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FOCUS ON EXCAVATORS

See how innovative attributes
set Komatsu's Tier 4 Final
excavators apart
from the crowd



KOMATSU®

A MESSAGE FROM THE PRESIDENT



Ronald Zagami

**Construction
remains
in positive
territory**

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Dear Valued Customer:

Economists and industry organizations predict further strength in construction throughout 2018. Many see growth across several market sectors, and if Congress delivers on new infrastructure legislation, that would also add to the positive outlook. At Clairemont Equipment Company, we are hopeful that will be the case.

Growth in the construction industry means more machinery in the field. Clairemont is aligned with great manufacturers who we believe engineer and build the best equipment in the industry. Komatsu is a perfect example. No other company can match its *intelligent* Machine Control dozers and excavators, which are making businesses like yours more productive, efficient and profitable. You can read about one such firm in this issue of your Clairemont Pushing Ahead magazine.

Of course, there are times when standard machinery is your best choice. Komatsu's extensive lineup of Dash-11 excavators stands out for its unrivaled power, durability, reliability and productivity. Read about several models inside.

These, and many other Komatsu Tier 4 products, are covered by Komatsu CARE for the first three years or 2,000 hours. Our technicians perform the scheduled maintenance at times and locations convenient for you, which minimizes your downtime. We track your machines' hours, contact you when services are due and get them done.

Clairemont can also service your older Komatsu machines, other brands we carry and competitive equipment as well. If there is anything you need, from sales and rentals to parts, maintenance and repairs, we have you covered. Call or stop by one of our branch locations for more information.

Sincerely,
CLAIREMONT EQUIPMENT COMPANY



Ronald Zagami,
President



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FORECAST 2018

Industry experts predict further growth in most construction industry sectors

Ten years ago, the construction industry faced a major crisis. The nation's worst economic period since the Great Depression had pulled it down. New starts were relatively small, firms were closing at a rapid pace and many of those that were hanging on were forced to slash staff in an effort to stay afloat.

A decade later, the landscape looks quite different. The end of 2017 saw construction employment at its highest level since November 2008, totaling nearly 7 million jobs. The Associated General Contractors of America's Chief Economist Ken Simonson noted that the year-over-year growth rate in industry jobs of 2.7 percent from November 2016 to November 2017 was nearly twice the rise in total nonfarm payroll employment. He also pointed out that factors such as a lack of skilled workers and tight profit margins prevented an even higher number.

"Employment and pay in the construction industry have risen more rapidly throughout the past year than in the economy overall,

as the supply of unemployed, experienced workers continues to shrink," said Simonson. "With low overall unemployment, contractors are likely to have increasing trouble filling many types of hourly craft and salaried openings."

While there is a lack of skilled workers, there are seemingly plenty of upcoming project opportunities in 2018. Construction finished 2017 on a positive note with nearly every sector showing strong growth. Industry groups and individuals largely see more of the same for 2018, especially if Congress passes proposed infrastructure legislation that has been under discussion for nearly two years.

There is apparent consensus that construction as a whole will increase this year. Simonson expects growth of 2 to 7 percent overall. ConstructConnect forecasts a 4.8 percent increase to \$773.1 billion. The American Institute of Architects (AIA) Consensus Construction Forecast panel predicts 3.5 to 4 percent growth, and Dodge Data & Analytics sees a 3 percent climb to \$765 billion.

"For 2018, there are several positive factors which suggest that the construction expansion has further room to proceed," said Robert Murray, Chief Economist for Dodge Data & Analytics. "The U.S. economy is anticipated to demonstrate moderate job growth. Long-term interest rates may see some upward movement but not substantially. Overall, the year is likely to show some construction sectors register gains, while other project types settle back."

Single-family housing leads the way

All economists and organizations point to single-family housing as a bright spot in

Construction industry organizations and individuals see single-family housing continuing to gain momentum. Dodge Data & Analytics says housing starts will rise 9 percent in dollars, corresponding to a 7 percent increase in units to 850,000.





Public works spending, including highways and bridges, is expected to increase after falling last year. The American Road & Transportation Builders Association believes air terminals; public transit; Class 1 railroads; and private driveway, street and parking lot construction associated with residential and commercial developments will also be up in 2018.

the construction industry. Dodge Data & Analytics says it will rise 9 percent in dollars, corresponding to a 7 percent increase in units to 850,000. Dodge cites continued employment growth for easing caution by potential homebuyers as well as older millennials in their 30s helping to lift demand.

That fits with ConstructConnect's analysis, which notes that residential construction should remain strong in 2018, but is partially contingent on whether millennials start making the move from living in downtown metropolitan areas to becoming homeowners.

"If millennials decide they want to have single-family housing like their parents and grandparents, it will help to drive residential starts," said ConstructConnect Chief Economist Alex Carrick. "We've had 10 years when housing starts were less than the 1.4 million benchmark that represents equilibrium. So, if housing really gets going, it's going to drive the economy for years to come."

