planning the event," said Cynthia. "He got with his company, and they suggested to involve the school system, partly because he has kids in the Quitman School District. We loved working with Corey on this project because of his involvement in the community."

Power Equipment brought additional equipment to the quarry, including the Komatsu PC170LC-11 excavator, with the help of Cody Wolverton and Wolve Pak



(L-R) BLK Quarries' Cynthia Kennedy, Colton Holland and Bobby Kennedy stand with Power Equipment's Corey Southerland, Brian Bourne, Greg Brown, and Albert Savino.

Enterprises Inc., a trucking company based in Batesville, Ark.

BLK Quarries' Colton Holland and Power Equipment's Brian Bourne, Billy Ham, Greg Brown, and Albert Savino — as well as the Kennedys' 12-year-old grandson, Braden guided machine walk-arounds and answered students' questions.

When students aren't on-site, BLK Quarries relies on Power Equipment's support to keep their machinery up and running.

"There is a lot of electrical components in machines today," said Bobby. "It's not like when it was 40 years ago when I started. We can't handle every problem that arises, and having support from Power keeps our operation going."

Bobby added, "We weren't getting the service we wanted before. Since Power Equipment came in, it's been going really well."

#### The start of many more

BLK Quarries doesn't want to stop at one field trip.

"We plan to expand the event to go with the children in the Guy-Perkins School District and the Greenbrier School District in the future," Cynthia declared. "I think everyone that can give back to their community should, because in the long run, it benefits the children within the community. I was a teacher for 20 years, and I feel kids can benefit the most from what we do."

Cody Wolverton of Wolve Pak Enterprises Inc. delivers a Komatsu PC170LC-11 excavator from Power Equipment.



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## **Industry Event**

## CONEXPO-CON/AGG 2023 attendees see the future of construction as manufacturers highlight electric equipment



Electric! That describes both the atmosphere and an abundance of new machines at CONEXPO-CON/AGG 2023, which was held March 14-18 in Las Vegas. With an eye toward sustainability, a host of manufacturers across multiple industries debuted electric and autonomous equipment designed to reduce fuel usage and carbon footprints.

A record crowd of more than 139,000 people attended North America's largest equipment show, which was co-located with the International Fluid Power Exposition (IFPE) at the Las Vegas Convention Center. More than



Manufacturer representatives were on hand to answer attendees' questions about equipment and technology. "CONEXPO gives us the opportunity to show attendees how Komatsu can be an end-to-end solutions provider with equipment and digital tools that can help increase efficiency and reduce costs," said Komatsu's Brandon Rakers, Senior Product Manager for Technology Business Solutions (pictured above, right).

At CONEXPO-CON/AGG 2023, Komatsu introduced innovative new electric products such as the 20-ton PC210LCE electric excavator that features Proterra's lithium-ion battery technology.



2,400 exhibitors from 36 countries were spread out across approximately 3 million square feet of exhibit space, which was about 10% larger than the previous show in 2020.

"The innovations in the construction industry unveiled this week will play a role in helping construction professionals drive meaningful and sustainable economic growth," said CONEXPO-CON/AGG Chair Phil Kelliher. "Live events in the construction industry are very important, because you can see, touch and experience the products. That value was reaffirmed this past week across the show floor."

#### **Sustainable focus**

Komatsu introduced innovative electric products such as the 20-ton PC210LCE electric excavator that features Proterra's lithium-ion battery technology. It has 451 kilowatt hours (kWh) of battery capacity that offer up to 8 hours of operating time, depending on workload conditions and application.

Suitable for a diverse range of workplaces, including indoors, the Komatsu PC30E electric mini excavator with a 35-kWH battery and a 17.4-kilowatt electric motor was on display. The PC30E is designed to be fast-charged, and it offers quiet and simple operation with zero emissions and no vibrations.

Attendees had the opportunity to see Komatsu's smallest electric excavator — the PC01E electric micro excavator. Developed jointly with Honda, it is powered by portable and swappable mobile batteries. The new machine is designed for confined spaces in landscaping, agriculture and construction.

Komatsu's vision for the swappable battery system is to scale up the technology for use in larger micro excavator models. The PC210LCE, PC30E and PC01E will be available in select markets later this year.

Komatsu also showcased three types of charging infrastructure, as well as its WA electric wheel loader prototype with a chassis based on the WA70. The wheel loader prototype utilizes an "intelligent electrification system" that features an electric traction motor, lift, tilt and steering cylinders, power electronics, a system control computer, a battery, and a battery management system.



