



NOVEMBER 2016

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KINGSTON SERVICES

Technology gives this new company
an advantage out of the gate



KOMATSU®

Charlie Bowman,
Vice President

Dan Hutton,
President

A MESSAGE FROM THE PRESIDENT



Mike Sill II

**A second
generation
heads toward
the future**



Dear Valued Customer:

Three years ago, Komatsu introduced its first *intelligent* Machine Control product, a D61i-23 dozer. Now, the second generation is available with the launch of the D61i-24 models, which you can read about in this issue of your RMS Road Signs magazine.

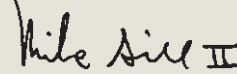
Both of these machines use Komatsu's integrated *intelligent* Machine Control technology, a 3-D-based system with semi-automation, which eliminates masts and cables. The technology does more than keep a dozer's blade on grade. It adjusts loads on the fly and monitors track slippage to ensure that operators are moving as much dirt as possible and are working efficiently.

The same technology was added to three Komatsu excavators with amazing results. The integrated-3-D system takes excavator operation to another level compared to the 2-D aftermarket systems. Find an interesting article inside that highlights the differences between 2-D and 3-D, helping you make an informed choice on which is better for your business.

Many other new machines have sophisticated technology built-in as well, such as Komatsu's KOMTRAX telematics system, which lets you track hours, idle time, fuel usage and machine location. That capability recently came in handy for one contractor whose machine was stolen. Thanks to KOMTRAX and the assistance of his Komatsu dealer, it was recovered within 24 hours.

If you would like information on any of these products or others, please call or stop by one of our branch locations.

Sincerely,
ROAD MACHINERY & SUPPLIES CO.


Mike Sill II
President and CEO



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Mike Sill II,
CEO

Russell Scheaffer,
President

IN THIS ISSUE

KINGSTON SERVICES

See how this central-Iowa company leveraged its expertise with the latest technology to gain a foothold in the market.

THE PEOPLE INSIDE

Get acquainted with new hires as Road Machinery & Supplies Co. expands its management team to enhance customer and supplier relationships.

GUEST OPINION

Find out why business insiders believe that the construction industry will continue to offer high-paying career opportunities.

INDUSTRY OUTLOOK

The next wave of innovation is on its way for construction professionals, and each new solution could redefine the industry. Check out the latest advancements inside.

INNOVATIVE PRODUCTS

From first to last pass, the new D61i-24 dozers are great choices for high production, low fuel consumption and decreased operating costs. Read the details in this article.

ENHANCED FEATURES

Learn how the D39-24 dozers provide a variety of customizable performance settings to match engine output to application.

KOMATSU & YOU

Meet Komatsu's Tom Suess, Director of Training and Publications, and discover how the Customer Center works to maximize productivity for equipment owners.

David Johnson,
VP, Sales & Marketing

Jon Anderson,
VP, Northern Operations

Chuck Gallagher,
VP, Iowa Operations

Mike Mencil,
VP, Product Support

Troy Johnson,
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Published by Construction Publications, Inc. for
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KINGSTON SERVICES

Technology gives this new company an advantage out of the gate



Dan Hutton,
President



Charlie Bowman,
Vice President

When Dan Hutton and Charlie Bowman got the chance to run Kingston Services, they had a lot of ambition, but little experience as contractors. Luckily for them, they had an extensive background in the latest construction-related technology.

Early on, the firm would be competing against many established Des Moines-area companies for jobs. With little name recognition or experience, the company's leaders believed that GPS technology could provide an advantage. Kingston's competition was attempting to learn the technology and understand how to incorporate it into their businesses. In contrast, Kingston hit the ground running with a firm grasp of GPS and its capabilities.

"Charlie and I worked together training owners to use GPS technology," explained Hutton, who is President of Kingston Services.

"We always joked about owning a company, and in 2013 we got our chance. When we started doing our own work, we knew the benefits of the technology and used it as much as we could."

Hutton and Bowman began by using their laser screed to handle smaller, custom-concrete jobs and charged by the foot. After some advice from a fellow contractor, Kingston changed its focus and began to grow.

"That contractor said that I was never going to make any money with the projects I was doing," recalled Hutton. "So, we decided to move forward as a full-fledged concrete contractor and started paving bike trails and parking lots in Polk County and the surrounding area."

In 2014, Kingston poured nearly 7,000 cubic yards of concrete and doubled that amount the next year. The company's first large project was a new 80,000-square-foot parking lot for Gilbert High School. The project helped Kingston climb to another level.

"When we took the job, I stood at the corner of the lot and asked myself how we were going to pave it all," admitted Hutton. "Fortunately, we acquired a concrete company and used their materials and employees. We poured it with our laser screed and were off to the races after that."

Today, the company has grown to 50 employees and completes roughly 20 projects a year, with almost half of them quite large in scope. Kingston also started handling dirt work, as well as grading and pipe installation to better manage the quality and time line of assignments.

"We began performing our own dirt work subgrade and utilities because it prevented headaches for us," noted Hutton. "Now, we can go to a jobsite and use the same CAD files and technology on all phases of the project, and we have much greater control."

A Kingston Services operator uses a PC210LC to take down a building during a demolition project in Ames.





MPS and Kingston

Hutton is the first to admit that Kingston wouldn't be where it is today without the support of its sister company, MPS Engineers. The relationship began when MPS hired Hutton as Director of Marketing. After eight months, he received the opportunity to run Kingston.

"Even though I was in marketing, I supervised some projects and pushed them along," he said. "Umesh Shetye [President] and Amit Pradhan [Vice President] at MPS gave Charlie and me the opportunity to run Kingston."

Although Kingston was an existing company performing smaller side jobs, Shetye and Pradhan hoped that handing the reins to Hutton and Bowman would help take the company to another level. After three years of growth, the investment seems to have paid dividends.

"We're grateful for that MPS took a chance on us," proclaimed Hutton. "No one else would have offered us a shot."

The GPS advantage

Hutton estimates that, pound-for-pound, Kingston Services is one of the top companies in Des Moines for GPS use. The integration of technology helped Kingston lap the field, almost immediately.

"Having so much experience with the new technology gave us a definite advantage," recalled Hutton. "The GPS technology made up for our lack of experience. We could start and finish jobs quicker. If a customer wanted



▶ VIDEO

us to begin a project immediately, we could accommodate that because we didn't have to wait to put in the stakes. The technology helped us complete more projects in a shorter time, without sacrificing quality. Speed is great, but accuracy is better."

To take advantage of the latest in construction technology, Kingston turns to Road Machinery & Supplies Co. and Sales Rep Chad Hein. Two machines that have been instrumental in Kingston's success are its GOMACO GT-3600 curb-and-gutter slipform paver with stringless technology and a Komatsu *intelligent* Machine Control D51PXi dozer with integrated GPS.

"The D51i uses the same Topcon technology as our GT-3600, so we are able to get precise results," said Hutton. "The D51i allows us to work and grade in a higher gear than we can with other brands equipped with aftermarket systems. When we grade with our D51i and pave with the GT-3600, we

Utilizing the latest technology is a priority for Kingston Services, which is why it uses the Komatsu *intelligent* Machine Control D51PXi dozer and a GOMACO GT-3600 curb-and-gutter slipform paver with stringless technology. "When we grade with our D51i and pave with the GT-3600, we save time and material, and we can get within a sixteenth of an inch to spec," said President Dan Hutton.

Continued . . .

Dozers deliver outstanding power-to-weight ratio

... continued

save time and material, and we can get within a sixteenth of an inch to spec."

RMS has been an asset in helping Kingston build its fleet, which includes a PC210LC and several traditional dozers on rent. With assistance from RMS, Kingston has incorporated its Topcon technology with the rentals.

"Chad knows the way to our hearts – if he says we can put technology on a machine, we're in," joked Hutton. "You can move a lot of dirt with Komatsu's dozers. The power-to-weight ratio is outstanding, and the visibility is awesome.

"RMS does an excellent job of addressing our requirements," he said. "If we need parts or service, Chad is there. We have a great relationship with RMS."

GPS technology has helped the company grow in its early years, and Hutton expects that it will become even more of an asset moving forward.

"A company that doesn't embrace GPS technology isn't going to be very successful in the future," he predicted. "It's so much more efficient, and it makes our lives a lot easier."

He referenced a recent project to illustrate his point.

"We were paving a parking lot for a school, and another company that wasn't using GPS was paving a parking lot of the same size across the street," recalled Hutton. "We started a few days after they did, and finished a week before them. It wasn't even close."

