

# ***PUSHING AHEAD***

A publication for and about Clairemont Equipment customers • [www.CECPushingAhead.com](http://www.CECPushingAhead.com)

## **POWER AND EFFICIENCY**

**Komatsu releases new  
Hybrid HB365LC-3 excavator built  
for performance, fuel savings**



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# A MESSAGE FROM THE PRESIDENT



Ronald Zagami

**Strong  
additions to  
Komatsu's  
lineup**

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Dear Valued Customer:

If you attended CONEXPO/CON-AGG, you saw some of the new innovative products in today's construction marketplace, as well as services that companies such as Komatsu and Clairemont Equipment Company offer to support them. In case you missed the show, this issue of your Clairemont Pushing Ahead recaps the triennial event.

In addition, it highlights some of the standout machines Komatsu recently introduced, including new D51EX-24 and D51PX-24 dozers that combine a decade of award-winning design with the latest technology to increase fuel efficiency and boost productivity. The D51-22s were Komatsu's original slant-nose dozers, and the Dash-24s prove you can enhance and build on a successful platform.

That's also true when it comes to hybrid technology. Komatsu was the first to introduce a hybrid excavator, and now it unveils a true 36-ton size class model with the Hybrid HB365LC-3. Like previous models, it captures energy normally lost during a swing cycle and uses it to assist the machine. It's more fuel-efficient than a comparable standard excavator, and in applications where swinging is prevalent, such as loading trucks, users will find it equally or more productive than a PC360LC-11. See inside for more details and read the other articles spotlighting Komatsu products, including the new PC170LC-11 excavator.

These new machines are covered by Komatsu's extended Undercarriage Assurance Program. You can learn more about the program in this issue as well. I think you will also be interested in the article related to an award Komatsu received for its support of educational programs, as well as our Komatsu & You spotlight, among others.

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

Sincerely,  
CLAIREMONT EQUIPMENT COMPANY



Ronald Zagami,  
President

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Here's a recap of CONEXPO-CON/AGG 2017, where customers got an up-close view of the latest innovations in construction equipment and technology.

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Discover the features that increase the engine efficiency and durability of Komatsu's D51-24 dozers.

### INNOVATIVE PRODUCT

Komatsu's new PC170LC-11 hydraulic excavator is well-suited for a wide variety of general construction jobs. Check out the details inside.

### GREEN TECHNOLOGY

Fuel savings of up to 20 percent are possible thanks to the electric swing motor-generator on Komatsu's new Hybrid HB365LC-3 excavator. Find out more in this issue.

### KOMATSU & YOU

Get to know Vijay Dara, Director, Manufacturing Administration for Komatsu, who shares how continuous improvement methods drive the manufacturing process.

### AWARD WINNER

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### INDUSTRY NEWS

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## A GLIMPSE INTO THE FUTURE

### CONEXPO sets records as attendees look for 'what's next' from Komatsu, construction industry

Mike Gafa of AMG Demolition & Environmental Service, Inc. visits Komatsu's equipment display.



Attendees browse through the exhibit hall where Komatsu featured its latest standard machinery, a virtual reality simulator area, a Komatsu CARE Certified used machine, a company store and more.

Attendees of CONEXPO-CON/AGG may have gone to the show "Imagining What's Next," but they left with a solid idea of what the present and future of the construction industry hold. Much of what they saw at the triennial event – which set records for net square feet of exhibits, number of exhibitors and educational sessions – involved new technology designed to make the workforce and equipment more efficient, more productive and safer than ever.

Komatsu showcased its combination of *intelligent* Machine Control dozers and excavators as well as SMARTCONSTRUCTION. Introduced at CONEXPO three years ago, innovative *intelligent* Machine Control equipment features



factory-integrated GPS technology that works from rough-cut to finish grade without the need for traditional masts and cables associated with aftermarket systems. Komatsu's first *intelligent* Machine Control excavator was the PC210LCi-10, and during CONEXPO the company previewed its next-generation PC210LCi-11.

SMARTCONSTRUCTION takes *intelligent* Machine Control to another level with a comprehensive list of services that can help customers increase their production and profitability.

"SMARTCONSTRUCTION is integrated support and solutions," explained Jason Anetsberger, Komatsu Senior Product Manager. "With one phone call to Komatsu we can supply *intelligent* Machine Control equipment, train operators to utilize them most efficiently and provide quality 3-D data to get the most out of the machines. Additionally, Komatsu offers other tech such as aerial mapping with drones or our SMARTCONSTRUCTION cloud-based service that helps monitor production and progress on the jobsite. Komatsu's goal is to be a partner to our customers by delivering the best technology and service to ensure high productivity and efficiency."

Komatsu highlighted the future of operator training with a virtual reality simulator that attendees could test. This tool is designed to accurately simulate operating an excavator on a jobsite. "It was a good experience, very life-like," said Nick Beneke with DeLoss Construction of Spencer, Iowa. "The controls were very responsive. It was like running a real machine, so I can see how it would be good for training new operators or even to fine-tune skills for veteran operators."

