

A publication for and about our valued Michigan customers • www.CECOnTrack.com • 2015 No. 1

EXCAVATION EXCLUSIVE

Komatsu's PC210LCi-10, world's first intelligent Machine

Control excavator, minimizes overexcavation

KOMATSU

ENHANCED EXCAVATION

Komatsu's new PC290LC-11
improves your bottom line with
maximized production and
lower operating costs

KOMATSU



A MESSAGE FROM THE PRESIDENT



Will Leistikow. President

Komatsu machines offer greater efficiency and lower operating costs



Dear Valued Customer:

It's been said before, but it bears repeating: Komatsu is the leader in innovative equipment designed to increase efficiency and lower your operating costs. In this issue of your CEC On Track magazine, the spotlight turns to Komatsu's latest offering, the PC210LCi-10, the world's first intelligent Machine Control excavator.

In 2013, Komatsu introduced its first intelligent Machine Control dozer and subsequently added more models to the lineup. Now, the PC210LCi-10 joins the family. The excavator semi-automatically limits overexcavation and traces the target surface for greater accuracy and reduced material costs.

Moving material as efficiently, productively and cost-effectively as possible is every company's goal. Komatsu wants to further reduce your owning and operating costs, so it includes complimentary scheduled maintenance for the first three years or 2,000 hours on Tier 4 machines under the Komatsu CARE

All equipment in the *intelligent* Machine Control family is covered under the program, as is the new Tier 4 Final HM300-5 articulated truck, which is also featured in this issue. It pairs well with 30- to 60-ton excavators or 5- to 7.5-yard wheel loaders for maximum productivity in mass excavation, even in less-than-ideal conditions.

We hope with the busy construction season that you will consider these or other machines from Continental Equipment Company. We have an extensive lineup of equipment to meet your needs, including moving dirt, mining, forestry, scrap or material handling, lifting or a whole host of other applications.

If there's anything we can do for you, whether it's equipment sales or rentals, parts or service, please call or stop by one of our branch locations.

Sincerely,

Continental Equipment Company

President



IN THIS ISSUE

HANDS-ON EXPERIENCE

Read about Komatsu's *intelligent* Machine Control event, where the new D61i-23 dozer took center stage, and see what CEC customers had to say about the new technology.

TRAINING TALK

Find out how comprehensive training builds a better workforce that's more invested in your business.

INNOVATIVE PRODUCT

See how Komatsu's PC210LCi-10, the world's first *intelligent* Machine Control excavator, minimizes overexcavation.

A CLOSER LOOK

Learn how Komatsu's new Tier 4 Final PC290LC-11 excavator reduces emissions and lowers fuel consumption.

NEW PRODUCT

Take a look at Komatsu's HM300-5 articulated truck, which boosts productivity in a variety of applications.

PRODUCT SPOTLIGHT

Komatsu introduced a new *intelligent* Machine Control, Tier 4 Final version of its popular D65 dozer. Read about it inside.

APPLIED TECHNOLOGY

Learn about KOMTRAX, Komatsu's remote machine-monitoring system that has evolved into a useful tool for lowering owning and operating costs.

GUEST OPINION

Learn how the ROI of partnering with education could be significant for our industry.

INDUSTRY NEWS

Read about the plan one DOT official is proposing in order to get long-term infrastructure funding.

KOMATSU & YOU

Read the Q&A with Komatsu General Manager Bruce Nelson, who says Komatsu's Chattanooga Manufacturing Operation is dedicated to high-quality and quickly delivered products.

Published by Construction Publications, Inc. for



A DIVISION OF AIS CONSTRUCTION EQUIPMENT

Printed in U.S.A © 2015 Construction Publications, Inc.

THE PRODUCTS PLUS THE PEOPLE TO SERVE YOU!

LANSING

3600 N. Grand River Ave. Lansing, MI 48906 (517) 321-8000 Fax: (517) 321-4191

PARTS/SERVICE LOCATONS

GRAND RAPIDS

600 44th Street S.W. Grand Rapids, MI 49548 (616) 538-2400 Fax: (616) 538-0449

NORTHEAST DETROIT

65809 Gratiot Ave. Lenox, MI 48050 (586) 727-7502 Fax: (586) 727-7311

SAGINAW

4600 AIS Drive Bridgeport, MI 48722 (989) 777-0090 Fax: (989) 777-1583

TRAVERSE CITY

8300 M-72 East Williamsburg, MI 49690 (231) 267-5060 Fax: (231) 267-5257

WEST DETROIT

56555 Pontiac Trail New Hudson, MI 48165 (248) 437-8121 Fax: (248) 437-5911

www.ceceq.com



intelligent MACHINE CONTROL EXPERIENCE

New dozers take center stage at Komatsu event

Customers and Komatsu distributor personnel got an up-close look at the future of *intelligent* Machine Control technology during iMC experience events focused on the new D61i-23 dozers, which took place at the Komatsu Training & Demonstration Center in Cartersville, Ga.

During the events, attendees had the opportunity to see the innovative technology

that provides automated blade control from rough cut to finish grade, as well as operate the D61PXi-23 model. The new dozers feature factory-integrated 3D machine control that functions without the blade-mounted mast(s) and cables associated with conventional aftermarket systems.

Below are what CEC customers had to say after operating the D61PXi-23. ■



"I really like the visual as-building during operation. It allows the operator to see where he's been and where he is in relation to the final elevation. It can help him better determine where to have trucks dump, for instance."

Alex Fuller, McGuirk Sand & Gravel



"I'm quite impressed with it, especially the integration of the GPS into the machine. I see the D61i as a time and money saver. Because there's no mast to take down everyday, there's 35 to 40 minutes in the morning and evening that could be used for production. It also takes away the expense of replacing cables."

Dave Geeck, McGuirk Sand & Gravel



"We've used conventional grade control for several years, but the automation from rough cut to finish is a real step up. With conventional systems, if you turn the automation on too soon, it tries to push too much material and the tracks slip. The D61i doesn't do that."

Jeff Lounsbury, Lounsbury Excavating



Attendees had the opportunity to see and operate new D61PXi-23 dozers with integrated 3D machine control technology that requires no blade-mounted mast(s) or cables running from mast(s) to cab.



"This was my first time using the Topcon system on a Komatsu dozer, and I found it very easy to operate. The ability to switch dozing modes and match the conditions and material is an excellent feature."

Corey Ferguson, CL Trucking and Excavating



"I like that there are no masts or cables. It improves safety because guys aren't climbing on the machine or blade to attach or detach them. The cab design offers good visibility, and not having the mast or cables adds to that."

Todd Sattler, CL Trucking and Excavating



"The D61i really stands out because it automatically controls the amount of material being pushed without the tracks slipping. You're always moving the right amount of material, so there's less waste and greater efficiency."

Dave Kruskamp, Fisher Construction

BEYOND THE BASICS

Comprehensive training builds a better workforce that's more invested in your business

It's rare that employees come fully prepared to do the jobs for which they were hired. Skilled construction workers know how to move dirt, build buildings and put pipe in the ground, but do they know your expectations and how you approach projects? With comprehensive training, they will.

"I've talked with many companies that wonder whether training is worth it, considering that in

Comprehensive training should include several items, such as safety, company policies, compliance and more. Training should be ongoing to keep skills updated.



today's world, most employees only stay with a company for a relatively short amount of time," said Karla Dobbeck with Human Resources Techniques, Inc. "Training is essential. It keeps employees up-to-date, and it tells them that you value their service to the company. In the end, it may motivate them to stay long term. Look at it this way: The only thing worse than training an employee who leaves is not training one who stays."

