September 2021

KOMATSU

DOWN to EARTH



Aggregate Industries

The North Central Region operates up to 20 ready-mix concrete plants and supplies materials to customers



Demo Days Event showcases construction careers

> Justin Flack, General Manager, North Central Region

A Message from General Equipment



Jon Shilling

Improve efficiency with new technology



Dear Valued Customer:

Life seems to be slowly returning to normal. While there are still challenges ahead, the future looks much brighter than it did at this time last year. There is an improved outlook 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 new D71-24 base and intelligent Machine Control (iMC) 2.0 D71i-24 dozers. Previewed at CONEXPO last year, they were introduced to rave reviews. As one Komatsu product manager said, "They are equally adept at precise, high-speed grading and rough dozing."

Komatsu's latest addition to its iMC 2.0 lineup — D39i-24 dozers with integrated GPS — 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.

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

Sincerely,

JI v. Sett

Jon Shilling, President & CEO

DOWN to **EARTH**

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Sales

Jon Christianson Cell: 701-770-1360

Aaron Brothen Southwest ND/ Northwest SD Cell: 701-541-3316

Ryan Hokenson Northwest ND Cell: 701-818-0328

Ryan Muehler Southeast ND Cell: 701-866-3273

Wayne Slinger Northeast ND/ Northwest MN Cell: 701-541-0516

Aaron Van Der Stoep Central SD Cell: 605-681-4112

Travis Brothen West Central MN Cell: 701-866-8662 Kris Akervik Northeast MN Cell: 612-710-7645

Jake Potter Southwest MN Cell: 612-599-3900

Chris Woodwick Southeast MN Cell: 612-968-5179

Dean Stalheim Eastern SD/ Western MN Cell: 605-351-1867

Ed Branquinho Iowa Cell: 319-432-9507

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Cell: 515-802-5048

West Central MN

PSSRs

Alex Klein Mining Cell: 701-220-9123

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Theron Lutz Southwest ND/ Northwest SD Cell: 701-412-5558

Dino Dautcehajic Western SD Cell: 605-336-9000

Aaron Van Der Stoep Central SD Cell: 605-681-4112

Mark Capouch Northeast MN Cell: 612-963-0342

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From driveways to highways, Aggregate Industries offers quality-controlled sand, gravel and concrete solutions



Justin Flack, General Manager, North Central Region

If you need a specific sand or gravel product, odds are Aggregate Industries can provide it. The company's North Central Region, based out of Moorhead, Minn., has a long history of supplying sand and gravel aggregates and concrete to its customers in eastern North Dakota and west central Minnesota.

"Our North Central Region is comprised of an aggregate division and a ready-mix division," said Justin Flack, general manager for the North Central Region. "We operate up to 20 ready-mix concrete plants, in addition to several washing and crushing sand and gravel spreads. At full capacity, our operation has up to 200 employees."

Seasonal changes present several unique challenges for the company.

"Because we're a seasonal business, our year is broken into different segments," explained Flack. "Coming out of winter, we're focused on collecting work and getting our equipment in place before operating through the summer months and delivering to our customers. As the weather changes, we start to wind down our operations and plan for the coming year. Part of that includes identifying reserves that we can access when the ground thaws.

"You're always chasing the reserves through changing geological conditions, which presents a separate set of challenges," continued Flack. "It's not like producing widgets in a factory. You're pulling natural materials out of the earth and turning them into specified finished products. On the concrete side of the business, you're dealing with a perishable product that has to be mixed correctly and delivered to customers in a set time frame to create the desired finished product. While there are a lot of challenges to overcome, our preparation and ultimately our skilled employees allow us to create consistent materials."







An operator uses a Komatsu WA500 wheel loader to move aggregate material around the quarry. Aggregate Industries added the WA500 to its fleet due to the great service it receives from General Equipment & Supplies Inc.

Aggregate Industries participates in the residential, commercial, agricultural and governmental sectors.

"One of the areas where we differentiate ourselves and take a lot of pride in is our quality control," stated Flack. "We heavily invest in our registered engineers and technicians to test our products hourly. That mentality allows us to partner with the Army Corps of Engineers and other highly-regulated sectors."

Whatever comes its way

If you're looking for material that Aggregate Industries offers, there's no project too big or small.

