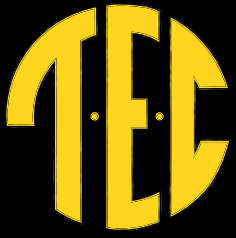


October 2021



Tractor Times



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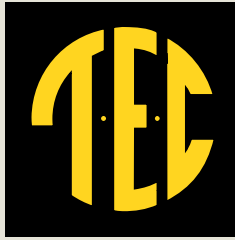
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A Message from the President



Chad Stracener

**Join us in
celebrating
Komatsu's 100th
anniversary**



Dear Valued Customer:

We could not be more proud of our association with Komatsu, which is celebrating its 100th anniversary. I believe you will find the article about Komatsu's rich history and how it is "creating value together" with distributors like us and customers like you to be an interesting read.

While there are still challenges ahead, the future looks much brighter than it did at this time last year. There are many positive economic indicators for the construction industry, including the prospects for a new surface transportation bill and a boost to overall infrastructure funding.

New legislation often includes funds set aside to study modern technologies and the potential positive effects they could have on efficiency and productivity. If you are in the construction industry, you already know that technology is making a significant difference in how site work will be done. For instance, GPS grading is helping contractors get to grade faster than ever with reduced owning and operating costs.

In this issue, learn more about Komatsu's latest addition to its intelligent Machine Control 2.0 lineup: D39i-24 dozers with integrated GPS. They can push a sizable load and finish grade like no other, in a package that can be easily transported between job sites on a small trailer.

GPS systems have come a long way since their introductions and have continued to gain popularity because they were proven to work. The last few years have seen the genesis of value-added technology, such as telematics, that not only helps with your earthwork practices, but also tracks machinery so you can see trends, production and more, which can improve your management skills.

Today, companies like Komatsu are taking these systems to the next level by giving you the ability to see how your machines are running and their overall health, view manuals, order parts, and much more from a computer, tablet or your smartphone. Inside, learn about My Komatsu and how it combines several legacy systems into one easy-to-navigate application that puts fleet management at your fingertips.

The last century saw Komatsu lead the way in equipment and technology innovation. We are looking forward to what it has in store for the future.

As always, if there is anything we can do for you, please call one of our branch locations.

Sincerely,

A handwritten signature in black ink that reads "Chad Stracener". The signature is stylized, with the first letters of the first and last names being larger and more prominent.

Chad Stracener
President



In this issue

Guntersville Marine Inc. pg. 4

Read about an Alabama-based facility that offers full-service fleet and switching for barges.

Guest Opinion pg. 9

Understand why contractors should address cost overruns and material shortages quickly, according to attorney Alex Barthet.

Be Productive pg. 11

Learn how to protect your business against cyberattacks and keep your valuable data safe.

Roots Run Deep pg. 14

Celebrate Komatsu's 100th anniversary by learning about its historical impact on the construction industry and future plans for improvement and innovation.

Project Notes pg. 18

Check out Komatsu's smallest intelligent Machine Control 2.0 dozer: the 105-horsepower D39i-24.

Project Points pg. 21

Take a look at Komatsu's new PC78US-11 compact excavator that provides high production when working in tight spaces.

Customer Success Story pg. 22

Find out how adding a Komatsu D61PXi intelligent Machine Control dozer improved James Julian Grading LLC's productivity.

Support Solution pg. 24

Discover how you can get more actionable data from your telematics system with My Komatsu.



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Guntersville Marine Inc. offers full-service dock operation that eliminates shrink for customers



Mike Lueken,
Owner and CEO



Jeff Lueken,
Vice President
of Operations



Lance Joyner,
Facility Manager

Lance Joyner's family has navigated the intercoastal and oceanic waters of the United States for four generations. Lance's great-grandfather was number four in command of a St. Louis ship. Lance's grandfather, Ed McReynolds, built a career piloting boats throughout America's waterways, and in 1986, helped establish Guntersville Marine Inc. in Guntersville, Ala. Lance's mother, Gwen Joyner, worked closely with Ed to grow the operation. She eventually introduced her husband, T.J., to the company, who became the facility manager in 2007. In 2019, Lance took over that position.

"In the late '70s, my mother was second in command over a granary in Arkansas. My grandfather ran boats for that granary and pushed barges off the White River down to the Mississippi River," recounted Lance. "In 1978, he took a job with Arrow Transportation repairing barges. He quickly recognized an opportunity to grow the business by switching from a traditional 9-to-5 schedule into a 24/7 fleet service. He also realized the company leased enough property to accept direct dump material, in addition to its boat repair services.

"The company broke its way into the industry handling logs for a wood flooring company," continued Lance. "When the company built offices on the dock in 1985, my grandfather hired my mom to help run operations. The

company also loaded coal onto the ships, which helped us establish a relationship with some of the major coal operations in the area.

"In the early '90s, my grandfather convinced Mike Lueken, who at the time owned the property that Arrow Transportation was leasing, to purchase Arrow Transportation and make it a public holding for Mike's company, Merchants Grain," added Lance. "That was the start of the transformation of Guntersville Marine into what it is today. Throughout the '90s, our customers would bring in one material for us to offload, and then we would clean, sweep and wash the barge to get it ready to ship something else back upriver."

Mike Lueken continues to serve as CEO of General Marine Services, the parent company of Guntersville Marine Inc., and his brother, Jeff, is the vice president of operations.

Barge to dock efficiency

The facility continues to offer full-service fleet and switching for barges, in addition to handling a wide range of aggregates and commodities. Typical products include lumber, corn, soybean, soybean meal, coal, salt and phosphate.

"We're located at a 'V' in the Tennessee River, which makes us a logistically sound location to

Guntersville Marine utilizes a Komatsu PC600 excavator equipped with a 12,000-pound bucket to handle a variety of material that arrives at its docks.





Guntersville Marine recently added a SENNEBOGEN 860 E Hybrid material handler to its fleet. "The SENNEBOGEN is a pivotal piece of equipment for us," said Lance Joyner, facility manager. "We were looking for a material-handling-specific machine, and when we realized TEC supported SENNEBOGEN, there was no other option. The machine gives the operator total control of the load at any point."

move material to Birmingham or the Huntsville/Decatur area (in Alabama)," noted Lance. "There are several large industrial entities in town that service some of the major exports of the area. Besides Alabama's coal and lumber industries, the surrounding counties have a large chicken kill and processing operation, which requires large amounts of chicken meal. We're able to help facilitate the movement of the chicken meal and its ingredients into the area. Outside of our typical products, we've handled everything from lava rocks to cookie dough."

Customers prefer Guntersville Marine because it efficiently moves material from barge to dock.

"We have less than .02% loss for customers," stated Lance. "That means our customers experience minimal shrink across our dock. If a customer comes in here with 1,628 tons on a barge, they're going to get at least 1,627 (tons) and a couple hundred pounds off of it. Your ability to control a load is what separates you from the competition in this industry. And when



you're able to talk hundreds of pounds, your chest pumps out a little."