Dobbeck suggests a comprehensive approach that goes well beyond just training employees to do their jobs. The list should include safety, company policies, compliance and more. Training should be ongoing to keep skills updated.

"New employees should know about the company – where it came from, how it got to where it is today and how they fit into it," said Dobbeck. "They should know its history; changes and expansions; the industries it serves; who its customers are, and if they are mainly new or repeat; how it interacts with the community; and more. This gives the employees perspective, and it may tell them why they were hired and how their skills are valuable to the team.

"The company information should include its corporate culture and policies," Dobbeck added. "Culture encompasses its community involvement and working relationships. Policies cover everything from attendance to housekeeping, telephone use and those unwritten 'hot buttons' that management views as pet peeves but may not be in a handbook. They also need to know basics, such as breaks and lunch periods, as well as more important items, such as how to report grievances, maintenance and quality issues and the overall



Employees should receive job-specific training that helps them understand what their jobs entail and how they relate to others. Include training on where they will be working and where to find necessary tools.

chain of command. This falls under what I call 'performance management.'"

Job-specific, safety measures

Even experienced hires need job-specific training. While their positions may be similar to the ones from where they came, there may be different perspectives on how to approach tasks and projects. Employees must know exactly what their jobs entail and how they relate to others. Added questions to address include: where they will be working and where to find necessary tools; quality information, such as policies and systems; recordkeeping expectations; what to do when customers call or stop by a jobsite; technical terms and phrases that involve how to read and complete paperwork; and terms of equipment usage.

Construction creates special challenges when it comes to safety, and it's essential that employees know all your company's policies. Include information on personal protective equipment, lock out/tag out procedures, hazard communication, emergency evaluation, accident and hazard reporting, and what to do when OSHA is on site. If you use equipment such as cranes, hoist and crane-safety practices must also be explained.

"Processes and procedures related to equipment have to be part of any training program," said Dobbeck. "Part of that is planning for transport, loading and unloading practices, mobilization and setting up when you get to the jobsite. Consistency is a key component, because it results in fewer errors."

Understanding legal obligations

Employees must also understand their legal obligations. For instance, if they drive trucks, they must be licensed and drug-free. Their status affects more than just them. An accident could affect your company's insurance rates and safety rating.

Additionally, employees are responsible for their behavior on the jobsite and in the office. Harassment and discrimination should never be tolerated, and clear definitions of what those constitute are essential. Employees need to understand their roles in reporting, assisting with investigations and what likely management action will result from incidents.

Dobbeck says that payroll procedures fall under legal obligations, because it's up to everyone to keep count of their time and report errors. Understanding when pay dates occur is essential as well.

Recordkeeping and assessing

Part of an excellent training program is good recordkeeping that makes sure everyone gets the same information, according to Dobbeck.

"Companies should use checklists," she points out. "They ensure consistency and

Information in this article
was obtained from a
presentation by Karla
Dobbeck at the annual
Associated Equipment
Distributors Summit.
Dobbeck founded Human
Resources Techniques, Inc.
in 1997 and is a personal
human resources advisor.
For more information
about Dobbeck or Human
Resources Techniques, visit
the company's website at
www.askhrt.com.

Training develops a solid workforce, reduces turnover

. . continued

provide evidence of employee training. They also provide accountability and identify gaps in training that need to be filled. Additional effective measures include training guides. Weekly evaluations are good ways to maintain focus, and they're proven to help avoid unemployment."

Finally, businesses must constantly assess the effectiveness of their training practices and hold themselves accountable.

"Just as they measure employees, businesses should test themselves to see where they may be lacking when it comes to training, so they can improve," said Dobbeck. "Companies should look beyond just using supervisors to train new hires. They should consider an assigned trainer or auditor. Those individuals should set clear goals for everyone, using 'carrots' to incentivize positive behaviors and help employees understand how they can 'earn' raises.

"Training is one of the most valuable and effective tools for developing a solid workforce," Dobbeck added. "It must be an essential component of good business practices. A comprehensive program will not only help to ensure employees have the right information and skills to do their jobs, but it's also shown to be effective in reducing costly employee turnover."

Avoid costly mistakes by calling before you dig



Call before you dig to identify underground utilities and help you avoid them and potential harm to your employees and others.

Call before you dig. It's a simple, easy and free way to avoid mistakes. There's even an easy-to-remember number: 811. It will help you avoid the mistake that thousands make each year when they hit unmarked utility lines.

The intent of the 811 call line is to provide a single number where those performing excavation, or even demolition, can call and have utility companies locate buried lines. It's a way to avoid hitting one, causing potential injury and/or disruption of services.

The law requires that anyone who wants to begin excavation, including private homeowners, must call at least 48 hours in advance to have the underground utilities marked. Failure to do so can result in everything from a fine to serious injury or death from hitting an unmarked electrical or gas line.

When calling 811, a representative will ask for some basic information, such as what you are planning to do. The rep will want to know the location, length of time you plan to dig and other pertinent information. Once you've made the call, the rep will notify the local utilities. All you have to do is wait at least 48 hours before digging.

Utility companies mark the lines, giving you a reference point so you know how close your excavation will be. Should you accidentally hit a line, stop digging and immediately call authorities.

Legendary Performance



Etnyre BLACKHAWK Trailers for proven dependability.

35, 55 and 60 ton hydraulic removable gooseneck trailers, engineered for performance and built for durability. Complete line of construction trailers: removable goosenecks, folding goosenecks and rear loading trailers.

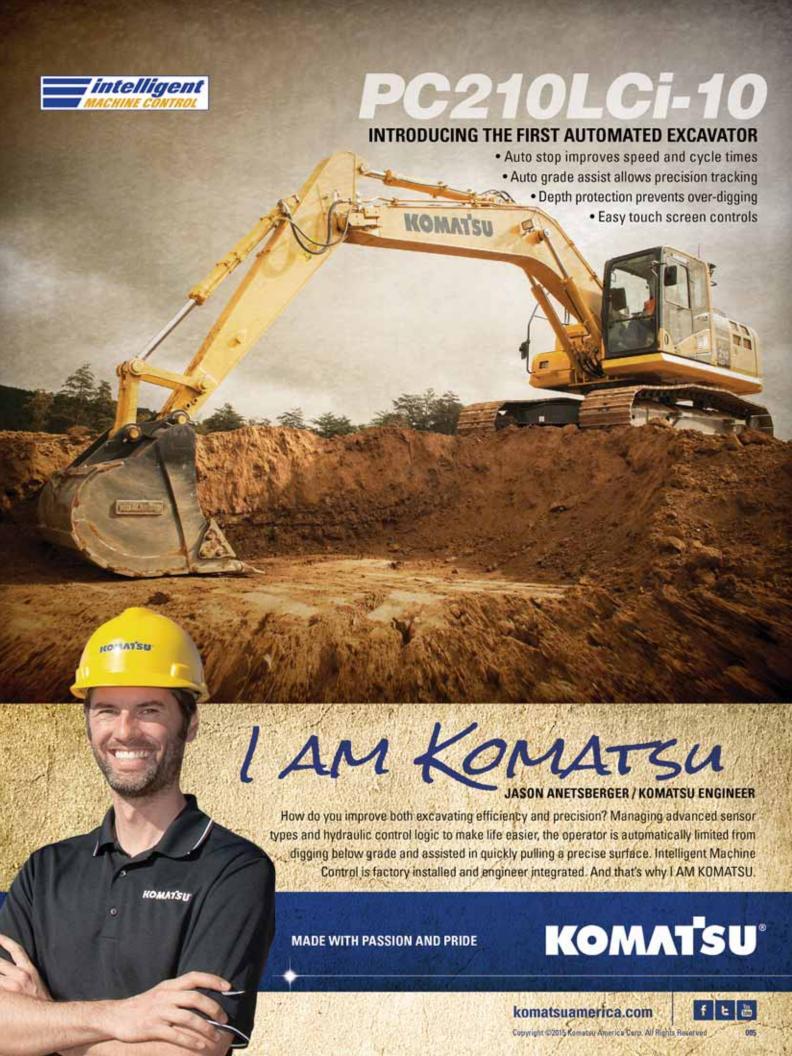
Custom built models up to 100 tons. Available in 2, 3 and 4 axle configurations, stingers, removable/flip axles, jeeps, drop sides and Paver Special Models.





