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A publication for and about Linder Industrial Machinery customers • January 2019



LINDER
65
ANNIVERSARY

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MESSAGE FROM THE PRESIDENT



John Coughlin

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



Dear Valued Customer,

Anniversaries are a cause for celebration, and we have been doing our share of celebrating 65 years in business. We also recognize that these types of milestones, no matter how big or small, provide opportunities to reflect and identify new ways to grow and innovate. While Komatsu's *intelligent* Machine Control technology's five-year anniversary isn't near the 65-year mark yet, it's still worthy of commemorating the revolutionary accomplishment of these dozers and excavators with integrated GPS.

This issue of your Linder Link magazine spotlights our anniversary open house events throughout Florida and the Carolinas. It was an honor to fellowship with customers and employees together – we most certainly would not be here without them!

In this magazine, you will also learn about 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.

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

Sincerely,
Linder Industrial Machinery Company

John Coughlin,
President and CEO

LINDER & LINK

A publication for and about Linder customers

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A SALUTE TO A LINDER CUSTOMER

CENTERLINE CONTRACTORS

Monroe, N.C., site-development company celebrates one year in business



Chris Helms,
Managing Partner



Seth Farthing,
Senior Project
Manager

Recognizing a great opportunity when it comes along is challenging – acting on it successfully is even more difficult. When Chris Helms noticed a need in the Charlotte housing market a year ago, he established Centerline Contractors to serve as a full site-development firm. Helms' 23 years of experience in the construction industry, split between sales and contracting, has spurred quick success.

"Charlotte has been one of the leading American cities for population growth in the past five years," noted Helms, who is the Managing Partner. "I've lived near there my entire life and realized the current infrastructure would not be able to support the influx of people. I wanted to start a business that could address the situation and, so far, we've been able to do that."

Shortly after opening Centerline Contractors in Monroe, N.C., in September 2017, Helms

hired his first six employees, including Senior Project Manager Seth Farthing. The new venture's first few jobs were subcontracts for utility installation, which Farthing oversaw.

"A lot of companies that dive in head first don't last long," explained Farthing. "We wanted to establish a reputation for delivering a quality product on schedule and within budget before considering any expansion. Our goal was three pipe crews within a year."

Centerline Contractors met that target by April 2018 and now employs 40 people across five crews that can clear a site, install utilities and cut to final grade with minimal need for subcontracting. Building a reliable and industrious team has been a strength of the young organization.

"We hire people who are eager to work and who want to forge a career in the industry," said Helms. "We are very transparent in the way we operate, and our employees appreciate that. Having them buy into our philosophy has allowed us to grow and succeed rapidly."

A Centerline Contractors operator uses the integrated *intelligent* Machine Control technology on the Komatsu D61PXi-8 dozer to cut to grade within one tenth of an inch at a subdivision near Charlotte, N.C.



Creating subdivisions

Centerline crews enjoy tackling a variety of assignments. Smaller jobs consist of sewer outfall installation and 10- to 20-lot subdivisions. Typical projects range in size from \$2 million to \$6 million and require the excavation of 250,000 yards of earth or more. Currently, the company is working on a larger subdivision in Weddington, N.C.

"Creek's Landing is a multi-year project that will create 200 homes," explained Helms. "We cleared 50 acres of land and are currently hauling dirt from the back of the area to the front where we're finishing grading."



At a jobsite north of Charlotte, N.C., a Centerline Contractors operator moves dirt using a Komatsu PC490LC-11 excavator. "The machine has great swing time and lots of power, which allows us to move earth at a higher rate," noted Equipment Manager Mark Brantley. "It's excellent for mass excavating and larger jobsites like this."



Mark Brantley,
Equipment Manager

The \$6 million endeavor requires the excavation of 350,000 yards of dirt to provide erosion control. Attaining the permits and approval, however, took longer than expected and forced a later start.

"Wet weather has also been a major challenge, as well as hitting some rock; fortunately we've been able to overcome that," stated Farthing. "We doubled down on our manpower and finished the first 40 pads by the end of the calendar year. The ability to control our schedule allows us to work in phases and continue to meet deadlines."