SENNEBOGEN pivotal

Since the late '90s, Guntersville Marine has worked closely with Tractor & Equipment Company (TEC) to find the right machines for offloading products and dock maintenance.

"We used a 1966 model loader to handle large piles of coke and coal, until it broke down in 1998," recalled Lance. "TEC's sales representative Steve League had been calling on us and happened to come in the same day our loader broke down. He let us demo a Komatsu WA320, and that machine never left our facility. We've continued to work with him and TEC since that day."

Continued ...

SENNEBOGEN limits downtime, maximizes profits

... continued



Gwen Joyner,
Assistant Manager



T.J. Joyner,
Former Facility
Manager

Currently, the facility utilizes two Komatsu WA500 wheel loaders, two Komatsu WA200 wheel loaders, two Komatsu PC600 excavators and recently added a SENNEBOGEN 860 E Hybrid material handler.

"The SENNEBOGEN is a pivotal piece of equipment for us," said Lance. "We were looking for a material-handling-specific machine, and when we realized TEC supported SENNEBOGEN, there was no other option. The machine gives the operator total control of the load at any point. That's especially important when handling crossties that weigh up to 5,500 pounds. Instead of slinging the crossties beneath a bucket on a standard excavator, we're able to rotate the SENNEBOGEN's C-hook in any direction and control the load more precisely. We also purchased a bucket for added versatility to handle any type of material anywhere on the dock. The end goal is to attach a 7,200-pound magnet to the machine that will give us total freedom to maximize the machine's capabilities."

Ease of service for the SENNEBOGEN material handler also played an important role in Lance's decision to add the machine.

"In the port and material handling world, you're seeing more and more SENNEBOGENs transforming the coastline green," he stated. "People in the circles I run with prefer the SENNEBOGEN material handlers because they're reliable and easy to work on. The parts are readily available if something happens, and just about anybody can fix them. That's critical because it limits downtime and allows us to maximize our profits."

Increased storage

The added versatility of the SENNEBOGEN allows Guntersville Marine to handle a wider range of materials. It plans to continue expanding operations and growing the business.

"We're looking at operations where we can drop the bucket and pick something else up at the end of the jib," said Lance. "Recently, we expanded our dock and acquired a 5,000-square-foot facility for flat storage that's set up for distribution. The SENNEBOGEN sets us up well to handle any bulk and flat storage material that comes through the dock." ■

(L-R) TEC sales representative Steve League, Guntersville Marine Facility Manager Lance Joyner and SENNEBOGEN sales representative Ryan Zenor worked closely together to find the right SENNEBOGEN machine for a dock operation. Guntersville Marine has worked with TEC for its equipment needs since 1998.



HARD WORK NEVER RESTS

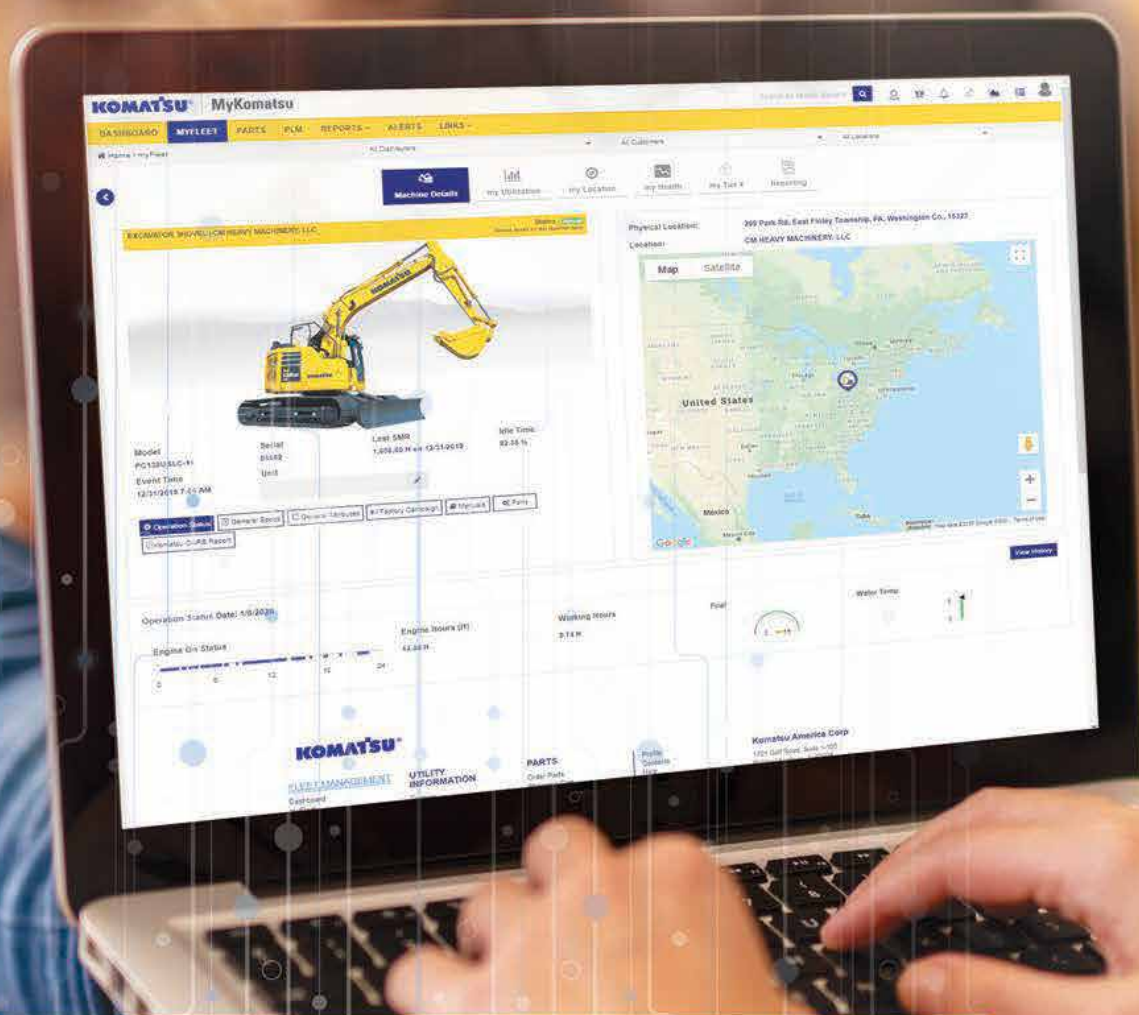


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Address cost overruns, material shortages as quickly as possible and seek equitable solutions

We've all noticed that the price of just about everything has gone up in the last year. If that isn't bad enough, obtaining many of the materials needed in construction has gotten very difficult. This combination of price escalation and material shortages is significantly disrupting a contractor's ability to properly price and timely build any project.