E. D. ETNYRE & CO.

1333 S. Daysville Road, Oregon, IL 61061 800-995-2116 • www.etnyre.com





EXCAVATION EXCLUSIVE

Komatsu's PC210LCi-10, world's first *intelligent* Machine Control excavator, minimizes overexcavation

Excavation companies want to move dirt as quickly and efficiently as possible, but conventional methods sometimes limit their ability to do that. Constantly checking grade is time consuming, and overexcavating is costly. Komatsu's new PC210LCi-10, the world's first *intelligent* Machine Control excavator, is a huge step forward in solving those issues with exclusive control function that goes beyond simple guidance to semi-automatically limit overexcavation and trace a target surface.

"From rough-digging to finish-grading, the PC210LCi-10 offers improved efficiency and accuracy compared to traditional methods," said Peter Robson, Senior Director of Intelligent Machine Control. "Once the target elevation is reached, no matter how hard an operator tries to move the joystick control to lower the boom, the excavator won't allow it. Minimizing overexcavation also reduces wasted time and the costs associated with placing and compacting new, expensive material to replace what didn't need to be removed in the first place."

Advanced functions contribute to the PC210LCi-10's ability to effectively reach target elevation without overexcavating, including Auto Grade Assist. As the operator moves the arm, the boom adjusts the bucket height automatically, tracing the target surface and minimizing digging too deep. This allows the operator to rough-dig without worrying about the design elevation, as well as fine-dig by operating the arm lever only. By holding down the lever to move the boom down, the working range is expanded.

Another new function is Auto Stop Control. During boom or bucket operation, the work equipment automatically stops when the bucket edge reaches the design surface. The excavator also comes equipped with Minimum Distance Control. The PC210LCi-10 controls the bucket by automatically selecting the point on the bucket closest to the target surface. If the machine is not facing a sloped surface at a right angle, it will still follow the target surface and minimize digging below it.

New large touchscreen display

The PC210LCi-10 features a factory-installed, fully integrated *intelligent* Machine Control system that includes Global Navigation Satellite System (GNSS) antennas; stroke-sensing hydraulic cylinders for the boom, arm and bucket; and an IMU (inertial measurement unit). The system works in harmony to provide real-time bucket-edge positioning in relation to the machine

Continued . . .

Komatsu's new PC210LCi-10 *intelligent* Machine Control excavator semi-automatically limits overexcavation and traces a target surface.



Peter Robson, Komatsu Senior Director, Intelligent Machine Control



Jason Anetsberger, Komatsu Product Manager, Intelligent Machine Control

Quick Specs on the Komatsu PC210LCi-10 Excavator*ModelOperating WeightNet HorsepowerBucket CapacityPC210LCi-1048,950-52,036 lbs.158 hp0.66-1.57 cu. yd.

*All specifications are the same as a conventional PC210LC-10.



The PC210LCi-10 brings automatic features to excavators

.. continued

and the job surface, limiting the ability to dig beyond the target elevation and making accurate finish grading possible.

The bucket tip/edge and the design surface are always displayed on the new, full-color, multifunction 12.1-inch touchscreen monitor, eliminating the wait time associated with conventional systems. Information such as real-time and as-built status, a magnified fine-grading view or a 3D view, may be displayed simultaneously.

The PC210LCi-10 makes grading easy and accurate with a facing-angle compass, a light bar and audio guidance that alerts operators as they get closer to final grade. The orientation and color of the facing-angle compass's arrow shows the operator the facing angle of the bucket edge relative to the target surface, allowing for the bucket to be accurately positioned square to the target surface, which is especially useful when finishing slopes.

Colors on the light bar also show the bucket-edge position relative to the target

surface. It's located on the left side of the monitor for easy viewing during operation and increased efficiency. Audio alerts help the operator recognize the target through unique tones that can be programmed for various bucket-edge distances from the target surface.

"Operators always know where they are in relation to where they eventually want to be," said Jason Anetsberger, Product Manager, Intelligent Machine Control. "Operators can set audio guidance alerts so that different tones are heard the closer the bucket is to final elevation. For instance, one tone may indicate 2 feet away, while a different tone is heard at 1 foot. Customers who tested the machine really liked the audio alerts because they allow the operator to focus on digging without stopping to check relation to final grade."

Two-way communication

The PC210LCi-10 comes standard with a cellular modem that supports troubleshooting from afar, via the Internet. Additionally, this hardware can be used by Topcon's jobsite management solution, Sitelink3D Enterprise,

which sends as-built data to the office and design data to the machine.

"The PC210LCi-10 represents a huge leap forward by bringing automation features to excavators,"

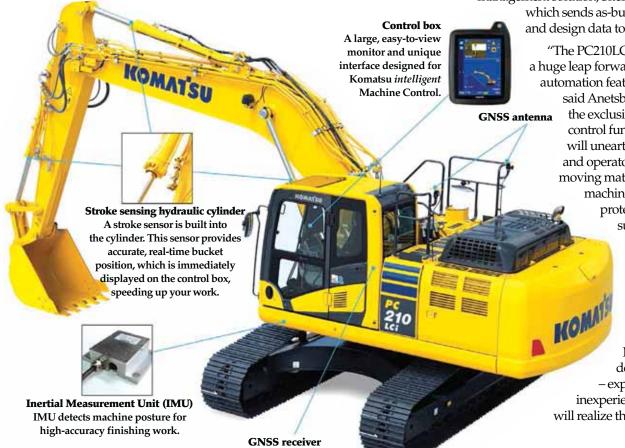
said Anetsberger. "Thanks to the exclusive semi-automatic control function, customers will unearth their productivity and operators can focus on moving material while the

machine semi-automatically protects the target

surface. The efficiency improvement, greater value and operation simplicity mirror what has been proven with Komatsu's established intelligent Machine Control dozer products

 – experienced and inexperienced operators alike will realize the benefits."

The PC210LCi-10 intelligent Machine
Control excavator features a factory-installed, fully integrated intelligent
Machine Control system that includes GNSS antennas, stroke-sensing hydraulic cylinders for the boom, arm and bucket and an IMU (inertial measurement unit).





ENHANCED EXCAVATION

Komatsu's new Tier 4 Final PC290LC-11 excavator reduces emissions and lowers fuel consumption

Productivity, dependability and efficiency are all traits users have come to expect from Komatsu hydraulic excavators, and they will find those attributes and more in the new PC290LC-11. With a Tier 4 Final engine, it features greater efficiency, lower fuel consumption, improved operator comfort and enhanced serviceability to maximize productivity while lowering operating costs.

Hydraulic-system enhancements contribute to greater efficiency by reducing hydraulic loss. Komatsu designs and produces all major components, including the powerful 196-horsepower engine, hydraulic pumps, motors and valves. The integrated design uses a Closed Center Load Sensing System (CLSS) that takes hydraulic efficiency to the next level by using Variable Speed Matching technology. Variable Speed Matching allows the engine speed to adjust based on the hydraulic pump output, and the CLSS improves fuel efficiency and provides quick hydraulic response.