Much of the commercial and industrial sectors were red hot last year, with most up 6 to 10 percent. That growth trend will continue, albeit at a slower pace. Overall, those two categories accounted for 8.8 percent growth in 2017. AIA foresees a 4 percent uptick in 2018, with retail growth leading the way at 4.6 percent, followed by office space, hotels and industrial facilities. The latter category was down nearly 7 percent

last year, but AIA predicts a 1.1 percent rise this year.

Public spending rebound

Another area of agreement is public spending, including transportation, which fell 2.8 percent in 2017. Modest improvement is expected, although it will vary from state to state and region to region. That's due in part to several states passing referendums or legislation to increase their gas taxes to pay for infrastructure. The last surface transportation bill (FAST Act, 2015) also calls for rising federal funds for highways and bridges in 2018.

The American Road & Transportation Builders Association (ARTBA) believes air terminals; public transit; Class 1 railroads; and private driveway, street and parking lot construction associated with residential and commercial developments will be up this year.

"The fundamentals of this market are positive," said ARTBA Chief Economist Dr. Alison Premo Black in a Rock Products News article detailing the organization's outlook. "There are a lot of things going on that could support growth in the coming year, including the local and federal investment part of it. It really depends on where you are working. We are seeing much more variation in the regional, state and even local or urban level. There are states and areas that are showing very strong, significant growth and potential for growth throughout the next few years." ■

PREVIEW PAYOFF

How virtually designing infrastructure jobs with building information modeling saves taxpayer dollars



Jim Lynch,
Vice President,
Autodesk
Construction
Products Group

Jim Lynch is a 30-year veteran of the computer-aided drafting industry. He has served in a variety of senior management roles in the AEC (architecture, engineering and construction), manufacturing and electronic design automation industries.

Jim Lynch, Vice President of Autodesk Construction Products Group, says using building information modeling will allow the federal government to do far more with taxpayer dollars by virtually building first in order to validate the approach and costs.

No longer the infrastructure envy of the world, many of the United States' roads, bridges and tunnels are crumbling and in need of substantial maintenance or replacement. Compounding these challenges are the pressures of increased urbanization and population growth, which will place added stress on already strained systems.

So, while the Beltway banter continues about addressing infrastructure funding, we can no longer focus solely on the amount of spending, but rather the manner by which those dollars are spent. Secretary of Transportation Elaine Chao captured the point perfectly in her confirmation hearing last year when she said, "It's also important to recognize that the way we build and deliver projects is as important as how much we invest."

Using building information modeling – BIM – will allow the federal government to do far more with taxpayer dollars by virtually building first in order to validate the approach and costs.

But what is BIM? Simply stated, BIM allows project teams across all disciplines – designers,

engineers, construction teams and project sponsors/owners – to build in the digital world before doing so in the physical world. The benefits? Reduced risk, waste and rework in construction, which typically lead to cost overruns.

Many governments around the world have or are in the process of creating requirements for spending funds more responsibly with an eye on long-term growth and modernization of government-funded infrastructure. China, Germany, Japan, the United Kingdom (U.K.), France and others are in the lead on developing BIM policies or standards and demonstrating real value on behalf of their constituencies.