"We range from delivering a couple yards of concrete or gravel for a backyard patio to delivering aggregates and concrete to interstate paving jobs, or the FM Diversion structures," explained Flack. "We're able to touch all sectors and be an active part in growing the local and surrounding communities. That diversity of projects also helps us balance out economic fluctuations for demand in different sectors." Aggregate Industries products include base and fill material, recycled materials, and washed concrete aggregates.

"We're focused on sand and gravel aggregate materials because rocks such as granite and limestone are not located in this part of the country," noted Flack. "We also recycle a lot of concrete. There are many environmental benefits to the process of recycling concrete, and it creates a circular economy of reusing a product that would previously have taken up space in a landfill. Recycling material also means we're pulling fewer resources out of the earth and reducing the industry's environmental impact."

General Equipment invaluable resource

Aggregate Industries works closely with General Equipment & Supplies Inc. to keep its aggregate operations running smoothly.

"Aggregate Industries and General Equipment's relationship extends beyond the 12 years I've been with the company," said Flack. "Historically, we've used crushers, screens, stackers and conveyors from General Equipment. A key reason

General Equipment 'helps maximize our uptime'

... continued

for our relationship is the support behind the equipment. They have a strong service department that helps maximize our uptime. In the last year, we added three Komatsu wheel loaders because of the support we've received on our aggregate mining equipment. It was the natural next step."

Aggregate Industries' operators use the machines to move sand and gravel around job sites and load trucks. Beyond supporting its equipment, General Equipment's team helps optimize Aggregate Industries' job sites.

"We are in constant pursuit of operational excellence, which has many fronts to it," noted Flack. "Those include quality products, optimized product split, production increase, and higher efficiencies and uptime. To do that, the plants and equipment need to be optimized. With ever-changing gravel conditions, it's an ongoing process. Countless times we walk out of a meeting and one of the action items is to call General Equipment and get their input on how to tackle a given scenario."

Future outlook

Flack will continue balancing Aggregate Industries' short-term needs, midterm plan and long-term goals — a strategy he believes is one of the keys to success in the construction industry. He also plans to keep expanding the company.

"There's a strong market up here," said Flack. "It's a bit unique and somewhat isolated from the U.S. economy, meaning our ups and downs may not be as exaggerated. We see lots of room to continue growing and look forward to remaining a key player in the heavy building and construction materials market for this area."

At one of Aggregate Industries' quarries, an operator removes material from a shelf with a Komatsu WA500 wheel loader.



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Demo Days event drums up interest for construction industry careers



Ann Pollert, Director of Workforce Development at General Equipment & Supplies Inc.



Discover more at GeneralDowntoEarth.com

Fargo, N.D., high school students, college students and residents had the opportunity to operate a wide range of equipment and learn about the construction industry during the Construction Leadership Council (CLC) of North Dakota's first annual Demo Days. The event was hosted by General Equipment & Supplies Inc.

"We wanted to educate our attendees about the great opportunities available in North Dakota and throughout the Midwest in both the diesel technician and construction industries," noted Ann Pollert, director of workforce development at General Equipment. "There's a huge demand for skilled labor, and we want to fill it with great people from our community."

Hosted at General Equipment's demo site south of Fargo, attendees could operate dozers, excavators, wheel loaders and a crane. Professionals from General Equipment and local construction companies were on-site to teach and answer questions.

Brittany Diederich, director of finance and administration and 15% owner of Industrial Builders, commented on the desire for more diversity in the industry. "It's a great industry for everyone, including women," emphasized Diederich. "The old school view that construction is only for brawny men is one that we're trying to change. I'd love to have so many more women in the industry and alter that inaccurate perception. Through events like Demo Days, we're able to showcase how individuals from across the spectrum can thrive in the industry."

Potential careers include operator, technician, project manager, superintendent, surveyor, drone operator and more. General Equipment Aggregate Business Development Manager and CLC member Micah Tysver believes it is





Attendees operate equipment at CLC's Demo Days event in Fargo, N.D. "The high school kids all got to take their time and experience the equipment in-depth, pick the brains of the operators, and really have a good experience," said Brittany Diederich, director of finance administration and 15% owner of Industrial Builders.

important to expose younger generations to a range of careers to show them what is possible and let them gain new experiences.