### **Latest Tier 4 machinery, Certified CARE excavator**

Additional new machinery at the show included Komatsu's first 36-ton size class Hybrid HB365LC-3 excavator, developed with as much an emphasis on increased productivity as on fuel economy. Similar to previous hybrid models, it captures energy normally lost during a swing cycle and uses it to assist the machine, making it more fuel efficient than a comparable standard excavator. Komatsu also formally introduced the new D51-24 dozers and the

*Continued . . .*

## **Komatsu machines earn accolades for highest retained value**



Product Managers Rob McMahon (Left, GD655) and Craig McGinnis (Right, WA320), along with Keith Allmandinger, Senior Marketing Manager for Komatsu Forklift U.S.A. (BX50 line), accept Highest Retained Value Awards from EquipmentWatch at a CONEXPO reception.

Komatsu's WA320 wheel loader, GD655 motor grader and BX50 forklift lines received Highest Retained Value Awards from EquipmentWatch at a CONEXPO reception. It is the industry's only award based on residual values for heavy equipment. All models honored are projected to retain the highest percentage of original value after five years, among all competitors in their respective categories.

To calculate the 2017 awards, EquipmentWatch analysts considered 12,536 models in their valuation database, which were then narrowed to 156 series from 36 brands. Once the finalists were set, residual values were calculated at the series level by leveraging a database covering more than \$412 billion in market activity to identify each category winner.

The Highest Retained Value Award is indicative of excellence across a manufacturing organization, according to EquipmentWatch Vice President Garrett Schemmel. He noted that product quality has the most obvious impact on an asset's performance in the secondary market, but residual values are also highly influenced by brand affinity and fair original pricing. A manufacturer must excel on all three fronts to gain recognition as a Highest Retained Value Award winner. ■

# Attendees see latest technology at CONEXPO

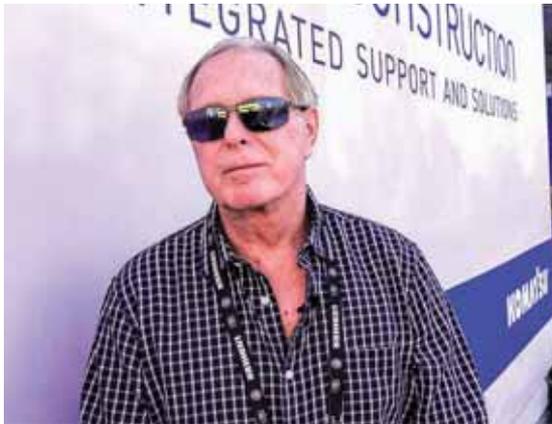
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A CONEXPO-CON/AGG visitor looks through a headset as he takes part in a virtual reality simulation of operating an excavator at a jobsite.

Mike Henderson, Owner of KTA Construction, stops by the outdoor Komatsu exhibit to check out *intelligent* Machine Control equipment.

KTA Construction owns several Komatsu machines and has worked with Clairemont Equipment for more than 20 years, Henderson said.



PC170LC-11 excavator, while displaying other Tier 4 Final products both in standard and *intelligent* Machine Control versions.

A Komatsu CARE Certified PC170LC-10 excavator with 1,452 hours was also on display to showcase this service program and the value of pre-owned machines maintained under it. Komatsu CARE ensures that pre-owned equipment, such as this excavator, have service intervals performed by Komatsu factory-trained technicians, for the first three years or 2,000 hours using Komatsu Genuine fluids, filters and coolants. The technicians conduct a 50-point inspection at each interval, and all maintenance and service information is available to buyers.

“CONEXPO is a great opportunity to see the latest in equipment and technology that’s advancing the construction industry,” said Komatsu’s Rich Smith, Vice President, Product and Services Division. “It affords us the opportunity to show the broad range of equipment Komatsu offers, from small excavators to large haul trucks, all in one place. In addition, we want attendees to know that we are more than an equipment manufacturer. We offer outstanding parts, service and jobsite solutions. Komatsu is here to support customers from the time they purchase a machine until they are ready to trade it.” ■

The next CONEXPO-CON/AGG is set for March 10-14, 2020.

Komatsu’s outdoor booth focused attention on *intelligent* Machine Control dozers and excavators as well as SMARTCONSTRUCTION, Komatsu’s integrated support and solutions for operator training, 3-D data, aerial mapping with drones, and a cloud-based service that helps monitor production and progress on the jobsite.



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Want to make your next machine acquisition really count? Komatsu's lineup of automated excavators, including the all-new PC360LCi-11 and PC490LCi-11, feature a revolutionary, factory integrated, machine control system. The exclusive *intelligent* Machine Control technology lets operators focus on moving materials efficiently, without worrying about digging too deep or damaging the target surface. Contact your Komatsu distributor to learn how you can hit pay dirt today with Komatsu innovation.

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# BIPARTISAN SUPPORT

## The best dam idea Trump has: rebuilding our nation's infrastructure



John Tures,  
Professor,  
LaGrange College

Most people couldn't tell you which state Oroville was in before its dam was about to burst. But once the California town was in trouble, the floodgates opened with calls to fix our nation's infrastructure. President Trump supported an infrastructure plan during his campaign, and it's one of the few issues he could unite with Democrats to solve.