Kingston President Dan Hutton (left) relies on RMS Sales Rep Chad Hein to help the company stay on top of the latest technology. "Chad knows the way to our hearts – if he says we can put technology on a machine, we're in," joked Hutton.



Young and savvy

Kingston is a young company, and so is its staff. Much like the choice to embrace technology, the decision to hire youthful workers was also made to out of necessity.

"We couldn't get the operators with 30 years of experience, so we offered young employees a shot," explained Hutton. "We hired people out of high school and college. One reason we were able to do that was because the technology helped make up for a lack of operating experience."

The younger employees naturally gravitated to the technology, but even the seasoned veterans have been enthusiastic converts.

"Most of our employees grew up with computers in their hands, so it's nothing new for them," added Hutton. "Even our older employees have gotten on board. We did a street widening with our GT-3600, and an employee nicknamed 'Grandpa' couldn't understand why we were using all of the technology. Once we finished, he was blown away by the speed and accuracy. He's a believer now."

Role reversal

Today, Kingston Services is a known and respected company in the Des Moines area, but it wasn't always that way. Hutton has worked hard to establish the company's identity.

"Two years ago, nothing got under my skin more than someone asking, 'Kingston who?'" he admitted. "We did a lot to get our name out there – we made shirts and branded our equipment – but most importantly, we did good work and had solid backing from MPS."

The relationship with MPS has been an important one for both companies. While MPS provided mentorship and projects for the young company, the goal is for Kingston to eventually take care of MPS.

"The plan is for Kingston and MPS to merge as Kingston," explained Hutton. "MPS and Umesh have done a great deal for us, and I see it as an investment in their future. Until then, we will continue to expand in a sustainable way. Anyone can grow a business, but the key is managing it right, so you can maintain it. That's our goal." ■

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THE PEOPLE INSIDE

ADVANCING FOR THE FUTURE

Road Machinery & Supplies Co. expands management team

Success, growth and change are all interconnected in business. Road Machinery & Supplies Co. has set a high standard for meeting customers' needs. In turn, it has grown and gained more customers. In order to manage its broader organization, RMS recently announced several changes to its management team, highlighted by the additions of President Russell Sheaffer and Chief Financial Officer Troy Johnson.

"Throughout the past couple of decades, we made a number of acquisitions and started new company divisions to improve our product and service offerings to customers," said RMS CEO Mike Sill II. "We were overdue in expanding our management team, and I know that we'll continue to find success with our new leadership structure."

Sheaffer joined the RMS family after a 30-year career at Cummins, Inc. As President of Cummins Central Region, he managed 27 branches of its engine and power-generator systems dealers, which included nearly 1,400 employees. He also served as Vice President of Sales and Marketing at Cummins for 18 years before his promotion to President.

The Fort Madison, Iowa, native graduated from Southern Methodist University with a degree in business administration and also completed the Executive Management Program at Northwestern University's Kellogg School of Management. He and his wife, Vicki, have three sons and live in Mahtomedi, Minnesota.

Troy Johnson joined RMS in late August. The new Chief Financial Officer was previously an audit partner for the

Minneapolis office of Grant Thornton for 23 years. His expertise was in serving companies in the manufacturing, distribution and technology industries. He will work closely with Bill Holte, RMS' retiring CFO, until Holte leaves in November.

Troy Johnson grew up in Litchfield, Minnesota, and graduated from Concordia College with a degree in accounting. He lives in Edina, Minnesota, with his wife, Tara, and their four sons.

"We are very excited to welcome Russell and Troy into our family," said Sill. "Both bring a wealth of experience with them, and I am confident that they will help us continue to grow and serve our customers."

Vice Presidents named

Road Machinery & Supplies Co. also promoted three managers to Vice President

Continued . . .



Chuck Gallagher,
Vice President,
Southern Operations



Jon Anderson,
Vice President,
Northern Operations

The Road Machinery & Supplies Co. management team consists of (L-R) Chief Financial Officer Troy Johnson; Chief Executive Officer Mike Sill II; Vice President, Sales Manager Andy Schwandt; Vice President of Sales and Marketing Dave Johnson; and President Russell Sheaffer as well as Chuck Gallagher and Jon Anderson (pictured above).



Strengthening customer relationships

... continued

roles. Chuck Gallagher is RMS Vice President, Southern Operations. He has led the RMS branches in Iowa and Illinois as General Manager since 2013, posting record levels of revenue and market-share improvement.

Jon Anderson, who joined RMS in 2015 after a long career with Joy Global, oversees the Minnesota and Michigan branches as Vice President, Northern Operations. He brings 30 years of sales and product support experience to the role.

Andy Schwandt will continue to lead the Savage sales team as Vice President, Sales Manager. He began working at RMS in 2010 and helped the Savage-based group triple its revenues.

"These are well-deserved promotions for Andy, Chuck and Jon," stated Sill. "They have each been vital parts of our achievements, and their promotions are well-deserved."

Additionally, longtime Chief Operating Officer Dave Johnson will move to a sales-focused role as the Vice President of Sales and Marketing. He will be responsible for managing inventory, market-share achievement, supplier relationships, marketing and aggregate-sales initiatives. He will also head the U.S. Shoring Division and work closely with Sheaffer on supplier and customer engagement matters.

Sill will continue to lead the company as Chief Executive Officer and will focus on strategic and business development opportunities. He has served as President and CEO since 1994 and will also maintain responsibility for RMS' mining efforts.

"We have a great team here," said Sill. "I am confident these moves will enhance our ability to take great care of our customer and supplier relationships and will continue to move RMS forward in the coming years." ■



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GUEST OPINION

HIGH-PAYING CAREERS

Construction affords a wealth of opportunities with substantial pay and benefits

There's no better time to work in the construction industry. With a growing shortage of skilled workers, salaries remain high and career opportunities are plentiful. Earlier this year, the National Center for Construction Education and Research (NCCER) released its annual Construction Craft Salary Survey, which lists the average annual salaries of craft professionals from industrial and commercial construction firms across the country. Average annual salaries ranged from \$47,100 to more than \$88,000.

As high as these salaries are, the reality is that what skilled craft professionals earn is typically far greater. The salaries listed in NCCER's survey are average, base salaries, not including overtime, per diem, bonuses or other incentives. Construction is known for having plenty of overtime and travel opportunities as well as bonuses. In addition, many contractors have incentives that pay for employee training, vacation time, retirement plans, cell phones, vehicle allowances and/or per diem or housing, depending on the length of a project.

Few industries offer the high salaries, incentives or growth opportunities found in the construction sector. While many craft professionals can earn well over six figures, it is important to remember that project location, company size, construction type, credentials, certifications and experience are some of the factors that determine a skilled professional's salary.

No limits on where craft professionals can go

These salaries show the earning potential that the construction industry offers individuals with or without a college degree. Construction

is one of the few sectors where individuals can earn while they learn through industry training programs at local community or career colleges. Regardless of where a person starts, there's no limit to where he or she can go in this industry.

In construction, individuals can enter the workforce straight out of high school and start earning a salary. From there, they can develop their skills and take advantage of endless opportunities with huge earning potential. There's no better way to earn a living if you ask me! ■



Jennifer Wilkerson,
Director of Marketing,
Public Relations and
Build Your Future
at NCCER

This article is reprinted with permission from "Breaking Ground: The NCCER (The National Center for Construction Education and Research) Blog" at blog.nccer.org.

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INDUSTRY OUTLOOK

TECH BOOM

See how today's technology is shaping tomorrow's jobsites

Technological revolutions don't happen overnight. Instead, they typically resemble the progression of a jobsite; one area is built, connected to another, tied to a third and so on. Once a project nears completion, the full picture finally begins to emerge. When looking at the future of technology in the construction industry, that picture is starting to come into focus.

While other industries may receive more mainstream attention for exciting advances, construction has already experienced its share of revolutionary breakthroughs, such as GPS-based grade control for machines. The next wave of innovation is on its way for construction professionals, and each one could redefine the industry.

Same tech, new purpose

Some of the most exciting technological advancements allow users to take full advantage of everyday items. Smartphones have become an essential part of daily activities, and the construction industry is adopting these new tools into its practices.

The Associated General Contractors of America (AGC) says that 83 percent of companies list mobile devices as their main choice of technology when managing projects outside of their traditional market area. In the AGC's 2016 industry outlook, 56 percent of companies surveyed said they planned to incorporate more mobile software and other apps in 2016. The most commonly noted was project-management software that enables companies to log daily field reports, share documents and track inventory. The AGC outlook also reported that 41 percent of companies planned to increase their information technology departments in 2016, while 11 percent expected to create one.