Komatsu the right fit

Choosing an equipment distributor was a big decision for Helms. After meeting with multiple distributors, he decided to partner with Linder Industrial Machinery Company and Sales Rep Bill Cross.

"I wanted to see who was interested in working with a start up," recalled Helms. "Bill was very responsive to all of my questions and made the decision easy. He helped walk me through the process of finding the right equipment with the best financing."

Helms has since purchased more than 20 pieces of equipment from Cross and believes the fleet has made hiring top employees easier.

"When I tell new foremen and operators that we run Komatsu machines, they're always excited," offered Helms. "We hire people who have spent time on a lot of competitive brands; however, they always tell me Komatsu was the right choice. It's very durable and has been a workhorse for us."

Centerline's 13 excavators range from PC210LC-11s to PC490LC-11s. The firm operates D61PX-24, D61PXi-24 and D155AX-8 dozers. Two Komatsu HM400-5 articulated trucks as well as five WA270-7s and a WA320-7 wheel loader round out the fleet.

"The HM400s are highly efficient and perform well in adverse conditions," said Farthing. "The wheel loaders are easy to handle and make moving things around the jobsite a breeze. The excavators have great swing time and visibility for the operator. The dozers provide excellent balance, and the operators appreciate being able to see the blade. We've been very pleased with the equipment."

The *intelligent* Machine Control technology on the D61PXi dozer has stood out to Head Grading Project Manager Steve Scism.



Discover more at
TheLinderLink.com

Continued . . .

'Linder schedules service at our convenience'

... continued

Managing Partner
Chris Helms
(left) calls on
Linder Industrial
Machinery
Company Sales
Rep Bill Cross
for equipment
and service.



Using the JRB
quick-coupler and
Felco roller bucket,
an operator scoops
and compacts dirt
with a Komatsu
PC210LC-11
excavator at the
Creek's Landing
subdivision in
Weddington, N.C.



This Centerline Contractors operator breaks up rock using a Komatsu PC360LC-11 excavator at a Weddington, N.C., jobsite.



"The dozer doesn't have masts and provides real-time response," explained Scism. "No matter what cut or fill is required, the track won't slip, which means the operator isn't losing any time. The dozer can take a project from first cut to final grade within one tenth of an inch."

JRB quick couplers and Felco roller buckets are outfitted on all six of Centerline's PC210 excavators for added flexibility.

"The roller buckets allow one machine to backfill and compact the ground," said Helms. "The quick coupler lets us switch to a digging bucket at any time. Both attachments have improved the versatility of our pipe crews."

When it comes to service, Linder is there for Centerline Contractors. The Tier 4 machines are covered by the Komatsu CARE program, which provides complimentary scheduled maintenance for the first 2,000 hours or three years.

"A Linder technician calls to schedule the service at our convenience, which means less downtime," said Helms. "Linder's technicians, as well as ours, utilize KOMTRAX to monitor the work history, idle time, fuel usage, operating hours and GPS coordinates of the machines. Both programs (KOMTRAX and Komatsu CARE) are a real asset."

Controlled growth

Helms plans to add employees strategically as the opportunities arise.

"We want to have controlled growth as we move forward," he explained. "It's important to find the right people first, before we take on a new job. However, we don't want to set any limits."

The company will continue to focus on providing the highest quality service, getting jobs done right and staying on schedule.

"Our goal is to be the preferred contractor in Charlotte," stated Helms. "To do that, we have to continue to be professional in everything we do. We're excited to see what the future holds." ■

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TAD GRIFFITHS / ROYAL T ENTERPRISES / UTAH

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



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A SALUTE TO A LINDER CUSTOMER

MIKE'S ORGANIC TOPSOIL

Port St. Lucie, Fla., firm creates organic topsoil and mulch from yard waste and hurricane debris



Mike Marburger,
President



Michael Marburger Jr.,
Field Superintendent

Thirty years ago, Mike Marburger opened an irrigation business in Florida, aptly named Irrigation by Mike, to earn extra income while he was employed full-time at the St. Lucie West Services District Water Plant. The venture quickly proved profitable, and he decided to invest fully into the irrigation industry. Steady growth ensued until the economic downturn in 2008, forcing him to pivot the focus of his operations.