"The situation is a textbook example of why we need to pursue a major infrastructure package in Congress," said White House Press Secretary Sean Spicer during a press briefing. "Dams, bridges, roads and all ports around the country have fallen into disrepair. In order to prevent the next disaster, we will pursue the president's vision for an overhaul of our nation's crumbling infrastructure."

John Tures, Professor of Political Science at LaGrange College in LaGrange, Ga., says a solution to fixing the nation's infrastructure would entail compromising on private and public spending, where infrastructure problems are handled by a combination of tax credits and government spending. He says it should have bipartisan support.



It's not just Trump who calls for this plan. The American Society of Civil Engineers reviewed America's infrastructure condition and wrote, "America was given an overall grade of D+ in 2013. This grade indicates that on average; most of the infrastructure are in poor condition and are at risk of failure. In order for the nation to maintain its status as the leading global economy, the state of infrastructure must improve."

Trump's plan calls for more than a trillion dollars in infrastructure spending, and, in theory, it has bipartisan support. However, Republicans and Democrats disagree on whether the funds should come from private or public money.

### More disasters sure to occur

Given high-profile emergencies like the Oroville Dam, last decade's Interstate 35 bridge collapse and the failure of the New Orleans levees during Hurricane Katrina, our infrastructure can't tolerate partisan wrangling for too long. Hurricanes will return, as will increased rains, buckling bridges and dams that degenerate. This country can't afford another Johnstown Flood.

A solution is possible for a deal maker artful enough to secure a political victory. It would entail compromising on the issue of private and public spending, where infrastructure problems are handled by a combination of tax credits and government spending. That should please both parties. ■

*John Tures is a Professor of Political Science at LaGrange College in LaGrange, Ga. Contact him at [jtures@lagrange.edu](mailto:jtures@lagrange.edu). This article was excerpted from an original piece published in the New York Observer.*

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## A CLOSER LOOK

# BUILDING ON SUCCESS

## New D51-24 dozer features improve efficiency, durability of original award-winning design



Jonathan Tolomeo,  
Komatsu Product  
Manager

Ten years ago Komatsu introduced its first super-slant nose dozers, the D51-22s. A year later they earned an International Design Excellence Award for the unique design which allows operators to see objects that are close to the blade, dramatically increasing efficiency and production on the jobsite. During the past decade, Komatsu brought that same innovation to additional dozer models, including its new Dash-24 D51s.



Chuck Murawski,  
Komatsu Product  
Manager

“The super-slant nose design moves the operator forward 20 inches, which delivers unrivaled visibility to the six-way power angle tilt blade and the work at hand,” said Jonathan Tolomeo, Komatsu Product Manager. “Visibility is further improved because Komatsu moved the air intake and the exhaust stack to the left side of the slant-nose hood so that it’s in line with the pillar. This offers the operator an unrivaled view, compared to the rest of the industry.”

Komatsu’s new D51EX-24 and D51PX-24 dozers maintain the award-winning slant-nose design, but new features provide better fuel efficiency and productivity. A parallel linkage undercarriage system (PLUS) with rotating bushings is now standard.



### More efficient engine, transmission

Two models are available – D51EX-24 and D51PX-24 – both with a more efficient Tier 4 Final engine that lowers fuel consumption by up to 13 percent, while at the same time boosting production by as much as 15 percent. The engines use a Diesel Oxidization Catalyst and Selective Catalytic Reduction system, eliminating the need for a Diesel Particulate Filter. It has a variable geometry, water-cooled turbocharger that automatically controls back pressure and the exhaust system to maintain temperatures for better regeneration.

“Like their predecessors, the new D51-24 dozers feature a hydrostatic transmission (HST) that gives them excellent maneuverability and a smooth, comfortable ride,” reported Komatsu Product Manager Chuck Murawski. “The HST is customizable with quick-shift settings and variable-speed selection for maximum efficiency during fine and rough grading operations, with travel speeds to match job conditions and operator preference.”

### Standard PLUS undercarriage

A parallel linkage undercarriage system (PLUS) with rotating bushings is now standard, as are a triple-labyrinth-seal final drive and a debris shield that provides longer undercarriage life and lowers repair and maintenance costs. The final-drive seal creates a restricted path for debris, while the shield directs debris away from the final drive and the floating seal area.

Self-adjusting idler support provides constant and even idler tension, reducing vibration and increasing undercarriage life. Komatsu’s PLUS undercarriage system now includes five-year or 6,000-hour assurance. (See related article on Komatsu’s Undercarriage Assurance Program).



## More durable frame, blade

Komatsu improved the durability of the dozers by utilizing heavy-plate steel for the nose as well as for the hydraulic and fuel tanks. The dozer frame is manufactured with full steel castings.