"We want people to walk away from here excited about the construction industry," said Tysver. "The older generation of operators and mechanics are retiring, and not a lot of younger people are coming in to fill those

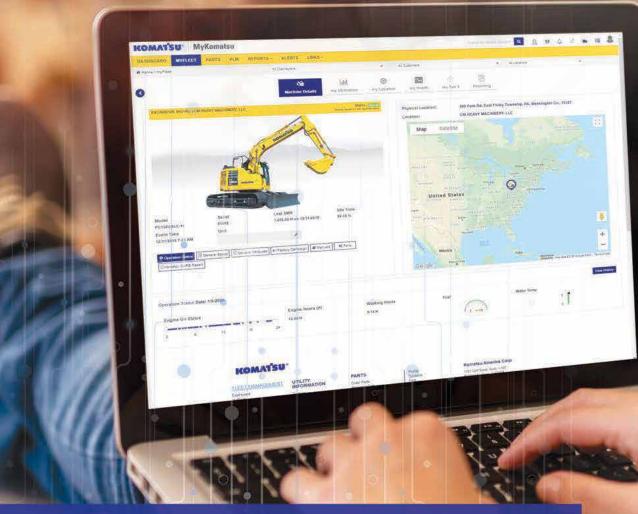
positions. General Equipment and the CLC have a mutual interest to showcase the fun, unique and challenging aspects of the construction industry to the younger generations; that starts with getting high schoolers and other kids out to events like Demo Days. We're setting the stage to increase interest and highlight why the construction industry is an excellent career path for everyone."

Industrial Builders and CLC Member



Micah Tysver, Aggregate Business **Development Manager** at General Equipment & Supplies Inc. and **CLC Member**





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New iMC 2.0 excavator delivers greater accuracy, comfort and versatility for increased productivity

What if you could dig basements, footings or utility trenches without worrying about overexcavating? How about using the same machine to accurately excavate slopes and finish grade ponds with limited movement? What if you could do it all with little or no need for a finish dozer, stakes or surveying?

According to Komatsu Senior Product Manager Andrew Earing, Komatsu's new intelligent Machine Control (iMC) 2.0 PC210LCi-11 excavator with integrated GPS lets you do all of those tasks and more. Earing noted that testing showed the latest-generation machine improves production by up to 33% and efficiency as much as 63% compared to conventional excavation and grading methods.

"The new iMC 2.0 PC210LCi-11 has added additional satellite systems improving satellite coverage and ability to work in more challenging areas such as near woods or on urban job sites," said Earing.

Bucket angle hold, new monitor

With iMC 2.0 comes bucket angle hold. When activated, it automatically holds the bucket to the design surface during arm-in operation.

"It's less fatiguing for operators, which makes them more productive throughout a shift," said Earing. "It also produces a better finish-grade surface, so there are multiple benefits."

Additional new features include a smaller, slimmer 10.4-inch monitor with more memory and faster processing speed. It has pinch-to-zoom and swipe functionality similar to a smartphone or tablet.

"Customers told us they wanted a more streamlined monitor," said Earing. "This is intuitive and easier to use, so there's decreased downtime navigating through it and more time producing."

Options up versatility

Earing added that users can boost efficiency further with optional features such as automatic tilt bucket control. Using an add-on inertial measuring unit, it allows machine control to manage the angle movement of a tilt bucket to dig and grade surfaces that are not perpendicular to the machine. Users provide their choice of bucket.

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Continued . . .



Andrew Earing, Komatsu Senior Product Manager

A new feature of the latest-generation PC210LCi-11 intelligent Machine Control 2.0 excavator includes bucket angle hold. When activated, it automatically holds the bucket to the design surface during arm-in operation. "It's less fatiguing for operators, which makes them more productive throughout a shift," said Komatsu Senior Product Manager Andrew Earing. "It also produces a better finish-grade surface, so there are multiple benefits."

'Useful on projects with varying contours'

... continued

"While excavating a deep trench, you can slope the sides back without moving the excavator," explained Earing. "It's also useful on projects with varying contours, such as swales and ponds. Operators can sit in a fixed position and shape those transitions. Less movement saves time and wear and tear on the machine and the operator. We believe most contractors will want to take advantage of this.

"Another feature is optional pressure and flow control for plus-one piping," he continued. "This lets you fine-tune hydraulic pressure and flow on attachments such as hammers, vibratory compactors, processors and more for improved control and versatility."