"About that time, I noticed that county dumps didn't have anywhere to put their yard waste," explained Mike. "I had some heavy equipment from the irrigation business and 400 acres of land, so I came up with the idea of recycling that material instead of letting it go to waste. It was a win-win situation."

Mike's Organic Topsoil was born and achieved success much like the owner's

first business. Material is trucked in from as far away as Miami and West Palm Beach to his site in Port St. Lucie. There, it breaks down through the years before completely decomposing and eventually being sold as organic topsoil.

"The yard waste is a mixture of everything from hurricane cleanup debris to a homeowner's tree clippings," noted Mike. "We don't use any pesticides or chemicals to break it down – it's a completely natural process. The end product is an organic, nutrient-rich soil that can be used in all kinds of applications."

Originally working alongside his son, Michael Jr., and then later his father, Larry, and brother, Todd, the company has grown from two to 11 employees. Two operators, Randy Garren and Jason Mobley, have been with Mike for 20 years, dating back to the irrigation firm. Retaining long-term staff is one key to the organization's progress.

"Almost everyone at the company has been here more than five years," said Mike. "Although we are busy 12 hours a day, 7 days a week, the guys arrive with smiles on their faces and do their jobs the right way. What we do is hard work, so I try to create a family environment where each person is respected and valued. The company's achievements are a testament to the effort everyone has put in along the way."

Fine-tuning the soil

Mike's Organic Topsoil accepts more than 50 truckloads of material and sells up to 300 yards of topsoil every day to various companies and area residents. Local, state and federal agencies also depend upon Mike's company, usually bringing it material following a natural disaster.

Mike Marburger, President of Mike's Organic Topsoil, has built a team that he trusts to get the job done. Superstitiously named "Team Bad Luck," the crew is composed of employees who have been with the company for more than five years. "What we do is hard work, so I try to create an environment where each person is respected and valued," noted Marburger. "The company's achievements are a testament to the effort everyone has put in along the way."





► VIDEO

Operator Randy Garren uses a Komatsu PC210LC to clear a fire lane stacked with recently deposited material for decomposition at Mike's Organic Topsoil. "The machine has excellent reach and great visibility," said Garren. "The thumb on the bucket makes moving the material an efficient process."



"We work closely with FEMA after a hurricane," explained Mike. "We'll take on as much as possible to assist in the recovery process. We're a small piece of the puzzle, and we do what we can to help."

Accepting large quantities of material means that Mike is not always sure what chemicals or pesticides the yard waste may have been exposed to. The lengthy decomposition process, however, removes any inorganic compounds and creates a healthy and chemical-free finished product.

"There are several steps to removing the chemicals and breaking down the larger items," explained Mike. "The yard waste is compacted into rows, which causes the interior to naturally heat up and begin decomposing. Bacteria, worms and centipedes then consume larger bits of wood and bark until it rains and cools everything down. The process repeats many times throughout the cycle, effectively removing any pesticides along the way. We also test everything four times a year to guarantee quality."

Mike compares creating the finished topsoil to fine-tuning the details on a race car.

"Some drivers want nitrous, a spoiler or bigger tires on their car," he explained. "With soil, you can have different pH levels, larger pieces of wood to hold moisture or more

sand. Our soil is like the perfect base model for the car, capable of supporting a variety of applications."

In addition to organic topsoil, the company sells various mulches and fill material.

"Whether someone wants to fill in a patch with partially decomposed wood or get a layer of topsoil for a garden, we can provide it," said Mike. "Local residents appreciate purchasing quality material at a very reasonable price."

Reliable equipment

When Mike needs new equipment, he turns to Linder Industrial Machinery and Sales Rep Dan Tafoya for Komatsu excavators, dozers, loaders and trucks. They have worked together since Dan first visited the busy operation three years ago.