The U frame behind the blade is reinforced, and the box section is thicker with fewer welds. Reinforced mold boards on the blades of the D51EX-24 and D51PX-24 provide greater wear resistance. The D51PX-24 offers a higher-capacity 4.4-yard blade, which can increase production by up to 15 percent.

Both dozers have manually adjustable blade pitch that boosts productivity. Operators can choose from three blade modes (Fast, Fine or Normal) to match conditions and preferences. For example, Fast mode increases blade speed while using the same amount of lever movement.

## Enhanced technology

A redesigned cab features new technology that includes an easy-to-read and use, large, 7-inch, high-resolution, multi-color LCD monitor with Ecology guidance and onboard diagnostics that require no additional tooling. Hundreds of parameters can be measured through the monitor, and operators can make adjustments to blade settings and travel speeds.

An integrated rearview camera can be synchronized with the travel lever, so that when the dozer is shifted into reverse it displays what's behind the machine. This

Komatsu improved the durability of the dozers by utilizing heavy-plate steel for the nose as well as for the hydraulic and fuel tanks. Reinforced mold boards on the blades of the D51EX-24 and D51PX-24 provide greater wear resistance.

### Quick Specs on Komatsu's D51EX-24 and D51PX-24 Dozers

Model	Horsepower	Operating Weight	Bucket Capacity
D51EX-24	131 hp	30,821 lb	3.8 cu yd
D51PX-24	131 hp	31,438 lb	4.4 cu yd

saves the operator from turning around, reducing overall fatigue.

The D51-24s now have one pedal with two modes, Braking and Deceleration. "Deceleration slows down the travel speed and the engine rpm," explained Murawski. "Braking keeps the rpm constant and slows the machine, which is handy for fine grading and on jobsites where there are lots of contour changes and blade motion during grading."

Additionally, the D51-24s have Komatsu's Auto Idle Shutdown that reduces excessive idle time and the Operator Identification System, which provides KOMTRAX data for machine operation and applications for up to 100 individual ID codes. A disconnect switch lets operators completely shut down the machine's power for storage. An operating-system lamp sends an alert if the machine is not ready for a complete shut down.

"Customer feedback tells us the D51-24s are highly versatile," shared Tolomeo. "They are very effective for final and fine grading. The D51-24s are also high-production pushing machines, so they are extremely versatile for a variety of applications, including landscaping, site preparation and road construction among others." ■

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## INNOVATIVE PRODUCT

# BIG-TIME VERSATILITY

## Komatsu's PC170LC-11 excavator provides flexible options for utility contractors

Operators looking for a lightweight excavator have found an answer with Komatsu's new PC170LC-11. The 40,000-pound-class hydraulic excavator also gives owners a choice between two counterweights to best fit the machine to its application.

"The PC170LC-11 is well-suited for a wide variety of smaller, general construction jobs like grading, excavating and loading applications," said Andrew Earing, Komatsu Project Manager - Excavators. "A standard PC170LC-11 is below the 40,000-pound limit, so it can be towed behind a truck with a trailer. The ease of transporting and versatility are very beneficial for customers who need to handle multiple jobs in a day with minimal equipment."

The machine operates at 38,730 pounds with a standard counterweight configuration and at 41,338 pounds with the heavier counterweight.

"For operators who are running couplers, thumbs and other attachments, the heavier counterweight helps maintain the over-the-side lift capabilities as they would have with the standard counterweight," explained Earing.

### Small frame, big power

The new excavator boasts a 121-horsepower, Tier 4 Final engine that, with the Komatsu Diesel Oxidation Catalyst, eliminates the need for active and manual regeneration. In addition, the new machine includes Selective Catalytic Reduction to lower nitrogen oxide emissions, Komatsu Auto Idle Shutdown and wide-access service doors to make it easy to reach components for ground-level maintenance.

Also, an enhanced P mode provides up to 6-percent improvement in productivity when

compared to the previous model. Like the rest of Komatsu's Tier 4 machines, the PC170LC-11 is covered by Komatsu CARE for the first 2,000 hours or three years of operation.

### Comfortable and efficient

Operator comfort and efficiency were also upgraded in the new PC170LC-11. The integrated ROPS cab features a high-back, heated, air-suspension seat with adjustable arm rests.

The cab also includes a 7-inch, high-resolution LCD display monitor that gives operators enhanced hydraulic attachment control, with one-way/two-way flow and programmable work tool names and settings. It features a rearview camera display and the ability to store up to 100 individual ID codes. ■



Andrew Earing,  
Komatsu Product  
Manager - Excavators

### Quick Specs on Komatsu's PC170LC-11 Excavator

Model	Net horsepower	Operating Weight	Bucket Capacity
PC170LC-11	121 hp	38,730 - 41,338 lb	0.48 - 1.24 cu yd

Komatsu's new 121-horsepower, Tier 4 Final PC170LC-11 excavator has two counterweight options to best fit the machine to its application.





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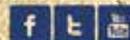
“I’m proud to sell Komatsu products. At Brandeis, we’ve handled quality Komatsu equipment for decades. Like all Komatsu loaders, the WA470 has an excellent balance between power and stability in the pile and speed and stability when moving with the load. And maintenance departments love the access to daily checks and service items. My customers are satisfied customers, and that’s why I AM KOMATSU.”