Semi-automatic functions

The iMC 2.0 PC210LCi-11 maintains the main functions of the first-generation iMC excavators, including the ability to switch from manual to semi-automatic modes.

Among a host of standout features 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.

Productivity and efficiency features include:

In semi-automatic mode the boom adjusts the bucket height to trace the target surface and minimizes the chance of digging too deep.

Auto stop control halts the working equipment when the bucket edge reaches the design surface to reduce design surface damage.

Minimum distance control regulates the bucket by automatically selecting the point on the bucket closest to the target surface.

The facing angle compass shows the operator the facing angle in relation to the target surface, allowing the bucket edge to be accurately positioned square to the target surface.

"Existing and new technology in the iMC 2.0 excavators has proven to increase production and efficiency while reducing costs," said Earing. "We encourage anyone looking for those attributes to contact their distributor and test one for themselves." ■

The new intelligent Machine Control (iMC) 2.0 PC210LCi-11 maintains the semi-automatic features of the first-generation iMC excavators, including auto stop control, minimum distance control and a facing angle compass to limit overexcavation.

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Do bigger jobs always require larger or multiple machines? What if you could get the same amount of work done with a mid-sized dozer that allows you to push large loads while also giving you the ability to get to finish grade? How much savings in time, owning and operating costs would that give you?

"These are considerations you should take into account when approaching every project," said Jon Jennings, Komatsu Product Marketing Manager. "Choosing the right machinery makes a significant difference in production, efficiency and profitability. A single dozer that can push, side cut, finish and work in soft ground gives you a real advantage."

Jennings added that technology such as GPS systems can make the dozer and the operator even more effective at moving dirt productively and efficiently. These systems decrease the time it takes to get to grade, which reduces staking and surveying costs, and virtually eliminate overcutting and the need for expensive fill.

"GPS systems and additional technologies continue to reduce owning and operating costs," stated Jennings. "They are also helping new operators become productive faster. With a shortage of skilled operators, that's a tremendous help."

Manufacturers such as Komatsu are factoring in all of these needs as they design and build new machines, according to Jennings. Komatsu introduced its first intelligent Machine Control (iMC) dozer with factory-integrated GPS about eight years ago and has developed several new models with additional technology since. This includes their new iMC 2.0 models with 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.

New technology features

The newest iMC 2.0 D71EXi-24, D71PXi-24 and D71PXi-24 Wide dozers combine several features designed to further increase production. Among them are:

 Lift layer control that optimizes earthwork productivity with the press of a button. It maintains compaction quality by automatically controlling lifts to the desired height. Excess fill is eliminated as automatic blade control follows the finished surface once lifts have reached finished grade.



Continued . . .

Quick Specs				
Model	Net horsepower	Operating weight	Blade capacity*	
D71EX-24	237 hp	49,824 lb	5.8 cu yd	
D71PX-24	237 hp	50,927 lb	6.1 cu yd	
D71 PX-24 Wide	237 hp	52,690 lb	6.6 cu yd	
D71EXi-24	237 hp	50,045 lb	5.8 cu yd	
D71PXi-24	237 hp	51,147 lb	6.1 cu yd	
D71PXi-24 Wide	237 hp	52,911 lb	6.6 cu yd	
	* Power ang	le tilt blade		

The new D71i-24 intelligent Machine Control 2.0 dozers feature the super-slant nose design that offers outstanding visibility to the cutting edges. "Seeing the front of the machine with reduced blind spots increases awareness of the job site," said Jon Jennings, Komatsu Product Marketing Manager.

Patent-pending Proactive Dozing Control logic

... continued

- Tilt steering control automatically tilts the blade to maintain straight travel during rough dozing and reduces operator steering input by up to 80%.
- Quick surface creation 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.

"The D71i-24s also have our patent-pending Proactive Dozing Control logic that enables even less-experienced operators to cut/ strip automatically from existing terrain," said Jennings. "The dozer measures the terrain while tracking over it and uses that data to plan the next pass, improving productivity by up to 60% compared to previous-generation 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. Proactive Dozing Control decides on the action of the blade — such as whether to cut and carry material, spread or fill that material or whether it should finish grade."