"It was fate that Dan appeared when he did," recalled Michael Jr. "We were consistently struggling to keep some competitive brand machines running when Dan stopped by and said he sold Komatsu equipment. After testing a Komatsu dozer once, we could tell the difference in quality."

The firm bought the dozer, and with Dan's assistance has built a fleet that includes a PC170LC-11 excavator, two PC210LC-11 excavators, three WA270-8 wheel loaders and a HM300-5 articulated truck.



Discover more at
TheLinderLink.com

Continued . . .

'Komatsu is number one in my book'

... continued

"The HM300-5 is our newest piece of equipment," said Michael Jr. "We are very happy with the way it has performed – from fuel economy to limited downtime – it has been an important asset in helping our business run reliably. Our biggest strengths are our equipment and the people who operate it."

Mike's Organic Topsoil relies on the PC210LC-11 excavators to keep the fire lanes clear as material is distributed throughout the facility. Fixed thumbs are attached to the excavator buckets, enabling the machines to grab larger pieces of debris, which speeds up the clearing process.

"I've operated PC210s for years, and they are hands-down the best pieces of equipment

I have ever run," noted Michael Jr. "They have excellent reach and visibility, which makes creating the piles and moving the material much easier. The controls are common-sense and aid in that process as well."

The reliability and durability of the machines make the decision to stick with Komatsu an easy one for Mike.

"Komatsu is number one in my book – top-notch on everything," stated Mike. "The machines are virtually issue-free, and the service from Linder is excellent. If something comes up, a shop technician arrives that day; we couldn't ask for better service."

The company's Tier 4 equipment also includes complimentary scheduled maintenance for the first three years or 2,000 hours through the Komatsu CARE program.

"A Linder shop technician calls ahead of time to let me know when a piece of equipment is due for maintenance," said Mike. "They arrange the service around our schedule to limit downtime. It's a good feeling to go home at night knowing my oils are changed and the machines are greased, blown out and taken care of 100 percent of the time. That's what keeps us rolling."

Expansion plans

Mike's facility has reached the point where he will have to turn away materials if the current lot gets too full. He plans to purchase adjacent property to expand and open stores closer to town to provide easier access for local residents.

"I'd like to open some stores along U.S. Highway 1 and in town, so people don't have to drive as far west," said Mike. "There are many opportunities to expand; however, we want to be smart in how we accomplish it."

Like his father, the younger Marburger has an entrepreneurial spirit and hopes to continue in the business.

"After seeing my father have everything and then lose it in 2008, I decided that I wanted to be a part of his success in rebuilding the business," recalled Michael Jr. "It's exciting to follow in his footsteps. The sky is the limit for the company." ■

Mike's Organic Topsoil President Mike Marburger (left) relies on Linder Industrial Machinery Sales Rep Dan Tafoya for his equipment needs.



An operator uses a Komatsu WA270-7 wheel loader to dump organic topsoil into the bed of a Komatsu HM300-5 articulated truck at Mike's Organic Topsoil's facility in Port St. Lucie, Fla. "The WA270 is powerful and has a DEF system, which helps the environment," noted Field Superintendent Michael Marburger Jr. "The HM300 is our newest machine and has done wonders for us. We've put it to the test, and it's passed every time."



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

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ANNIVERSARY OPEN HOUSES

Linder Industrial Machinery celebrates 65 years of being your business partner

Door prizes, food and a sweeping array of equipment were highlights at nine open house events throughout Florida and the Carolinas to mark Linder Industrial Machinery's 65th anniversary. Customers celebrated with Linder employees and vendors while having an opportunity to ask questions and check out the variety of equipment available from Linder.

"The open houses are a great way to make our customers aware of our full offerings," said Linder President and CEO John Coughlin. "Some may think we are only in the earthmoving industry or road-building sector; however, we do much more than that. We are in port solutions, material handling and many other areas. These gatherings help customers become knowledgeable about the various industries we serve."