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## POWER AND EFFICIENCY

### Komatsu releases new Hybrid HB365LC-3 excavator built for performance, fuel savings

Equipment owners are always looking for ways to increase production while decreasing costs. Komatsu's new Hybrid HB365LC-3 excavator – the industry's first true hybrid in the 36-ton size class – offers increased fuel efficiency without sacrificing performance, providing owners the best of both worlds.

"The Hybrid HB365 will be equal or better than our standard PC360LC excavator in terms of production, but with fuel savings that could be as much as 20 percent," said Kurt Moncini, Komatsu Senior Product Manager – Tracked Products.

Komatsu's unique hybrid system reduces fuel consumption through an electric swing motor-generator that captures and regenerates energy as the upper structure slows down and converts it into electric energy. The regenerated energy is stored in the capacitor and is used by the motor generator to provide swing power. An engine-mounted motor generator also uses stored energy to provide engine assistance when required.

"The Hybrid HB365LC will be a great fit for customers who use their excavators in high-swing applications," stated Moncini. "Each time the excavator swings, the capacitor is getting charged. That allows the engine to use electric power instead of fuel and operate at a lower rpm."

#### Tier 4 and more

The excavator features a Tier 4 Final, 269-horsepower, six-cylinder engine with a motor-generator and capacitor. The design of these two components also allows all swing energy that is captured to be used for boom and arm function.

"When it comes to the boom arm and bucket, the capacitor drives the swing and all available engine horsepower can go into the hydraulic

system," explained Moncini. "This creates faster cycle times and a very quick, responsive swing."

The engine has a Komatsu aftertreatment system that meets U.S. EPA Tier 4 Final emissions regulations. A Komatsu Diesel Particulate Filter and Selective Catalytic Reduction work together to inject Diesel Exhaust Fluid and decompose nitrous oxide into non-toxic water and nitrogen.

The ROPS cab gives operators a spacious and safe working environment. Features include vibration-dampening mounting and a fully adjustable, air-suspension seat and arm rests.

Another important element is the 7-inch, color LCD monitor, which shows key machine information. The monitor displays a capacitor charge gauge, DEF levels and rearview camera. It has an Operator ID system that records machine-operation and application data for up to 100 individual ID codes. ■



Kurt Moncini,  
Komatsu Senior  
Product Manager –  
Tracked Products

#### Quick Specs on Komatsu's Hybrid HB365LC-3 Excavator

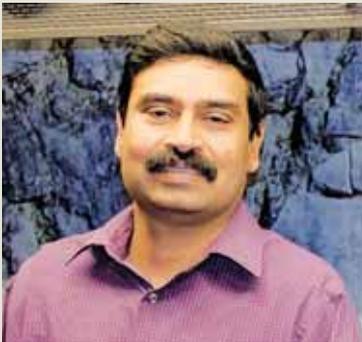
Model	Horsepower	Operating Weight	Bucket Capacity
HB365LC-3	269 hp	78,645-80,547 lb	0.89-2.56 cu yd

Komatsu says the Hybrid HB365LC-3 will be equal or better than its standard PC360LC excavator, but with up to 20-percent greater fuel efficiency.



## IMPROVED OPERATIONS

### Vijay Dara explains how continuous, measured improvement drives manufacturing process



Vijay Dara, Director,  
Manufacturing Administration

*This is one of a series of articles based on interviews with key people at Komatsu discussing the company's commitment to its customers in the construction and mining industries – and their visions for the future.*

Vijay Dara joined Komatsu nine years ago and began his tenure in corporate strategy. He has worked in manufacturing administration for the last five years. In his current role as Director, Manufacturing Administration, he serves as an internal advisor and supporter to the Komatsu America production and warehouse locations to enable standardization of all strategic and tactical activities for safety, legal compliance, quality, delivery and cost (SLQDC).

“The SLQDC acronym is a very common and important one in manufacturing,” said Dara. “All aspects need to work together to have a successful operation, and all aspects are important.”

Dara has more than 20 years of experience in manufacturing, procurement, design engineering and information technology in off-highway and automotive industries.

Originally from India, Dara earned his bachelor's degree in mechanical engineering from the University of Mumbai, India, as well as an MBA from the University of Michigan, Ann Arbor.

In addition to his manufacturing responsibilities, Dara is also involved in Komatsu America's Leadership Development Program “Trax.”

“Trax is a great thing for Komatsu to offer,” he said. “It has helped me develop as an individual and to contribute both at work and at home.”

Outside of work, Dara enjoys spending time with his wife, Samatha, and their two children.

**QUESTION:** What has Komatsu done to make its manufacturing operation more efficient?

**ANSWER:** Two years ago we began to include spare or service parts warehousing, along with production/assembly, in our definition of manufacturing. While this may seem like a small detail, it is important because it requires us to consider the entire machine's life cycle and integrated supply chain when making decisions.

