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WIMME SAND & GRAVEL, INC.

Overhauling fleet with Komatsu results in extensive savings for this Wisconsin quarry



(L-R) Kyle Wimme, President; Pat Wimme Past-President; and Julie Wimme-Kluck, Treasurer



A.W. OAKES & SON

Advanced, integrated technology makes this Racine, Wisc., company a regional leader



Dan Oakes,
President

KOMATSU®

A MESSAGE FROM THE PRESIDENT



Matthew L. Roland

**Celebrating
five years
of *intelligent*
Machine Control**



Dear Valued Customer:

Anniversaries are a cause for celebration, and some stand out more than others, such as 60-year marriages or businesses marking a half century of operations. While Komatsu's *intelligent* Machine Control technology's five-year anniversary isn't near that stage yet, it's still worthy of commemorating the revolutionary accomplishment of these dozers and excavators with integrated GPS.

This issue of your Roland Industry Scoop magazine spotlights the first company in North America to employ an *intelligent* Machine Control dozer, the innovative D61i-23. Right away, the firm's owners recognized that the technology was a "game changer" and have since added several other pieces to their fleet.

Many of you are utilizing these excavators and dozers and reaping the benefits as well – no masts or cables, reduced staking, minimized overcutting and lower costs. Whether you are a large contractor, an individual working on your own or somewhere in between, we encourage you to demonstrate an *intelligent* Machine Control product and see how it can make your business more efficient and productive.

Of course, there are times when a standard machine is more appropriate to the task at hand. Inside, see articles on Komatsu's new D65PX-18 Wide VPAT (Variable-pitch Power Angle Tilt) Blade Specification dozer and PC1250LC-11 excavator. Both will quickly move mass quantities of dirt, and the dozer provides the advantage of being a good finish grader.

Whatever machines you run, proper maintenance is critical and using OEM products in the process is highly recommended. Find out why Komatsu's CK-4 Genuine Engine Oil is a wise choice for keeping machines running at peak performance.

As always, if there's anything we can do for you, please call or stop by one of our branch locations.

Sincerely,
ROLAND MACHINERY CO.

Matthew L. Roland
President

Industry Scoop



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Published by Construction Publications, Inc., for



www.rolandmachinery.com

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A SALUTE TO A CUSTOMER

A.W. OAKES & SON

**Advanced, integrated technology makes this
Racine, Wisc., company a regional leader**



Dan Oakes,
President

When Dan Oakes was growing up, his grandfather, Arnold William Oakes, shared some sage advice that would guide Dan and shape a multi-generational, family company.

"He told me that I should do a job I enjoy, even if it meant being a fishing guide, because I only have one life to live," remembered Dan. "I took it to heart, and I am glad with my choice to stay in the construction business, but I still do like fishing."

Fortunately for his numerous customers and employees in Racine, Wisc., Dan really enjoyed construction. Today, he is the third-generation President of A.W. Oakes & Son, the company started by his grandfather – and expert advice giver – 70 years ago. His passion for the industry has led the firm into one of its most productive phases.

"I purchased the business from my dad, Glenn, in 1991 after he retired, and the economy wasn't great," said Dan. "At that time, we had nearly 110 employees, several divisions and diesel was \$2 a gallon. I was only interested in the construction part, so I downsized. I sold some divisions and paid off my debt. Then with 35 employees, we went all-in to start building again."

At the Kestrel Hawk Landfill in Racine, Wisc., this A.W. Oakes & Son operator uses a Komatsu intelligent Machine Control D61PXi dozer to grade along a slope.



In the 27 years that followed, A.W. Oakes & Son became one of southeast Wisconsin's leading, full-service construction firms with 250 employees, including Dan's sons, Daniel and Max, who comprise the fourth generation of the Oakes family in the company.

"We can take a project from a vacant field and handle every aspect until vertical construction," noted Dan. "We do it all – stripping, building retention basins, installing utilities, putting stone down for parking lots, grading, digging footings and foundations and laying the sidewalks. The general contractor doesn't have to worry about scheduling several people for each phase. They just need to call us and then find a builder for vertical construction."

Big jobs, big family

A.W. Oakes & Son focuses on large commercial projects within an hour of its home office in Racine. While keeping crews busy is one thing, making them feel valued is the firm's specialty.

"We're a family company, and that extends to all of our employees, not just the ones named Oakes," explained Dan. "We stay local so people can be home at night, go to their kids' activities and have a life outside of work. If they are happy at home, they'll be happy here. It's a philosophy that serves us well; we have some second- and third-generation employees, which I think speaks to the way we treat people."

The proof is in the results as motivated crews from A.W. Oakes & Son routinely check off extensive assignments.

"We had a recent project where we moved 40,000 yards of dirt for a retention pond, and crew members were ready to dig footings, but they were already two weeks ahead of schedule," recalled Dan. "They had to wait for the customer to get the building permits. That's what we can



Using a Komatsu *intelligent* Machine Control PC210LCi excavator, an A.W. Oakes & Son operator excavates material on a jobsite in Racine. "The Komatsu *intelligent* Machine Control excavators are so efficient because, even as they are filling trucks, they are cutting the site to grade," stated Project Manager, Survey/Staking, Matt Krok.

do, handle big jobs quickly, efficiently and – most importantly – correctly.

Technology leaders

Being an early adopter of advanced technology is a calling card for A.W. Oakes & Son. That is why it turns to Roland Machinery Company and Territory Manager Aaron Strade for Komatsu *intelligent* Machine Control equipment.

"I had a laser for slopes when I first started, then it evolved into add-on GPS devices," shared Dan. "It's crazy where the technology is today, and Komatsu is leading the way. We have a special relationship with Aaron, Roland and Komatsu. They have the best equipment as well as the best people, which is crucial."

A.W. Oakes' fleet has included *intelligent* Machine Control pieces from the time the first dozers came onto the market in 2013. Today, it includes three D61PXi dozers, a D65PXi dozer and three excavators – a PC210LCi, a PC360LCi and a PC490LCi.