To access this technology and save on costs, companies are adopting a bring-your-own-device policy, which allows employees to use their personal mobile devices to access the software. This policy has proven to increase the adoption rate of the software among workers and increase connectivity and sharing of information within the company, without the expense of purchasing a new device for every employee.

Just as smartphones have demonstrated their staying power, industry professionals are betting that today's trendy tech-wearables like the Apple Watch, Fitbit fitness trackers and Google Glasses will find a place on jobsites. Steve Smith, Vice President of Strategic Industries at ClickSoftware, says that these pieces can assist companies in monitoring employee movement and help place staff members in optimal locations to increase efficiency. Additionally, the next area for potential advancement in wearable technology is clothing, which could make workplaces safer for employees.

Virtual reality (VR) – technology that was once a pipe dream saved for video games and science-fiction movies – is also finding its way into

Continued ...

Construction companies are taking advantage of smartphone popularity and using project-management software and apps to help increase information sharing and connectivity among employees.



'Smart' materials emerging within the industry

... continued

construction applications. Thanks to innovations in cameras, virtual-reality glasses and software, the technology is becoming more cost-efficient and user-friendly. VR permits engineers to build a complete jobsite in a computer-generated program, allowing them to try multiple strategies in order to determine which is most efficient. Operators can also benefit by practicing dangerous maneuvers in a controlled environment before performing them on a jobsite. This technology application reduces the risk of injury and avoids costly rework.

Construction overhaul

Residential construction has remained largely unchanged for decades, but it may receive a major overhaul thanks to 3-D printers. Instead of raising walls and setting roofs with cranes, a 3-D printer enables contractors to create structures by laying down successive layers of material on top of each other. For 3-D construction printing, concrete is pumped through a nozzle that follows a CAD program to create the shell of a structure.

The advantages of 3-D printing come in the form of time, labor and material savings. The printer doesn't require a crew to cut and secure the materials – it prints only what it needs, where needed, in little time and with no excess material. According to a May 2015 BBC News report, the Chinese company WinSun used a 3-D printer to build 10 full-sized, single-story homes in one day.

Simon Austin, a lead researcher for the School of Civil and Building Engineering at the United Kingdom's Loughborough University, tempers expectations. He thinks 3-D printing won't

make an impact in efficiently mass producing complex elements and pieces used in traditional, pre-fabricated and modular construction until 3-D printers become easier to transport and cheaper to purchase. "The idea of bringing a gantry and printing machine to a site to print entire houses is a bit far-fetched at this time," Austin said.

Wide-sweeping innovations related to how buildings are made could be a few years away, but the future of what's used in their construction is already here. Today, many designers are looking to use "smart" materials that are both sustainable and enhance the efficiency of their structures. Emerging Objects is developing materials, such as its Cool Bricks, that can respond to environmental conditions. The bricks are printed in 3-D and are porous, so they can hold water and allow air to pass through, creating natural air conditioning.

In Mexico City, Elegant Embellishments used a titanium dioxide paint that absorbs smog and converts it into calcium nitrate, which is harmless, to coat the façade of a hospital. The company reports that the façade reduces pollution equal to that created by approximately 1,000 cars per day.

One of the most unique material advancements is the introduction of self-healing concrete. Microbiologists at Delft University of Technology in The Netherlands created it by embedding self-activating, limestone-producing bacteria. This innovation could help reduce the amount of new concrete produced and lower the cost and frequency of repairs to streets and buildings.

The future of labor

One of the most common fears associated with these innovations is that the approaching technology will make human labor obsolete. While reducing expenses, especially labor costs, is at the center of these innovations, experts say that those fears are unfounded. Currently, the latest technology is either too expensive for many companies to own or too difficult to transport and store. While some positions may be lost, most of these advancements also create new jobs in other areas of the industry.

The central goal of the latest technology, whether it's the grade-control machines or self-healing concrete, is to improve the productivity, safety and efficiency of jobsites and make the construction industry stronger. ■

Self-healing concrete features self-activating, limestone-producing bacteria embedded in the concrete. The rise of "smart" materials such as this could dramatically reduce the amount of new concrete produced and reduce the frequency of road repairs.



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014



D61PXi-24



D61EXi-24

SECOND GENERATION

See how Komatsu's new D61i-24 dozers ensure high production from first pass to last

During the past three years, Komatsu has launched several *intelligent* Machine Control dozers that provide greater productivity and efficiency from first rough cut to finish grade. Now, Komatsu introduces the second generation of the dozers that started it all, with the new D61EXi-24 and D61PXi-24, which feature more efficient Tier 4 Final engines.

Like their predecessors, the new D61i-24 models include factory-integrated GPS grade control that eliminates the need for blade-mounted cables and masts. Once engaged, the system automatically starts the cut and lowers the blade to grade in a typical dozing pass. If the load increases to maximum capacity, the blade automatically raises to minimize track slip, ensuring productive dozing. This allows the dozers to achieve up to 8 percent greater efficiency in moving materials, based on start-to-finish grade testing against typical aftermarket machine-control systems.

"From first pass to last – rough cut to finish grade – the machine senses blade load, minimizes track slip and ensures that operators get the most from every push," said Sebastian Witkowski, Komatsu Product Marketing Manager. "Also, eliminating the need to install or remove blade-mounted sensors each day not only reduces wear and tear and potential downtime, but it also saves the operator's valuable time that can be used to run the machine longer."

Operators can select from among four distinct machine-control operating modes (cut and carry, cutting, spreading and simple grading) to optimize performance to the application. They can also tailor blade loads to material conditions by choosing from light, normal or heavy-blade load settings.

Lower maintenance, repair costs

The new D61i-24 dozers feature Komatsu's Parallel Link Undercarriage System (PLUS) that provides up to double the wear life of traditional systems, lowering maintenance and repair costs. A new Triple Labyrinth final drive provides added protection for the final-drive floating seals.

"Standard and *intelligent* Machine Control D61 dozers remain popular because their size makes them a great fit on a wide variety of jobsites and in a broad range of applications," said Chuck Murawski, Komatsu Product Marketing Manager. "D61i dozers combine all the benefits of a base machine with the greater efficiency of our integrated machine control. The new D61i-24 is a great choice for high production, low fuel consumption and decreased operating costs." ■

Komatsu's new second-generation D61i-24 dozers feature factory-integrated GPS grade control that eliminates the need for blade-mounted cables and masts. They achieve up to 8 percent greater efficiency in moving materials, based on start-to-finish-grade testing against typical aftermarket machine-control systems.



Sebastian Witkowski,
Komatsu Product
Marketing Manager



Chuck Murawski,
Komatsu Product
Marketing Manager

Quick Specs on Komatsu D61i-24 Models

Model	Horsepower	Operating Weight	Blade Capacity
D61EXi-24	168 hp	41,094 lb	4.41 cu yd
D61PXi-24	168 hp	43,167 lb	4.98 cu yd



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ENHANCED FEATURES

ANOTHER SET OF VERSATILE DOZERS

Komatsu's D39-24s feature customizable settings for maximum efficiency

Customers have come to expect innovative quality coupled with industry-leading efficiency from Komatsu's dozers. The new D39EX-24 and D39PX-24 crawler dozers deliver on those expectations. The latest editions of the popular dozers continue to produce outstanding power while increasing fuel efficiency.

"If you're looking for nimble, powerful machines that are easy to transport and a breeze to operate, these are the dozers for you," said Komatsu Product Manager Jonathan Tolomeo. "Residential and commercial development, highways or golf courses – the D39-24s get it done in any of these light-to-medium dozing and fine-grading applications."

The D39-24s still sport the award-winning, super-slant-nose design, but feature a host of enhancements. The improved Tier 4 Final-certified, 3.26-liter engine boasts 105 horsepower. Fuel efficiency was improved by nearly 5 percent with the addition of the Selective Catalytic Reduction system and diesel exhaust fluid. The Komatsu Diesel Oxidation Catalyst provides 98 percent passive regeneration, and the new auto-idle shutdown and economy modes help reduce idle time and save fuel.

Customized working modes

The D39-24 dozers also include a variety of customizable performance settings to allow operators to match engine output to application. Operators can work in either a quick-shift, three-speed mode or a 20-speed transmission setting to suit personal preferences.