**QUESTION:** What is the impact of this change?

**ANSWER:** It has helped us to better understand how the entire process works together. One example is with spare parts availability. There isn't any difference between a part that is made for a new machine or one that is stocked for spare parts – one gets put on a machine, the other goes into a box – the engineering and manufacturing/procurement are the same.

Prior to including parts warehousing in our definition, the warehouses and production facilities worked independently of each other. Now, if a customer needed a part that was out of stock, the warehouse could call the production plant, that would then make or procure a new one, pull one from its production line or take the part from a machine that was in production.

By including warehousing under one umbrella, all areas are now on the same page. They work together particularly to plan inventory, procurement and transportation needs; and unexpected needs are easier to manage, which is an advantage to Komatsu. However, customers also benefit because it means that warehouses should have more access to parts in-stock or be able to get them faster.

**QUESTION: How do you think that process will evolve in the future?**

**ANSWER:** I think we will eventually see warehouses located closer to the production plants. The proximity will have a very positive effect on the whole process. The parts are made at the production plant, and if they aren't installed on a machine, they are put on a shelf. It eliminates many logistical costs and makes communication between production and warehousing a lot more efficient. It gives the parts warehouse access to all of the manufacturing operation's resources as well.

**QUESTION: What process does Komatsu use to check the quality of its parts after they leave the manufacturing plant?**

**ANSWER:** Every plant has a Quality Assurance (QA) Manager who is responsible for seeing that the quality of the products meets customers' needs. After a machine leaves the plant we use customer-driven metrics to evaluate the quality. When a customer files a warranty claim on a part (100 hours, 500 hours or later) or even when the plant identifies a nonconformity before shipment, we really dig into the claim to see what occurred through the entire supply chain. It is our goal to determine if the issue was isolated or something that affects every part/machine and causes us to reevaluate our engineering and manufacturing processes. The QA Manager works with other personnel within and outside of Manufacturing to address quality issues in a streamlined manner utilizing QC concepts to correct the concern.

**QUESTION: Will there ever come a time when there are no claims?**

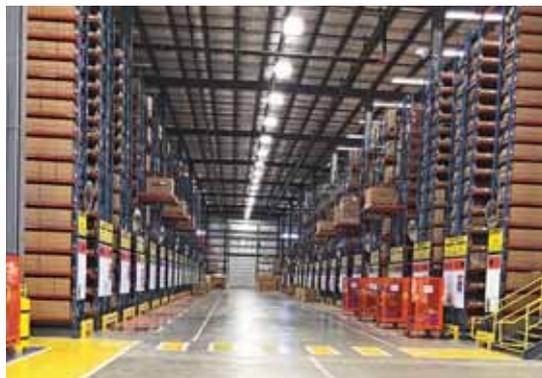
**ANSWER:** That is always our desire. We know that it is realistically improbable, but we believe we can continue to improve if our goal is zero. As long as we are improving, we do not get discouraged when we receive a claim. Instead, we see every claim as an opportunity to learn and better our machines. So, in a way, we actually view a claim's "bad news" as good news. ■



By locating spare parts warehouses closer to production facilities, warehouses have better access to the resources of the manufacturing plants and increased availability.



While Komatsu strives for zero customer claims on its parts and machines, Komatsu Director, Manufacturing Administration, Vijay Dara sees each claim as an opportunity to improve engineering and manufacturing processes.



Komatsu began including spare parts warehousing in its definition of manufacturing two years ago.

## AWARD WINNER

# THE AED FOUNDATION HONORS KOMATSU

## Company receives Partner Award for education

Komatsu America has long advocated for education in the construction industry, especially service technician training. The AED Foundation recognized Komatsu for its efforts with the Foundation Partner Award during its annual convention, AED Summit, held earlier this year.

Mike Hayes, Komatsu Director of Distributor Development, received the award on behalf of Komatsu at The AED Foundation Fundraising Gala. Proceeds from this fundraiser help provide educational opportunities in the industry. Hayes has served on The AED Foundation's board for several years and has helped with its workforce goals, such as developing school accreditation programs.

Komatsu Director of Distributor Development Mike Hayes (left) receives The AED Foundation's Partner Award from The AED Foundation President Robert Henderson.



More than 90 percent of students from two-year diesel technician programs with an emphasis on Komatsu equipment find work prior to graduation.



"There is a real skills gap in the industry today, and we have to be proactive in finding and recruiting those individuals who will fill the numerous job openings in the construction industry today and in the future," said Hayes. "Komatsu is doing that by partnering with schools, such as the Oklahoma State University Institute of Technology (OSUIT) and the North Dakota State College of Science (NDSCS), that provide two-year programs in diesel technology with a specific emphasis on Komatsu equipment. We have a 20-year history with OSUIT, and last year the first class graduated from NDSCS."

### Classroom, hands-on

Both programs are accredited by The AED Foundation, and Hayes is talking with other schools about starting similar training options. Komatsu supplies some machinery and parts that students use to gain practical knowledge. The schools offer both classroom and hands-on experience. Students rotate attendance between their school and a Komatsu dealership where they work in a shop at a branch location. Dealerships sponsor students and usually provide financial and other incentives to complete their degrees – and often jobs when they have successfully finished the program.