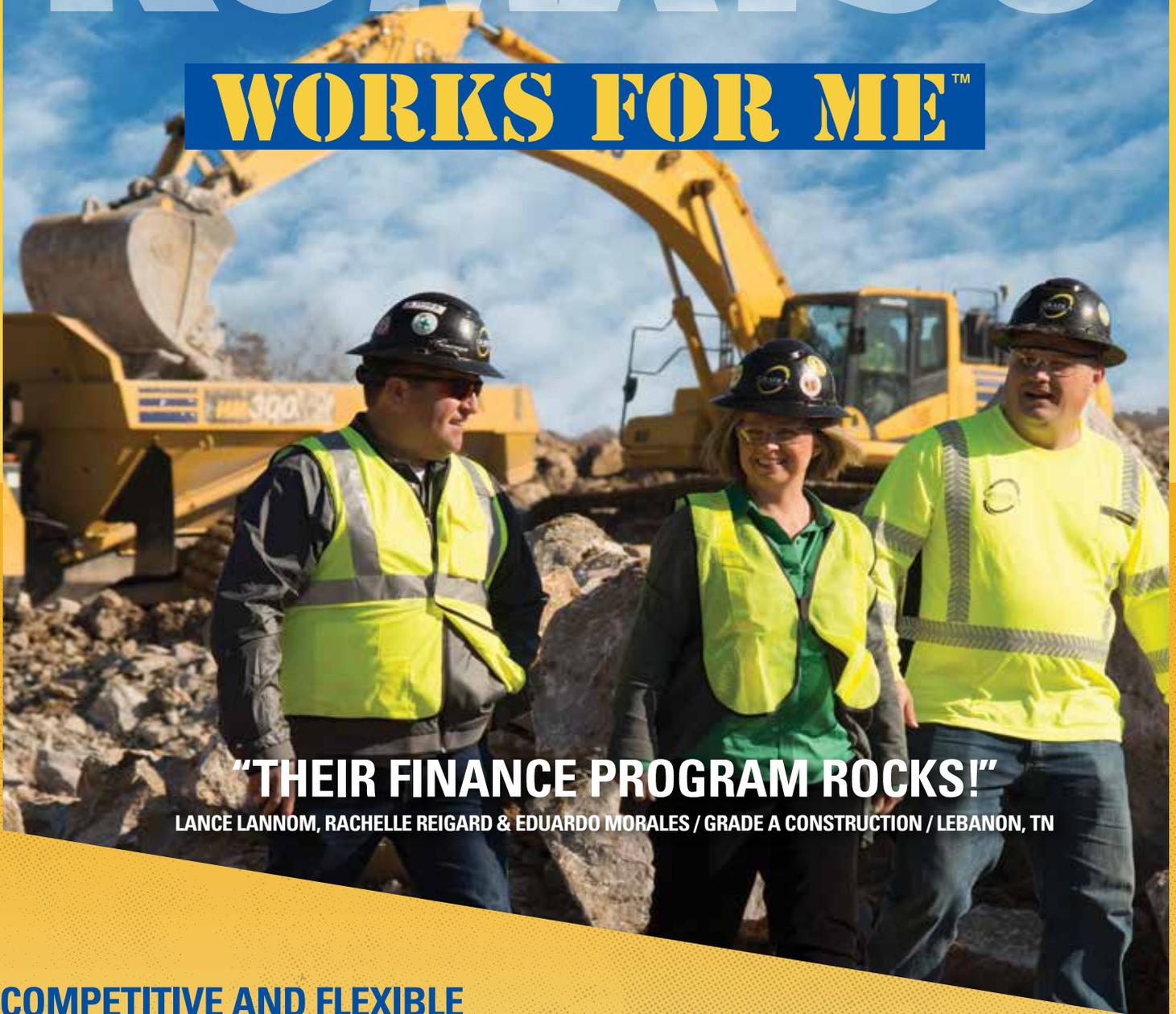
Perhaps the U.S. Department of Transportation should take a page out of the U.K.'s playbook. That nation implemented a technology policy that all government-funded projects, including infrastructure, are required to use BIM. Using the BIM process, between 2009 and 2015, the policy saved U.K. taxpayers 15 to 20 percent in construction costs, roughly the equivalent of more than \$1 billion U.S. dollars.

Ben Franklin popularized the phrase, "a penny saved is a penny earned." When it comes to spending taxpayer dollars on infrastructure, the proverb has even greater meaning. Millions saved means we can put America's roads, railways, airports and bridges reliably back to work and help create many thousands of meaningful jobs. ■

Editor's note: This article is excerpted from one that was originally published in The Hill. To see the full article, please visit <http://thehill.com/opinion/technology/363166-to-address-americas-crumbling-infrastructure-follow-britains-lead>.

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EXTRA BENEFITS

Tier 4 Final technology brings more than fuel efficiency to Komatsu excavators



Justin Lantin,
Komatsu Product
Manager,
Excavators

The PC210LC-11 features additional horsepower and increased operating weight, compared to its predecessor.

Whether your business loads trucks, digs trenches, provides mass excavation or all of the above, Komatsu has a Tier 4 Final construction-size excavator equipped to get the job done. Komatsu designed the excavators to do more than meet the stringent emissions standards that come with Tier 4 Final regulations.

“They maintain, or improve, the production of their predecessors, while being more fuel-efficient,” said Justin Lantin, Komatsu Product Manager, Excavators. “As an added bonus, with new Komatsu technology and innovation, in some cases you can do the same work with a Dash-11 excavator that’s a size-class-smaller than the one you are replacing. For example, a customer who owns an older PC400, which we no longer manufacture, may be able to get as much or

more production with a new PC390LC-11. In that case, they wouldn’t need to go to the next size class to replace it. We would work with them to find the right fit.”

Performance and production

Production is the name of the game when it comes to excavators. Each Komatsu Tier 4 Final machine features a Closed-Center Load Sensing Hydraulic System that provides quick response and smooth operation to maximize productivity. An electronic-control system optimally controls the engine and hydraulic system according to the operating conditions.

Operators can match the machine to the work at hand by selecting the proper working mode, each of which matches the engine speed, pump delivery and system pressure to the application for maximum efficiency. Six modes are available, including Power, Economy, Lifting, Breaker, Attachment Power and Attachment Economy.

“Today’s market requires excavators to be more than digging machines. For example, customers want hydraulic packages to run multiple attachments,” said Lantin. “Our Dash-11 excavators have standard electrical connectors that allow users to easily add proportional joysticks, either at the factory or as a kit that doesn’t require extensive wiring. Operators can control attachments with a thumb button on the joysticks.”

The PC360LC-11 and PC390LC-11 feature an enhanced Power mode that provides improved performance in demanding applications. In standard Power mode, the new logic provides up to a 12 percent increase in production, compared to Dash-10 models.