Better visibility for more efficient grading

Jennings said visibility plays an important role in operator productivity. Being able to see the

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blade's cutting edges increases production, especially during fine grading work near curbs. The D71i-24 is now the largest of Komatsu's hydrostatic dozers, and it maintains the unique super-slant nose design.

"Seeing the front of the machine with reduced blind spots increases awareness of the job site," said Jennings. "That's important when running a large machine such as the D71, which has the biggest standard blade in its class size. It increases operator confidence and, in turn, their ability to be more productive."

In addition to the iMC 2.0 D71i-24 models, base D71-24 dozers are also available. EX dozers have a ground pressure of 6.3 psi. With a ground pressure of 5.8 psi, the PX models work well in soft conditions; and for highly sensitive areas, PX Wide models with a ground pressure of 5 psi are available.

"With the D71-24s, we specifically matched the track shoes' width to the blade length to ensure optimal performance," said Jennings. "Additional new performance features include improved steering response and maneuverability. In the new Fast Mode during turns, the outside track speeds up while the inside track slows down."

"From golf course construction to highway projects, the D71-24s are all-around crawler dozers," said Jennings. "Equally adept at both precise, high-speed grading and at rough dozing, they are designed to provide outstanding wearability and functionality with a high-capacity, wear-resistant dozer blade. We encourage anyone looking for a solid mid-sized dozer with the versatility to perform on practically any job site to contact their distributor to set up a demonstration." ■

New technology combined with integrated intelligent Machine Control allows automatic grade control from rough cut to finish grade on a wide range of job sites. "Choosing the right machinery makes a significant difference in production, efficiency and profitability. A single dozer that can push, side cut, finish and work in soft ground gives you a real advantage," noted Jon Jennings, Komatsu Product Marketing Manager.



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Project Notes

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

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."

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."



Jon Jennings, Product Marketing Manager, Komatsu

Continued . . .

Quick Specs				
Net Horsepower	Operating Weight	Blade Capacity		
105 hp	21,848 lb	2.89 cu yd		
105 hp	22,774 lb	2.89 cu yd		
	Net Horsepower 105 hp	Net HorsepowerOperating Weight105 hp21,848 lb		

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.



'D39i-24 offers greater versatility'

... continued

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." ■



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."

Komatsu offers a wide range of genuine batteries proven to perform and last in tough conditions

When you turn the key on a machine or a vehicle, you expect it to start. Several systems play a role in whether this does or does not happen, but one of the most important factors is the battery.

"It is essential to use one that's proven to perform under all circumstances," emphasized Dimitra Balafoutis, Komatsu Product Manager, Consumables. "We recommend using genuine Komatsu batteries in our machines because they are manufactured to stand up to challenging conditions such as extreme temperatures and high vibrations, which are common on our customers' job sites. They were designed and built to ensure durability and reduce downtime."

Balafoutis noted that Komatsu genuine batteries undergo more than 300 quality-control checks throughout the manufacturing process. With proper maintenance, they typically last three years or longer. Komatsu supports all batteries with its standard parts warranty, which is one or two years depending on part number.

"A wide range of 6- and 12-volt sizes are available," said Balafoutis. "Our distributors stock the most common ones, so they are easily available. If a less common type is needed, you can order it through your distributor or on the My Komatsu web application (www.komatsuamerica.com/ mykomatsu) and have it shipped to the distributor or your location."

Power your vehicles too

With Komatsu's all-makes program, customers can also order OEM batteries for their Komatsu equipment and its competitors through their local Komatsu branch, explained Balafoutis. This includes construction, agriculture, mining, forestry and forklift products.

"Those OEM options are available if customers want them; however, Komatsu genuine batteries work in most brands of machinery," Balafoutis pointed out. "Distributors can assist customers in determining the right fit for their needs."

She noted that Komatsu genuine batteries are ideal for cars, pickups or other vehicles.

"If you think they are great in your equipment, consider them for other uses," said Balafoutis. "They power class 1 through class 8 on-highway trucks, boats, recreation vehicles, power sports products such as four-wheelers, golf carts and more. Your Komatsu distributor can be a one-stop shop for all of your battery needs. They will even install them if you like." ■



Dimitra Balafoutis, Komatsu Product Manager, Consumables



Longer Coverage

Could a new extended warranty program help you better determine total cost of ownership over the life of large machinery?