However, contractors are not without some remedy. They can attempt to address these issues either during the negotiation and bid process or once construction has commenced.

It is obviously easier to attend to such matters before a contract is actually signed. Look to strike any proposed language that has you absorbing the risk and exposure of any price escalation. Rather, seek to incorporate the right to adjust the pricing on the job, passing on any unexpected increases, maybe through a change order. Alert your suppliers, advising them you need guaranteed pricing for some extended period, and you need written notice significantly in advance of any anticipated increase in pricing or any delay in delivery. You might want to add a provision similar to the following:

"Where the delivery of materials is delayed or quantities are limited as a result of shortages, rationing or unavailability, subcontractor shall not be liable or responsible for any delays or damages caused thereby. When this occurs, subcontractor shall propose substitute or

alternate means of acquiring said materials and contractor and subcontractor shall negotiate an equitable price adjustment to their contract. When the costs of any material exceed 25% more than the documentable price originally quoted by the subcontractor, then subcontractor shall notice contractor in writing of such change and the parties shall come to a mutual agreement on a new price. This provision shall control over all other terms and conditions in this agreement and contract documents."

Existing contracts may be adjusted

If you've already entered a contract, it will surely be more difficult to address these issues. Depending on how the contract is written, an equitable adjustment in both time and price may still be achieved through the exercise of certain contract provisions, such as a Force Majeure clause, noting circumstances beyond your control entitle you to some modicum of relief. Pushed to honor your original pricing, you likely will be unable to complete the work — something neither the contractor nor the owner would want to see happen, as this will undoubtedly delay the progress of the project and cost them both more than the reasonable price increase you would be quoting. A good faith renegotiation should be attempted.

Be proactive — approach each ongoing and new job with these points in mind. ■



**Alex Barthet,
Attorney**

About the author: Attorney Alex Barthet (alex@barthet.com) serves as litigation counsel to many contractors and material suppliers. Board certified in construction law by the Florida Bar, he has been selected by his peers for inclusion in lists such as the Florida Super Lawyers within the specialty of construction law.

Editor's Note: This article originally appeared at TheLienZone.com.



Contractors should attempt to address the issues of higher prices and material shortages before contracts are signed and after, if possible, according to attorney Alex Barthet. "Seek to incorporate the right to adjust the pricing on the job, passing on any unexpected increases, maybe through a change order," Barthet said.

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Cyberattacks are on the rise, but there are ways to protect your valuable systems and data

Is your business vulnerable to a cyberattack? If you use the internet, it is.

Cyberattacks are attempts to access or damage a computer system. They come in various forms, but the most common are hacking and malware threats. Hacking can be done in several ways and involves criminals gaining unauthorized access to your systems, which allows them to view and change information. Malware (short for "malicious software") is "designed to cause damage to a single computer, server or computer network," according to Microsoft. It often "infects" a computer when a user clicks on an unknown link in an email that installs a virus, trojan horse or worm.

Once hackers gain access, they can wreak havoc. Currently, a popular method of attacking systems is through the use of ransomware that encrypts files. Payment is demanded

in exchange for the decryption key. The consequences can be significant, as highlighted by the recent \$5 million Colonial Pipeline paid in ransom to the hackers who shut down its pipeline. The ripple effects can spread far beyond the original victim, such as the gas shortages on the East Coast that resulted from the pipeline attack, or the shortage of meat after a similar cyberattack on JBS.

While it could be easy to dismiss these attacks because they happened to large corporations, experts say you shouldn't. Companies of all sizes are potential targets. Recent data shows that hackers attack a computer in the United States every 39 seconds, and one in four businesses face the risk of a security breach. A release by the Small Business Committee of the U.S. House of Representatives showed that 71% of cyberattacks occur at businesses with fewer than 100 employees.

Continued...

There are steps you can take to protect your business from cyberattacks. Among the most basic, easy-to-follow practices is keeping anti-virus software updated.



Easy-to-follow practices can protect your business

... continued

Stay up to date and back up data

The prospects of your business being hit with a data breach or ransomware are real. However, there are steps you can take to protect it from cyberattacks. Most are basic, easy-to-follow practices such as keeping anti-virus software updated.

"It's not clear yet which of Colonial Pipeline's systems were compromised by hackers. But many ransomware attacks in the past have been deployed against outdated operating systems and legacy applications that don't have the latest security patches and software updates in place," according to a CMIT Solutions article titled "Gas Shortages Highlight the Severity of Ransomware Threat." "Working with a trusted IT (information technology) provider, this process can be automated to run behind the scenes, keeping your computers safe without interrupting your employees' day-to-day work."

You need to be proactive, according to Murray Goldstein, vice president of marketing & sales operations at Cox Business, in the article "4 Ways Small Businesses Can Protect Themselves from Cyber Attacks." Doing so will help to protect your company against new threats and make sure your infrastructure is secure. Goldstein stated that precautions should include:

- Using a Firewall for your internet connection.
- Installing, using and regularly updating anti-malware, anti-virus and anti-spyware software on every computer in your business.
- Downloading and installing software updates as they become available.
- Securing your workplace Wi-Fi networks within the office and ensuring employees working outside the office are logged in with secure connections.
- Monitoring your systems continuously to detect potential problems.

In addition to staying up to date, it's essential to have data backed up. A recent article by Mark Rosanes for Insurance Business titled "Ten Ways to Protect Your Business from Cyberattacks" said that data backup is among the most cost-effective ways of making sure information is recovered in an event of a cyber incident or computer issues. Recommendations include using multiple backup methods, such as daily incremental backups to a portable device or cloud storage, as well as end-of-week, quarterly and yearly server backups.

Train your employees

Employees should be trained on how to handle information and on the best practices to prevent cyber risks. They should also know the warning signs of an attack and what to do in the event of one.

"Establish basic security practices and policies for employees, such as requiring strong passwords, and establish appropriate internet use guidelines that detail penalties for violating company cybersecurity policies," says the Federal Communications Commission (FCC). "Establish rules of behavior describing how to handle and protect customer information and other vital data."

If an attack occurs, you can limit the damage, according to the FCC. It recommends immediately changing passwords; scanning and cleaning devices; turning off the device and possibly taking it to a professional to scan and fix; letting the IT department know immediately; and contacting banks, credit card companies and other financial accounts.

"As cybersecurity threats evolve and the general public becomes more aware of ransomware's impact, businesses across North America can leverage this moment to better protect their information and operations," said CMIT Solutions. "However, that can only happen if we take ransomware more seriously." ■

Employees should be trained on how to handle information and on the best practices to prevent cyber risks. They should also know the warning signs of an attack and what to do in the event of one. "Establish rules of behavior describing how to handle and protect customer information and other vital data," said the Federal Communications Commission.