"We had TOPCON aftermarket devices on the dozers before, so we had an idea of what GPS could do, but the integrated technology blew us away," said Project Manager, Survey & Staking, Matt Krok. "The dozers proved themselves to the point where it was clear that we would be getting the excavators as well."

By deploying the *intelligent* Machine Control equipment on its jobsites, A.W. Oakes' crews maximize their efficiency.

"I would estimate that we are 20 to 25 percent faster on site-preparation jobs," stated Matt.



Three generations of the Oakes family reflect on the firm's seven decades of success in the construction business. (L-R) Daniel, Glenn, President Dan and Max Oakes.

"We don't have to cut twice, and we're within a few hundredths percent of grade. We can use fewer people in a crew because we don't need a surveyor there at all times."

"We continue to find applications that the excavators can thrive in," added Dan. "Utilities, especially on new construction, are an area where we've noticed a real advantage. We save time and material because we can grade both the trench and the rock bedding without a person assigned to the hole."

"Another advantage is that we save all of the plans," he added. "If we are building a subdivision, we know where the lines and tie-ins are when we come back. There is no second-guessing, ever. The technology is extremely helpful." ■



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A SALUTE TO A CUSTOMER

WIMME SAND & GRAVEL, INC.

Overhauling fleet with Komatsu results in extensive savings for this Wisconsin quarry



Kyle Wimme,
President



Julie Wimme-Kluck,
Treasurer

We've all heard the adages about turning lemons into lemonade or trash into treasure. Gilford Wimme, founder of Wimme Sand & Gravel, Inc., had his own version – involving rocks and a hole.

"In 1947, Grandpa was looking to purchase land for a quarry," explained Kyle Wimme, the company's third-generation President. "He knew some local farmers who were complaining about all of the rock in their fields, so he started buying that land from them. He knew it was better suited for aggregates than crops, and it eventually turned into our company's first pit."

From that point, the family-owned business began to grow. Gilford purchased two more 80-acre sites in 1965 – including the company's current quarry in Stevens Point, Wisc. In 1978, Gilford's son and second-generation President,

Pat Wimme, added the 280 acres that is adjacent to the active Stevens Point operation.

"We're in our third generation now, and we're set up for a few more," noted Kyle. "It's neat to know that something my grandfather started will continue through to my grandchildren."

Wimme Sand & Gravel boasts 28 employees and an impressive array of 73 products that are used throughout the country.

"We handle the smallest driveways to the biggest highways," said Kyle. "We make anything from eighth-inch minus sand that is used for masonry, bedding or Federal Aviation Agency projects all the way up to 36-inch stone. Plus, we recycle concrete and asphalt and supply decorative stone around the country."

True sister company

One defining trait of the Wimme family is an entrepreneurial spirit. Kyle's sister, Julie Wimme-Kluck, is involved in the family business as Treasurer of Wimme Sand & Gravel, and she operates J. Wimme Trucking.

"I grew up running wheel loaders and loading trucks to help with our cobblestone business and eventually moved inside to handle all of the bookwork," recalled Julie. "In 1999, I started J. Wimme Trucking to help transport the material we produce here. It's a natural fit."

Julie uses her vehicles as more than a means to deliver aggregates across the region.

"Each of my trucks is branded to bring awareness to causes that are important to me and people in my life," she said. "We started with the pink ribbon for breast cancer and a flag for our military. From there, I expanded to red for heart disease, teal for sexual assault, purple for Alzheimer's Disease

Wimme Sand & Gravel, Inc. President Kyle Wimme (left) and Treasurer Julie Wimme-Kluck flank their father, Pat Wimme, who was the company's second-generation President. Wimme Sand & Gravel uses multiple Komatsu wheel loaders, including this WA500-8, in its fleet.





At Wimme Sand & Gravel, Inc.'s quarry in Stevens Point, Wisc., an operator uses a Komatsu WA500-8 wheel loader to fill a crusher. "We started switching our fleet to Komatsu in 2015, and the fuel savings have been amazing," said President Kyle Wimme. "The WA500 is 58 percent more fuel efficient than the machines we were running before. They can go two days on a tank of diesel."

and dementia, blue for osteoarthritis, yellow with stars for our troops, multiple colors for thoracic outlet syndrome and burgundy for multiple myeloma."

Big switch, bigger savings

Three years ago, Wimme Sand & Gravel was in the market for a wheel loader. What resulted was a new relationship with Roland Machinery and Sales Rep Kevin Bray.

"We ran primarily one brand of equipment, but when it came time for a new loader in 2015, we decided to see what else was out there," noted Kyle. "We knew Kevin, so we demoed a (Komatsu) WA600 wheel loader. The results were amazing and immediate.

"The WA600 uses just 6.5 gallons of fuel per hour, 46 percent less than the machine we were running, and it is 30,000 pounds heavier with a bucket that is two yards bigger," he continued. "On top of that, the service from Roland and Komatsu is amazing. If we have a question, someone calls us back in 15 minutes and we have a service person here in an hour. That's unbeatable. The initial experience was so positive, that we made the call to switch our entire fleet to Komatsu."

In just three years, Wimme Sand & Gravel has purchased seven wheel loaders, four articulated trucks, two excavators and a dozer. Kyle anticipates that the fleet will be completely Komatsu within a year.

"Since we've made the transition, our fuel and service costs have been dramatically reduced," said Kyle. "It seems like every time we added a machine, the results were better. The WA500s were 58 percent more fuel efficient – they use only five gallons an hour and go two days without refueling. Our D65PX dozer



has 50 more horsepower, but uses 39 percent less fuel.

In 2017, we used 24,000 fewer gallons of fuel than we did in 2016 and increased production – that's because of the Komatsu machines," Kyle continued. "By factoring in the fuel savings with the durability of the Komatsu equipment and the reliability of Roland's service, this was the best decision we could have made."