In addition to electric equipment, Komatsu showcased its new PC900LC-11 excavator, which was paired with a Komatsu HM400-5 articulated truck.

In addition to electric equipment, Komatsu highlighted its HB365LC-3 hybrid excavator designed for high production and efficiency with low fuel consumption. Its hybrid system can provide an additional 70 horsepower on demand and allows operators to be up to 15% more productive in Power mode. The hybrid's environmentally friendly operation offers up to 20% more fuel efficiency and 20% less carbon dioxide emissions compared to the standard PC360LC-11.

Also on display was Komatsu's suite of Smart Construction solutions — Dashboard, Design, Drone, Field, Fleet, Office, Remote and Retrofit — designed to optimize the job site, as well as its new Smart Quarry solutions that help increase efficiency, improve production, and maintain a high level of performance, such as Smart Quarry Site and Smart Quarry Study.

Lastly, Komatsu featured its intelligent Machine Control (iMC) 2.0 dozers and excavators, along with the new PC900LC-11 excavator, and other construction and forestry machines.

"We had a lot of great conversations at the show and really wanted customers to take away that we are committed to working with them to create value together," said Komatsu's Brandon Rakers, Senior Product Manager for Technology Business Solutions. "CONEXPO gives us the opportunity to show attendees how Komatsu can be an end-to-end solutions provider with equipment and digital tools that can help increase efficiency and reduce costs."



(L-R) Andrew Lew and Richard King attended CONEXPO-CON/AGG 2023 on behalf of Atlas Asphalt Inc./White River Materials.



(L-R) Aquatic Holdings Inc.'s Darrell Jones and Kenneth Gordon made the journey from Guild, Tenn., to Las Vegas to see Komatsu's latest offerings.

CONEXPO-CON/AGG is scheduled to return to the Las Vegas Convention Center March 3-7, 2026. ■

Learn more about Komatsu at CONEXPO: https:// www.komatsu.com/events/conexpo/?utm\_ source=Komatsu&utm\_medium=PressRelease&utm\_ campaign=ConExpo2023&utm\_content=pc900



Continued ...

## Power Equipment customers at CONEXPO-CON/AGG

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(L-R) Granite Mountain Quarries' Andy Lain and Andrew Branham, McGeorge Contracting's Chris Malone, and Granite Mountain Quarries' Marvin Padgett visited Komatsu's booth to discover the latest innovations in heavy machinery.



(L-R) Kerry Jeffries from APAC Central and Dina Jeffries learned about Komatsu's HB365LC hybrid excavator.



(L-R) Katrina and Kyle Gaerke represented Loyston Quarry LLC at CONEXPO-CON/AGG 2023.



(L-R) Grassy Creek Construction's Chad Young, Wade Hughes and Zackariah Hughes looked at Komatsu's new machines.



(L-R) Sunrise Contracting's Brett Durham and Brett Wesnofske checked out the equipment on display at CONEXPO-CON/AGG 2023.



Power Equipment Company's parent company Bramco Inc. received the Dealer of the Year award from Montabert. (L-R) Power Equipment's Andy Moon; Bramco's Craig Leis, Chad Dobson, Mike Paradis, and Michael Brennan; Montabert's Maurice Stanich; and Brandeis Machinery & Supply Company's David Coultas were in attendance. Photo courtesy of Construction Equipment Guide

(L-R) Sunrise Contracting's Paul Pratt, Andrew Durham, Bobby Dial, and Trevor Bradshaw explored the Las Vegas Convention Center.



(L-R) Sy and Sara Kirby from Sy-Con Excavation & Utilities chatted with Power Equipment's Tim Hooper.



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## Construction equipment electrification: a glimpse into the future of the electric job site



Andrew Earing, Director of Tracked Products and Service, Komatsu

From electric vehicles (EVs) to mining equipment, the shift toward an electric-powered world to reduce carbon emissions — including construction equipment electrification — has already begun.

The Bipartisan Infrastructure Law, which President Joe Biden signed in November of 2021, includes an investment of up to \$7.5 billion for EV charging stations to help build out a national network of 500,000 EV chargers.

Additionally, the Bipartisan Infrastructure Law created a joint office between the Departments of Energy and Transportation to collaborate with local communities and provide technical assistance to support the creation and development of EV charging infrastructure.