The Tier 4 Final engine further reduces NOx emissions by using diesel exhaust fluid (DEF) and Selective Catalytic Reduction. An advanced electronic control system manages airflow rate, fuel injection, combustion parameters and aftertreatment functions to optimize performance, reduce emissions and provide advanced diagnostic capability. The result is lower fuel consumption without performance loss, compared to the highly popular Dash-10 model it replaces.



Rob Orlowski, **Product Manager**

Continued . . .

Quick Specs on the Komatsu PC290LC-11 Excavator

Operating Weight Model **Net Horsepower Bucket Capacity** PC290LC-11 66,359-68,122 lbs. 196 hp COMATSU

Komatsu's new Tier 4 Final PC290LC-11 maintains the productivity of its predecessor with enhancements that increase efficiency and lower fuel consumption. New features include an Operator **Identification System** and an Auto Idle Shutdown function.

.76-2.13 cu. yds.

The PC290LC-11 is great for high-performance applications

.. continued

The PC290LC-11

and deep utility

applications.

features a heavy-duty

excellent stability and

long life. It's a good fit

trenches and moving

dirt in mass-excavation

for digging foundations

frame that provides

"Users can track fuel consumption and other vital information through the latest KOMTRAX® monitoring technology, which is available via the web or through our mobile app on their smart phones or other devices," said Product Manager Rob Orlowski. "Data now includes DEF levels, ambient air temperatures and pressures. A new Operator Identification System reports key operating information for as many as 100 operators, and the new Auto Idle Shutdown function helps improve operating costs by reducing unnecessary idle time."

More comfortable operators

Komatsu improved operator comfort with a standard air-suspension high-back seat that has newly designed, fully adjustable armrests. Also incorporated into the quiet cab is an auxiliary input to connect external devices to play music through stereo speakers and two 12-volt power ports. Additionally, optional joysticks with proportional controls for operating attachments are available.

Operators can now check DEF fluid levels through the 7-inch LCD monitor that features enhanced capabilities. They can see operational records, fuel-consumption history and utilization information, and operators can use the monitor to easily select from six working modes to match machine performance to the application. Users can change standard auxiliary one-way

flow to bidirectional for attachment flexibility, and attachment control lets users store up to 10 attachments in the monitor. The ATT/E mode allows operators to run attachments in economy mode for maximum efficiency.

Easier service access

The PC290LC-11 provides enhanced service access in order to reduce costly downtime. It has guardrails on both sides of the upper structure for better accessibility to the service area. The radiator and hydraulic-oil cooler are mounted side-by-side, making it easier to maintain and service those components.

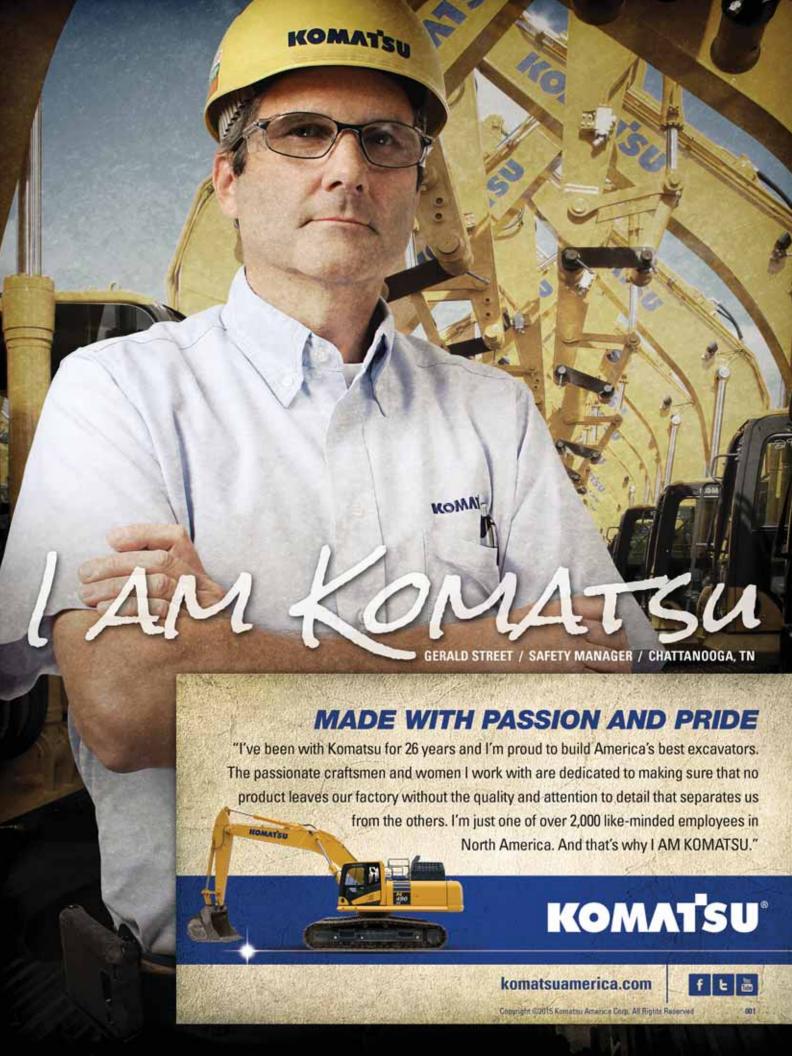
The excavator is equipped with Komatsu's exclusive Equipment Management Monitoring System, which has improved diagnostic features that give operators and technicians better monitoring and troubleshooting capabilities. It continuously monitors all critical systems and preventive maintenance, as well as provides troubleshooting assistance to minimize diagnosis and repair time.

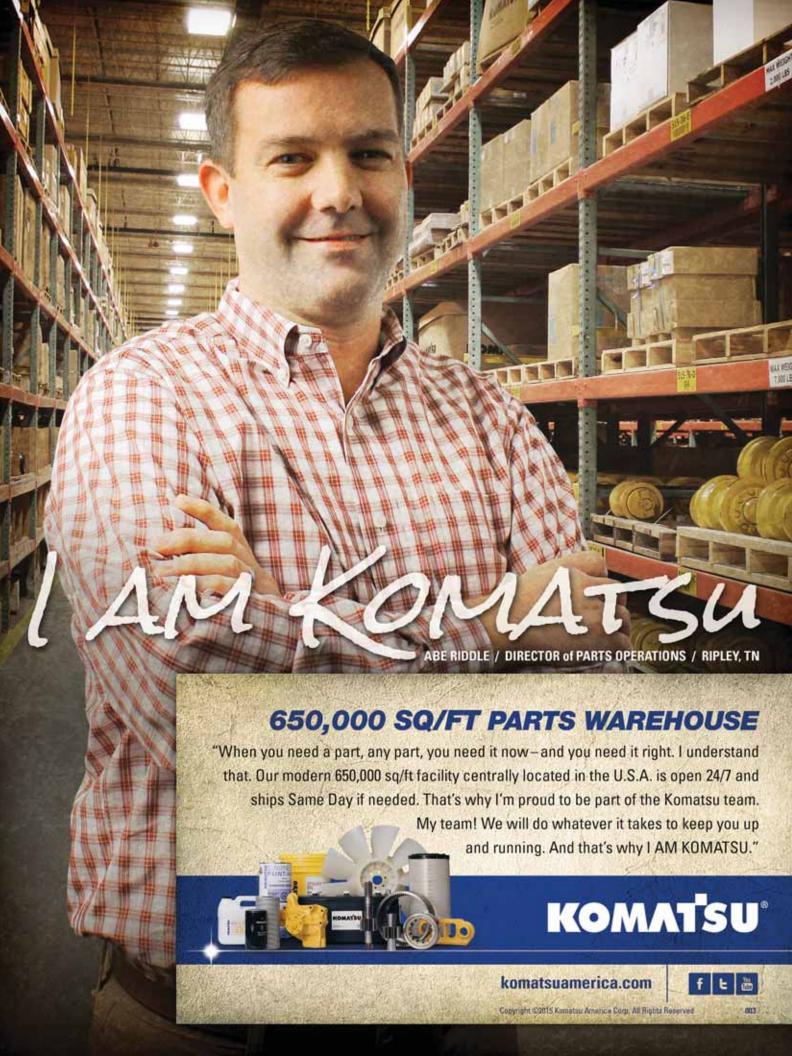
Scheduled maintenance on all Tier 4 machines is covered complimentary by the Komatsu CARE program for the first three years or 2,000 hours. Each service is done by a certified distributor technician and includes a 50-point inspection. The program also includes two Komatsu Diesel Particulate Filter exchanges in the first five years.