Future plans

While Wimme Sand & Gravel has 71 years of history, Kyle and Julie believe that is just the beginning.

"This is our family heirloom," stated Kyle. "We have a lot of pride in this company, and we've built a solid reputation. As large, corporate aggregate producers are becoming the norm, we're proud to remain family owned with a great name in this industry. We hope it remains that way for a long time." ■

A Wimme Sand & Gravel, Inc. operator uses a Komatsu WA500-8 wheel loader to fill a truck from J. Wimme Trucking that is branded with a teal ribbon to help raise awareness about sexual assault.



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WISCONSIN EXPANSION

Roland increases service coverage in booming southwest Wisconsin region

Few places in the United States can match the amount of positive economic growth that the Milwaukee area is currently experiencing. Fortunately, Roland Machinery Company recently completed a pair of exciting new ventures that will help it continue to meet the ever-increasing needs of its customer base. This summer, the company opened a new branch in Franksville, Wisc., and completed the acquisition of Heavy Equipment Specialists, LLC in Slinger, Wisc.

"The Wisconsin market is a great place to do business, and we are excited to better serve our customers in the area," said President Matt Roland. "The Milwaukee metro is growing, and we want to be where people are going."

The addition of Heavy Equipment Specialists increases Roland Machinery's presence for customers northwest of Milwaukee. Heavy Equipment Specialists is a full-service shop that specializes in rebuilding components. The existing staff will remain at the Slinger location, and Roland will use the site as a fully functioning branch with sales, rental, parts and service capabilities. This marks Roland's seventh Wisconsin Division branch and 17th full-service branch overall.

"Heavy Equipment Specialists has built a great business and strong relationships with customers," noted Roland. "It is considered one of the best component-rebuild companies in Wisconsin, and we are excited to welcome the highly qualified staff of Master Technicians to the Roland Machinery family."

New Franksville location

Roland Machinery completed the construction of its new Franksville branch in August. The state-of-the-art 24,000-square-foot

facility features six service bays, a wash bay, tool room, rebuild room, 11,500 square feet of parts storage, 7,000 square feet of office space and a 12,000-square-foot shop.

"This new building is everything we thought it would be and more," said Vice President/General Manager – Wisconsin Division Larry Gindville. "As we move forward, I am confident that it will help us take care of our customers more efficiently and productively." ■



Matt Roland,
President



(Top photo) Roland Machinery Company opened its new Franksville branch, a state-of-the-art 24,000-square-foot facility, in August. (Bottom photo) The company also completed the acquisition of Heavy Equipment Specialists, LLC in Slinger, increasing its presence for customers northwest of Milwaukee. The Slinger location is now a full-service branch, which specializes in rebuilding components.

INVESTMENT INCENTIVE

New tax law expands Section 179, allows bonus depreciation on used equipment acquisitions

For additional information, check with your territory manager, consult your tax adviser and see the online calculator at www.section179.org.

Used equipment buyers are the recipients of expanded benefits with the passage of last year's tax law, including the ability to combine Section 179 Expensing and first-year bonus depreciation. Previously, bonus depreciation was limited to new purchases only.

Section 179 Expensing by itself can be significant, and generally companies use this deduction first. The Tax Cut and Jobs Act doubled the deduction limit to \$1 million on qualifying equipment purchases, including previously owned machinery. It also raised the spending cap to \$2.5 million. Once that amount is reached, the deduction begins to decline on a dollar-for-dollar basis. Companies that spend

more than \$3.5 million lose the Section 179 Expensing deduction altogether.

To qualify for the deduction in the current tax year, machinery must be purchased or financed between January 1 and December 31 and placed into service by the end of the year. The latter is an important component and should factor into the timing of buying decisions. The machinery must be delivered and working before the clock strikes midnight and a new year begins.

Taking a closer look

For illustration, here are some Section 179 Expensing scenarios, which assume that used machinery is acquired and put into service:

1. You purchased outright or financed up to \$1 million worth of previously owned equipment this year. You can fully deduct that amount for the 2018 tax year. This will be the case through the end of 2022.
2. Your acquisition was between \$1 million and \$2.5 million. You can still take a deduction of \$1 million.
3. The purchase exceeds \$2.5 million. The deduction is lowered dollar for dollar. For instance, if the total purchases were \$3 million – you can only claim \$500,000, instead of \$1 million.
4. You bought more than \$3.5 million in used equipment. The Section 179 Expensing deduction is no longer available.

In scenarios 2 and 3, you can now use bonus depreciation in addition to Section 179 Expensing to lower your tax bill. As an example, if you purchased \$2 million in equipment, you can take the \$1 million Section 179 deduction and use bonus depreciation to fully deduct the other \$1 million. Your tax bracket determines your final actual cash savings. ■

The Tax Cut and Jobs Act doubled the Section 179 Expensing deduction limit to \$1 million on qualifying equipment purchases, including previously owned machinery. It also raised the spending cap to \$2.5 million, and companies can now use bonus depreciation for used equipment as well. A calculator to check tax savings is available at www.section179.org.




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COMMUNITIES AT RISK

Additional federal infrastructure investment is critical to ensuring safe drinking water

When news of the Flint, Mich., water crisis made headlines, nearly 21 million people across the country relied on water systems that violated health standards. Low-income communities, minority populations and rural towns disproportionately deal with barriers to safe water.

Drinking water challenges are complex: failing infrastructure, polluted water sources and low-capacity utility management are all part of the issue. Declining investment in water infrastructure throughout the last several decades has exacerbated the problem.

Access to safe water is essential for our survival and our economy. Without serious investment in water infrastructure, we will continue to put communities at risk. As a country, we must support existing funding sources for water infrastructure, develop new and innovative funding mechanisms and more effectively prioritize the water needs of underserved communities.

Investment in water infrastructure has decreased. An analysis from the Value of Water Campaign shows that combined federal investment in drinking water and wastewater infrastructure declined from 63 percent of total capital spending to 9 percent since 1977. State and local governments have also decreased their capital spending on water infrastructure in recent years. The EPA estimates that the United States needs to invest \$472.6 billion in the next 20 years, the majority of which can be attributed to rehabilitating, upgrading and replacing existing infrastructure.