Actions are being taken at the state level as well. The California Air Resources Board announced the Advanced Clean Cars II rule in August of 2022 that codified Governor Gavin Newsom's climate goals for the state. The rule established that all new cars and light trucks sold in California must be zero-emission vehicles by 2035.

"While electrification is at the forefront of everyone's mind due to automotive, our equipment on the construction site is often creating that infrastructure for electric automobiles," remarked Andrew Earing, Director of Tracked Products and Service at Komatsu.

An operator places a battery in an electric Komatsu machine. "While electrification is at the forefront of everyone's mind due to automotive, our equipment on the construction site is often creating that infrastructure for electric automobiles," remarked Andrew Earing, Director of Tracked Products and Service at Komatsu.

"There are challenges, and we have solutions to those challenges that we are exploring, but it's not going to be a one-size-fits-all solution for the various applications and the various sizes of the products that we provide."

### The electric advantage

Komatsu recently showcased a PC210LCE electric excavator and a fully electric compact wheel loader prototype at Bauma 2022, an international trade fair that was held in Munich, Germany, as well as CONEXPO-CON/AGG 2023 in Las Vegas.

In a press release, Seiichi Fuchita, Chief Technology Officer and President of the Development Division at Komatsu, noted that for Komatsu to reach its target of reducing the CO2 emissions of products in use by 50% by 2030 (from 2010 levels), and "to achieve carbon neutrality by the end of 2050, we are looking for promising technologies from suppliers to accelerate our electric machine development."

"Industries including construction are trending in the direction of carbon neutrality," added Earing. "We want to be a leader. We are a technology leader when it comes to construction and mining equipment. We feel that electrification is one viable option in the construction space."

With the PC210LCE, Komatsu created an electric excavator from a popular size class.

"We wanted to introduce the 20-ton size class, because it opens us up to a lot of different operating applications and environments," explained Earing. "They're going to be used indoors and outdoors. It's a very diverse size class, and we wanted to get a much better understanding of all those applications and how they work with electrification."

In 2023, the PC210LCE will begin to see real work on the job site.

"In North America, we are going to conduct a pilot program where we will work with many of our customers to jointly test not only this machine, but the solutions for our customers' applications to better understand the benefits to them, and how we can help meet their needs," said Earing.

Meanwhile, a Komatsu electric wheel loader prototype, created in collaboration with Moog, is currently undergoing further tests to enhance and showcase the advantages of a fully electric



Komatsu's PC210LCE electric excavator provides immediate advantages over a combustion machine, such as better air quality and reduced noise. "It can operate in areas where it may not have been able to operate before, and for longer durations," said Andrew Earing, Director of Tracked Products and Service at Komatsu.

machine, such as increasing its operating cycle, adding assist functions, and creating a comfortable environment for the operator. The wheel loader also has sensors to add automation capabilities.

Compared to its combustion predecessors, electric machinery provides two immediate advantages: better air quality and noise reduction.

"With a zero-emissions machine, it allows the flexibility for that piece of equipment to operate indoors without harming the air quality around it," said Earing. "It can now operate in areas where it may not have been able to before and for longer durations. When you have a traditional emissions vehicle operating indoors, air quality has to be monitored, and sometimes the machine must be shut down for extended periods of time to let emissions dissipate."

Metropolitan and urban worksites are often accompanied with restrictions for when a contractor can work — in part to reduce noise pollution for the populace.

"That's why urban environments are another application for electric machines," Earing continued. "It's not only due to exhaust emissions, but also because of sound emissions. Going with an electrified machine, which has near zero sound emissions, allows for an extended operating window for our contractors and customers."

### Bridging the gap to construction equipment electrification

While combustion engines will remain crucial to the development of electric infrastructure, there is currently hybrid machinery available to help the transition between 100% combustion and 100% construction equipment electrification.

Komatsu released its first hybrid excavator in 2008, and its most recent model, the HB365LC-3, entered the market in 2017.

"The HB365LC-3 offers increased fuel efficiency without sacrificing power. A topper on the cake is the added benefit of reduced emissions that lowers your carbon footprint and promotes sustainability," said Kurt Moncini, Senior Product Manager at Komatsu. "Based on the Environmental Protection Agency's CO2 formula, the hybrid potentially offers up to a 20% reduction in CO2 emissions compared to the standard PC360LC-11."