"Operators now have the ability to work in a mode that is best-suited for the jobs at hand," explained Tolomeo. "Working this way, in conjunction with the other upgrades, helps boost productivity and efficiency."

Monitoring efficiency

The working environment inside the D39-24s provide operators with all the tools necessary to make sure they are working as efficiently as possible. The dozers are equipped with a Level 5 KOMTRAX telematics system that tracks key machine metrics, such as diesel exhaust fluid consumption, fuel level, operating hours, location, cautions and maintenance alerts. The new Operator ID feature makes it possible to display those metrics by operator, application or job.

The cab features a large, multi-lingual, seven-inch, high-resolution LCD monitor with Ecology Guidance, in addition to a standard, rearview-monitoring system. ■



Jonathan Tolomeo,
Komatsu Product
Manager

Quick Specs on Komatsu D39-24 Models

Model	Horsepower	Operating Weight	Blade Capacity
D39EX-24	105 hp	21,891 lb	2.89 cu yd
D39PX-24	105 hp	22,817 lb	3.14 cu yd

The new Komatsu D39-24 crawler dozers feature a variety of customizable performance settings to allow operators to match work modes to application. "Anyone looking for nimble, powerful machines that are easy to transport and a breeze to operate, these are the dozers for you," said Komatsu Product Manager Jonathan Tolomeo.





PC240LC-11

TIER 4 FINAL EXCAVATOR

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- Spacious and quiet cab
- Auto idle shutdown



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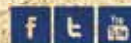
RYAN HAZELTON / SALES REP / ANDERSON EQUIPMENT / MANCHESTER, NH

"I sell a variety of quality Komatsu equipment. Take the PC240LC-11 excavator. It's got great features like a hydraulic closed-center load sensing system (CLSS) that provides quick response and smooth operation. Its large, quiet operator cab is more comfortable. Better engine efficiency improves response and helps get the most from every gallon of fuel. More innovation and more choices. That's why I AM KOMATSU."

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013

KOMATSU CUSTOMER CENTER

Facility provides acres of opportunities to help customers find the best machines for their jobs

QUESTION: What is the Cartersville Customer Center?

ANSWER: Komatsu opened this facility in Cartersville, Georgia, in 2002 as a place to take customers so that they can see and operate Komatsu equipment first hand. It's been known by different names throughout the years, but we recently changed it to the Customer Center as a way to better reflect what it represents. As they say, only the name has changed. The focus and intent remain the same.

QUESTION: What does the Customer Center provide?

ANSWER: The center offers three main things: a demonstration site, training and publications, all of which benefit Komatsu customers. We have 600 acres of property and a wide assortment of equipment available, so that customers can visit our world-class facilities and run machines through their paces before making purchase decisions. One way we do that is by hosting customer-focused events such as Demonstration Days, which are typically in the fall and spring. The added benefit is that customers can talk with other industry professionals and compare notes. Komatsu has product managers and other personnel on hand to answer questions and ensure that customers are operating in a safe environment. In addition to large events, we also host individual customers and their respective distributors. We encourage our dealers to schedule these events through our website: www.komatsuamerica.com/service-and-support/training-and-publications.

Whether a customer or distributor, our center provides complete training and unmatched educational support services. We offer classes for our customers and dealers at our state-of-the-art

Continued ...



This is one of a series of articles based on interviews with key people at Komatsu discussing the company's commitment to its customers in the construction and mining industries – and their visions for the future.

Tom Suess, Director of Training and Publications

Tom Suess joined Komatsu's Customer Center about a year ago after working most recently as a National Account Manager for the company. As the Director of Training and Publications, Suess oversees the Cartersville, Georgia, facility's operations related to demonstrations, training and publications.

"I view the Customer Center as a showcase that's dedicated to providing world-class services to Komatsu personnel, distributors, and most importantly, our customers," said Suess. "One of my goals is to increase the number of people who utilize the Customer Center and take advantage of all that it offers. For most of my tenure with Komatsu I have visited our customers; in my current role I am now lucky enough to have them come and visit me!"

Suess began his career with Komatsu in the finance division nearly 20 years ago after graduating from Illinois State University. He later went on to obtain a master's degree in Business Administration from the University of Phoenix. After working in finance, Suess transitioned into sales and served as a District Sales Manager, then as a Regional Sales Manager before earning a promotion to Director of Business Planning and Development. Suess later advanced to Director of the West Region and finally into national accounts. His diverse background allowed him to easily transition into his new role and provide a valuable customer perspective.

"I truly enjoy working with customers and helping them find the right pieces of equipment," Suess said. "I believe the Customer Center is a perfect complement to our machinery as it shows customers our commitment to providing more than a product."

He and his wife, Erin, recently celebrated their 14th anniversary. The couple has three children, and they enjoy spending time together as a family. Suess also likes to play basketball, read, golf and fish.

Center's goal is maximum productivity and efficiency

... continued



center, or we can conduct either operator or technical training at a company's facility or dealer site. Customers can set up this training through their distributors. We have in-house operator trainers who work closely with clients from the moment they arrive on site, both in our classrooms and during machine operation, to ensure that operators have a full understanding of how to get

The Customer Center provides classroom training to customers as well as to Komatsu distributor technicians so that they can properly diagnose and resolve issues quickly to minimize downtime.



Komatsu personnel are available to help with demonstrations and provide hands-on training.



Komatsu's Customer Center offers a variety of machines available for demonstration, including wheel loaders, dozers, excavators, trucks and motor graders.



the most out of a machine. For example, they can learn which operating mode to use for the best match to an application and soil conditions.

Finally, the publications team is responsible for printing and distributing all technical documents, including shop, operating and maintenance manuals as well as field assembly guides. All of these are critical to the success of both customers and distributors as they support Komatsu products in the field. These materials provide a wealth of knowledge about Komatsu machines, so again, our customers can get the most out of their equipment. Our focus is on providing comprehensive, accurate information.

QUESTION: Does the Customer Center offer more from a training standpoint?

ANSWER: Yes. Not only does this facility conduct training for Komatsu distributors and our customers, but we also focus on providing our Komatsu customer-facing employees with routine training from the Customer Center. For instance, we held a cross-functional training course this year that provided the opportunity for our sales, service, and parts teams to collaborate in a classroom setting by working together on case studies. In addition, we also offer specialized, technical training for Komatsu's large, electric-drive trucks that are used in mining operations.

Additionally, we design online classes through our learning management system. These classes are a good way to obtain background knowledge that can then be applied in the more hands-on setting provided in the Customer Center.

QUESTION: How does that benefit customers?

ANSWER: Our goal is to maximize productivity and minimize downtime. Komatsu makes world-class machinery, but even the best can experience an occasional issue or breakdown. Technicians with comprehensive knowledge of Komatsu machinery know how to resolve issues quickly to reduce downtime. If an issue or error code pops up, they know the proper procedures to diagnose and repair a machine quickly so that customers are up and running again as soon as possible. ■



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GENE SNOWDEN III / MACHINE SALES REP / BRANDEIS MACHINERY / LOUISVILLE, KY

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015



THE NEXT DIMENSION

Learn how 3-D GPS-technology from Komatsu provides full picture for excavator operators

Aftermarket grade-control systems revolutionized the construction industry by slashing project times, wasted material and labor costs in the late 1990s. When Komatsu's integrated *intelligent* Machine Control with semi-automation hit the market in 2013, it took the industry to another dimension, literally.

"Komatsu's *intelligent* Machine Control technology works in 3-D, so the machine knows where its reference points are in all directions, at all times," said Komatsu Senior Product Manager Mike Salyers. "With a 2-D only system, the machine simply knows where target grade is relative to a known elevation and only in the posture that the known point was measured."

When Komatsu introduced *intelligent* Machine Control on the PC210LCi-10 excavator in 2014, the improvement was dramatic. Grading efficiency increased by as much as 66 percent compared to conventional grading on a sloped surface.

The excavator's integrated, 3-D GPS technology was a massive upgrade over 2-D aftermarket machine control systems as well. The 3-D system doesn't require operators to re-establish elevation after moving the machine.

"With 2-D, every time operators move their machines – either to a new spot or to dump a load – they have to re-establish their positions using the bucket to define certain elevations," explained Salyers. "With the GPS system, the machine's position is updated in real time providing information so the operator can focus on digging.

"The *intelligent* Machine Control equipment can have the project plans uploaded to its computer, providing all of the information the operator needs to cut and grade even the most complex designs accurately," he continued.