Essential for health, economy

Safe water is essential to our health – and if we're not healthy, we can't work. Businesses

and industries rely on water to support worker productivity and as a raw resource for goods and services. According to the Economic Policy Institute, \$188.4 billion spent on water infrastructure investment in five years can yield \$265 billion in economic activity and create 1.9 million jobs.

Federal investment in water infrastructure must continue to grow. The reality is that Flint is not an isolated incident. Communities across the country struggle to provide safe water. People are working hard to address these issues, but more effort is needed. Everyone can play a role by making our failing water systems and the communities that rely on them a priority. Safe water must no longer be a luxury. ■

Sara Schwartz holds a master's degree in environmental management from the Yale School of Forestry and Environmental Studies. This article is excerpted from a blog post. For the full version, visit blog.ucsusa.org. Connect with Schwartz at www.linkedin.com/in/saraschwartz1/.



Sara Schwartz,
 Union of Concerned
 Scientists, Early
 Career Scientist
 Mentor Program
 Participant

Investment in the nation's water systems is critical, and we must put more money toward existing infrastructure, especially in underserved communities, says Sara Schwartz, Union of Concerned Scientists, Early Career Scientist Mentor Program Participant.



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029

INTELLIGENT INSTALLATION

Boomerang Corp. finds added value on utility applications with PC490LCi excavator

Since opening his own construction company in 1998, Bryce Ricklefs has always looked outside the box to find a hidden niche to help his company, Boomerang Corp., thrive.

Twenty years later, Ricklefs continues to search for those advantages, which is why he selected a Komatsu *intelligent* Machine Control PC490LCi excavator with integrated GPS technology last year.

"We were one of the earliest adopters of GPS because we knew it would help save time and money, and it's a strategy that continues to work," shared Ricklefs. "For us, it was a no-brainer to add the PC490LCi to our fleet."

While most PC490LCi owners use the excavator in mass grading applications, Ricklefs believed the machine also offered advantages on Boomerang's utility-installation projects.

"Using the PC490LCi for utility applications has improved our efficiency," reported Ricklefs. "It's quicker and more cost effective because we can hit grade without a person in the hole guiding the operator; the machine does that step for us. Plus, the plans are right there on the screen in the cab, so the operator doesn't have to get out or stop to ask as many questions. We can get on grade, switch to pipe and move to the next cut faster."

"We reduce the amount of material because the excavator prevents overdigging, which also saves on rock as the bottom of the cut is always uniform," he added. "In addition to material savings, it enables us to provide a quality finished product with consistent bedding throughout the project."

Komatsu delivers

Komatsu was on-hand to assist Boomerang in unlocking the advantages of the system.

"They came here for training and helped us set up," noted Ricklefs. "It was quick and easy. Right now, we are about 10 percent more efficient and regularly within one-tenth of a foot of grade. As we get more comfortable, I'm confident we will see both of those numbers improve."

Boomerang recently expanded its investment in *intelligent* Machine Control technology as it acquired a PC360LCi excavator last fall and two D51PXi dozers earlier this year.

"Our purchase of the PC360LCi is a direct result of our experience with the PC490LCi," stated Ricklefs. "They are the first of what I envision as many Komatsu i-machines for us." ■



Bryce Ricklefs,
President
Boomerang Corp.



Discover more at
RolandIndustryScoop.com

A Boomerang Corp. operator uses a Komatsu *intelligent* Machine Control PC490LCi excavator to dig a trench to install storm pipe. "Using the PC490LCi for utility applications has improved our efficiency," said Boomerang Corp. President Bryce Ricklefs. "We can hit grade, switch to pipe and move to the next cut faster."



A 'GAME CHANGER'

First contractor to use revolutionary *intelligent* Machine Control is more efficient, productive than ever



Joe Liesfeld III,
Vice President



Kelby Morgan,
Project Manager

Liesfeld Contractor takes pride in being at the forefront of construction technology. The Richmond, Va., earthwork contractor was one of the first in its community and surrounding area to use a dozer with an aftermarket GPS grading system.

"It was awkward, but it was cool; and, at times, it would grade by itself using an indicator system," recalled Vice President Joe Liesfeld III, who along with his father, Joe Jr., own and operate the firm. "The technology continued to improve, which helped with efficiency, but the drawback was that our operators had to spend time installing and taking down masts and cables every day. That takes a bite out of production time."

When Komatsu introduced its initial *intelligent* Machine Control dozer five years ago, Liesfeld

Contractor jumped at the chance to be the first to demonstrate the revolutionary D61i-23 with factory-integrated GPS that required no time-consuming set up of masts or cables.

Komatsu has since added five more sizes of the machine: D39i, D51i, D65i, D85i and D155i. Some of the dozers are in their second generation, including the D61i-24s. All feature fully automatic blade control from first pass to last. During rough-cut, if the system senses excess blade load, it automatically raises the blade to minimize track slip and maintain forward momentum. The blade also automatically lowers to push as much material as possible for maximum production in all situations.

"Right away we recognized that the original D61i was a game-changer," stated Project Manager Kelby Morgan. "Komatsu built a bulldozer around GPS, versus trying to adapt GPS to the bulldozer. By doing that, they created a superior product. After the trial period, we made it part of our fleet and have since put additional units to work. We use them in all facets of construction, from stripping topsoil to putting a site to final grade. The accuracy is outstanding."

Accuracy delivers productivity

With thousands of machines in North America and total fleet hours into the millions, Komatsu's *intelligent* Machine Control dozers have proven to reliably deliver accuracy on jobsites.