The force behind the excavator's fuel savings is its electric swing motor, which offers a glimpse into the capabilities of future electric excavators. The electric swing motor captures and regenerates energy as the upper structure slows down and converts it to electric energy.



Kurt Moncini, Senior Product Manager, Komatsu

Continued...

## 'Swing is fully electric'

... continued

Moncini explained, "It's using energy that would normally be wasted and makes it available to do work, contributing to increased efficiency and decreased diesel usage."

The energy captured during each swing braking cycle is stored in the HB365LC-3's ultracapacitor. Each time the excavator swings, the capacitor discharges electric power to the electric swing motor.

"A traditional battery requires time for the chemical process that releases electricity to occur," stated Moncini. "The heavy work nature of construction equipment places a much faster demand on power transfer. The ultracapacitor's ability to store and discharge energy quickly makes it ideal."

He added, "Since swing is fully electric, all available engine power can go to the boom, arm and bucket when bringing a loaded bucket out of the ground and over a truck, spoil pile or hopper. This creates a faster cycle time and a very quick, responsive swing."

In addition to powering the swing motor, the ultracapacitor sends electric energy to the engine via the motor-generator. This energy is used to accelerate the engine from an ultra-low idle speed of 700 revolutions per minute (rpm) and improve hydraulic response. It is this technology that can likely be applied to future electric excavator models to extend battery life and increase power.

"Komatsu has the technology to not only capture but also supply energy into an electric swing motor, which gives the HB365LC-3 up to an additional 70 horsepower that it can use for efficiency needs or even use for additional performance needs depending on the customer's application," said Earing.

### **Steps toward carbon neutrality**

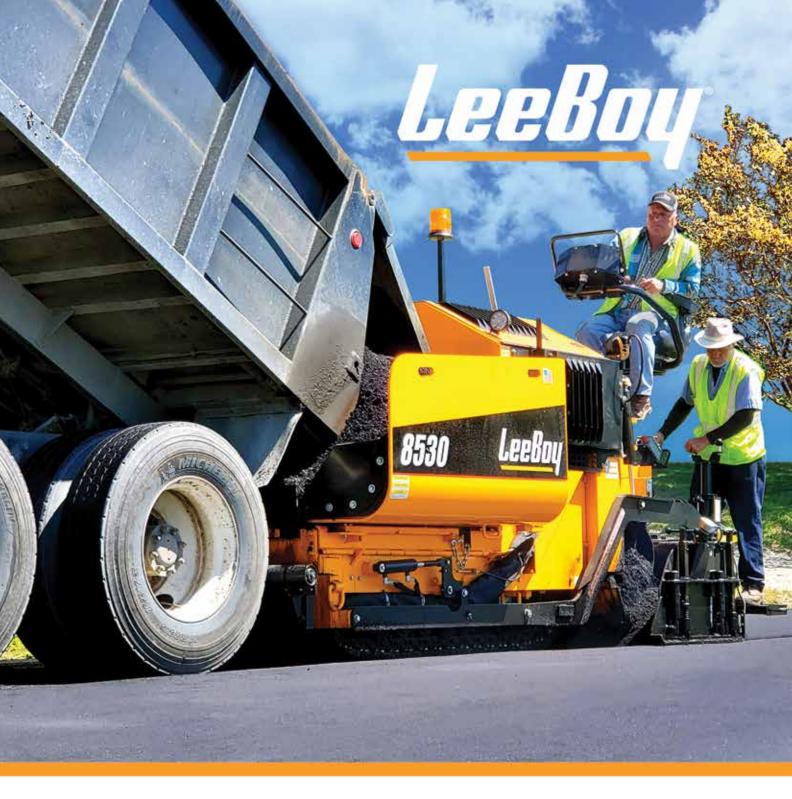
Complete construction equipment electrification and hybrids are at the forefront of construction's push toward carbon neutrality, but electrification is just a part of what the industry sees as a solution to meeting carbon goals.

"We're not just exploring electrification — we're also exploring other technologies that are out there such as hydrogen fuel cells and clean fuels," said Earing. "We're looking at all of these options because we're making sure that we have the right solution for the right job site and customer application."

Earing concluded, "In the future, I would say that the trends that we see in carbon neutral machines will depend on the machine application, plus size and weight. With different sizes, there are going to be different technologies that suit those machines."