Built on a solid foundation

Komatsu's PC290LC-11 maintains the productivity features of the popular Dash-10 model it replaces, such as a heavy-duty frame that's built on a PC360LC undercarriage for excellent stability and long life. Its long arm and long boom provide a 22-foot, 8-inch digging depth, making it a good fit for digging foundations and deep utility trenches, in addition to moving dirt in mass-excavation applications. When needed, operators can boost the digging force for 8.5 seconds with Power Max.

"As with all our new Tier 4 Final machines, the PC290LC-11 was built on the solid foundation Komatsu started with its previous models," said Product Manager Rob Orlowski. "The PC290LC-11 is a stable and reliable machine, designed for applications where high performance is required." ■







NEW ARTICULATED TRUCK

Komatsu's HM300-5 maximizes productivity in a variety of applications

You care about reducing emissions, but chances are you're more concerned that your new machines will move the same amount of material as efficiently as your current equipment. Komatsu's new Tier 4 Final HM300-5 articulated haul truck does that and more.

The HM300-5 maintains the productivity of its predecessor, with a 30.9-ton payload; two single-staged body-lift cylinders that provide a 70-degree dump angle; and selectable working modes that allow the operator to choose between economy and power modes to match the truck's performance to the application or working conditions. Its low 9-foot, 2-inch loading height easily pairs with 30- to 60-ton excavators or 5- to 7.5-yard wheel loaders.

Additionally, it has Komatsu's Traction Control System that automatically provides optimum traction when operating in soft ground conditions. If conditions worsen and it detects tire slippage, the inter-axle-lock kicks in. If tire slippage continues, four independent brakes can be applied to the slipping wheels to regain traction.

"The HM300-5 is ideal for a variety of applications, from large or small jobs moving dirt for site preparation to large-scale material processing operations with challenging haul profiles," said Komatsu Product Manager Joe Sollitt. "It offers great fuel economy and is ideal for anyone who requires high productivity, even in less-than-ideal conditions."

Standard Payload Meter

Keeping track of production is easier with a standard, integrated Payload Meter that displays the loaded-material weight on an LCD monitor inside the cab. Externally, a pair of lamps illuminate green, yellow or red, triggered as the payload increases through three different ranges.

The Payload Meter optimizes productivity by preventing under- and overloaded haul cycles. Data is stored on board and can be accessed by plugging a laptop into a port in the truck or remotely via KOMTRAX.

"The Payload Meter system allows our customers to monitor production on a daily, weekly or monthly basis," explained Sollitt. "The system also stores very detailed data to allow for full production studies. Komatsu also made the HM300-5 easy to service, with a lightweight, fiberglass engine hood and a cab that tilts rearward for easy access to the transmission and hydraulics. An electrically powered tilt function is now standard. Of course, Komatsu covers scheduled maintenance complimentary for the first three years or 2,000 hours with the Komatsu CARE program, which has been expanded to cover the new Tier 4 Final components." ■

Gross Vehicle Weight

Model



Joe Sollitt, Komatsu **Product Manager**

Payload

Komatsu's new HM300-5 articulated haul trucks feature a 30.9-ton payload capacity and a standard Payload Meter that displays loaded material weight on the truck's LCD monitor. External display lamps provide the same information for the loader operator, reducing under or overloading.

Quick Specs on the Komatsu HM300-5 Articulated Truck

Net Horsepower







JCB has the equipment to help you get through the workday in tough conditions. From the industry's safest skid steer loaders to our 541-70 agri loadall with an industry leading 9000lbs lift capacity, we've got you covered. Workdays on the farm are tough, so your machinery should be up to the task. JCB has the equipment designed to help you maximize productivity.





STRONG CHOICES

Komatsu introduces new intelligent Machine Control, Tier 4 Final version of popular D65 dozer

Komatsu continues to lead by example in dozer automation and integration with its new D65PXi-18. Like the other members of the integrated machine-control family, the new dozer offers automatic blade control from rough-cut to finish grade.

The D65PXi-18 is an intelligent Machine Control (iMC) dozer with factory-integrated machine-control system components, which eliminate the need for traditional blade-mounted masts and cables. A Global Navigation Satellite System antenna is

mounted on top of the cab. Additional components include robust, stroke-sensing hydraulic cylinders, an enhanced inertial measurement unit and a touch-screen display mounted inside the cab.

A stroke-sensing angle cylinder measures the actual angle of the blade for high-precision grading accuracy on a cross-slope, whether the blade is angled or not. The dozers are significantly more efficient compared to



Jason Anetsberger, Komatsu Product Manager, Intelligent Machine Control

Continued . . .



Chuck Murawski. Komatsu Product Manager, Dozers

Qui	ck Specs on the Komats	VVIII SUIIUUTU SIGIVIADOZLIK VIIIUE		
Model	Net Horsepower	Operating Weight	Blade Capacity	** With standard PAT blade
D65EXi-18	217 hp	45,780 lbs.	7.3 cu. yds.*	A STATE OF THE PARTY OF THE PAR
D65PXi-18	217 hp	50,420 lbs.	5.8 cu. yds.**	《 图 图 》
D65EX-18	217 hp	45,628 lbs.	7.34 cu. yds.*	
D65WX-18	217 hp	48,760 lbs.	7.72 cu. yds.*	
D65PX-18	217 hp	51,960 lbs.	5.78 cu. yds.**	
		HOMATSU		GSPRI GSPRI
			E 4. 22	
			MARIE	The second of th
大学 一大学	CHE TO THE REAL PROPERTY.	以 籍位置 (1) (1)		The state of the s
THE RESERVE AND ADDRESS OF THE PARTY OF THE			THE PROPERTY OF THE PARTY OF TH	AND ADDRESS OF THE PARTY OF THE

Komatsu's new D65PXi-18 intelligent Machine Control dozer features automatic blade control from rough-cut to finish grade. Operators can also adjust the blade-load settings to match actual material conditions for added efficiency.

The new D65s reduce fuel consumption, increase productivity

... continued

conventional aftermarket machine-control systems, depending on operation and conditions.

"The system senses excess blade load during rough-cut and automatically raises the blade to minimize track slip, as needed, and to maintain momentum," said Jason Anetsberger, Komatsu Product Manager, Intelligent Machine Control. "It also automatically lowers the blade to push as much material as possible until the grade is reached, thereby maximizing production in all situations."

Selectable dozing modes

Operators can select different dozing modes, which tailor the system response to the machine operation and optimize performance. Operators can also adjust the blade-load settings to match material conditions for added efficiency.

"As with all of our *intelligent* Machine Control dozers, the D65PXi-18 produces results that lower owning and operating costs associated with traditional blade-mounted sensors and makes the next generation of machine operators more productive and efficient," said Anetsberger.