Felipe Cueva, Manager, Genuine Care

Understanding total cost of ownership (TCO) over the lifetime of a machine helps you make highly informed decisions about which equipment to buy. Several factors go into calculating TCO. Some costs are fixed, such as the initial purchase price, while other costs – repair and maintenance, fuel and operators' hourly wages, for example – fluctuate.

Making the variable costs more predictable can help with budgeting and avoiding large, unplanned expenses. It also contributes to higher accuracy in estimating, bidding and determining operating expenses. One way to make costs predictable is by purchasing an extended warranty and extended periodic maintenance with fixed costs for maintenance and repairs.



Komatsu Care Plus III is designed for total cost of ownership for businesses such as quarries or mines that keep equipment for 30,000 hours before rebuilding it or taking it out of service. "Like the other Komatsu Care programs, it covers scheduled maintenance and repairs," said Felipe Cueva, Manager, Genuine Care. "Care Plus III is even more comprehensive because it includes the equipment's consumables or wear parts such as brakes, hoses, pins and bushings."



"Machinery comes with a standard warranty that covers any repairs for the first 12 months," said Felipe Cueva, Manager, Genuine Care for Komatsu. "Once the machine hits those marks, the expenses can be unpredictable and are all covered by you. Car manufacturers started offering extended warranties years ago, and equipment manufacturers have taken up the concept more recently. The advantage is that for a relatively nominal monthly charge, you have the peace of mind that when service or repairs are needed, you won't be hit with a potentially big bill."

Cueva noted that there have been options available for up to 10,000 hours of extended maintenance and repair coverages for some time. Some examples are Komatsu's recently introduced Komatsu Care Plus and Komatsu Care Plus II, as well as its Advantage Coverage. Soon it will offer Komatsu Care Plus III for larger machines, including wheel loaders, rigid-frame trucks and dozers.

"What's been missing is a program designed for those businesses such as quarries or mines that keep equipment for 30,000 hours before rebuilding it or taking it out of service," said Cueva. "Our new Komatsu Care III is a full, comprehensive maintenance and repair program for the first life of the machine. Like the other Komatsu Care programs, it covers scheduled maintenance and repairs. Care Plus III is even more comprehensive because it includes the equipment's consumables or wear parts such as brakes, hoses, pins and bushings."

Clearer profitability picture

Cueva added that Care Plus III's cost is based on utilization. Customers pay a per-hour rate, and Komatsu tracks the machine's hours through its telematics systems. Coverage extends across the country, and contracts are transferrable.

"This is really the first commercialized TCO from a manufacturer," said Cueva. "It makes your profitability clearer because there are no surprises. We encourage anyone who would like to better know their lifetime costs to contact their dealer about any of the Care Plus programs."



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New Solution

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.



Support Solution

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



Rizwan Mirza, Komatsu Manager, Telematics, Products & Services Division



Michael Carranza, Komatsu Retail Product Manager

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, Komatsu manager, telematics, products & services division. "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, Komatsu retail product manager. "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."

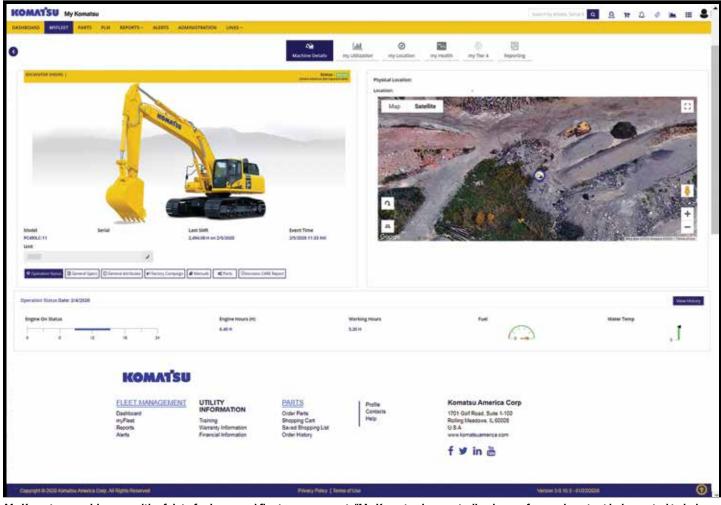
Carranza added that a single source that gives you the ability to access and manage your machines' telematics data, software, parts and service manuals — as well as order parts — is a significant advantage. "It's more efficient, saves time and ultimately reduces downtime," said Carranza.