The anniversary festivities hosted more than 350 customers, who tested equipment and mingled with Linder employees.

"Customers were able to meet our sales teams, parts and service staff members who support their businesses every day and help make them successful," continued Coughlin. "We want to thank everyone for coming out and celebrating with us, because without them, none of this would be possible." ■

A Linder Industrial Machinery sales rep and technician show off the inside of a Kleemann mobile crusher to customers at the Raleigh, N.C., branch event.



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The Wirtgen Group's Florida District Sales Manager Corey Wall (left) presents Linder Industrial Machinery President and CEO John Coughlin with an award recognizing Linder's 65 years in business.



A customer and his family enjoy popcorn while chatting with Linder Industrial Machinery employees at the Plant City, Fla., branch celebration.



This young man and his dad check out a Komatsu excavator at the Linder Industrial Machinery open house in Raleigh, N.C.



RECRUITING A NEW GENERATION

Creating a sense of community and belonging can attract, retain millennial workers

Construction companies are facing a critical time. An abundance of available projects is unquestionably a good thing, but the industry's positive momentum is exposing one of its most serious issues – the lack of skilled workers.

While company owners are beginning to invest in recruiting measures, keeping new staff members will be the next challenge. That may be especially true for millennials. Hiring and retaining them is a growing concern, especially considering that they now comprise the majority of the workforce. According to a Gallup poll, six in 10 millennials are currently open to exploring new job opportunities.

Part of the reason is the ability to easily search for a seemingly infinite number of jobs at any time. There are thousands of positions listed

across hundreds of online job sites, so why would employees limit themselves to one career for the rest of their lives? Society fosters the perception that the next employer will pay more or will offer other attractive features.

Some of the blame lies in the culture of instant gratification, but a majority of the issue stems from a disconnect between employer and employee. Many young workers would like to stay at a job long term, if only their companies did a couple of things differently.

Cracking the code that is the millennial workforce will make or break businesses throughout the next decade, notes Iluma Learning, Inc. Founder Amy Parrish. “Millennials are looking to be a part of something; they crave a sense of community and belonging,” she writes. “The idea of working for a faceless corporation is not always appealing to millennials – they want to be welcomed and appreciated for their efforts, regardless of the industry. A company’s culture goes a long way toward helping it transcend a workplace and become something more meaningful that employees can really buy into and commit to.”

Match practices to your culture

Taking concrete steps can help your company understand how to hire, develop and retain this generation of young, ambitious workers. According to Parrish, every organization has a culture, whether it defines one or not.

“The way a company runs its daily operations, values employees and works with customers shapes its culture,” she writes. “Making a concerted effort to delineate and develop a positive culture goes a long way toward attracting and retaining employees. While rules and regulations can create the outline

Companies can attract and retain millennial employees by creating a positive culture. “The real culture is what happens at the workplace every day,” said Iluma Learning, Inc. Founder Amy Parrish. “If a company says it values employees’ opinions, staff members should feel like their input matters. Talk to employees and managers to truly determine if your company’s practices are matching up with your culture.”





for a company, the culture colors, shades and highlights the areas that reside outside the lines. Policies and procedures may tell the what, but culture provides the who, why and how.”

Parrish points out that a culture is about more than buzzwords on letterhead or a website. “The real culture is what happens at the workplace every day. If a company says it values employees’ opinions, staff members should feel like their input matters. If it says it cherishes time away from work, then an organization should not require 80-hour workweeks or shame workers into forgoing their vacation days. It is important for owners and leaders to monitor the real culture of their workplace continuously. Talk to employees and managers to truly determine if your company’s practices are matching up with your culture.”

Avoid the turnover trap

Millennials want to be pushed and challenged to do more. Creating a culture where employees feel welcome and encouraged to test their resolve from day one will entice new hires to join your team and also stay longer. You will be rewarded with hardworking, long-term employees who are invested in the company.

Winning over millennial talent has less to do with offering hip perks or remodeling the office than it does with showing millennials that they have a future at your organization where they can learn, grow, achieve and lead, according to a recent Gallup poll. Providing opportunities for

career growth as well as personal development plays a major role for millennials when deciding where to work and how long they are willing to stay with one company.