"The blade is a dirt pusher, and it's also our survey crew," stated Liesfeld. "The dozers always know where they are in relation to final elevation. They have virtually eliminated staking and the need for extra labor to check grade, which is a huge cost savings. After the

A Liesfeld Contractor operator grades with a Komatsu D51PXi-24 dozer. "The blade is a dirt pusher, and it's also our survey crew," said Vice President Joe Liesfeld III. "This technology allows us to do (finish grading) three to four times faster than before we acquired the first *intelligent* Machine Control dozer."





Komatsu *intelligent* Machine Control excavators, including this PC360LCi-11, are go-to machines for Liesfeld Contractor, which puts them to work excavating, digging trenches and constructing ponds. “They have the versatility to move mass quantities of materials as well as do precision work such as slopes, so we were able to construct a relatively large pond rather quickly,” said Technology/GPS Manager Chris Ashby.

site model is loaded into a machine, we set up a base station and a benchmark, and that’s it. We have noticed the biggest savings with fine grading. This technology allows us to do (finish grading) three to four times faster than before we acquired the first *intelligent* Machine Control dozer.”

Liesfeld Contractor’s Technology/GPS Manager Chris Ashby builds 3-D site models based on CAD files provided by engineering firms. After checking for accuracy, he sends the models to the dozers via Topcon’s SiteLink3D system.

“It’s seamless, and once the model is loaded, the machine is ready to go to work,” said Ashby. “The operator always has an overall, site-grading map available on the high-res monitor, detailing elevations and where cut-and-fill locations are. If there is a change, I can send an update directly to the machine, so that adjustments are virtually instantaneous.”

Excavators effective in every application

Ashby can also transmit revised information to the firm’s *intelligent* Machine Control

excavators. Komatsu announced their arrival with its PC210LCi-10 – the world’s first such excavator – approximately one year after the D61i-23 dozers. Liesfeld Contractor runs a second-generation PC210LCi-11, as well as PC360LCi-11 units.

Among a host of standout features in the excavators is an exclusive control function that goes beyond simple guidance to semi-automatically limit overexcavation and trace a target surface. Once the target elevation is reached, no matter how hard an operator tries to move the joystick to lower the boom, the excavator won’t allow it. This reduces wasted time and the need for expensive fill materials.

“The main uses for our excavators are trench digs for dry utilities, so the models are done on a ditch-by-ditch basis, because each is unique,” Ashby pointed out. “Recently, on a large project, we had dozens to dig. If each required staking and we needed someone to constantly check grade, the cost would have been fairly high. Once I loaded the models, the operators could simply excavate the trenches and move the dirt.”



Chris Ashby,
Technology/GPS
Manager



Discover more at
RolandIndustryScoop.com

Continued . . .

'The technology allowed us to work confidently'

... continued

What others are saying about *intelligent Machine Control*



"The accuracy is spot-on, and we aren't wasting materials due to overcutting. The technology is easy to use – download a file to the machine, and you're ready to roll in just a few minutes."

Bret Barnhart, Owner, Bret Barnhart Excavating



"I think what stood out the most to me was using the PC490LCi to cut a slope, and when it was done, the slope was smooth as glass. We loaded the plans, and it cut right to grade with no stakes or grade checkers."

Pete Sewczak, Vice President, Zak Dirt



"(The integrated system) saves us time and money by eliminating the need to put up and take down masts, and we no longer worry about them getting damaged or stolen. What stands out is the increased production and efficiency. We simply plug the plans into the machines and go to work."

Randy Ellis, Owner/Vice President, R&T Ellis



"The savings of time and material costs have been significant. We don't need surveyors to drive new stakes or replace the ones that invariably get knocked down."

Mike Greenfield, Owner/President, Greenfield Trucking

Liesfeld Contractor uses its *intelligent Machine Control* dozers, including this D61PXi-24, from first pass to last. "Right away we recognized that the original D61i was a game-changer," said Project Manager Kelby Morgan. "Komatsu built a bulldozer around GPS, versus trying to adapt GPS to the bulldozer. By doing that, they created a superior product."



Morgan added, "There were a lot of ups and downs to those utility trenches compared to straightforward ditch digs, which added to the complexity. As a result, there was no way to use laser guidance. Every grade break required staking, but the integrated system eliminated the need for that. The technology allowed us to work confidently, knowing that once the excavators reached target depths at each point of the trenches, our operators could not go beyond that."

On the same project, Liesfeld Contractor used the excavators for additional applications. "They have the versatility to move mass quantities of materials, as well as do precision work such as slopes, so we were able to construct a relatively large pond rather quickly," said Ashby. "Because these excavators are accurate and could put the entire area to grade, we did it without a dozer. That eliminated additional machine costs."

Upped the ante

Joe Liesfeld Jr. founded Liesfeld Contractor in 1972, clearing house lots with a dozer, chainsaw and a dump truck. As the years progressed, so did the company. By the mid-1980s, commercial site work and other large projects that involve a comprehensive package of services became the norm, most of them for repeat customers. The Liesfelds also operate an environmental company that offers wetland construction, as well as a recycling operation.

Expansion continued through the 1990s, when Joe III and his brother, Kenny (who's no longer with the company), as well as Morgan joined the business. The trio were instrumental in bringing GPS technology to Liesfeld Contractor's jobsites.

"We have moved millions of yards of dirt through the years, and we've always sought ways to be as efficient and productive as possible," said Morgan. "The *intelligent Machine Control* products really upped the ante. They make operators at every career level more effective, and our people love them." ■

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"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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Dawn Mallard / D.Grimm, Inc. / Conroe, TX

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EFFICIENT MATERIAL MOVEMENT

Komatsu's new wide-blade dozer excels when low ground pressure is needed

The ability to move mass quantities of material and finish grade with one machine on a variety of jobsites is a distinct advantage. Komatsu's new D65PX-18 Wide VPAT (Variable-pitch Power Angle Tilt) Blade Specification dozer provides it in a package that includes nearly a foot more blade width and six-inch larger track shoes than its standard counterparts. Traditional and *intelligent* Machine Control models are available.