Quick Specs on Komatsu's Dash-11 Excavators

Model	Net Horsepower	Operating Weight	Bucket Capacity
PC138USLC-11	97.2 hp	34,563-37,547 lb	0.34-1.00 cu yd
PC238USLC-11	165 hp	54,230-55,660 lb	0.66-1.57 cu yd
PC170LC-11	121 hp	38,720-43,115 lb	0.48-1.24 cu yd
PC210LC-11	165 hp	51,397-53,882 lb	0.66-1.57 cu yd
PC240LC-11	177 hp	55,763-56,360 lb	0.76-1.85 cu yd
PC290LC-11	196 hp	70,702-72,091 lb	0.76-2.13 cu yd
PC360LC-11	257 hp	78,645-80,547 lb	0.89-2.56 cu yd
PC390LC-11	257 hp	87,867-90,441 lb	0.89-2.91 cu yd
PC490LC-11	359 hp	105,670-110,220 lb	1.47-4.15 cu yd

Komatsu's standard Dash-11 excavator lineup features nine models, ranging in size from the tight-tail-swing 97.2-horsepower PC138USLC-11 to the 359-horsepower PC490LC-11. Each provides excellent production, stability, durability and power along with features that make them more efficient and offer lower owning and operating costs, compared to their predecessors.

"The enhanced Power mode combines flow from both pumps and provides greater available torque to the hydraulic pumps when digging," said Lantin. "That creates better cycle times and digging performance and lowers per-ton costs."

Durability, stability

All Komatsu excavators are built to last. Komatsu uses one-piece steel castings in the booms and arms, providing increased durability to the front work equipment. The loads are spread out through the use of castings, minimizing high-stress areas. Larger machines used for heavier workloads have unique characteristics that further improve their durability and stability. The PC290LC-11 has a longer arm and boom for extended reach and a heavy-duty undercarriage for stability and long life.

"The PC240LC-11 is a great machine that fits a lot of contractors. The next-size-larger PC290 is a PC240 on steroids," said Lantin. "It has a larger counterweight, and a larger and longer boom, as well as bigger arm and bucket cylinders. The PC290 also has improved lifting and digging performance. The productivity is fantastic."

The PC360LC-11, PC390LC-11 and PC490LC-11 feature a heavy-duty design. For instance, the PC390LC-11 has a more robust undercarriage that uses larger-size-class

components. The bigger undercarriage has a 6 percent wider track gauge and offers up to 18 percent greater over-the-side lift capacity than the PC360LC-11.

"The PC360LC-11 is a good fit, right in between a utility-size machine and bigger excavators," said Lantin. "It's great for pipeline and general construction, site development and trenching. When a company needs extra lift capacity, that's where the PC390LC-11 comes in, and the PC490LC-11 is great for moving mass quantities of material in short order."

New standards

Komatsu added standard features to the Dash-11 excavators to increase operator comfort, efficiency and monitoring. Enhanced work environments in the ROPS-certified cab meet Level 1 Operator Protective Guard requirements. Features include a high-back, heated, air-suspension seat with adjustable arm rests; a large, LCD color-monitor panel with a 7-inch, high-resolution screen; Eco-Guidance that offers tips for lowering fuel consumption; and enhanced attachment control. In addition, an Equipment Management Monitoring System continuously checks the machine operation and vital systems to identify issues and assist with troubleshooting.

Continued . . .

Dash-11 excavators armed with latest technology

... continued

Komatsu carried over the standard rearview camera from its Dash-10 models and improved operator usage. The monitor now has a combination screen that shows a view from the camera, and it sits alongside all the main gauges.

“That gives operators greater situational awareness and helps improve productivity,” according to Lantin. “They don’t have to pause operation and push a button to get the camera view.”

All Tier 4 Final excavators have Komatsu Auto Idle Shutdown that helps reduce unnecessary idle time and operating costs. They also include a standard Operator Identification System, which reports key machine information for multiple operators, applications and job locations.

“Operators are only limited by their imaginations when it comes to using the system,” Lantin pointed out. “They can get data for a particular project, do bucket-versus-hammer or other attachment analyses and a whole lot more. It allows them to set very specific benchmarks.”

All Dash-11 excavators feature the latest version of KOMTRAX monitoring technology, which is available via the Internet or through a mobile app on a smart phone or tablet. Data now includes

diesel exhaust fluid (DEF) levels, ambient air temperatures and pressures, as well as standard items, such as locations, hours and codes.

“Every manufacturer is required to use DEF in Tier 4 Final equipment, but we stand out in a couple of ways,” said Lantin. “I believe Komatsu is the only manufacturer that puts a site gauge on the tank, which allows users to quickly check the DEF level without getting in and turning on the machine to read the gauge. More significantly, we separated the DEF pump from the tank, placing the pump in a more accessible location. If the pump needs a new filter, it’s done in minutes, whereas other manufacturers combine the pump and tank, requiring a lengthy process to simply change a pump filter.