Hayes recently told AED's Construction Equipment Distributor magazine that enrolling in such programs is a great investment in the future, both for students and the industry as a whole. "Schools can teach theory, and they have the latest and greatest technology from manufacturers," according to Hayes. "Many of the technical colleges I talk to report that students have no problem securing employment upon graduation. More than 90 percent have already found work by the time they graduate." ■



Discover more

## DIGGING DEEPER

### AED Foundation study provides state-specific insight on how to fill technical jobs

The Associated Equipment Distributors (AED) Foundation released findings in early 2016 from a study it commissioned that showed a severe shortage of qualified equipment technicians and detailed the financial hardships it was causing equipment distributors. A year later, it released the results of a second study, one that outlined the economic benefits of career technical education programs and suggested ways that states can strengthen them. The findings of the second study were released during a live press conference at AED's 2017 Summit and Construction Dealer Expo in Chicago.

"Last year, we released a study which found that AED members were losing a combined \$2.4 billion annually because of their inability to fill technical jobs," said AED President and CEO Brian McGuire. "In response to those findings, we wanted to see what could be done about it. The researchers produced an impressive array of resources, analysis and data. They've provided a road map of how we can find and take advantage of the access points to technical-education policy in each state."

#### State scorecards

The study – done in conjunction with the College of William & Mary – produced a scorecard that graded states on eight best-practices criteria for skills-based learning. The results provide insight on where states excel and where they need improvement. The study also categorized funding information to enable The AED Foundation to better organize its efforts for improving policies nationwide.

The correlation between education and potential earnings was highlighted in the study, which includes a section that estimates how much employees' earnings can increase by continuing their education. Additionally, the

study outlined what percentage of jobs in each state was skills-based and the percent of the population that was educated to perform those jobs. It also included information on key contacts who employers can access in their states to help address the skills-gap issue.

"We wanted to identify the best practices that are being implemented at the state level," said Jesse Jordan, a graduate student at the College of William & Mary, who worked on the study. "While there are certainly opportunities for employers to advocate the expansion of career technical education, we were very encouraged by a few specific areas. These included work-based learning and dual-credit opportunities for high school students to earn post-secondary credit for their work at the high school level.

"We conducted this report to give employers the tools needed to address the problems they are facing," he added. "We came up with some deliverables that can be used in advocacy areas as well as to work in tandem with local education agencies at a grassroots level."

The full report, as well as individual state playbooks, can be found online at [AEDFoundation.org/dealer-resources](http://AEDFoundation.org/dealer-resources). ■



Brian McGuire,  
AED President  
and CEO

The College of William & Mary's Jesse Jordan (far left) explains the findings from a joint study with The Associated Equipment Distributors Foundation at the AED Summit and Construction Dealer Expo in January.



# LOWERING UNIT COSTS

## Mining groups help customers evaluate proper equipment and best practices for improvement



J.D. Wientjes,  
Director,  
Komatsu Application  
Engineering Group



Pat McCarthy,  
Director, Komatsu  
Mining Optimization  
Group

Komatsu Mining's Application Engineering Group helps mines determine the proper fleet and equipment size. "This exercise typically involves reviewing site productivity and operating goals, as well as equipment performance objectives, both near- and long-term," said Director J.D. Wientjes.

Mining involves moving materials from point to point at the lowest per-ton costs possible. To accomplish that takes the proper equipment as well as a solid plan for how to best use it in a particular operation. Komatsu Mining helps customers with both aspects, utilizing the experience of two groups focused directly on making companies more efficient, productive and cost effective.

Selecting the right equipment is about more than getting big machines and putting them to work. Komatsu Application Engineering Group Director J.D. Wientjes explained that it's important to take many factors into consideration, and his team is happy to help with that process.

"Primarily, we work with customers prior to a purchase to determine items such as proper fleet and equipment size,"

said Wientjes. "This exercise typically involves reviewing site productivity and operating goals, as well as equipment performance objectives, both near- and long-term."

Wientjes says sometimes it's not necessary for customers to buy new equipment to increase production and realize greater efficiency.

"We come in with an earnest approach to identify the optimum means of production, and determine if the equipment the mining company is looking to purchase makes the most sense," he said. "Occasionally it doesn't, and it might be best to change practices to better utilize what they already have. We recommend what we believe is most beneficial, and then it's up to the customer to decide what to do."

The Application Engineering Group has numerous examples of these study types.

"Recently, a quarry asked us to look at its historical mining methodology, which had always been to use large dozers pushing long distances at steep incline angles," Wientjes noted. "It wanted to know if there was a better way. Given its existing fleet size and other aspects of its material-handling system, we suggested that the company keep using dozers, but not push long, uphill grades.

"To achieve this, we noted that the available highwall length could be used to develop sequential working faces of varying heights," he added. "This application change would allow the dozers to mine in a stair-step fashion to optimize performance."