The 53,925-pound dozers have 14.1-foot, six-way blades, which deliver greater grading productivity and versatility, according to Chuck Murawski, Komatsu Product Manager, Dozers, who emphasized that customers are increasingly using these size-class dozers for more than slot dozing. Komatsu beefed up the C-frame to ensure it could carry the wider blade.

"Our D65s handle the heavy lifting of stripping, cutting and pushing, and the Wide VPAT blades make them excellent finish dozers," he said. "Each has increased steering power for greater maneuverability, and we added an automatic shift mode with a full-time torque converter that maximizes production and efficiency on both short and long pushes. The hydraulics are smooth, so operators can control the blade with little effort."

Light footprint

The D65PX-18 Wide VPAT Blade Specification models really stand out in sensitive areas, said Murawski. Ground pressure with the 36-inch track shoes is approximately 5 PSI, which is 14 percent lower than machines with 30-inch shoes.

"This makes them ideal for projects such as landfill cells where the dozer is running across a liner or in pipeline construction where it's operating on top of buried pipe," reported Murawski. "Another advantage is that the

shoes are centered on the track compared to being offset like some competitive models, so the load is always evenly distributed. That helps lengthen undercarriage life."

Komatsu equipped the D65 dozers with its PLUS (Parallel Linkage Undercarriage System) Undercarriage, which features rotary bushings and larger components that undergo a unique heat-treating process for increased strength and durability.

"Customers report increased flotation and better traction with the wide, 36-inch track shoes; greater stability on slopes with the 7 percent wider track gauge; faster times when spreading material using the 14.1-foot blade; and a smooth, comfortable ride from a well-balanced machine," said Murawski. ■



Chuck Murawski,
Komatsu Product
Manager, Dozers



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RolandIndustryScoop.com

Quick Specs on Komatsu's D65PX-18 Dozer Models

Model	Horsepower	Operating Weight	Blade Capacity
D65PX-18 Wide VPAT and D65PXi-18 Wide VPAT	217 hp	53,925 lb	5.8 cu yd

Komatsu's new D65PX-18 Wide VPAT Blade Specification dozer has wider blades and track shoes, allowing for more efficient material movement on areas where low ground pressure is essential.



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NEW PC1250-11 EXCAVATORS

Increased horsepower significantly boosts productivity and profitability

Numbers tell the tale on Komatsu's upgraded PC1250 excavators. They offer a 13 percent boost in horsepower and up to 8 percent greater productivity, all while maintaining the fuel consumption of their Dash-8 predecessors. Two configurations are available – the PC1250-11 with a short undercarriage and a PC1250LC-11 with a long undercarriage – allowing users to match the excavator to their particular applications.

"The higher horsepower delivers additional power to the pumps, which helps the excavator handle the high-demand segments of a cycle more effectively," said Kurt Moncini, Komatsu Senior Product Marketing Manager, Tracked Products. "We also made some changes to reduce hydraulic pressure loss for improved efficiency. During tough applications, the machines keep their digging force longer. Operators who have run the Dash-8 model, should notice a significant increase in performance."

Companies involved in large, high-volume excavating jobs should choose the short undercarriage PC1250-11, which has a shorter boom that's thicker at the arch. "This short-boom configuration allows customers to use a bigger bucket," explained Moncini. "It's primarily made for one application – high-production truck loading. Fifty-ton to 70-ton-class trucks are an ideal match, but the PC1250-11 is also more than capable of loading up to 100-ton trucks."

Versatile LC configuration

In addition to mass excavation and truck loading, the PC1250LC-11 long-undercarriage configuration excels in deep sewer and water trenching, general construction and mining/quarry applications. It features a standard 29-foot, 10-inch boom and arm options of 11'2", 14'9" and 18'8".

"The long undercarriage model provides greater versatility because its arm options and longer boom enable larger digging envelopes with greater reach and digging depths," said Moncini. "The ability to handle objects such as manholes and box culverts is outstanding, too. This is a great, larger-size, multi-purpose excavator."

"Komatsu's Business Solutions Group can help identify the right configuration and machine specifications to best suit customers' operations," added Moncini. "Whichever they choose, either excavator will meet their needs and do so more productively and efficiently, which increases profitability." ■



Kurt Moncini,
Komatsu Senior
Product Marketing
Manager,
Tracked Products

Quick Specs for Komatsu's PC1250 Excavators

Model	Net Horsepower	Operating Weight	Boom Length
PC1250-11	758 hp	259,960-265,900 lb	25 ft, 7 in
PC1250LC-11	758 hp	269,300-275,240 lb	29 ft, 10 in

Komatsu's new PC1250-11 short-undercarriage, mass-excavation excavator (shown below), as well as the PC1250LC-11 long undercarriage model, deliver greater production while maintaining the same fuel efficiency as their Dash-8 predecessors.



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Brian (left) and Thomas Cronin / Prosperity Construction / Jackson, MS

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VOICE OF THE CUSTOMER

Feedback leads to increased power, lift capacity and more in new XT-5 Series track feller bunchers

Lift capacity and power are major contributors to production in the woods, and Komatsu's XT-5 Series of track feller bunchers deliver both with a more powerful Tier 4 Final engine and greater lifting ability for enhanced logging performance. Komatsu also improved reliability and durability with the introduction of a new rugged undercarriage that significantly extends service life.

Four models – XT430-5 (non-leveling), XT435L-5, XT445L-5 and XT465L-5 – with operating weights ranging from 66,359 to 74,516 pounds are available. Compared to their predecessor XT-3 models, the contemporary XT-5s have a 310-peak-hp, Cummins engine that provides increased horsepower and torque and lowers fuel consumption by as much as 10 percent, thanks to advanced engine and hydraulic system control designs.

Lift capacities at full-reach have jumped 75 percent on the XT430-5, XT435L-5 and XT445L-5, and 16 percent on the XT465L-5. The latter now readily operates the Quadco (a Komatsu-owned company) 24-inch cutting-capacity, high-speed disc saw heads.