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Komatsu continues to shape the future of construction and mining operations as it celebrates its 100th anniversary



Discover more

One hundred years ago, Komatsu City, Japan, faced a potential crisis with the closure of a nearby copper mine that was a vital source of jobs. Meitaro Takeuchi, an entrepreneur dedicated to advancing educational opportunities and improving mine efficiency, knew there had to be a way to save the livelihoods of the community members who relied on the mine.

In 1917, he established Komatsu Iron Works, a machinery company for maintaining mining equipment. In 1921, Takeuchi and a group of investors founded Komatsu Ltd., which began producing cast steel products, providing new employment to those who had been dependent on the now-depleted mine. The first product, produced in 1924, was a one-cylinder sheet-forming machine.

While Komatsu continues to manufacture industrial presses, over the past 100 years it has expanded its portfolio of products to include forklifts as well as construction and mining equipment. The first machine Komatsu shipped outside of Japan was in 1955, when it sent a motor grader to Argentina. A Komatsu dozer

arrived in North America in 1964, marking the company's presence in that market.

Komatsu celebrated its official 100th anniversary on May 13, 2021. Throughout the next year, there will be a series of activities focused on the company's commitment to its new brand promise of "creating value together." That value will be created "through manufacturing and technology innovation to empower a sustainable future where people, businesses and our planet thrive together," according to Komatsu.

The company added that its core values include:

- **Ambition:** With a 'challenging spirit' and without fear of failure, we innovate and always aspire to do more.
- **Perseverance:** Even when the work is difficult, we remain committed to our promises and reliably carry them through to completion.
- **Collaboration:** Creating value comes from teamwork, inclusion, respect, diversity and a win-win approach to all relationships.
- **Authenticity:** To earn and maintain trust, we always act with sincerity, integrity and honesty, and communicate transparently.

Continual innovation

Back in 1902, prior to founding Komatsu Ltd., Takeuchi was already helping the community and mine employees by taking over operations at the copper mine. He funded projects to mechanize processes and teach new skills to the people. Takeuchi established schools, sent staff overseas to learn the latest techniques, and purchased machines to improve efficiency. He funded and supported a science and engineering department at a university in Tokyo, as well as a local industrial school to significantly advance educational opportunities and options in the rural areas near Komatsu City.

As Takeuchi and his team worked to grow operations, he remained true to his principles: quality first, technology innovation, globalization and the development of people.

"As we expanded around the world, we leveraged the strengths of global production while nurturing local leadership and creating

Continued ...

In 1970, the first Komatsu headquarters in North America was established in San Francisco. Subsequent headquarters were in Atlanta and the Chicago suburbs. The company is now based in the city of Chicago.

*Komatsu arrives in the U.S.A.
This machine is travelling the
streets of San Francisco*

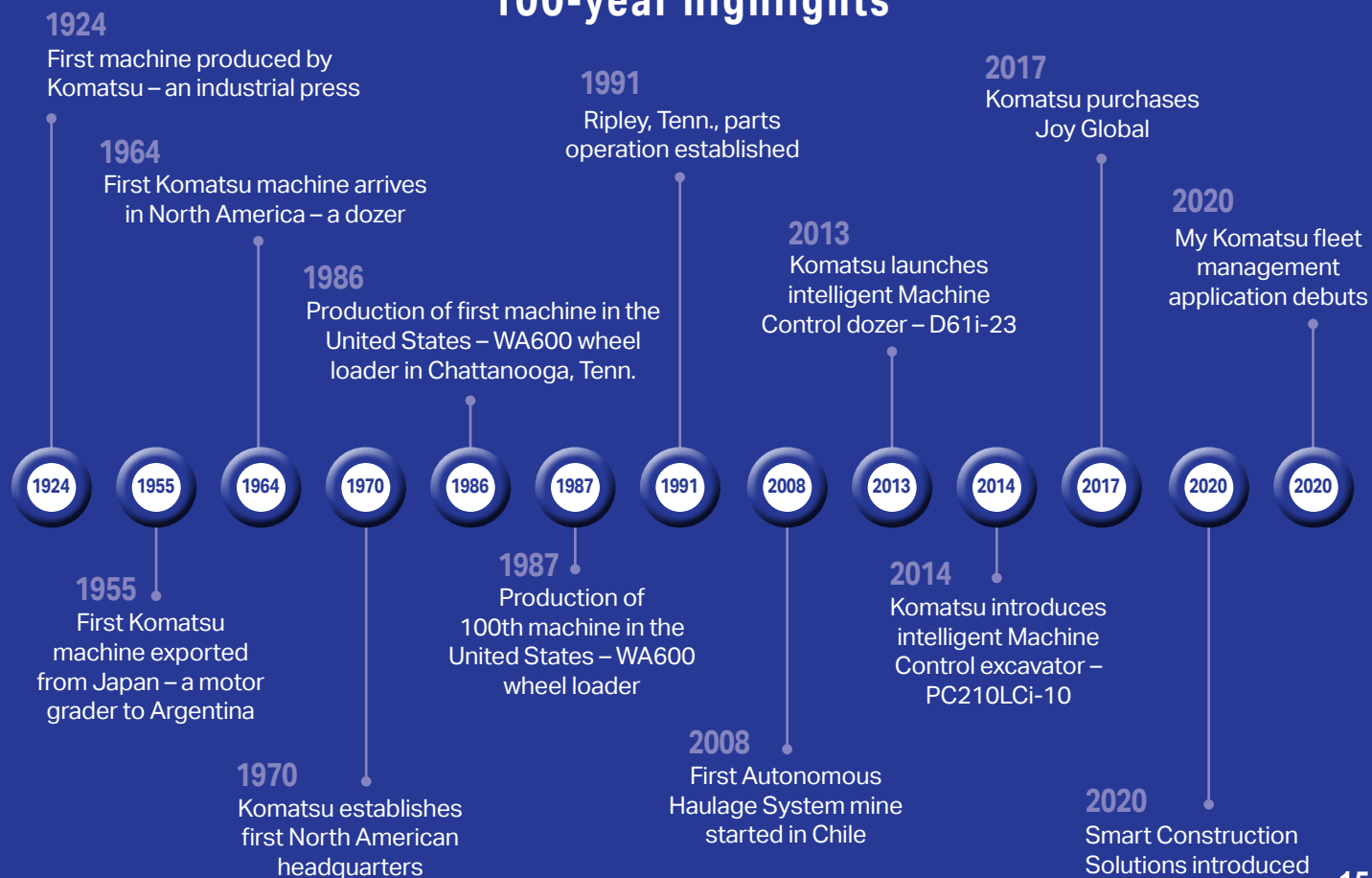




► VIDEO

Komatsu Ltd. was founded in 1921 by Meitaro Takeuchi and a group of investors. Takeuchi was an entrepreneur with a humanitarian vision committed to enhancing the quality of life, developing future generations and growing with society's needs.

100-year highlights



Takeuchi's innovative spirit

... continued

value for the customers we serve, investing in every community and supporting society where we worked. With each challenge faced, Komatsu teams pushed forward together, working to innovate, diversify into new markets and expand globally," Komatsu's origin story states.