Hybrid equipment, such as the Komatsu HB365LC-3 excavator, bridges the gap between combustion and electric machinery. "The HB365LC-3 offers increased fuel efficiency without sacrificing power. A topper on the cake is the added benefit of reduced emissions that lowers your carbon footprint and promotes sustainability," said Kurt Moncini, Senior Product





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## **Tech Talk**

## New replacement monitors, GNSS receivers provide upgrades to your existing intelligent Machine Control devices

Komatsu's intelligent Machine Control (iMC) equipment has always been on the cutting edge of technology that automates grading and excavating. To ensure that's the case on all models of iMC equipment, Komatsu has now introduced remanufactured, upgraded machine control monitors and GNSS (global navigation satellite system) receivers.

"Komatsu always looks to upgrade its equipment and components in order to increase our customers' efficiency and production, and we updated these devices to the latest technology as well," said Goran Zeravica, Senior Product Manager, Reman. "There have been slight changes to the hardware, but the biggest upgrades came in software that makes them even more effective than the previous models."

The new devices are replacements for the original monitors in iMC dozers and excavators and their GPS/GNSS receivers. All are now Komatsu Genuine Reman with proprietary technology, including the PH700 iMC excavator monitor (replacing the older X31) that shows

operators where cuts and fills are, as well as other job site features. Users can upgrade their GX-60 to a new GX-55 in iMC dozers. As with the PH700, the GX-55 shows cuts and fills and other job site features.

Previous MC-i3 GNSS receivers have been replaced with new MC-i4 models, which provide GPS/GNSS positioning for the machine, so it knows where it is on the job site and in relation to final plan elevations.

#### Available through distributors, My Komatsu

"As with cell phones, which you upgrade periodically to have the latest technology, we encourage you to do the same with your iMC devices," said Arash Moghaddamzadeh, Product Manager, Reman Products and Forestry Aftermarket. "These new devices are available through your Komatsu distributor by contacting your product support representative, technology solutions expert, or through the parts department. Additionally, they are available as Reman by using your My Komatsu account."



Goran Zeravica, Senior Product Manager, Reman, Komatsu





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## **Payment Option**

## Komatsu Care Plus Cost Per Hour gives you a fixed hourly rate on unlimited services for 60 months

As your machines age, increase certainty in your owning and operating costs with Komatsu's new Komatsu Care Plus Cost Per Hour program that delivers unlimited scheduled maintenance services at a fixed rate for 60 months.

"Komatsu Care Plus Cost Per Hour is a subscription-style billing plan that gives customers a very cash-flow-friendly alternative and lets them extend coverage beyond the complimentary maintenance period," said Komatsu National Accounts Manager Felipe Cueva. "There is a nominal, up-front, opt-in charge. Customers then lock in their cost per hour for that 60-month period and are billed based on the machine's monthly usage. Price protection is built in. The rate doesn't change, which offers a hedge against inflation and rising costs."

The benefits of Komatsu Care Plus Cost Per Hour include:

- Unlimited hours
- Up to 60 months of coverage guaranteed
- Price protection
- Total periodic maintenance (oils, filters, labor, travel and oil sampling)
- Monthly payments based only on machine utilization reported in Komtrax

KOMATSU

National coverage

#### How it works

"For example, if the rate on their particular machine is \$5 per hour and the customer used the machine for 10 hours, they would be billed \$50," Cueva explained. "If they put 100 hours on the machine, the cost would be \$500 for that month."

The usage is tracked with Komatsu's Komtrax telematics system to ensure accurate billing.

"Added peace of mind comes in knowing that, as with other Komatsu Care programs, the services performed with Komatsu Care Plus Cost Per Hour are done by certified technicians," said Cueva.

He also noted that Komatsu Care Plus Cost Per Hour is restricted to current production models such as Dash-11 excavators. Hourly rates vary depending on machine. Once the initial 60-month period ends, customers may opt in again at the current rate.

"Customers can cancel their subscriptions at any time after 1,000 hours and two completed services without penalties or fees," said Cueva. "We encourage anyone who wants more certainty in their costs to check this out, as well as other options through My Komatsu. Your local Komatsu distributor can help get you covered."



Felipe Cueva, National Accounts Manager, Komatsu

Komatsu Care Plus Cost Per Hour locks in a fixed hourly rate for 60 months, and customers are billed on their monthly usage, which is tracked with Komatsu's Komtrax telematics system to ensure accuracy. Services are performed by certified technicians.