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, Komatsu manager, telematics, products & services division. "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."

Faster Plan Updates

New solution saves time, expense by delivering design changes directly to machines, eliminating travel to job sites



Bryce Satterly, Komatsu Smart Construction Solutions Manager

If you manage construction projects, you know design changes come with the territory. You also realize that delays in updating plans could adversely affect production and your profits.

"It's critical to communicate new information as quickly as possible," stated Bryce Satterly, Komatsu Smart Construction Solutions Manager. "Technology is making that virtually instantaneous. Our Smart Construction Remote solution is a good example. It allows users to send design data to machines in the field and remotely support operators without traveling to the job site, reducing costly downtime."

Managers can log into target machines, pinpoint their location, view the machines' monitors and upload or download files at anytime from anywhere, according to Satterly. He added that updates can be transferred to multiple machines with one click.

Smart Construction Remote's software is compatible with Komatsu intelligent Machine Control dozers and excavators as well as with select aftermarket grade control systems. It's one of several Smart Construction solutions created to help you more efficiently plan, schedule, manage, streamline costs and optimize processes remotely.

Distant troubleshooting capabilities

In addition to project design file updates, Smart Construction Remote provides distanced troubleshooting capabilities. Offsite personnel can view what operators are seeing in the field, and even operate the machine control monitor, through their connected devices.

"The operator, survey manager and others can communicate remotely in real time, and resolve issues faster," said Satterly. "Not having to make that trip to either update a machine or troubleshoot it saves time and reduces fuel costs and emissions associated with driving to the site. Those are added benefits."



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Compact Crane

Potain Hup 40-30 crane maximizes production on job sites where space is at a premium



Matt Kern, Vice President of Rolling Stock Sales

Constructing multistory buildings in urban areas is often done on sites with limited space for personnel and machinery. A self-erecting, remote-controlled crane with a small footprint to lift materials into place such as Potain's Hup 40-30 can be a solid choice to maximize productivity and efficiency in that application.

"We have customers in downtown areas, including Fargo, who say it's the only solution," stated Matt Kern, vice president of rolling

Potain's Hup 40-30 features a small footprint, making it ideal for tight job sites such as constructing multistory buildings in urban settings. It has a 4.4-ton lift capacity with a 131-foot maximum radius.



stock sales, General Equipment & Supplies Inc. "The Potain Hup 40-30 allows them to work right next to the building or street with traffic flowing around them. They have the ability to pick and place items, including prefabricated walls. It's ideal for three- to eight-story buildings and virtually eliminates the need for a larger truck or rough-terrain model and/or multiple telehandlers, which can rut up a job site and create hazardous situations."

Potain's Hup 40-30 features a 4.4-ton lift capacity with a 131-foot maximum radius. Its footprint is 14.8 feet by 14.8 feet. It includes High Performance Lifting[™] (HPL[™]) technology for high-speed lifting of maximum loads and High Performance Slewing (HPS) that provides greater accuracy and responsiveness in crane movements for better operator control while slewing the load.

"One of the greatest advantages of the Hup 40-30 is how user-friendly it is," emphasized Kern. "It sets up fairly quickly, usually within half a day. Operation is done by remote control, so the operator can see the load from wherever they are, rather than doing blind picks where they're on the radios. That increases safety and allows the operator to perform additional tasks, such as helping tack a wall or truss into place."

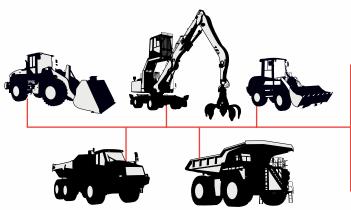
General Equipment carries three Potain Hup 40-30s in its rental fleet and has trained personnel on staff to assist with site assessment and consult with contractors on whether the compact cranes are the right tool for the job. General Equipment also offers help with operator training to ensure their proficiency before using a Hup 40-30.

"When we researched whether we wanted to carry this crane model, we talked with contractors who used them and found they doubled and tripled their historical production from previous methods," added Kern. "They are doing it with less people and greater efficiency. We encourage anyone who traditionally uses bigger equipment to give us a call, and we can help them determine if the Potain Hup 40-30 can provide similar results."





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