Responding to customers

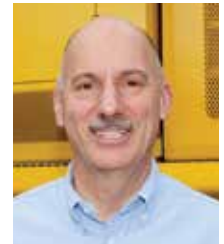
"We have been systematically gathering and analyzing voice-of-the-customer input to define our next generation of feller bunchers," said Steve Yolitiz, Manager, Marketing Forestry, Komatsu America. "The XT-5 Series represents the culmination of translating this input into feller bunchers that truly meet the needs of today's demanding loggers."

Larger-capacity, hydraulic piston pumps for the implement, attachment and disc saw operate at 500 rpm lower speed, while providing high flow. Each pump has

pressurized suction inlets to reduce cavitation risk. Boom, arm and rear hydraulic tubes and hoses have robust forestry-specific guarding that improves protection and sheds debris.

The undercarriage's rugged 8.5-inch track chain link has a thicker and stronger bushing strap to resist "twist," as well as a high-density track roller and idler bushing material that extends wear cycles. All final drives feature a triple-labyrinth, floating-seal housing to protect the seal against mud packing. Other undercarriage improvements further extend service life.

Komatsu relocated the state-of-the-art forestry cab to the left of the boom for industry commonality. Design changes give superior lines-of-sight to each track. Standard rearview and optional right-side-view monitoring systems further enhance the operator's view. Eleven LED lights provide superior visibility for night operations. ■



Steve Yolitiz,
 Manager,
 Marketing Forestry,
 Komatsu America

Komatsu's new XT-5 Series of track feller bunchers delivers increased power, lift capacity, reliability and durability as well as KOMTRAX® telematics system technology. Four models are available.



ENGAGING MINE OPERATORS

Brian Yureskes, Director of Sales and Global Accounts, says direct conversations benefit mining customers



Brian Yureskes, Director of Sales and Global Accounts, Komatsu Mining

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.

It was almost a foregone conclusion that Brian Yureskes would land in his current role as Director of Sales and Global Accounts, Komatsu Mining. He started with Komatsu six years ago in product marketing for construction equipment and became Director of Training and Publications at the company's Customer Center in Cartersville, Ga. Then, in 2015 the opportunity to move into mining presented itself, and Yureskes took it.

"My first job out of college was in operations management for a mining company," recalled Yureskes, who graduated from the Colorado School of Mines in 2005 with a mining engineering degree. He recently completed his MBA at Bradley University in Peoria, Ill. "When I came to Komatsu, I was indifferent as to whether I worked in construction or mining, but, with my background, it made sense that I would eventually migrate to the mining side."

Three years ago, he took the role of a Business Development Lead, working closely with a single mining customer. Last year, Komatsu Mining expanded his duties, putting him in charge of global efforts.

"I have always found mining enjoyable," he shared. "Playing in the dirt with trucks seems like such a natural fit."

Yureskes and his wife, Katherine, have two children and like to stay active. He enjoys weightlifting, mountain biking, basketball and playing some golf now and then. "I don't like to sit still," he said.

QUESTION: Customer engagement is a key element of Komatsu's commitment to helping them run more productively, and it gains valuable feedback for machinery improvement. What role does it play for Komatsu Mining?

ANSWER: We are engaging both current and potential customers by going into the field more often in order to better understand their operations, requirements and what they expect from us. We want them to know how Komatsu can meet their needs with a variety of innovative and technologically advanced trucks that move massive amounts of materials, as well as with the support to ensure that they do so in the most efficient manner possible. These direct conversations also provide valuable feedback as we look to the future.

This year is the 10th anniversary of our Autonomous Haulage System, or AHS. During the past decade, the system has moved around 2 billion tons of material. Mines that are not utilizing AHS vehicles are seeking information about the benefits, which are outstanding. In the past, there may have been some reluctance on our part to talk about these advantages beyond our AHS customer base. We are more actively spreading the word to customers through various means, such as inviting them to our proving grounds where we field test the trucks.

QUESTION: The Peoria Manufacturing Operation (PMO) focuses on mining trucks. What specific products are produced there?

ANSWER: We manufacture seven of the largest electric-drive mining trucks in the world, ranging from the 200-ton-capacity 730E to the 400-ton 980E, as well as autonomous



Brian Yureskes, Director of Sales and Global Accounts, Komatsu Mining, says customer engagement provides valuable feedback that can have a direct impact on new products.

versions of some models. Every Komatsu mining truck ordered worldwide is built and shipped from the PMO. In addition, all global engineering support, research and development, parts and testing for the products manufactured are handled it here. That's unique compared to other Komatsu manufacturing operations in North America.

QUESTION: What is the state of the mining industry?

ANSWER: There has been some overall volatility lately. After a down period, all the markets experienced a surge, then stabilized a bit. Trends look positive going forward, and analysts are predicting growth for mining during the next five years. Komatsu is taking a proactive approach to further expand its footprint in the mining sector.

QUESTION: Do you encourage customers to visit the PMO?

ANSWER: Absolutely. It's a fantastic experience for people to see how these massive haulers are manufactured. If the timing is right,



Komatsu's Peoria Manufacturing Operation produces seven of the largest electric-drive mining trucks in the world, ranging from the 200-ton-capacity 730E to the 400-ton 980E, as well as autonomous versions of some models.

visitors may even watch their own trucks being built. We also view it as a great opportunity to showcase the quality that Komatsu builds into its products and the world-class support behind them. ■

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NEW ENGINE OIL

Komatsu designed its CK-4 Genuine Engine Oil for better wear protection in all conditions

Lubricants are the lifeblood of any machine, helping them run at peak performance, according to Bruce Gosen, Senior Product Manager, Komatsu Parts Marketing. "They protect against wear, so it's essential to have the best oil possible for extended engine life," said Gosen.

Komatsu makes its new EO15W40-LA (CK-4) from semi-synthetic base oil rather than from conventional base oils. "That provides better protection, especially in severe conditions, compared to most other 15W-40 engine oils in the marketplace," said Gosen. "It also has several benefits that contribute to better fuel economy compared to the CJ-4, which this new product replaces.