“Another standout feature is that Komatsu’s design gives operators some peace of mind when it comes to DEF level and working on slope,” he added. “Even if the gauge reads empty, there is actually enough reserve margin in the tank. The DEF pick-up will remain submerged up to the slope limit of 70 percent. Overall, we’re seeing that DEF usage is running close to where we expected it to be – at about two gallons for every 100 gallons of fuel, if not a little lower. Komatsu has also designed DEF tank capacity to run through two full tanks of fuel before requiring DEF.”

When Komatsu rolled out its Tier 4 Interim machines, it also introduced Komatsu CARE, which provides complimentary scheduled service for the first three years or 2,000 hours. Factory-trained technicians perform all work at a convenient time and location and conduct a 50-point inspection at the same time. Komatsu distributors track the machines through KOMTRAX, contact the owner when a service is due and schedule the work.

“Komatsu CARE also covers two Komatsu Diesel Particulate Filter (DPF) exchanges in the first five years,” Lantin noted. “Most manufacturers charge for changing the DPF. That is complimentary with Komatsu and done with minimal downtime because the service tech puts in a fresh filter, versus waiting for the old filter to be cleaned and reinstalled. Komatsu CARE is a great program that provides world-class support to world-class machines.” ■

The PC390LC-11 has a robust undercarriage that uses larger-size-class components. The bigger undercarriage has a 6 percent wider track gauge and offers up to 18 percent greater over-the-side lift capacity than the PC360LC-11. “When a company needs extra lift capacity, that’s where the PC390LC-11 comes in,” said Justin Lantin, Komatsu Product Manager, Excavators.



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HI-TECH OUT THERE!"**

ANTHONY CARLTON / OWNER / CARLTON, INC / ALPINE, UT

"Using and understanding the new product technology, available from Komatsu for our business, made me apprehensive at first. But our dealer and their technical support have worked with us to help us make the tech work for our needs. I am seeing the benefits now. I'm on board and love it!"



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"THE TECH MAKES ME FASTER."

JEROME HAYCRAFT / ASPLIN INC. / FARGO, ND

INTELLIGENT MACHINE CONTROL

"We have a Komatsu PC210LCi and it's been better than I even expected. The speed and time you save just having your line work and not having to worry about over excavating—that's huge. I hated those bigger commercial jobs where you'd have hundreds of stakes marking all your corners, offsets and gridlines. And to not have a need for any of that, especially if it's an export site or it doesn't even really have to be, just room for your spoil piles. Keeping track of corners—major time saver! I'd say, with iMC, I'm about a third faster getting the job done."

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JUMP RIGHT IN

Demo Days gives customers opportunity to operate latest equipment

More than 300 customers and industry professionals attended Komatsu's most recent Demo Days event at its Cartersville Customer Center in Cartersville, Ga. Attendees were treated to an abundance of sunshine and warm temperatures as they enjoyed the latest Komatsu has to offer.

"It was a great event to showcase our machines, technology and employees to a large group of customers," explained Director of Training and Publications Bill Chimley. "Demo Days is the perfect opportunity for customers because they can come here and operate the newest machines, and our staff members can answer any questions they have."

The entire lineup of Komatsu *intelligent* Machine Control dozers and excavators – the

industry's first machines with integrated GPS and machine control technology – were available for attendees to operate. In total, nearly 30 pieces of equipment were on-hand for demonstration, including a remote-control D155AXi *intelligent* Machine Control dozer and a Hybrid HB365LC excavator in addition to haul trucks, dozers, excavators and wheel loaders.

"The *intelligent* Machine Control pieces are always a big hit at Demo Days," noted Chimley. "Customers get the chance to jump in an integrated dozer or excavator and see exactly what the technology can offer. Plus, they can operate it in a safe, controlled environment with an expert right there to provide proper training. There is a lot of interest in the technology, and Demo Days is a great opportunity to test it out."



Bill Chimley,
Director of Training
and Publications

Continued . . .

Komatsu's recent Demo Days event in Cartersville, Ga., featured nearly 30 pieces of equipment – including excavators, dozers, wheel loaders, haul trucks and a motor grader – available for customers to operate.

▶ VIDEO



Great time to demo new technology

... continued

Manufacturing operation tour

Customers had two options for the morning. They could attend information sessions at the Cartersville Customer Center focused on Komatsu technology or tour the Chattanooga Manufacturing Operation (CMO) facility in Tennessee to see how the machines are made. The two groups then came together for lunch and a safety briefing before operating machines in the afternoon.

“We want everyone who attends Demo Days to get all the information they need,

and the morning sessions are a great way to do that,” said Chimley. “Our product managers and technology solutions experts lead sessions on emerging technology and also host question-and-answer sessions.

“The CMO tour is a neat experience as well,” he added. “Seeing the machines being assembled and then operating them that afternoon gives customers a chance to really get a feel for our equipment – from fabrication to operation. Sometimes we’ll have customers on tour when their machines are being assembled, and we let them sign the frame or do something to personalize it. This year, we had a customer whose excavator was just assembled, and he took a photo with it.”