For example, many house pads today have unique designs that present challenges to even

the most experienced field personnel. Carving detailed bump outs can be easily and accurately performed because the machine's position is continually updated without the need to re-establish its position.

The *intelligent* Machine Control excavators are pre-programmed with the bucket's full dimensions. In combination with the semi-automatic function of the boom, the operator is ensured not to undercut the target surface no matter the position of the bucket, giving full control of cutting and grading applications.

"In conventional 2-D systems, the bucket can only be referenced from a single point – usually the bucket teeth. This can be an issue if the body of the machine is sitting on a slope; one edge of the bucket may be below the target surface and one edge above," Salyers explained. "A 3-D bucket allows the system to determine the closest point to target surface to prevent any undercut."

Komatsu is the only manufacturer to offer excavators with integrated 3-D *intelligent* Machine Control with semi-automation – the PC210LCi-10, PC360LCi-11 and PC490LCi-11. ■



Mike Salyers,
Senior Product
Manager

Komatsu's line of 3-D *intelligent* Machine Control excavators with semi-automation, including the PC360LCi-11, recognize the full dimensions of the bucket and how it works with the boom and arm to curl when excavating dirt. This ensure that operators maintain grade and limit overexcavating.





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KOMTRAX LOCATES MACHINE

Telematics system helps Ates Construction recover stolen PC55MR excavator

Emergencies come in many different forms. Sometimes it's a water line break. Or, it could be finding out that the machine you need to help fix the water line has gone missing. Such was the case for Alan Ates when he went to pick up his Komatsu PC55MR excavator.

"We were doing a job and had parked the machine for the night at a designated yard," explained Ates, Owner of Ates Construction. "I got an emergency call to repair a ruptured water line the next morning and sent my guys to pick up the machine and take it to the new job. When they told me the excavator and the trailer it was on were missing, I called the police and then my Komatsu Sales Rep."

Using Komatsu's KOMTRAX telematics system, within minutes the distributor was able to pinpoint the PC55MR's location in another state about three hours away.

By simply entering the serial number of the machine, KOMTRAX showed the exact location of the stolen excavator. The police department in the city where the excavator was taken quickly confirmed the PC55MR's location and secured the machine.

Will use it more

Using information from KOMTRAX, as well as surveillance and other video, police were able to trace the time line of the machine's theft to its recovery, helping them build a case against the thieves.

"I knew the PC55MR had KOMTRAX, but I never really used it," said Ates. "That will change after this experience. I don't

think I would have seen the excavator again if it weren't for KOMTRAX. I appreciate everything my Komatsu distributor and the police did to ensure the machine was recovered." ■



Ates Construction Owner Alan Ates (second from right) is pictured with his crew and the company's PC55MR excavator, which had been stolen. Ates recovered it with the help of Komatsu's KOMTRAX telematics system. "I knew the PC55MR had KOMTRAX, but I never really used it," said Ates. "That will change after this experience. I don't think I would have seen the excavator again if it weren't for KOMTRAX."

BUYING WITH CONFIDENCE



Discover more

CERTIFIED EQUIPMENT DELIVERS

Komatsu's Tier 4 machines offer peace of mind for buyers of used equipment



Josh Alters,
Senior Manager,
Komatsu
ReMarketing

When Komatsu introduced its Tier 4 machines in 2011, it also launched Komatsu CARE, a complimentary program that provides factory-scheduled maintenance for the first three years or 2,000 hours of the machine's life. "Today's buyers understand that the better a machine is maintained, the longer it will last and, in the long run, lower their owning and operating costs," explained Senior Manager, Komatsu ReMarketing Josh Alters.

Komatsu CARE Certified Equipment gives customers a chance to purchase used equipment that has been maintained by certified Komatsu CARE technicians for the first 2,000 hours or three years of operation, providing a much clearer picture of the machine's history.



Under the Komatsu CARE program, machines receive Komatsu Genuine fluids, filters and coolants. They also undergo a 50-point inspection at each interval, and certified technicians log the information from the services. "We are now seeing owners trading in machines that were covered under the program," said Alters. "This careful monitoring paints a very clear picture about the machine, providing a detailed history compared to other used equipment."

Just as Komatsu CARE assures that late-model Komatsu equipment receives proper maintenance, Komatsu CARE Certified Equipment offers peace of mind for buyers in the secondary market.

"Only machines with less than 6,000 hours of operation on them and that have been maintained for by certified technicians at regular service intervals are selected for our rigorous certification process," noted Alters.

The program covers all eligible Tier 4 machines, which includes Komatsu's *intelligent* Machine Control line.

"Those who purchase CARE Certified Equipment will also receive a CARE Report that shows the machine's service history and complete records, eliminating many of the unknowns that are associated with purchasing used machines. This way customers know exactly what they are buying," shared Alters. "Additionally, if a machine has any Komatsu CARE coverage remaining, the balance will transfer with the machine to the new owner. That's a lot of added value, which provides peace of mind for customers looking to purchase a used machine." ■

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CELEBRATING 30 YEARS

Chattanooga Manufacturing Operation builds the future as it reflects on the past



Bruce Nelson,
General Manager,
Chattanooga
Manufacturing
Operation

As it celebrates its 30th anniversary, Komatsu's Chattanooga Manufacturing Operation (CMO) is firmly planted in the present and looking ahead to the future. This forward focus is evident as the Chattanooga, Tennessee, facility recently began mass production of the *intelligent* Machine Control PC490LCi-11, the world's largest excavator with a fully factory-integrated machine-control system.

"The future of construction is already here thanks to innovative machines like the PC490LCi-11," said General Manager Bruce Nelson. "We couldn't be prouder to assemble this revolutionary excavator at CMO. This plant continues to be a production leader, and having the PC490LCi-11 as one of the many products in our lineup highlights our staff's exceptional capabilities and the trust Komatsu puts in CMO to produce quality products."

The Tier 4 Final, 359-horsepower PC490LCi-11 handles a wide variety of jobsite tasks, including mass excavation, trenching and fine grading. It boosts production and efficiency while removing the worry of overexcavation. The excavator's

exclusive control function lets operators focus on moving materials efficiently without digging too deep or damaging the target surface.

Like other *intelligent* Machine Control excavators, the PC490LCi-11 uses 3-D design data loaded into the touchscreen display to show machine position relative to target grade. When the bucket reaches the target surface, automation kicks in to limit overexcavation. Once the target elevation is reached, no matter how hard the operator tries to move the joystick control to lower the boom, the excavator won't allow it.

Standard bearer in excavator production

CMO opened in 1986 and originally assembled WA600 wheel loaders. It has also produced dozers, articulated and rigid-frame dump trucks as well as motor graders during the past three decades, but it eventually became a premier excavator plant. In addition to the PC490LCi-11, CMO produces six standard Tier 4 Final models that range in size from the PC210LC-11 to the PC490LC-11.

"We offer additional options, such as pipeline-spec excavators and modifications to base machines," noted Nelson. "Throughout the years we have developed ways to reduce lead times for most distributor orders, from about two months in 2009 to now, less than a week. That's due to a constant focus on efficiency, as well as the dedication and hard work of the 360 CMO employees."

Additionally, this facility is the only Komatsu plant in the world that builds specialized forestry tracked machines. It produces four sizes of forestry excavators along with tracked harvesters and feller bunchers.

Komatsu demonstrated its first PC490LCi-11 at a Jobsite of the Future event earlier this year. It recently began mass production of the *intelligent* Machine Control excavator at its Chattanooga Manufacturing Operation.





► VIDEO

Komatsu personnel assemble an *intelligent* Machine Control PC490LCi-11 at the company's Chattanooga Manufacturing Operation. The PC490LCi-11 is the newest model built at one of Komatsu's premier excavator plants.

State-of-the-art robotic welding

Innovation goes into building every machine, and recently CMO upped the ante with the installation of new Komatsu-designed robotic welding units, technology that's not yet used in any other Komatsu plant in the world.

The robotic units make a large number of the welds on excavator track frames, while skilled, experienced welders apply the final touches manually. Each unit can hold an entire track frame and rotate it.

"We have used robotic welding units for many years, and they are good, but these state-of-the-art welders really take efficiency to another level," said Nelson. "They can maneuver in more sophisticated ways than older machines."

Adding more intelligent machines

The mix of robotic welding units and human assemblers have produced tens of thousands of machines since CMO opened 30 years ago. In addition to the current excavator lineup, the plant will begin mass producing *intelligent* Machine Control PC360LCi-11s relatively soon. Like the PC490LCi-11, it will have more components than a standard machine due to the built-in technology.