New Tier 4 Final D65-18 dozers have more powerful engines, and the D65EXi-18, D65EX-18 and D65WX-18 dozers are equipped with a patented Komatsu SIGMADOZER blade that provides large-capacity dozing of 7.3, 7.34 and 7.72 cubic yards, respectively.



New, more powerful engine

The iMC dozers were one of many machines to receive an upgrade. All Komatsu D65PXi-18 dozers, whether iMC or not, feature a stronger, 217-horsepower engine that delivers high performance and low fuel usage and operating costs.

The all-new D65-18 also has an automatic transmission with lockup torque converter, which lowers fuel consumption and raises powertrain efficiency. The lockup mechanics of the torque converter automatically transfer engine power directly to the transmission, reducing fuel consumption by as much as 10 percent. Operators can easily choose from two gearshift modes, Automatic and Manual, to fit the appropriate application: Auto for general dozing and Manual for dozing and ripping in rough ground.

Patented SIGMADOZER blade

The D65-18 SIGMADOZER blade increases soil capture and limits spillage by rolling material to the center of the blade. It also reduces digging resistance, producing smoother material flow; more dozed soil with less power; and up to 15-percent-more productivity, compared to conventional Semi-U blades.

"The D65-18s are great, all-around machines," said Chuck Murawski, Komatsu Product Manager, Dozers. "They remain among the most popular in their size class because they offer excellent production for large dozing jobs but are small enough for finish grading on most jobsites. They manage to burn less fuel, while being more productive than their predecessors."

The D65-18 dozers come standard with Komatsu's new Operator Identification System, which reports key information for multiple operators, and the new Auto Idle Shutdown function that helps reduce idle time and operating costs. The new dozers have the latest version of KOMTRAX, providing data on fuel and DEF levels, operating hours, locations, cautions and other vital information. The machines are also covered by the pioneering Komatsu CARE maintenance and service program. ■



A DECADE OF KOMTRAX

Komatsu's remote monitoring system evolves into useful tool for lowering O&O costs

The past decade saw huge advancements in machine technology. One prominent area is remote machine monitoring, and Komatsu led the way with its KOMTRAX system, which was designed for users to track equipment performance and plan for maintenance needs. It is also used as a teaching tool to make operators more productive and efficient.

"The initiative behind KOMTRAX was driven by Komatsu's senior management, and many give the company's legendary former CEO Masahiro "Shank" Sakane credit for the vision," said Ken Calvert, Komatsu Director, KOMTRAX. "KOMTRAX fits with the 'Komatsu Way,' which is our philosophy of core values that feature seven guiding principles. For instance, one is commitment to quality and reliability. Our design and quality engineers all use KOMTRAX to make sure that Komatsu equipment works well and performs as intended. Another principle is to be customer oriented. KOMTRAX helps customers improve their operations through jobsite efficiencies and lower owning and operating costs."





Ken Calvert, Komatsu Director, KOMTRAX



Rizwan Mirza, Komatsu Manager, KOMTRAX



KOMTRAX on Tier 4 machines includes information such as diesel particulate filter levels, idle time and other pertinent information to help reduce owning and operating costs.

KOMTRAX improves to benefit customers' bottom lines

.. continued

What users are saying about KOMTRAX

"It allows us to locate a piece of equipment from the office and see vital information, such as hours and idle time. It's a valuable tool."

Jerry Morgan, President, Kart Construction

"We often work in remote locations, so I can't always be on site. KOMTRAX allows me to see a machine's location, hours, idle time and other necessary information. It helps me be a better manager. I wouldn't have a machine without it."

Steve McNew, Vice President, DKM Enterprises

"It's a great tool that allows me to see fuel usage and if someone is idling excessively. I also like that Komatsu tracks the machines and alerts me to error codes."

Andy Fornea, Owner, A.S. Fornea Construction Komatsu first introduced KOMTRAX as an option that buyers could have installed on their Komatsu equipment. The first generation provided three basic pieces of information – machine location, service meter readings and daily hours of operation.

Within a short time, Komatsu made KOMTRAX standard on almost all new machines, and added even more valuable information, such as cautions; error codes; load frequencies; maintenance notifications; average hourly fuel consumption; fuel level and water temperature readings; geofencing; engine lock for theft prevention; and monthly and annual reports.

Several means of accessing info

Calvert said that the technology used to meet emissions regulations led to even further changes. Tier 4 Interim machines allowed users to monitor the diesel particulate filter's performance. With Tier 4 Final, KOMTRAX provided information on diesel exhaust fluid consumption. The latest iteration, KOMTRAX 5.0, allows users to track idle time and other pertinent information related to owning and operating costs, such as travel hours and distance, working modes and cycle times.



Customers can now access information from smart phones and other mobile devices, which was not available in earlier versions. In its latest iteration, KOMTRAX 5.0, users can track idle time and other pertinent information related to owning and operating costs, such as travel hours and distance, working modes and cycle times. The KOMTRAX team continues to look for improvements to benefit its customers' bottom lines.

Users can access information in a variety of ways from a secure website. Office and home computers, tablets and smartphones can all be used to view specific, detailed information.

"Construction has always been a highly mobile field, and the KOMTRAX Mobile app plays right into that," said Rizwan Mirza, Komatsu Manager, KOMTRAX. "Similar to traditional KOMTRAX, users can find information through the app that helps them make decisions to potentially reduce their owning and operating costs, without being tied to an office or a laptop. Many equipment users now carry a mobile device, so we evolved KOMTRAX to the mobile world."

Proven to work

As always, the evolution will continue. Today's KOMTRAX is much more comprehensive than its first version, and Calvert and the KOMTRAX team continually look for improvements that will benefit their customers' bottom lines. The system is on hundreds of thousands of machines worldwide, all of which Komatsu can track for critical information to help companies see trends, plan inventories, contact customers with information, such as error codes, and more.

"KOMTRAX remains popular because it has proven that it works," said Calvert. "The system is robust, accurate and provides valuable information. It drives decisions and business practices, especially after the Great Recession, when everyone started looking more closely at their operations and balance sheets. A system such as KOMTRAX offers greater information on utilization and proper machine deployment, and it helps owners identify training and coaching opportunities for maintenance staff and operators.

"All forward-thinking business leaders realize that leveraging information from systems such as KOMTRAX will be key to remaining competitive, whether it's an equipment manufacturer using KOMTRAX to track machines for maintenance issues or machine owners who know KOMTRAX will help them get their work done on time, on spec and under cost."



-FELLING TRAILERS

FROM THE WORK SITE TO THE HIGHWAY







ME BUILD IT YOUR WAY.

Call 1-800-245-2809 / Visit www.felling.com





INVESTING IN THE FUTURE

The ROI of partnering with education could be significant for our industry



Katrina Kersch,
Senior Director and
COO, National Center
for Construction
Education and
Research

The U.S. Chamber of Commerce's Institute for a Competitive Workforce states, "The business community is the number one consumer of the public education system and therefore must be an involved and engaged stakeholder in the education of America's children."

It is not unusual to hear employers talk about partnerships with education as having no real return on investment (ROI). I have personally heard the following statements from employers:

- "I attended three career fairs and saw no results."
- "I'm just trying to run a business and do not have the resources to engage with schools."
- "I wish education would just do its job and prepare students to become part of the workforce."

For years, some contractors focused on competing with those in their own industry for workers. Today, with the shifts in population and

NCCER Senior Director and Chief Operations Officer Katrina Kersch says contractors need to focus on career and technical education. "A construction project's success depends on our ability to provide a quality product, on time and within budget. These three factors are largely dependent on our ability to gain new workers and on the skills of the craft professional," said Kersch.



an aging workforce, contractors must realize that they are competing with a vast array of industries for workers. Technology, service, energy and manufacturing all face serious shortages.