Takeuchi's innovative spirit can still be seen today. Komatsu pioneered autonomous technology and has had driverless trucks in mines around the world since 2008, and by July 2020, over 3 billion metric tons had been hauled autonomously. It brought integrated GPS to dozers and excavators with intelligent Machine Control to help operators get to grade faster with less staking and without masts or cables. It introduced complimentary, scheduled maintenance and tools such as My Komatsu to provide more efficient fleet management. To help customers manage projects from preconstruction to project closeout, increase productivity and efficiency, and digitize the job site, Komatsu is rolling out its suite of Smart Construction solutions.

"In our next 100 years, Komatsu will focus on supporting the mining, construction, forestry, industrial machinery and agriculture industries in their transformations to the digital workplace of the future: equipment and people, connected through smart technologies on an open platform, driving towards zero harm, zero waste

and zero emissions. By helping to digitize job sites worldwide, our customers can optimize on-site operations towards a carbon-neutral environment," the company stated.

Long-term sustainability efforts

Takeuchi's vision and strong guiding principles stood the test of time. Through the years, Komatsu's continued investment in core capabilities and strategic acquisitions have connected smart, diverse people and cutting-edge technologies with a shared belief that partnerships are the best way to solve challenges and meet society's needs.

"Komatsu's philosophy is passed down from generation to generation through our principles, strategies, The Komatsu Way and the belief that Corporate Social Responsibility is part of our core business and the value we create," the company said. "In regions across the globe, Komatsu continues to provide products and solutions which address social needs and give back to communities where we do business by leveraging the skills and the passion of our people. We seek to play an active role in supporting the long-term success of society through sustainable efforts that reach far beyond Komatsu.

"From our founding city to the global community in which we operate today, we know we are stronger when we are creating value together." ■

Komatsu's collaboration with customers has led to innovative solutions, such as intelligent Machine Control and Smart Construction, that leverage the latest technology to digitize and optimize the job site.



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Small dozers with integrated technology give you the ability to run automatics from grass to grade



Jon Jennings,
Product Marketing
Manager, Komatsu

Small dozers have generally been considered finish grading machines. They are usually put on job sites to clean up or place the topsoil.

"House pads and sites where space is at a premium have mostly been the applications where you find dozers under 22,000 pounds," said Jon Jennings, product marketing manager, Komatsu. "They normally have not been viewed as 'grass to grade' or high production machines where you are doing everything from stripping to finishing."

Jennings said that view is evolving with today's technology.

"If you have a site that involves a large amount of dirt where thousands of yards have to be moved each day, larger dozers are still your best bet," explained Jennings. "However, smaller dozers equipped with GPS are gaining popularity on medium-sized projects. As the needs for staking and surveying are reduced, there is less need to stop and check grade, so operators can continue to push dirt and be more productive. The ability to do that with a smaller dozer that uses less fuel is a significant advantage."

It's even better when the technology is integrated because it further reduces owning and operating costs, according to Jennings.

"Not having to take down and put up masts and cables gives you more production time, and there is a reduced risk of injury," stated Jennings. "You also don't have those items getting damaged, so the expense of replacing them is eliminated."

Quick Specs

Model	Net Horsepower	Operating Weight	Blade Capacity
D39EXi-24	105 hp	21,848 lb	2.89 cu yd
D39PXi-24	105 hp	22,774 lb	2.89 cu yd

New technology, such as Proactive Dozing Control, combined with integrated intelligent Machine Control allows automatic grade control from rough cut to finish grade on a wide range of job sites. "The ability to use automatics from first pass to last, instead of just during finish grading, significantly reduces the time it takes to reach target elevation," said Jon Jennings, product marketing manager, Komatsu.



Learns as it works

Komatsu introduced factory-integrated intelligent Machine Control (iMC) GPS on dozers nearly a decade ago. It recently brought iMC 2.0 to market with added technology that enables operators at all skill levels to be even more effective at moving dirt productively and efficiently, according to Jennings.

Among Komatsu's iMC 2.0 dozers is the 105-horsepower D39i-24, the smallest in the lineup. Like its larger counterparts, it has the same new features, including Proactive Dozing Control that enables operators to cut/strip from existing terrain, regardless of their experience level. The dozer measures the terrain as it tracks over it and uses the data to plan the next pass — improving productivity by up to 60%, compared to previous models.

"The ability to use automatics from first pass to last, instead of just during finish grading, significantly reduces the time it takes to reach target elevation," said Jennings. "Proactive Dozing Control decides on the action — such as whether to cut and carry material, spread or fill that material, or whether it should finish grade."



New technology features combined with iMC 2.0 give operators of small dozers the ability to do more with one machine. "The D39i-24 offers greater versatility," said Jon Jennings, product marketing manager, Komatsu. "It can be the biggest machine a contractor needs, or it can be a scalpel on a larger job site. The possibilities are extensive."

Additional new technology features include:

- Lift layer control, which optimizes earthwork productivity with the press of a button. Time savings are realized because each layer is precise, reducing or eliminating the need for rework for over or under compaction.
- Tilt steering control that automatically tilts the blade to maintain straight travel during rough dozing and reduces operator steering input by up to 80%.
- Quick surface creation that lets operators create a temporary design surface with the press of a button. Combined with other iMC 2.0 functions, crews can begin stripping or spreading using automated input, while waiting for the finish grade model.
- iMC 2.0 models with dual antennas and added satellite systems to improve satellite coverage, which gives operators the ability to work in more challenging areas, such as near woods or on urban job sites.

"The D39i-24 offers greater versatility, and the new technology opens up a lot of possibilities for all types of businesses," said Jennings. "It can be the biggest machine a contractor needs, or it can be a scalpel on a larger job site. For instance, a small homebuilder could use it to level house pads, or a landscaper can build a pond or create a unique surface. A large site work company may backfill curbs or build a drainage ditch with it, while it utilizes a bigger dozer for mass cut/fill operations.

"The possibilities are extensive, and as an added bonus, its size allows for transport on a tag trailer behind a dump truck, so it would be a great tool for those just starting their own business, who want to be highly competitive and productive right away," Jennings added. "There are some additional upgrades as well, such as LED lights and Bluetooth. We encourage anyone looking for a small dozer with the ability to be more than a finish grading machine to contact their distributor for a demonstration or more information." ■



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Are you looking for an excavator that provides high production when working in tight quarters?

High production in confined spaces can be hard to achieve. An excavator with a large counterweight that could swing into an obstruction or a lane of traffic is not practical, nor is shoveling, which could potentially put you behind schedule.

"There are situations where hand digging is the only option, but in most instances, there is a tight tail swing or compact excavator that fits on the job site and allows you to get the production you need to stay on schedule and remain profitable," said Jonathan Tolomeo, product manager, Komatsu. "For that reason, they have become increasingly popular on sites where space is at a premium."