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## WIRTGEN's AutoTrac system for stabilizers and recyclers increases efficiency, reduces environmental impact

Using environmentally friendly processes and handling valuable resources responsibly are becoming more important in the areas of soil stabilization and cold recycling. Cost-effective realization of these processes is only possible when they are efficiently executed. With the launch of the AutoTrac system for its WR Series, WIRTGEN now offers a technology that focuses precisely on this.

Soil stabilizers are used for resource-efficient preparation of pavement bases on infrastructure projects. A subbase with insufficient load-bearing capacity is transformed into resilient materials that can withstand heavier loads. This process takes the existing soil and adds and mixes in binding agents such as cement and/or lime. In the case of cold recycling with the WR Series machines, damaged asphalt layers are milled and resized in a single operation, rebound by the addition of binding agents and water, and then repaved. New base layers produced by this process have extremely high load-bearing capacities.

### Automatic steering for optimal overlaps

By enabling precise, automatic steering, the AutoTrac system helps WIRTGEN machines achieve greater process efficiency and, as a result, a high degree of environmental sustainability. It steers the machine accurately within tolerances of a few centimeters on the basis of a previously established reference strip and a specified overlap of adjacent strips, which enables consistent utilization of the machine's ideal working width. AutoTrac relies on various global navigation satellite systems for precise control of the machine's position and direction of travel. The system is operated from an additional control panel that also enables the operator to view information about the position of the machine and previously completed strips.

### **Shorten completion time**

Adhering to the pre-set overlaps reduces the consumption of binding agents, consumables and fuel, making the carbon footprint smaller and shortening the project's completion time. The result is increased project efficiency, as well as cost-effectiveness and reduced environmental impact.

### **Reduce operator workload**

Manual steering of the machine always requires considerable effort when it comes to avoiding unprocessed gaps in the ground being worked. AutoTrac's automatic steering assists the operator and reduces the workload. Maintaining the desired overlap avoids unwanted gaps in the final results. The operator can concentrate entirely on the mixing process and keep an eye on what's going on around the machine.





## Meet the new marketing manager for the Power Equipment Company team



Kyle Rogers, Marketing Manager, Bramco

As the new marketing manager for the Power Equipment Company team, Kyle Rogers brings over 20 years of marketing and advertising experience to Power Equipment and Bramco Inc.'s family of brands. Her communication degree and background in journalism mean she can craft messaging to connect with unique audiences in various industrial sectors.

With wide-ranging experience working alongside equipment manufacturers in various industries such as HVAC, Fire and Life Safety, chemicals, additives, and jet engines, Rogers has gained invaluable insights into the communication tools necessary to effectively reach both dealers and end customers. Despite being relatively new to the heavy equipment field, her expertise in identifying unique customer segments and implementing efficient communication channels — both digital and traditional — ensure that the Power Equipment message will resonate with all audiences.

While new on the job, Rogers is impressed with the support shown by everyone across the Power Equipment team. "I am excited to work with such great people across all the branches," said Rogers. "I know we can achieve our business and marketing goals working together."

Speaking of goals, Rogers has some big plans for the marketing team.

"We want to align our marketing efforts to sales objectives, explore additional outlets and opportunities, and leverage reporting data to better inform future marketing decisions," she stated.

Rogers knows it won't be easy, but she's confident that the marketing team is up to the challenge.

Rogers looks forward to connecting with customers and teams at each branch and the events planned for the coming months. Keep an eye on all social media and email updates for more information on these exciting happenings.

Bramco Inc. is the parent company of Power Equipment, along with Brandeis Machinery, Bramco-MPS and Certified Rental.

## Study: Repealing prevailing wage laws has negative impact

Between 2015 and 2018, six states — Indiana, West Virginia, Kentucky, Arkansas, Wisconsin, and Michigan — repealed their prevailing wage laws, which are meant to protect local construction standards in the competitive low-bid process.

Repeals of prevailing wage laws have negative consequences for construction workers, according to data from a study released by the Illinois Economic Policy Institute and the Project for Middle Class Renewal at the University of Illinois Urbana-Champaign. The study showed that wages, benefits and productivity fall behind; on-the-job fatalities increase; reliance on government assistance programs worsens; and fewer projects are completed without saving taxpayer money.