If the purpose of education is to prepare students for the future, be that college or a career, what role does industry play in making that a reality? Why should contractors focus on career and technical education? The answer is because failing to do so will place our industry in jeopardy. A construction project's success depends on our ability to provide a quality product, on time and within budget. These three factors are largely dependent on our ability to gain new workers and on the skills of the craft professional.

Great craft professionals are not born in a classroom listening to a lecture; they are cultivated, motivated and mentored. They are inspired by interacting with professionals within the industry. We ignite a passion by participating in hands-on experiences in which a future craft professional uses tools, completes a project and begins to understand the relationship between education and a future career.

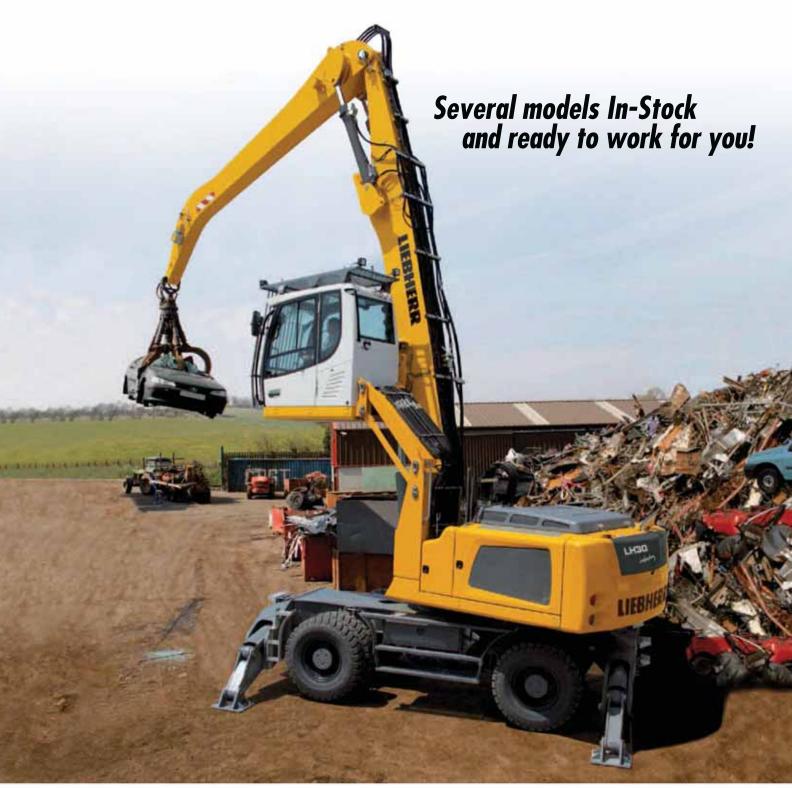
In the business world, we look for the ROI in the resources we expend, and investing in the future sometimes requires vision that does not immediately translate to the bottom line. An investment of our time, talent and resources to partner with education means that our industry is willing to invest in our own future.

This article is reprinted with permission from "Breaking Ground: The NCCER Blog" at blog.nccer.org. Katrina Kersch is Senior Director and Chief Operations Officer of the National Center for Construction Education and Research (NCCER) and oversees product development, program services, credentialing and compliance services.

Continental Equipment

is your dealer for

Liebherr Material Handlers



LIEBHERR

A ROAD MAP FOR THE LONG HAUL

DOT official says long-term infrastructure funding needed – then lays out plans to get it

U.S. Department of Transportation (DOT)
Deputy Secretary Victor Mendez emphasized
the need to focus on rebuilding the nation's
infrastructure during an address at the Associated
Equipment Distributors annual Summit. The
speech touched on proposals put forth by the
Obama administration to increase funding for
areas such as surface transportation.

Mendez outlined the administration's GROW AMERICA Act, which would increase surface-transportation infrastructure funding during the next six years, with an investment of nearly a half-trillion dollars. It would be a significant boost compared to the current highway bill, help create jobs and provide significant economic benefits, according to Mendez.

"Maintaining current levels is not good enough," said Mendez. "We will fall further behind in our infrastructure deficit. The GROW AMERICA Act provides a strong investment for aging highways and bridges across the nation and ensures that they are safe, reliable and well-maintained."

30-year framework

Mendez also spoke about the department's initiative, Beyond Traffic: U.S. DOT's 30-Year Framework for the Future. Beyond Traffic is an invitation to the American public – including users, developers, owners and operators of the transportation network and the policy officials who shape it – to have a frank conversation about the shape, size and condition of that system and how it will meet the needs and goals of our nation for decades to come, according to the DOT's website.

It's a draft framework for the future; it's not prescriptive, the site says. It does not advocate for specific policy solutions. Rather it underscores critical decision points facing the country, by means of data-driven analysis, research, expert opinions and public engagement.

"We must look at all components as part of a larger whole," said Mendez. "We don't want to lose sight of the challenges of today. We haven't invested like we should have. There are a backlog of projects. We have to look ahead too. We need a long-term plan."

The United States Department of Transportation Deputy Secretary Victor Mendez (right) said long-term infrastructure funding, including surface transportation through a new highway bill, is critical.



MORE INDUSTRY NEWS

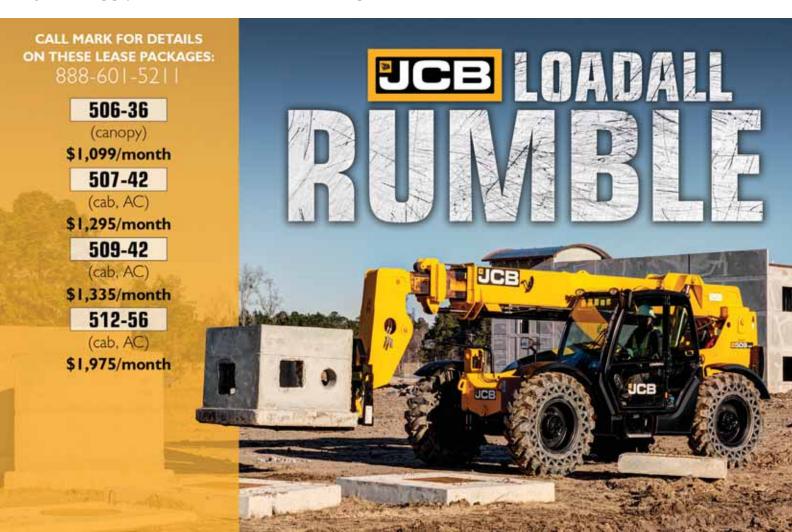
Gains made in STEM degrees

A report from the National Student Clearinghouse shows an increase in prevalence of students earning STEM (science, technology, engineering, math) bachelor and doctoral degrees between 2004 and 2014. The rise was seen in both men and women during that time.

"This data demonstrates the importance of tracking science and engineering degree attainment at different levels and within specific fields of study," said Doug Shapiro, Executive Research Director of the Clearinghouse's Research Center. "Both men and women are increasingly choosing STEM degrees, particularly in hard sciences, including computer science, engineering and physical and biological sciences. But in terms of the shares of degrees earned within individual disciplines, women are gaining ground in some STEM areas, while losing ground in others."

Group calls for gas tax increase

The American Road & Transportation Builders Association (ARTBA) called for an increase in the federal gas tax of 15 cents per gallon to help pay for infrastructure. It would raise about \$400 billion, according to the group, and President Pete Ruane said the increase would be more viable than other proposals to fund a transportation shortfall.