Like any employee, as millennials learn and grow, they want opportunities to provide input and the ability to work independently when appropriate. Show a candidate that there is genuine mutual trust between employer and employee to accomplish a task without micromanagement. Once a millennial is hired, create a monthly review to show progress and areas of improvement. The review should be a two-sided equation. When you involve millennials in the process and define their aspirations, you will create a stronger connection between the company and the work that millennials are doing.

“Employers will be relying on millennial talent for decades to come,” writes Klyn Elsbury, CEO & Founder of Landmark Makers in an article that appeared on Forbes.com titled “Five Proven Tactics for Hiring and Retaining Millennial Employees.” “If you want your new talent to stay with you, you have to give them unique reasons to. Only the organizations that understand how talent wants to be treated will avoid the turnover trap.” ■

Note: Information in this article was gathered and compiled from various sources, including an interview with Amy Parrish, M.Ed., MBE, a Professional Management Leadership Specialist for the heavy equipment industry. She has 15 years of experience in the industry and has worked with the Association of Equipment Distributors as well as several heavy equipment manufacturers.

A recent Gallup poll found that six in 10 millennials are currently open to exploring new job options. You can attract and keep millennials by giving them opportunities to grow and learn.

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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 in late 2017 and two D51PXi dozers last 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
TheLinderLink.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."



▶ VIDEO

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."

▶ VIDEO





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



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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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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



Discover more at
TheLinderLink.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.



NEW ENGINE OIL

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



Bruce Gosen,
Senior Product
Manager, Komatsu
Parts Marketing

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.

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.



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." ■



New video highlights optimal use of backup alarms

Canadian scientific research organization, IRSST, recently released a video intended to ensure the optimal use of backup alarms under realistic working conditions. Among the recommendations in the video are placing the backup alarm at the vehicle's rear, at a height of 3 to 6.5 feet above the ground and where it can easily be seen and heard by workers.

Other suggestions include setting the volume just above the level of ambient noise; limiting reversing speed to a maximum of 7.5 mph, allowing workers in the vicinity of the vehicle at least two seconds of reaction time; and using broadband alarms if several vehicles will be reversing at the same time, minimizing the

risks associated with poor ability to locate sound sources.

"The best way to prevent accidents involving reversing vehicles is still to limit reversing as much as possible and to control the number of pedestrians in the vehicle-reversing areas by implementing effective traffic plans," said Hugues Nélisse, Lead Study Author and IRSST Researcher. "Given that backup alarms are still a widely used means of warning people near vehicles that there's a hazard, we have to use them as effectively as possible to ensure safety." ■

Scan the QR code or go to <http://www.irsst.qc.ca/en/publications-tools/video/i/100389/n/backup-alarms-an-optimum-safety-to-watch-the-video>.



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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.

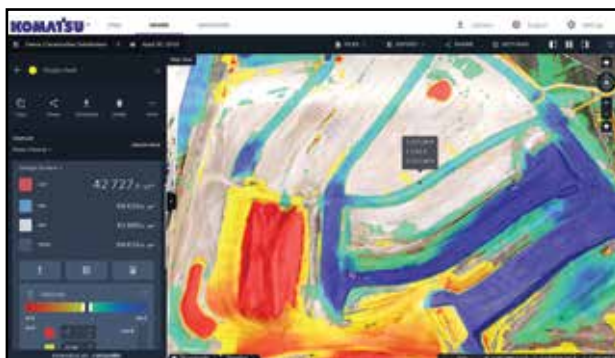
Powerful data at your fingertips

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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For additional information, please contact your local sales representative.



2017 KOMATSU D61PXi-24, Stock# E00045070
S/N B60232, 1,994 hrs.....Call



2006 KOMATSU WA80-5, Stock#E00044557
S/N H50109, 6,774 hrs.....\$28,500



2012 KOMATSU HM300-3, Stock#E00043437
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