"At a time when the United States is making historic investments in the nation's infrastructure and contractors are having difficulty finding qualified workers, prevailing wage laws can attract, develop and retain experienced construction workers," wrote the report's authors — Frank Manzo IV, MPP; Robert Bruno, PhD; and Larissa Petrucci, PhD. "To ensure that American infrastructure is built locally by skilled construction workers, state lawmakers should consider strengthening or expanding their prevailing wage laws, implementing new prevailing wage laws, and reversing recent repeals of prevailing wage laws." ■



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## Komatsu's new C144 harvester head, grapple line improve performance with increased reliability for great productivity



C144



and reliable. Komatsu's upgraded C144 harvester head and new grapple range can help deliver both. The C144 features a new valve bank with a longer service life than its predecessor

For success on forestry projects, your equipment needs to be highly productive

a longer service life than its predecessor (verified through testing). Its resilience against wear boosts the reliability of the harvester head and contributes to more uptime and reduced repair costs. To save fuel, the new valve bank lowers energy losses due to decreased hydraulic resistance in the valve block.

An increased feed rate on the smaller feed roller motor from approximately 16 feet per second to 21 feet per second helps deliver greater production and profitability. The design

Komatsu's upgraded C144 harvester head features a new valve bank with a longer service life to help increase its reliability and contributes to more uptime and reduced repair costs. Komatsu's new grapple range encompasses 10 completely redesigned models with larger openings to help save time because they offer better wood pile penetration and make it easier for the logs to roll into the grapple. of the saw box has been improved to simplify maintenance and increase reliability.

Better stem holding performance during felling is another improvement. It comes from inverting the direction of the oil flow in the feed system. Test operators who tried the new C144 said that they got more response from the head and described it as "distinct."

### **Longer service life**

To help save time, Komatsu's new grapple range encompasses 10 completely redesigned models with larger openings that offer better wood pile penetration and make it easier for the logs to roll into the grapple. They have also been refined for gathering and straightening timber.

In addition to new features, the grapples retain the key advantages of the previous models such as a robust, durable design. Several improvements on the new grapples contribute to a longer service life, ensuring durability in demanding forest environments.

New models range from the G82, which holds 0.85 square feet, to the G87H, which holds 1.64 square feet. The range is divided into standard, bioenergy (brushwood) and heavy-duty applications. All are compatible with the most common forwarders, as well as most types of truck cranes and other vehicles that handle timber. ■

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2018 HAMM H 10i P, S/N H2350545, 1,303 hrs.



2016 Komatsu GD655-6, S/N 60061, 225 hrs.

Year/Make/Model	S/N	Equip #	Location	Hours
Compaction				
2018 HAMM H10i	235HAA00681	J00724	Chattanooga, TN	1,360
2017 HAMM H10i	H2350253	J00725	Memphis, TN	1,650
2018 HAMM H10i P	H2350545	J00727	Paducah, KY	1,303
2018 HAMM H10i P	H2350782	J00729	Evansville, IN	1,300
2018 HAMM H12i	H2350502	J00730	Nashville, TN	1,100
Dozers				
2020 Komatsu D51PX-24	10840	J00722	Chattanooga, TN	2,190
2018 Komatsu D51PX-24	B20281	J00741	Louisville, KY	2,266
2018 Komatsu D51PXi-24	10502	J00701	Louisville, KY	4,454
2022 Komatsu D51PXi-24	B25088	J00739	Paducah, KY	2,005
2017 Komatsu D61PXi-24	B60248	J00696	Evansville, IN	6,198
2022 Komatsu D61PXi-24	B65593	J00733	Knoxville, TN	1,620
Excavators				
2018 Komatsu PC138USLC-11	52262	J00742	Little Rock, AR	1,892
2022 Komatsu PC170LC-11	36136	J00720	Lexington, KY	1,113
2018 Komatsu PC210LC-11	C80357	J00731	Little Rock, AR	3,500
2019 Komatsu PC210LC-11	C80659	J00738	Little Rock, AR	3,460
2017 Komatsu PC228USLC-10	2855	J00728	Nashville, TN	4,100
Graders				
2016 Komatsu GD655-6	60061	J00726	Paducah, KY	225
Wheel Loaders				
2018 Komatsu WA270-8	83648	J00744	Little Rock, AR	2,466
2018 Komatsu WA270-8	A28440	J00743	Louisville, KY	2,534

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