"Because we only make Tier 4 Final products at CMO, we have not yet taken on the PC210LCi-10, which was the first *intelligent* Machine Control excavator and is an Interim machine," explained Nelson. "It's anticipated that when the second generation of that machine comes around, we will likely produce it, too. As with previous products, we will refine the process of building the PC490LCi-11 and apply that to make the assembly of other *intelligent* Machine Control excavators more efficient." ■

New state-of-the-art robotic welders perform more than 90 percent of the welds on excavator track frames. Each robotic unit can hold an entire track frame and rotate it, maneuvering in more sophisticated ways than older robotic welders.

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MASTER YOUR FUTURE

Komatsu showcases innovative new products at MINExpo 2016

Companies often talk about the future at shows like MINExpo 2016, but Komatsu literally gave attendees a sneak peek at what's ahead with its display at the Las Vegas Convention Center. Komatsu's theme was "Master Your Future," and among the highlighted products that drew heavy attention was the cabless Innovative Autonomous Haulage Vehicle (IAHV) with a 254-ton (230-metric-tonne) payload.

"MINExpo is a wonderful event that showcases technology and solutions for the mining industry," said Rich Smith, Komatsu Vice President, Product and Services Division. "For Komatsu, it is a premium opportunity to

engage with customers and share our latest technologies in equipment. It also allows us to work closely with customers to develop real-world solutions that provide actual value today. We deliver products, solutions and services that meet today's needs and open a window to the possibilities of the future."

Komatsu developed the concept 2,700-horsepower IAHV to maximize the advantages of unmanned operation and eliminate K-turns at loading and unloading sites. It distributes equal load to all four tires when loaded or unloaded, and by adopting four-wheel drive, retarder and steering, it aims

Continued . . .



Rich Smith,
Vice President,
Product and
Services Division

▶ VIDEO



The centerpiece for Komatsu's MINExpo 2016 display was its new cabless Innovative Autonomous Haulage Vehicle (IAHV), a 2,700-horsepower mining truck with a 254-ton (230-metric-tonne) payload, four-wheel drive and four-wheel turning.

New machines lower owners' operating costs

... continued

for high performance in both forward and reverse travel. Komatsu expects the IAHV to significantly improve productivity at mines where existing unmanned haulage vehicles face challenging conditions, such as slippery ground as well as confined spaces for loading. No date is set for its formal release.

"The IAHV is going to change the mining industry," said Smith. "It's a completely radical design – no cab, four-wheel drive, four-wheel

steering, and it's autonomous. The IAHV, along with the other Komatsu equipment on display, really shows what the future of mining will look like."

Attendees also saw the present with the North American introduction of the PC4000-11, which is powered by a Tier 4 Final 1,875-horsepower, 16-cylinder engine and features a timesaving engine-oil management system. Best suited to pair with 150- to 240-ton trucks, it can be configured as a shovel or backhoe. Various buckets and wear packages are available to suit multiple material densities and properties.

New dozer, truck coming soon

Back to the future, Komatsu previewed its new 930E-5 mining truck and D375Ai-8 dozer, both of which will be available in 2017. The 636-horsepower D375Ai-8 is the first mining-class dozer with *intelligent* Machine Control, and it has structural enhancements for increased durability of the mainframe and track frame. It increases production and cycle times and delivers 20 percent greater horsepower in reverse.

The 930E-5 will join a 930 line that is the world's most popular for ultra-class mining trucks. It has a 2,700-horsepower Tier 4 Final engine that reduces fuel consumption up to 5 percent and delivers a 320-ton payload. It's a good match in large-scale mining applications with big bucket shovels of 49 to 55 cubic yards, such as the Komatsu PC7000 and PC8000.

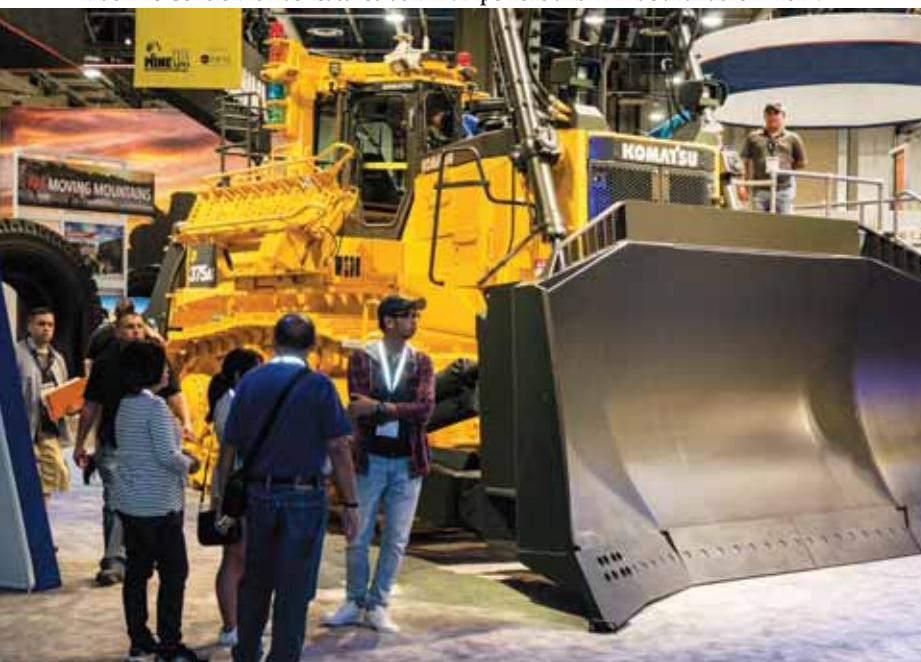
Additional features of Komatsu's display booth included the recently released WA600-8 wheel loader and information on maximizing production and efficiency. More than 43,000 people attended the event, which had more than 2,000 exhibitors, and 840,000 square feet of exhibit space.

"We were very excited to debut our newest mining machines at MINExpo," proclaimed Smith. "We have a commitment to the mining industry. These new machines were designed to lower the total operating costs for customers. We want to help them work as productively and as efficiently as possible." ■



Attendees check out the new Komatsu PC4000-11 at MINExpo 2016. It features a Tier 4 Final 1,875-horsepower engine and can be configured as a shovel or backhoe.

Komatsu's D375Ai-8 dozer is the first mining-class dozer equipped with *intelligent* Machine Control. It was featured at MINExpo 2016 and will be available in 2017.



NEWS & NOTES

DOT announces \$484 million in TIGER grant awards

The U.S. Department of Transportation awarded \$484 million, including \$193 million to road and bridge projects, in its latest round of TIGER (transportation investment-generating economic recovery) grants. Forty transportation projects obtained funding out of nearly 600 applications.

Pedestrian and bicycle paths received \$97 million, followed by \$93 million for transit, \$54 million for maritime infrastructure and

\$47 million for freight and rail. The largest single grant went to the Chicago Transit Authority that will collect nearly \$25 million of the \$50.4 million needed to upgrade the Garfield Station on the El's Green Line.

The future of TIGER funding is uncertain, and this latest round could be the last. The program, started a few years ago, is appropriated by Congress on a year-by-year basis. ■

Report: private investment in water systems may increase

A Bluefield Research Report says it's likely that private investment in public water systems will increase. Currently, 15 percent of the systems in the United States are privately owned.

The Congressional Budget Office estimates federal spending on water

utilities fell by 75 percent since 1977, leading to an investment need of more than \$532 billion in the next decade to meet the nation's water-infrastructure needs. States and municipalities have increasingly assumed a larger portion of water systems funding as a result. ■

Green building materials could hit \$255 billion in three years

The global green building materials market is on pace to hit \$255 billion by 2020, according to Zion Research and reported by Construction Dive. Public facilities, education, commercial and industrial sectors lead demand for green

materials, which was valued at more than \$127 billion two years ago. The report points out that North America accounted for more than 40 percent of the total green building materials market. ■

Article notes rise of crowdfunding in real estate construction

A recent article on the National Real Estate Investor website noted that crowdfunding has become an important part of real estate financing, especially for apartments. A growing number of developers are using this source of funds to help build or renovate properties, in part

because banks are less likely to lend due to financial-reform regulations.