Tolomeo added that there are a large number of tight tail swing and compact excavators in the marketplace. Careful consideration should be given when choosing one.

"The right tool makes all the difference, because if you purchase or rent a machine that's too big, too small, doesn't dig deep enough or in any other way misses the mark, production suffers, and you will be more than disappointed," Tolomeo emphasized. "You should factor in what types of jobs you are doing the most, how often you will use the machine and what the transportation needs are, among other things. Demonstrations can be very helpful in ensuring you have the right fit."

Increased productivity and availability

For landscaping and small utility jobs — especially where lower ground pressure is a consideration — Tolomeo suggests a mid-sized compact excavator, such as Komatsu's new PC78US-11. It is an ultra short (US) tail excavator with a rounded cab design that allows it to swing within the same swing radius as the counterweight.

According to Tolomeo, the PC78US-11 features a new high-output engine that boosts production, improves efficiency and reduces noise, compared to the previous model it replaced. Leveling work speed, hoist swing, lift rate and hydraulic flow to attachments all increased. Hydraulic pressure and flow can be set from the cab, further increasing productivity.

Tolomeo added that you can also expand versatility with attachments such as hammers

and grapples. "The PC78US-11 has the standard two-way auxiliary hydraulic control and a dual-stage relief valve; simply add the optional thumb mounting bracket and you are ready to run practically any tool in the industry. That increases availability with additional applications, as well as potentially better profitability and return on investment."

Supplementary upgrades include an improved blade design that better rolls material for more efficient dozing and backfill work. Larger service doors and centralized ground-level access to filters located within a common area reduces service downtime.

"The PC78US-11 has a long list of enhancements, improvements and upgrades. You can haul it behind a dump truck or large pickup with a tag trailer for easy transport," Tolomeo pointed out. "We encourage anyone who is looking for a productive compact excavator that increases versatility to contact their distributor for a demonstration." ■



Jonathan Tolomeo,
Product Manager,
Komatsu

Quick Specs

Model	Net Horsepower	Operating Weight	Bucket Capacity
PC78US-11	67.9 hp	17,439-17,813 lb	.11-.26 cu yd

The new PC78US-11 has a rounded cab design that allows it to swing within the same swing radius as the counterweight. It features a new high-output engine that boosts production, improves efficiency and reduces noise, compared to the previous model.



Dozer with intelligent Machine Control allows James Julian Grading LLC to 'get on the machine and go straight to cut'



James Julian,
Owner



Discover more at
TECTractorTimes.com

James Julian has nearly five decades of experience in the heavy equipment industry. He spent his early career as a truck driver before starting his own contracting business. His love of working with soil initially drew him to the industry and keeps him involved to this day.

"My dad and I were farmers, and I grew up loving the smell of dirt," recalled Julian. "I bought my first tractor while working for a trucking company, just to play with it. It was an old machine at the time, but I enjoyed being in the open air."

After starting a clearing business with his brother in the early 1970s, and another trucking company about a decade later, he founded James Julian Grading LLC. The small company primarily focuses on residential projects but has completed a wide range of work. The firm provides turnkey operations and will partner with other contractors to complete jobs.

'Completely changed the way I grade'

"Historically, we always moved soil with scrapers, which were ideal for large, flat job sites," said Julian. "We recently transitioned to using GPS dozers, which have exceeded my expectations. The GPS technology has changed how we move dirt and improved our efficiency."

Included among James Julian Grading's fleet is a Komatsu D61PXi-24 intelligent Machine Control (iMC) dozer with factory-integrated GPS. "With the D61i, I know exactly where I'm at as I go," said Julian. "It allows me to work as I see fit. It's completely changed the way I grade a project."

"At first, I didn't believe it was possible to grade without stakes," Julian added. "By the second day of running the D61i dozer, I was comfortable with the GPS technology and really saw the difference it could make. I'm able to get on the machine and go straight to cut instead of worrying about stakes. When I'm moving dirt, I can push it where it needs to go instead of piling it up and then transferring it back. Our productivity and efficiency have greatly improved since adding the dozer."

The D61PXi-24 is the initial iMC machine for James Julian Grading, but not its first piece of Komatsu equipment. The company has run Komatsu since the early 1990s.

"I enjoy Komatsu equipment because it has stood up over time and is backed by great support," stated Julian. ■

Owner James Julian utilizes a Komatsu D61PXi-24 dozer with intelligent Machine Control technology to cut to grade without using stakes. "I really saw the difference it could make," said Julian. "When I'm moving dirt, I can push it where it needs to go instead of piling it up and then transferring it back. Our productivity and efficiency have greatly improved since adding the dozer."





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Want more actionable data from your telematics system? My Komatsu updates improve fleet management



Rizwan Mirza,
Manager, Telematics,
Digital Support
Solutions for
Komatsu



Michael Carranza,
Manager,
Digital Support
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Next to your staff, nothing is more important than the health of the machinery you rely on to run your business. Fleet management is essential in maintaining peak performance during its lifetime.

"If you are not tracking critical data, there's a chance you are missing something that will eventually lead to a catastrophic failure, or is driving up your owning and operating costs," said Rizwan Mirza, manager, telematics, digital support solutions for Komatsu. "In the past, getting that information was a challenge. You likely had to drive to job sites and physically check the machines or wait for on-site personnel for information. If you wanted parts, that involved additional phone calls or trips, which took a lot of valuable time."

Mirza pointed out that during the past few years fleet management has become simpler and more convenient.

"Telematics really changed the game," commented Michael Carranza, manager, digital support solutions for Komatsu. "You can now log onto a desktop computer or mobile device to track hours and location, check idle time and error codes, order parts, and more with a few clicks or swipes. Many offer health reports and

equipment manuals. Telematics have increased fleet management efficiency tremendously."