The Cartersville Customer Center also featured Komatsu’s operator-training simulator, Worksite VR. The simulator uses a computer program in conjunction with a virtual-reality headset, an operator’s chair, pedals and joysticks to recreate excavator operations at a jobsite. The simulator was available for attendees to test out throughout the day.

“Demo Days provides an opportunity to operate several machines and get a great deal of information in a short time,” noted Chimley. “Customers who are interested in attending Demo Days should contact their distributor to set up a visit.” ■



Attendees had the opportunity to operate Komatsu’s full family of *intelligent* Machine Control dozers at Demo Days.

More than 300 customers, distributors and equipment representatives attended the latest Demo Days at Komatsu’s Cartersville Customer Center.



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**"I'VE USED THEM ALL AND
KOMATSU IS THE BEST."**

TAD GRIFFITHS / ROYAL T ENTERPRISES / UTAH

"Komatsu's i-machines definitely make my operators better at what they do. I mean, we haven't been using this technology for the past twenty years, so it's pretty new. But this tech makes it easier to do our job—makes it so that my operators can work more efficiently, and we get a better finished product."



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INTELLIGENT DOZING

Experienced earthmoving contractor boosts efficiency with Komatsu D51EXi dozer



Cody Weaver,
Owner,
CW Construction

Cody Weaver started moving dirt at the age of 12 and hasn't stopped. Throughout the years, the Owner of CW Construction learned how to do it as efficiently and competitively as possible by maximizing production time. Approximately a year ago, he upped the ante further with the addition of a Komatsu D51EXi *intelligent* Machine Control dozer.

Weaver uses it to prep subgrade for roadways, level pads, cut and move massive amounts of dirt, as well as place sub-base materials, among other tasks. The dozer features factory-integrated machine control that requires no masts or cables like traditional aftermarket GPS grading systems.

"I love that it provides automatic dozing from rough cut to finish grade, and that the system is integrated into the machine," said Weaver. "The accuracy is impressive. It eliminates overcutting and the need to replace materials with expensive fill."

Once engaged, Komatsu's *intelligent* Machine Control system automatically starts the cut and

lowers 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 dozer to achieve up to 8 percent greater efficiency in moving materials, based on start-to-finish grade testing against typical aftermarket machine-control systems.

Four modes

Operators can select from four distinct operating modes (Cut and 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.

"It virtually eliminates the need for staking and grade checkers," Weaver stated. "You can just plug in the plans, set the machine and it does the work, making even the newest operators look like they have been running a dozer for years. Our time, material and labor savings are remarkable." ■

CW Construction's *intelligent* Machine Control D51EXi dozer cuts, grades and pushes material. "I love that it provides automatic dozing from rough cut to finish grade, and that the system is integrated into the machine, so there are no masts or cables to install or remove," said Owner Cody Weaver. "The accuracy is impressive. Our time, material and labor savings are remarkable."



▶ VIDEO



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ALL-AROUND SERVICE

Komatsu Service Institute provides valuable education for distributor personnel

More than 130 employees from 26 Komatsu North American distributors attended the Komatsu Service Institute (KSI) at the Cartersville Customer Center in Georgia last fall. The week-long conference, which Komatsu has hosted annually for the last four years, enabled attendees to gain valuable leadership, organizational and interpersonal skills in addition to information on Komatsu equipment and technology.

“Our goal is both professional and technical skills development,” noted Manager of Business Development Brian Wysocki. “Originally, KSI was designed for our distributors’ service managers, but it has grown to include branch managers, general managers, vice presidents and warranty administrators. It has become a valuable experience to attain specialized skills that they can take back with them to their branches, and it helps advance their careers.”

The a la carte offerings range from technical classes focused on Tier 4 and *intelligent* Machine Control equipment, to leadership courses geared toward identifying personality styles and developing customer service skills.

“There is no defined course schedule, some people come for a day and some for the week, depending on their needs,” said Wysocki. “We designed the classes to be a mix of lecture and hands-on training, especially with the Tier 4 and *intelligent* Machine Control topics.

“The leadership courses were developed because there was a demand for them among our distributors,” he added. “Most of our service managers have advanced their careers through technician training and similar courses, but they have never had exposure to these

interpersonal-type training sessions. These classes have been attendee favorites each year.”

Scenario-based course

Another popular class is KSI’s two-day War Games simulation focused on financial-skill development and operations management.

“It’s a scenario-based game with teams of four people managing a distributor branch over a two-year simulation,” stated Wysocki. “They work together to make financial decisions and navigate issues that a distributor might encounter, like economic trends and employee morale. It’s very helpful for those employees who aspire to move into or advance in their managerial roles.”

The event also provided attendees the opportunity to operate machinery and earn a certification as an Expert of Customer Support.