"Certainly from where they started, the growth of these crowdfunding portals seems exponential," said Lee Weaver, Senior Vice President for Northmarq Capital, a commercial real estate debt and equity provider. ■

PLANTING SEEDS

New 'Build America Bureau' aims to increase efficiency for federal funding of infrastructure projects

The U.S. Department of Transportation recently announced the opening of its Build America Bureau, which is designed to help speed up repairs of roads and other infrastructure projects. The new bureau aims to streamline the application process for federal funding and assist public and private investors in obtaining loans, support and expertise.

One of the bureau's initiatives is to make government more efficient and help private donors contribute to large projects. It brings together officials from a variety of agencies to offer a one-stop shop for loans and streamlined access to existing funding sources.

The U.S. Department of Transportation aims to accelerate road repairs and other infrastructure projects with its Build America Bureau. A new report from the American Society of Civil Engineers showed U.S. infrastructure needs will exceed projected spending by \$1.4 trillion during the next decade with surface transportation accounting for \$1.1 trillion of the shortfall.

"By opening the Build America Bureau, we're planting seeds for future projects across the nation," said Transportation Secretary Anthony Foxx at a press conference announcing the bureau.

Report shows funding gap

The announcement of the bureau's opening coincides with a new report from the American Society of Civil Engineers (ASCE) that showed U.S. infrastructure needs will outpace projected spending by \$1.4 trillion during the next decade. ASCE's study says that if current spending levels continue, the gap will grow to more than \$5 trillion by 2040.

"Our nation's infrastructure bill is overdue," said ASCE Past President Greg DiLoreto. "Poor infrastructure is inefficient, and it puts a drag on America's economy."

Surface transportation accounts for \$1.1 trillion of the \$1.4 trillion shortfall. The 10-year deficit for electricity is \$212 billion, followed by \$113 billion for water and wastewater, \$46 billion for aviation and \$18 billion for ports and waterways.

DiLoreto said all means of new funding should be on the table, including increasing the gas tax, introducing fees on vehicle miles traveled, continuing efficiencies in the expenditures that utilities make and hiking utility rates. Foxx also says more infrastructure funding is necessary.

"We still have a chronic problem in this country of underinvesting, and that remains part of our challenge," Foxx told reporters during a briefing on Senate transportation appropriations earlier this year. ■

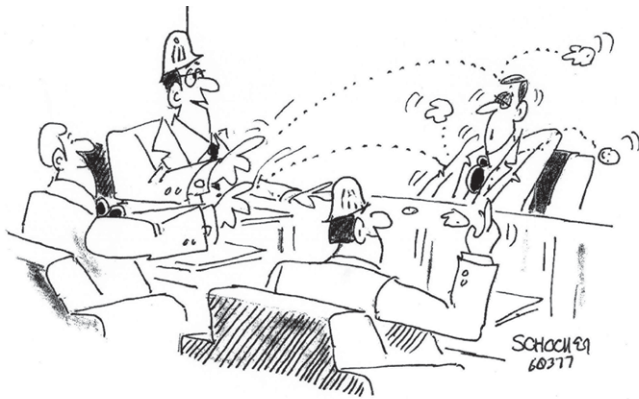


SIDE TRACKS

On the light side



"This will be my first experience in a 'Gated Community!'"



"It's very important for every organization to have someone to be able to bounce ideas off of, Benson."

Brain Teasers

Unscramble the letters to reveal some common construction-related words. Answers can be found in the online edition of the magazine at www.RMSRoadSigns.com

1. T G N E L E I T L N I _____ L _____
2. N R O T I O M _____ T _____
3. A M U N L A _____
4. S S M E S I O N I _____ S _____
5. A Z E R _____

Did you know?

- Bubble wrap was originally intended for use as wallpaper.
- Tears caused by sadness, happiness and onions look different under the microscope.
- Any month that starts on a Sunday will include a Friday the 13th.
- Caterpillars have approximately 4,000 muscles.
- A pumpkin is a fruit. Most people think of it as a vegetable.
- Auburn is the only school where John Heisman coached and has produced a Heisman Trophy-winning player.
- A day on Venus lasts nearly a year; it is 243 Earth days.
- The highest waterfall in the world, Angel Falls in Venezuela, has a total drop of 3,212 feet.



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\$125,000

2009 Komatsu D65WX-15E0,
5,773 hrs., S/N 69097



\$99,500

2012 Komatsu WA320PZ-6,
5,496 hrs., S/N 71223



\$127,300

2013 Komatsu WA320-7,
525 hrs., S/N 80250

Year	Mfgr./Model/Descr.	S/N	Hours	Price	Year	Mfgr./Model/Descr.	S/N	Hours	Price
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HYDRAULIC EXCAVATORS



2013	KOMATSU PC360 LC-10	A32923	2,397	\$199,500
2014	KOMATSU PC490LC-10	A40706	2,991	\$309,000
2012	HYUNDAI ROBEX 210LC-9	HQ601CB0001058	2,716	\$110,000
2007	KOMATSU PC200LC-8	C60859	6,102	\$89,000
2006	KOMATSU PC300LC-7E0	A88200	6,875	\$70,500
2008	KOMATSU PC300LC-8	A90603	6,467	\$119,000
2014	KOMATSU PC160 LC-8	25917	2,288	\$109,500
2005	DEERE 270C LC	702380	7,518	\$57,500
1999	KOMATSU PC75UU-3	19175	4,146	\$23,500
2007	KOMATSU PC300 HD-7E0	A86053	10,282	\$79,000
2008	DEERE 240DLC	605840	5,839	\$79,000
2008	HYUNDAI ROBEX 210LC-7A	N61210337	4,824	\$57,500
2012	HYUNDAI ROBEX 160LCD-9	HZ501JC0000211	1,972	\$84,500
2013	HYUNDAI ROBEX 80CR-9 Mini excavator	HZ101HC0000452	158	\$82,161

WHEEL LOADERS



2014	HYUNDAI HL760-9A	HLL04TE0000241	1,485	\$162,036
2013	KOMATSU WA320-7	80250	525	\$127,300
2008	WACKER NEUSON 850	346040264	2,945	\$29,900
2011	DEERE 544K	1DW544KZAB0635796	14,395	\$50,600
2015	KOMATSU WA320-7	A36283	527	\$145,000
2004	KOMATSU WA500-3	52332	16,100	\$69,500
2012	KOMATSU WA320PZ-6	71223	5,496	\$99,500

OFF-HIGHWAY TRUCKS

2015	KOMATSU HM400-3	3627	4,057	CALL
2014	KOMATSU HM400-3	3611	2,910	CALL
2014	KOMATSU HM400-3	3577	2,871	CALL
2014	KOMATSU HM400-3	3579	2,900	CALL
2015	KOMATSU HM400-5	10023	2,691	CALL
2012	KOMATSU HM400-3	3108	9,247	\$129,000
2014	KOMATSU HM400-3	3513	2,965	CALL
2014	KOMATSU HM400-3	3457	2,980	\$347,500
2013	KOMATSU HM400-3	3168	5,536	\$249,000
2012	KOMATSU HM400-3	3001	6,893	\$159,000
2014	KOMATSU HM300-3	3361	2,524	\$255,000
2014	KOMATSU HM300-3	3340	3,278	CALL
2014	KOMATSU HM400-3	3566	2,931	CALL
2014	KOMATSU HM400-3	3501	2,949	\$329,500

COMPACTORS/PAVERS



2013	DYNAPAC F1000T Paver	717US2008	522	\$149,000
2012	LEEBOY 8510B Paver	87252	1,918	\$79,750
1979	BLAW-KNOX PF120H Paver	0850-018	1,174	\$7,500
2012	BLAW-KNOX RW35A Paver	88330	215	\$64,500
1998	BLAW-KNOX PF5510 Paver	551025-49	6,101	\$24,500
2013	LEEBOY 8616 Paver	91825	847	\$139,500
2005	INGERSOLL-RAND SD45FB Padfoot	181481	477	\$49,700
2005	INGERSOLL-RAND SD77F Padfoot	185928	832	\$49,500
2007	VOLVO SD45F Padfoot	195261	1,410	\$38,500
2013	BLAW-KNOX PTC15 Pneumatic	B88321	470	\$59,000
2013	LEEBOY 420 Pneumatic	420-91078	172	\$38,500
2003	INGERSOLL-RAND DD34HF Smooth drum	173517	4,932	\$10,500
2003	INGERSOLL-RAND DD28HF Smooth drum	175014	6,140	\$10,500
2003	INGERSOLL-RAND DD28 Smooth drum	174269	8,102	\$10,900
2005	WACKER RD15	5548311	293	\$16,500

SKID LOADER



2015	TAKEUCHI TL10	201000577	406	\$49,500
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SCRAP PROCESSING/DEMOLITION