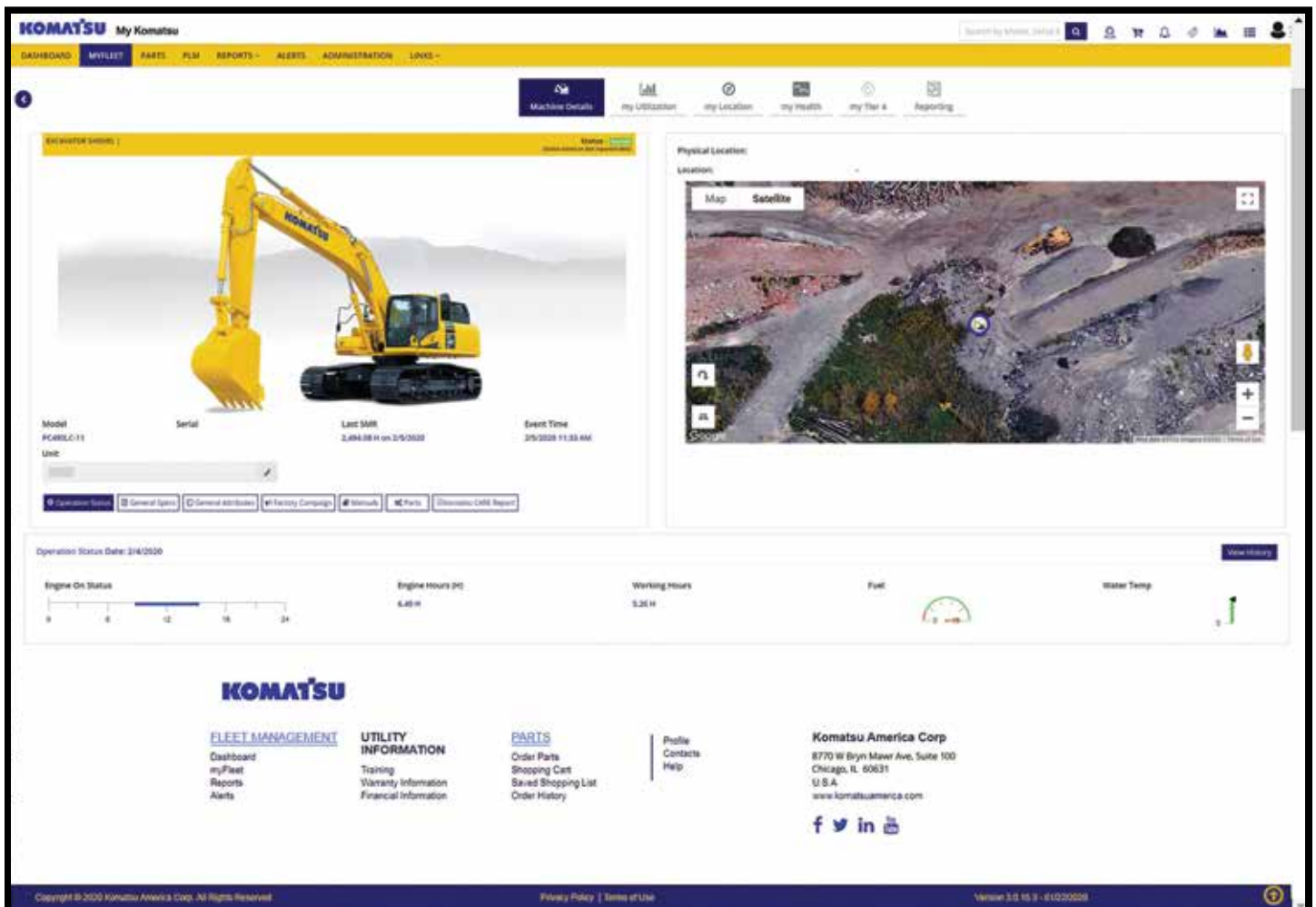
Carranza added that a single source that gives you the ability to access and manage your machines' telematics data, software, parts and service manuals — as well as order parts — is a significant advantage. "It's more efficient, saves time and ultimately reduces downtime," said Carranza.

Komatsu offers that single source of support with its My Komatsu web-based solution for fleet management and e-commerce that integrates 20 legacy systems. According to Mirza, it allows you to mine actionable intelligence designed to help you run your business more effectively — 24 hours a day, seven days a week.

"Developed with extensive customer research and user feedback, My Komatsu is a centralized, user-focused content hub created to help you harness the power of technology," said Mirza. "It uses telematics data to recommend solutions based on your needs and actual usage. You can be confident that data is accurate and reliable. You can get insights that help keep owning and operating costs low, order parts and Smart Construction solutions quickly and easily, and much more."

The My Komatsu mobile app gives you on-the-go fleet management capabilities, such as an optimized view of how equipment is being used and machine health. You can also order parts and have them delivered to the job site; set alerts to be notified of order status, excessive engine hours, idle time and fuel consumption; see factory campaigns; and much more.





My Komatsu provides a wealth of data for improved fleet management. “My Komatsu is a centralized, user-focused content hub created to help you harness the power of technology,” said Rizwan Mirza, manager, telematics, digital support solutions for Komatsu. “It uses telematics data to recommend solutions based on your needs and actual usage. You can be confident that data is accurate and reliable. You can get insights that help keep owning and operating costs low.”

Additional data available through My Komatsu includes Komatsu Oil and Wear Analysis (KOWA) information, recommended parts, parts promotions, abnormality and fault tree analysis, open factory campaigns, maintenance quick stats, video tutorials, and telemetry data for intelligent Machine Control dozers and excavators.

New mobile app for greater convenience

In its earliest days, telematics information was accessed through web-based platforms, and fleet managers used computers at their home or office. Today’s telematics are mobile with apps for smartphones and tablets.

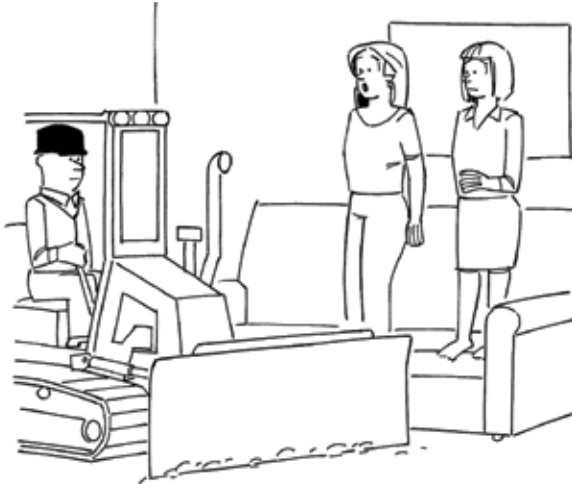
“Mobile apps such as our new My Komatsu have many of the same features as our web-based solution — the ability to see key metrics used to drive fleet management decisions, for example,” said Carranza. “The My Komatsu app has some unique differentiators, including offline capabilities and driving directions that take you to a registered machine that you may need to visit. It has an optimized view and an online parts ordering experience for mobile devices.”

Mirza added that mobile apps provide true on-the-go fleet management capabilities.

“It’s designed to help maximize the value of your equipment by letting you remotely manage from anywhere,” said Mirza. “With the My Komatsu mobile app you can view how equipment is being used and machine health; look up and order parts and have them delivered to the job site; set alerts to be notified of order status, excessive engine hours, idle time and fuel consumption; see factory campaigns; and much more.