Specific benefits of the new oil:

- It has outstanding resistance to oxidation and deposit formation, helping engines maintain their original horsepower and fuel-efficiency ratings.
- The new oil quickly sheds air bubbles, enabling equipment to operate on extreme grades where air can be drawn into the oil-pump suction line and compromise engine health and performance.
- It was designed to protect even the hottest components in off-road engines such as turbocharger bearings, piston rings, top lands and more.
- The oil was formulated to maintain its viscosity, even under extreme oil-drain conditions. EO15W40-LA has a low-ash formula that has been enhanced to meet CK-4 specifications. In addition to Tier 4 equipment, it is backward-compatible for use in Tier 3 and older machinery.

The new engine oil can be used in any brand of equipment that requires 15W-40, CK-4, CJ-4, CI-4 or ECF-3 oil.

"While not required by the American Petroleum Institute, we field tested EO15W40-LA in order to confirm its performance and benefits in large, off-road equipment," said Gosen.

"We encourage anyone who wants excellent performance throughout the life cycle of their machinery to choose Komatsu Genuine Oils like our CK-4, which is one in a line of competitively priced products that are available through our distributors." ■



Bruce Gosen,
Senior Product
Manager, Komatsu
Parts Marketing



Komatsu's EO15W40-LA (CK-4) Genuine Engine Oil reduces wear and helps maintain original fuel economy. It is approved for use in all engines that require CK-4 and is backward-compatible for use in Tier 3 and older machines.



OPTIMIZING JOBSITES

Partnership for aerial mapping provides resources to reduce costs, increase efficiency



Jason Anetsberger,
Komatsu Senior
Product Manager

With drones becoming an increasingly common worksite tool, Komatsu has identified aerial mapping and analytics as key components of its SMARTCONSTRUCTION initiative – a range of integrated hardware and software solutions designed to offer an end-to-end workflow for each phase of construction. In addition to its long-standing relationship with Skycatch, Komatsu recently boosted those capabilities by partnering with Propeller Aero, a global leader in cloud visualization and analytics solutions.

“A Komatsu SMARTCONSTRUCTION jobsite, by definition, is technology enhanced and production optimized,” said Jason Anetsberger,

Komatsu Senior Product Manager. “Adding Propeller Aero as a key partner gives our North American distributors and customers exceptional capabilities to achieve this standard for aerial mapping. Propeller combines simple, yet powerful analysis tools with fast and accurate site visualization.”

Komatsu spent several years testing various commercial drone mapping and analytics options. In Propeller, it found an exceptionally robust product, well-suited to meet the needs of modern construction operations. Propeller balances ease of use with survey accuracy and reliability.

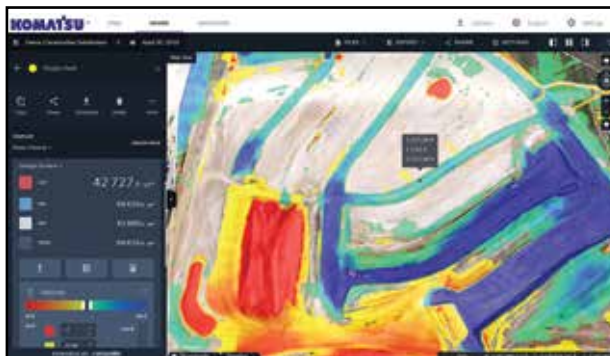
Powerful data at your fingertips

Propeller’s processing machinery quickly crunches drone images and delivers the results as a cloud-based, 3-D model to a desktop or tablet. From there, powerful collaboration and analysis tools let users perform height, volume and slope calculations as well as monitor if a project is on-track.

The technology platform created by Propeller supports multiple coordinate systems, including local site calibrations. This allows personnel to capture up-to-date data expressed in the specific geospatial coordinate already in use on that jobsite. Local grid support is crucial for ensuring that drone-captured maps and models match up with plans and previous surveys.

“Worksite managers are starting to see the real business value of accurate, up-to-date drone data,” said John Frost, Vice President of Business Development at Propeller Aero. “That’s why we’re building tools and workflows designed for experts and non-experts alike. It’s all about empowering users with information to reduce costs, improve safety and make the most efficient use of resources.” ■

Komatsu is now partnering with Propeller Aero – a leader in cloud visualization and analytics solutions – to provide customers with simple, yet powerful tools that offer accurate site visualization. Propeller balances ease of use with survey accuracy and reliability.



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REMARKETING



2013 CAT 963D \$194,500
STK# CT17009, 4,858 HRS, BOLINGBROOK, IL



2015 KOMATSU D51PXi-22 \$174,500
STK# KM18200, 3,457 HRS, MARENGO, IL



2015 KOMATSU PC240LC-10 \$179,500
STK# KM18099, 1,400 HRS, DEPERE, WI



1987 KOMATSU PC150-3 \$18,500
STK# KM18280, 16,364 HRS, FRANKSVILLE, WI



2013 KOMATSU D61PXi-23 \$169,500
STK# KM18201, 6,698 HRS, SPRINGFIELD, IL



2007 KOMATSU D155AX-6 \$174,500
STK# KM17366, 6,556 HRS, SPRINGFIELD, IL



2014 KOMATSU WA270-7 \$109,500
STK# KM17236, 5,015 HRS, MARENGO, IL



2013 CASE 1150M \$84,500
STK# ZZ17286, 1,700 HRS, SPRINGFIELD, IL



2005 VALMET 890.2 \$195,000
STK# VT18000, 9,736 HRS, ESCANABA, MI



2014 KOMATSU PC210LC-10 \$129,500
STK# KM15112, 3,881 HRS, PEORIA, IL



2005 VALMET 415EX \$89,500
STK# TGCONS1, 6,147 HRS, EAU CLAIRE, WI



2014 KOMATSU 931.1 \$349,000
STK# VT18004, 5,756 HRS, ESCANABA, MI



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