“Attendees look forward to KSI each year,” shared Wysocki. “We ensure that the courses remain relevant to our industry, so that it’s a valuable asset for our distributors.” ■



▶ VIDEO
Brian Wysocki,
Manager of Business
Development

Komatsu Instructor/
Developer Kevin Dunphy
explains the finer details
of the Komatsu *intelligent*
Machine Control D155AXi
dozer during a Komatsu
Service Institute session at
the Cartersville Customer
Center in Cartersville, Ga.



ALL ABOUT QUALITY

General Manager Walt Nichols says Komatsu's CMO builds products to stringent standards



Walt Nichols,
General Manager, Chattanooga
Manufacturing Operation

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.

Approximately 12 years ago, Walt Nichols and his wife, Kelly, were looking to make a change. The couple was living in the Atlanta area with their young daughter. However, both were natives of Chattanooga, Tenn., and still had family there, so they wanted to move back.

They relocated to Chattanooga, and Nichols landed a job with Komatsu in the Supply Chain Division. "Growing up, I actually lived close to Komatsu's Chattanooga Manufacturing Operation. I drove past it nearly every day.

"My background was in operations and management with one of the major delivery companies. I didn't know much about manufacturing, but I learned quickly and was hooked," he said.

Within a year he was managing the Import Department, procuring machines from all over the world. A move into the role of Production, Planning and Control Manager for the plant followed.

From there, he became Director of Manufacturing Administration, a position he held for the past seven years before becoming General Manager in October 2017. Nichols is now responsible for overseeing every department within the plant, including quality, safety, production, material management and more. "Each successive role was good preparation for this position," said Nichols. "I really enjoy it here. We have a dedicated staff with many years of experience who take great pride in building Komatsu equipment."

QUESTION: What products are produced at the Chattanooga Manufacturing Operation (CMO)?

ANSWER: From a construction standpoint, our focus is standard hydraulic excavators from the 21-ton PC210LC-11 to the 49-ton PC490LC-11, as well as *intelligent* Machine Control PC360LCi-11 and PC490LCi-11 models. We mainly supply the North American market. In addition, CMO produces forestry excavators, tracked harvesters and tracked feller bunchers. This is the only Komatsu plant in the world that builds those forestry-tracked machines. Nearly everything we manufacture is Tier 4 Final. CMO is the only plant in North America that cleans diesel particulate filters from Tier 4 Final machines.

QUESTION: Why is it a good choice to buy a machine built at CMO?

ANSWER: It's all about quality. Komatsu has stringent standards, from the fabrication and welding of frames to genuine Komatsu parts and components. Outside vendors who supply certain items have to meet Komatsu's engineering standards, or we don't use them.

Our team of more than 400 people takes great pride in assembling what we all believe are the best machines in the construction and forestry industries. Many staff members have been here 20 years or more. Each is dedicated to ensuring that every piece of equipment is built correctly, tested and ready to move dirt or timber productively and efficiently.

QUESTION: How do you determine how many machines to build?

ANSWER: There are several factors that come into play. Markets are one of them. We also



Komatsu's Chattanooga Manufacturing Operation builds standard excavators ranging from the PC210LC-11 to the PC490LC-11, as well as *intelligent* Machine Control PC360LCi-11 and PC490LCi-11 models. Additionally, it produces log loaders as well as tracked harvesters and feller bunchers for the forestry industry.

work closely with distributors and customers to ensure we are meeting their needs. There are other Komatsu factories around the world that build the same machines, and we coordinate with them. For instance, if they can't meet their current demand for some reason, CMO may ramp up to help and vice versa. As an example, when a tsunami hit Japan a few years ago, it devastated many areas of the country. Our Japanese excavator plant was occupied building machines to assist with the cleanup. That caused a spike in our production because, for a time, we had to build all the machines to supply North America.

QUESTION: Do you manufacture custom-order machines?

ANSWER: From a planning standpoint we keep ourselves flexible enough to be able to accommodate those requests. Our commitment on an order is eight days from when it's submitted to the time we have it on a truck ready to ship. In most instances, we beat that. Some super-specialty items might take a little longer.

QUESTION: Speaking of customers, do you encourage them to visit CMO?

ANSWER: Absolutely, and the public as well! We have a lot of visitors come through every year. We want them to see how Komatsu machines are manufactured and the quality that's built in. ■



The 21-ton PC210LC-11 is the smallest excavator that Komatsu's Chattanooga Manufacturing Operation produces. The largest is the 49-ton PC490LC-11.



Four sizes of forestry-tracked harvesters and tracked feller bunchers are built at the Chattanooga Manufacturing Operation, including the XT460L-3.

Komatsu recognized for environmental efforts

Komatsu Ltd., has been awarded a position on this year's A List for climate and water by CDP, the non-profit global environmental disclosure platform. The A List is awarded to companies that are international leaders in managing climate change and water security.

Komatsu has conventionally positioned environmental activities as one of its top management priorities. In April 2016, it defined Environment, Social and Governance Management as one of its focused efforts and implemented aggressive actions in this area. ■

Go Build campaign aims to change perceptions, gain new recruits

A new website was launched recently by Go Build and is aimed at changing perceptions of construction and gaining new recruits to an industry that continues to experience a worker shortage. According to the site, "Go Build is a comprehensive workforce development initiative that seeks to enhance the image of the construction industry and inform young people, parents and educators about opportunities in the skilled trades – because a four-year degree isn't the only way to make a living."