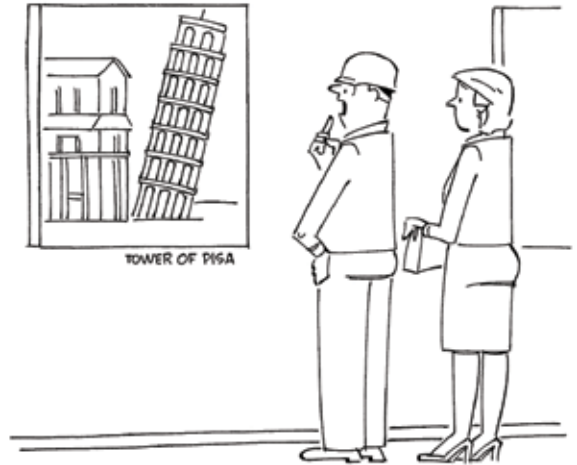
“We encourage anyone who has machinery to use telematics for improved fleet management and to download the My Komatsu mobile app to track your Komatsu equipment,” he added. “It’s available for Android on Google Play and through the App Store for Apple devices. If you already have a My Komatsu web-based account, the mobile app can be linked to it. If not, your Komatsu dealer will be glad to help you set up an account after you download the app.” ■

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Brain Teasers

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

1. LEPI _ _ _ _ _
2. RIDT _ _ _ _ _
3. KRCUT _ _ _ _ _
4. ULEF _ _ _ _ _
5. DROLAE _ _ _ _ _



Discover more at
TECTractorTimes.com

Did you know?

- If you sampled Earth's crust, you'd find that 47% of it is oxygen.
- It's illegal to own just one guinea pig in Switzerland because they are social animals that prefer the companionship of another guinea pig.
- "Strengths" is the longest word in the English language with one vowel.
- Bubble wrap was originally invented as wallpaper.
- The top speed of the winning car in the first U.S. race in 1895 was 7 mph.
- Antarctica is covered in a sheet of ice that's 7,000 feet thick.
- The average U.S. household has 300,000 things in it.
- Beyoncé is the most awarded female artist in Grammys history with 28 awards.
- The 1939 novel Gadsby is the longest book ever published that doesn't contain the letter 'e.'
- The deepest canyon in the world is not the Grand Canyon. Tibet's Yarlung Tsangpo is more than 2 miles deeper and drops 17,567 feet.

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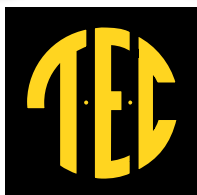


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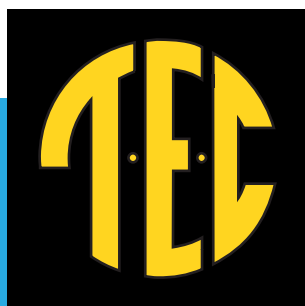
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Intelligent Machine Control technology helps Nicol & Sons complete projects in less time with significant costs savings

In 1972, Stuart Nicol and his two sons, John and Jerry, founded Nicol & Sons Inc. As a small, family-owned operation, John later gave his two sons, Jason and Joel, opportunities to be involved with the company from a young age.

"Dad always had something for us to do, whether it was working or cleaning the shop and the pickup," recalled Joel. "In the summer we did a lot of ditch work and seeding. Occasionally, he let us run the machines. My brother and I built a passion for the company and the construction industry growing up in that environment."

After graduating from college, Jason and Joel returned to work for Nicol & Sons full time. Joel is vice president and foreman, and Jason is vice president and superintendent. Since joining the firm, they have expanded the types of projects it takes on.

"When my dad and grandfather started the company, they focused on county drain work," noted Jason. "We excelled at those types of jobs through the late '90s. Eventually, my brother and I transitioned toward street projects, site work and some precast bridgework."

'A difference maker'

The Nicols said that introducing Komatsu intelligent Machine Control (iMC) equipment

with factory-integrated GPS technology has increased Nicol & Sons' productivity. Its fleet includes a PC360LCi-11 excavator.

"With the iMC machines we're able to accomplish the same amount of work as a company with 20 employees," said Jason, noting that currently it has a staff of 12. "Jobs that would have taken five or six days to complete now only take us two. Although we're a smaller company, this equipment allows us to take on more challenging projects."

Recently, Nicol & Sons completed a large site work project for a local school. While completing the subgrade work, the company faced several challenges.

"Due to the size of the football field, we had to dig elaborate foundations," said Jason. "The GPS technology on the PC360LCi-11 shined when digging those, because we were able to complete everything in two days using only one operator and three dump trucks."

"When we finished, we were on grade and saw huge time and costs savings," he continued. "We wouldn't have been able to complete this type of project the old way using stakes and lasers. The iMC technology is a difference maker." ■



**Joel Nicol,
Vice President
and Foreman**



**Jason Nicol,
Vice President and
Superintendent**



Discover more at
TECTractorTimes.com



A Nicol & Sons operator cuts a ditch using a Komatsu PC360LCi-11 excavator. At a recent job site, the firm used the excavator to dig foundations to grade. "The GPS technology on the PC360LCi-11 shined when digging those, because we were able to complete everything in two days using only one operator and three dump trucks," said Vice President and Superintendent Jason Nicol.

Construction teams can visualize the status of their job sites in one snapshot with Smart Construction Dashboard

To better manage their businesses, construction operations teams need a go-to solution to visualize the status of their job sites. With Komatsu's Smart Construction Dashboard, they can.

Built to support the digital transformation of customers' work sites, Komatsu's suite of Smart Construction solutions leverages the power of the Internet of Things (IoT) to help customers orchestrate construction planning, with the aim to better handle management and scheduling, streamline costs, and optimize processes remotely — in near real time.

Smart Construction Dashboard is designed to be used daily and combines data from multiple sources into one comprehensive picture. It provides contractors with 3D graphic visualization of all design, drone and machine data to measure cuts/fills, quantities and productivity. Site progress can be viewed with timeline functions (including playback) in terms of whole-site visuals, cross-sections and individual measurements.

With Smart Construction Dashboard you can:

- Confirm a pre-bid topographical map is correct.

- Track job site progress in near real time.
- Document site conditions as evidence for change orders.
- Quickly and easily measure stockpile quantities.

"What is really cool is that the flight surface data from our drone is loaded to the Smart Construction Dashboard, and we can very quickly see changes — the actual progress," said Andie Rodenkirch, project manager for Hunzinger Construction Company. The firm is using the Smart Construction Dashboard as it builds Komatsu Mining Corp.'s new headquarters in Milwaukee. "Technologies that let operators do the job one time — and do it correctly — increase efficiency, so it's been a great tool for us."

Smart Construction Dashboard is powered by the 3D visualization power and geospatial accuracy of Cesium, a leading platform to visualize, analyze and share 3D data. Cesium's 3D visualization engine combines video game computer graphics technology with accuracy that ties data to its precise location on the globe. ■

You can learn more about Komatsu's suite of Smart Construction solutions at <https://www.komatsuamerica.com/smart-construction/solutions>.

Komatsu's new Smart Construction Dashboard is designed to be used daily and combines data from multiple sources into one comprehensive picture. It provides contractors with 3D graphic visualization of all design, drone and machine data to measure cuts/fills, quantities and productivity. Site progress can be viewed with timeline functions (including playback) in terms of whole-site visuals, cross-sections and individual measurements.





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