MEETING, EXCEEDING EXPECTATIONS

General Manager Bruce Nelson says Komatsu's CMO is dedicated to high-quality products delivered quickly



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.

Bruce Nelson, General Manager, Chattanooga Manufacturing Operation

Bruce Nelson started with Komatsu in 1993 as a welding engineer at the Chattanooga Manufacturing Operation. Nearly 20 years later, he became General Manager at CMO, where he oversees production of hydraulic excavators and forestry machines. During his tenure, Nelson served as Fabrication Manager, Y2K Project Manager, Operation Manager, SAP Project Manager and nine years as Senior Manager of Administration.

Nelson helped create Komatsu's Supply Chain Division in 2009 and was General Manager of that division until moving into the General Manager role at CMO in 2012, upon the retirement of Dennis Riddell.

A year prior to joining Komatsu, he graduated from Auburn University with a degree in Industrial Engineering and worked for a small manufacturing company. Nelson is a Certified Supply Chain Professional and is Certified in Production and Inventory Management.

Bruce enjoys vacationing in central Florida and taking cruises. He likes to spend time with his wife and two daughters, who enjoy being anywhere it's warm. QUESTION: What products are produced at the Chattanooga Manufacturing Operation (CMO)?

ANSWER: We currently produce six sizes of hydraulic excavators, ranging from the PC210LC-11 to the PC490LC-11. These models are primarily sold in North America, but we also export one model to Latin America and South America. In addition, we produce three sizes of forestry excavators, from a PC210LL-10 to a PC390LL-10, and four sizes of forestry tracked harvesters and tracked feller bunchers, from the XT430-3 to the XT460-3. We are the only Komatsu plant in the world that builds specialized forestry track machines, and we ship them all over the globe.

QUESTION: Why should a customer buy a machine produced at CMO?

ANSWER: The hydraulic excavators we build at CMO are also built in several other Komatsu factories around the world, in order to better serve local markets. Each factory uses the same parts, designs and quality standards, so users should not be able to tell the difference between an excavator built in a plant in Japan or the United Kingdom versus one built at CMO. In addition to high quality, CMO's mission is quick delivery with whatever options a customer may need. Our staff works regularly with distributors and customers to ensure we meet or exceed their expectations. Being a part of the North American market means we can offer options on our machines that are not normally found in other parts of the world. For example, we offer pipeline spec hydraulic excavators with single grouser tracks and severe-duty revolving-frame undercovers.

QUESTION: How do you prepare for new models, such as the Tier 4 Final products?

ANSWER: We start planning almost a year before our first build date, determining equipment

requirements and laying out a detailed schedule of events. For all model changes, we work closely with the engineering and manufacturing groups to understand the fabrication and assembly differences. We have weekly meetings with all departments involved to understand the status of everyone's activities and ensure we are all on schedule. We invite a staff member from the hydraulic excavator design group to stay at our plant during our first builds, so we have immediate feedback if we have any questions during the assembly process. After completing the first machine, we send it to our Cartersville Demonstration Center for operation and final evaluation. Once everything is complete, the product is released for sale to customers.

QUESTION: What are the markets (construction, utility) like now, and how do you adjust to ensure machines are available?

ANSWER: The construction-equipment market in North America has been growing throughout the last five years. Our plant works closely with Komatsu America's Supply Chain Division to make sure our production plans are in sync with market requirements. We use KOMTRAX to see usage trends by model, which helps us predict and verify marketing forecasts. We have worked hard during the last several years to reduce our lead times to our customers. The time from receiving a distributor order to making the machine ready to ship was two months in 2009. Now, it's three to five days, on average.

QUESTION: Do you encourage customers to visit CMO, and why or why not?

ANSWER: CMO always welcomes customer visits. We have customers at the plant on a weekly basis. A tour can be as small as one contractor with his wife and children passing through the Chattanooga area to as large as 75 people a day as part of Demo Days activities held just down the road at Cartersville. We love to show off our facility and allow people to see how the Komatsu machines, which we consider to be the best, are manufactured. Customers can see for themselves that we strive to keep the plant safe and clean for our workforce. They can also see how we build quality into each step of the process as frames are welded or as machines move down the assembly line.



Komatsu's Chattanooga Manufacturing Operation produces six sizes of hydraulic excavators, ranging from the PC210LC-11 to the PC490LC-11.



Four sizes of forestry tracked harvesters and tracked feller bunchers are produced at Komatsu's CMO, among them are new Dash-3 models, including the XT460.



General Manager Bruce Nelson says CMO has worked hard to reduce lead times to customers. In 2009, that was two months. Now, he says it averages three to five days to get a machine ready to ship after receiving a distributor order.

Do More for Less



Heavy duty workhorses for the farm

Get more work done in less time. And now do it at a lower cost. JCB sets the standard for operator comfort which leads to a more productive operator. You also won't find a harder working machine on a job site. Contact JCB of Alabama to take advantage of this great offer and get more out of your work day.







2011 Komatsu PC350LC-8, 4,100 hrs., 1000 service completed, \$179,500



2005 Komatsu WA200-5, 9,207 hrs., new paint, ride control, heat, A/C, \$72,500



2005 Komatsu D31PX-21, 3,333 hrs., ROPS, blasted and painted, very good undercarriage, \$38,500

Year/Make/Model Desc	ription	Price	Year/Make/Model	Descri	ption	Price
DOZERS			EXCAVATORS			
2006 Komatsu D21P-8 📫	1,415 hrs., 20" pads, new chains, pads & sprockets	\$39,900	2010 Komatsu PC120-8	*	1,864 hrs., aux. hyd., 20" pads, 39" bucket	\$84,500
2008 Komatsu D31PX	600 hrs., cab A/C, six-way blade	\$64,900	2010 Komatsu PC120-8	*	1,977 hrs., aux. hyd., cab A/C, 20" steel pads	\$84,500
2008 Komatsu D51PX-22	4,480 hrs., full TopCon system	\$147,500	2011 Komatsu PC128US-8		2,072 hrs., aux. hyd., 20" pads, A/C	Coming Soon!
2000 Rollidad SSTTA 22			2010 Komatsu PC128US-8	*	1,794 hrs., aux. hyd., 20" pads	\$75,900
			2007 Komatsu PC130-6E0	*	2,684 hrs., 8'2" stick, 20" steel pads, 34" bucket	\$73,500
			2004 Komatsu PC138US-2	*	5,146 hrs., cab A/C	\$69,500
WHEEL LOADERS			2004 Komatsu PC138US-2E1	₩	2,811 hrs., cab A/C	\$69,500
2005 Komatsu WA250-5 🛟	6,417 hrs., coupler, 2.75-yd. bucket	\$76,500	2010 Komatsu PC138US-8		2,647 hrs., cab A/C, aux. hyd., 20" pads	\$79,500
2013 Komatsu WA320-7 📫	292 hrs., coupler	\$174,900	2010 Komatsu PC160-7	₩	3,094 hrs.	\$89,500
2005 Komatsu WA380-5 📫	5,934 hrs., full fenders	\$109,500	2010 Komatsu PC200-8	₩	1,982 hrs., aux. hyd., 24" pads	\$112,500
2014 Komatsu WA270-7 🐞	504 hrs., coupler & bucket	\$149,500	2008 Komatsu PC308USLC-3	₩	3,119 hrs., 11'6" arm, 33.5" pads	\$182,500

For additional information, please contact your local sales representative.



denotes Komatsu-certified machine, fully inspected. Subsidized financing available. Warranty available.



to prior sales.

Presorted Standard US Postage Paid C.P.I.

We've got you covered:

All Makes, All Models, All of the Time.

The Best Source for all your Equipment, Rental and Maintenance Needs