The website is only one component of the industry-driven, image-building Go Build program, which hopes to rebrand and

promote the entire construction industry via a multiplatform public relations campaign, according to an Engineering News Record article by Jim Parsons. He says it will maximize the use of video-enhanced social media, a lively and information-packed website, ads, grassroots outreach and other carefully crafted elements.

"We created our own playbook – an aggressive, comprehensive and sustained effort with a look and feel that engages young people and inspires them to explore careers in the construction trades," said Executive Director Ryan Dwyer in the article. ■

Most firms still struggling to find skilled workers

The latest figures from the Associated General Contractors showed that nearly 70 percent of construction firms in the United States experienced challenges in finding qualified craft workers. Released in August 2017, it was roughly the same

number as AGC's 2016 report, but down from 2015's figure of 86 percent.

Roughly half of the companies surveyed said they increased base pay for craft workers. Nearly a fourth are providing incentives and bonuses to attract workers. ■

Consumer confidence continues to climb

Consumer confidence recently rose to its highest level in almost 17 years as Americans feel good about the economy and job market, according to figures from the New York-based

Conference Board. The Confidence Index reached 125.9, its highest in 17 years. The Board's Consumer Expectations Gauge also hit 109.1 in October, a seven-month high. ■

Report: Executives believe technology can help close productivity gap

Recent data from a Construction Dive article shows that 72 percent of construction executives say the industry is not functioning at a productivity rate suitable for infrastructure projects. Author Laurie Cowen cited the information from a report by KPMG, which also indicated that 92 percent of executives believe technology will change business and help alleviate the productivity gap.

Additional information from the report noted that a majority of executives think integrated project management information systems and building information modeling will yield the greatest return on investment. It also showed that the millennial demographic is closing in on baby boomers as the leading generation of employees in the U.S. construction workforce. ■

Most contractors not using emerging safety tech

More than 60 percent of contractors are not utilizing emerging safety technology, according to a new study and report by CPWR-The Center for Construction Research and Training and Dodge Data & Analytics. The study also found that as technologies become more proven, awareness grows and prices start to decrease, more will employ them.

At 21 percent, drones were the most used new tech. Seventy percent of the companies using them said drones improve safety, according

to the data. "Drones are used for a variety of purposes onsite, but the most common at this point is to do reality capture with cameras mounted on them," the report said.

Wearables such as smart helmets were used by 13 percent of contractors. Fourteen percent used laser scanners. A large percentage (85 percent) of companies relied on slightly older technology such as smartphones and tablets, with about half of firms using project-management apps and software. ■

EIA: Wind to blow past hydro in renewable energy production

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TAXES, TOLLS

Most Americans want better roads, and they are willing to pay for them

Two recent surveys showed that a majority of Americans support higher taxes and/or increased tolling to fund transportation infrastructure. In one study from HNTB Corporation, more than 75 percent of respondents said they back paying more at the pump or the tollbooth, especially if the money is earmarked specifically for road projects.

Fifty-five percent supported a gas tax increase in a Bloomberg national poll. It noted that the idea has bipartisan support with 51 percent of Republicans saying yes as well as 64 percent of Democrats.

“People are fed up,” stated former U.S. Transportation Secretary and gas tax supporter Ray LaHood, in a Bloomberg article. “They’re ready for politicians to take action.”

Several states have recently raised their gas taxes – many by public vote – but the federal levy has remained at 18.4 cents per gallon since 1993. The federal tax is the primary source of revenue for the Highway Trust Fund (HTF).

Shoring up the shortfall

Factors such as inflation and more economical cars have led to a shortfall in funds needed to repair roads and bridges. Congress has transferred money from other areas of the federal budget to fill the gap. The Congressional Budget Office says the HTF will be insolvent by 2021 without additional funding.

Seventy-three percent of those surveyed are in favor of public-private partnerships, according to HNTB’s research, which also showed that 80 percent of respondents are behind increased tolling. Avoiding congestion and saving time were major reasons why, with respondents saying they would pay on average \$1.70 to use an express lane if that saved 15 to 30 minutes of travel time.

“People are willing to pay higher taxes and tolls, if they know that the money was going to pay for transportation,” said Kevin Hoeflich, Chairman of Toll Services at HNTB in a recent Reuters article. “They’ve seen... funding get diverted to other areas and not where they expected.” ■



Recent polls show most Americans are willing to pay more at the pump, or in tolling, if it means better roads and bridges. “People are fed up,” stated former U.S. Transportation Secretary Ray LaHood in a Bloomberg article. “They’re ready for politicians to take action.”



Scan to reveal answers

Can you spot what is different?

At first glance, it may seem like the photos are identical. In reality, there are 10 differences between these two pictures. How many can you find? Test your power of observation and then scan the QR code at the top to check your answers.



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