2005	DEERE 330CLC	804226	6,804	\$114,500
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AGGREGATE EQUIPMENT

2010	KPI-JCI FT5260 Screen	410186	8,850	\$425,000
2015	KPI-JCI 1830PH Screen	414372-414374	NEW	\$336,000
2009	KPI FT3620CC Screen	93101	4,571	\$149,000
2010	JCI FT6203 Screen	P101600	4,495	\$199,000
2008	TRIO 3625 Material Washer	TSW3625-358	n/a	\$29,000
1995	KOLBERG 271A Screen	139-271-A-3040-95	n/a	\$39,500

CRANES



2014	GROVE YB7725 Carry deck	322116	785	\$346,900
2013	SANY SCC8100 Crawler/dragline	12CC01030210	1,555	\$449,000
2013	SANY SRC840 Rough terrain	13RC00351276	2,275	\$159,500

FORK LIFTS & BOOM LIFTS

2014	PETITBONE EXTENDO 1530 Telescopic forklift	EX10428-14	235	\$146,500
2014	PETITBONE T944 Telescopic forklift	EX10435-14	665	\$114,500
2007	LULL 6.44E-40 Telescopic forklift	160027295	2,668	\$46,500
2001	INGERSOLL-RAND VR1056 Telescopic forklift	167984	10,040	\$29,500
2007	SKY TRAK 10054 Telescopic forklift	160031923	3,947	\$55,000

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2014 Komatsu PC160LC-8,
2,288 hrs., S/N 25917



\$79,750

2012 LeeBoy 8510B,
1,918 hrs., S/N 87252



\$119,000

2008 Komatsu PC300LC-8,
6,467 hrs., S/N A90603

Year	Mfgr./Model/Descr.	S/N	Hours	Price	Year	Mfgr./Model/Descr.	S/N	Price
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CRAWLER DOZERS



2012	KOMATSU D65WX-17	1137	4,234	\$162,500
2011	KOMATSU D65EX-16	26860365	8,911	\$97,000
2007	KOMATSU D85EX-15	11190		\$10,000
2013	KOMATSU D155AX-7	90084	3,792	\$299,000
2006	KOMATSU D65PX-15	67653	3,381	\$110,000
2010	KOMATSU D51PX-22	B11909	3,438	\$127,500
2006	DEERE 700J	T0700JX127623	11,721	\$59,000
2009	KOMATSU D65WX-15E0	69097	5,773	\$125,000
2012	KOMATSU D61EX-15E0	B46761	860	\$159,000

FORESTRY EQUIPMENT

2012	TIMBERPRO TL725B Feller buncher	TL725B-0137-032612	5,022	\$275,000
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MISCELLANEOUS

2013	WACKER G25 Generator	20180077	2,240	\$13,850
2011	WACKER NEUSON LTN6L Light tower	20011926	1,060	\$5,750
2014	WACKER NEUSON LTN6L Light tower	20297872	2,560	\$5,250
2014	WACKER NEUSON LTN6L Light tower	20227325	1,241	\$6,250
2012	LOAD KING Dump Trailers - Bottom	28482	n/a	\$46,900
1994	TRAIL KING Lowboy Trailers	1TKJ04836RM035618	n/a	\$34,800
2006	TRAIL KING Lowboy Trailers	1TKJ054466B066539	n/a	\$55,000
1983	W-W TRAILERS Utility/Light Duty Trailers		n/a	\$2,750
1996	KOMATSU MST2000 Dumper	20400	6,500	\$48,000
2014	MOROOKA MST1500VD Dumper	A150131	1,129	\$135,780
2014	MOROOKA MST1500VD Dumper	A150134	712	\$141,780
2014	MOROOKA MST1500VD Dumper	A150150	706	\$147,135
2014	MOROOKA MST1500VD Dumper	154862	531	\$147,135
2014	MOROOKA MST800VD Dumper	80174	1,016	\$107,950
2014	MOROOKA MST800VD Dumper	80184	575	\$107,950
2014	MOROOKA MST2200VD Dumper	A220203	384	\$191,930
2014	MOROOKA MST2200VD Dumper	223707	909	\$180,250
2010	GORMAN-RUPP T615WF Pump	1457383	NEW	\$1,270
2005	GORMAN-RUPP 1/2 A2-E2 Pump	1315582	n/a	\$1,785

ATTACHMENTS

2005	BLAW-KNOX Asphalt/Paving	A/023328		\$3,500
2007	LEMAC Bucket, GP	K0737		\$13,700
2011	EMPIRE PC490/A Bucket, GP	E7876		\$6,950
1999	EMPIRE PC200 Bucket, GP	E4942		\$2,000
	NORCO PC600 Bucket, GP	11031029		\$11,500
	BADGER Bucket, GP	CO-36-22		\$8,500

ATTACHMENTS continued...

2015	EMPIRE Bucket, GP	E8460		\$6,800
2016	GEM Bucket, GP	0116-8127-2/1 035836		\$5,900
2013	PEMBERTON Bucket, GP	GPB-5107-6.0-0413		\$14,500
1999	EMPIRE PC200LC Bucket, GP	E4731		\$2,500
1994	EMPIRE PC250LC Bucket, GP	E2583		\$2,500
2005	HENSLEY Bucket, GP	47388		\$2,900
2006	PC300 Bucket, GP	10463		\$3,500
2008	Bucket, GP	1107021		\$610
2011	EMPIRE Bucket, GP	E702-11		\$25,000
2009	KOMATSU 423-70-32200 Bucket, GP	2273		\$7,350
1998	EMPIRE PC360 Bucket, Light Material	E4321		\$1,750
	GAR-BRO 483R Bucket, Other	04631E		\$3,250
2012	ALLU DH31225 Bucket, Screen	DH31212010		\$65,100
2007	JRB PC210 Coupler / Quick Coupler	AKR4403		\$6,500
2009	JRB Coupler / Quick Coupler	1209-AKR9277		\$6,750
	CENTRAL FABRICATORS Coupler / Quick Coupler	CF114398		\$250
2007	PEMBERTON Fork	UF239960507		\$5,150
	ROCKLAND Fork	R52369		\$7,500
2001	EMPIRE A/PC360 Grapple, GP	2001		\$9,500
2014	FLECO PC360 GRAPPLE Grapple, GP	49961		\$9,500
2012	SENNEBOGEN OP4S Grapple, Orange-Peel	442089		\$24,500
2011	GENSCO PR01/5-60 Grapple, Scrap/Salvage	13283		\$13,900
2000	SURESTRIKE 6000 Hammer/Breaker - Hydraulic	6001		\$39,500
2008	ATLAS COPCO Hammer/Breaker - Hydraulic	KAL02324		\$14,675
	SURESTRIKE 6000 Hammer/Breaker - Hydraulic	B58148		\$6,000
2013	NPK Hammer/Breaker - Hydraulic	MRN43924		\$600
2005	NPK E203 Hammer/Breaker - Hydraulic	82073		\$8,500
2008	STANLEY DH1500 Hammer/Breaker - Hydraulic	112608001		\$6,700
2007	KOMATSU 4DD01-J Ripper	A/11190		\$10,000
2012	GENESIS LXP300 Shears, Concrete	320CP187-1		\$194,500
2011	GENESIS LXP400 Shears, Concrete	420121R		\$119,000
2012	GENESIS LXP400 Shears, Concrete	420125R		\$159,000
2010	GENESIS GVP15 Shears, Steel	15005		\$59,000
2010	GENESIS LXP300 Shears, Steel	320157		\$109,000
2003	GENESIS GXP300 Shears, Steel	300304		\$45,000
2013	GENESIS GXP300R Shears, Steel	300464R		\$79,000
2013	GENESIS GXT445 Shears, Steel	4451004		\$124,500
2011	GENESIS GXP660R Shears, Steel	600-533R		\$185,000
	LABOUNTY MSD100 Shears, Steel	100509		\$65,000
2007	INGERSOLL-RAND Shell Kit			\$13,500
2007	INGERSOLL-RAND Shell Kit	A/194178		\$10,500
2006	C&P Thumb	581-153067		\$4,500
2004	BLAW-KNOX GENSET	551030-83		\$4,500

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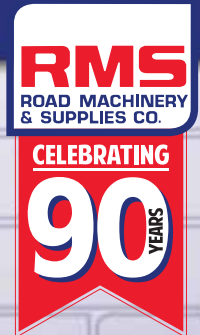
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