The Mining Optimization Group helps mines identify ways to improve practices and maximize production. “Mines change over time. Pits get deeper, haul roads become steeper and other factors come into play,” said Director Pat McCarthy. “Companies have to adapt and change to maintain or gain production. Otherwise, they risk per-ton costs going up and losing their competitive edge.”

## Focusing on goals

Mining customers also benefit from Komatsu’s Mining Optimization Group. Headed by Director Pat McCarthy, it identifies ways to improve practices and maximize production.

“Mines change over time. Pits get deeper, haul roads become steeper and other factors come into play,” said McCarthy. “Companies have to adapt and change to maintain or gain production. Otherwise, they risk per-ton costs going up and losing their competitive edge.”

McCarthy and his team collaborate with mine personnel to gather information on the operations and the customer’s goals. Then, the Mining Optimization Group forms a plan to help achieve those aims.

“We look for detailed information in every meeting,” said McCarthy. “As we build the plan, our team tackles the most prominent concern first and then moves down the list. Customers may only implement an item or two, and that’s fine. We’re happy to help any way we can.”

McCarthy cited a prime example of how the Mining Optimization Group solved a common problem that plagues mines and created an innovative approach for improvement.

“There is an optimal target load for every truck, but shovel operators can have difficulty

meeting that each time,” McCarthy explained. “We asked our engineers to develop software for the trucks to identify the actual load on each haul cycle, and this solution is now known as the Optimized Loading Software for the payload management system. It provides the tonnage number to the operator so that person knows exactly to what point to load the truck. This software has helped tighten the distribution curve by calculating the allowable load on each cycle. Mines are seeing up to 30 percent improvement compared to a few years ago.”

## No need to get out your wallet

Neither mining group charges for its services. The assistance is all part of Komatsu’s commitment to maximizing customers’ operations.

“Our goal is to help increase the bottom line of our customers,” said Wientjes. “This helps build loyalty with customers who use Komatsu equipment. Hopefully, our services lead to a better, longer-lasting relationship that keeps them purchasing Komatsu products.”

“Anyone considering new Komatsu equipment, or currently using it and looking for better utilization, can contact us anytime,” added McCarthy. ■

# LONGER UNDERCARRIAGE COVERAGE

## New Assurance Program sets industry standard



Jim Funk,  
Komatsu Senior  
Product Manager -  
Undercarriage

How does Komatsu evaluate the quality of its undercarriage components? One way is by analyzing the dependability of components and also collecting insight on the user experience to gather feedback from those who use the product.

“We believed that the previous terms were not indicative of how positively we feel about the quality of our undercarriage,” said Jim Funk, Komatsu Senior Product Manager - Undercarriage. “That led us to extend our terms for all dozers and excavators and, in turn, really separate Komatsu from the competition.”

Komatsu’s new Undercarriage Assurance Program covers all conventional and PLUS (Parallel Link Undercarriage System)

Komatsu’s new Undercarriage Assurance Program covers conventional undercarriage components against leakage and breakage for four years or 5,000 hours, whichever comes first. PLUS (Parallel Link Undercarriage System) undercarriages are covered for five years or 6,000 hours. The extension is now standard and the industry’s longest.

components against leakage and breaks. Conventional components are covered for four years or 5,000 hours, whichever comes first. PLUS undercarriages are covered for five years or 6,000 hours. Also, this new policy allows coverage terms to restart on any group of components replaced while supported by both the customer and Komatsu. Previously, all Komatsu undercarriage components were included under the same terms, three years or 4,000 hours.

“This new assurance program is the longest in the industry,” noted Funk. “Every major undercarriage component is included in this policy – link assemblies, rollers, idlers and shoes. If there is an issue that is not due to improper use or other influences, customers can expect that Komatsu will stand behind the product and provide support.”

### Manufactured for durability

Funk added, “We are proud to say that Komatsu undercarriage components are built and designed by Komatsu, specifically made for our machines. They are precision-machined and heat-treated for exceptional performance and durability.”

All sizes of dozers and excavators put in use starting from July 1, 2016 now fall under the Undercarriage Assurance Program, as do replacement undercarriages installed since that date.

“This is not a short-term deal,” Funk emphasized. “It’s now our standard and another Komatsu mark that sets the industry standard. We understand our customers expect quality and value. This new coverage shows that they are going to get both when purchasing Komatsu Genuine Undercarriage.” ■



## NEWS & NOTES

# Clairemont Equipment Company now offering sales and rentals of FINN products

FINN Corporation recently named Clairemont Equipment Company as its newest dealer for the organization's ground- and soil-management solutions. Headquartered near Cincinnati, Ohio, FINN offers three primary product lines: hydroseeders, straw blowers and bark and mulch blowers.

As a FINN dealer, Clairemont now provides sales and rentals of FINN equipment as well as certified engine repair services from its five southern California branch locations. Bill Hamel will serve as Clairemont's Finn Product Champion.

The manufacturer got its start in 1935 when Charles Finn invented a revolutionary machine that was designed to chop and apply straw for mulching bare soil. This straw blower paved the way for additional high-quality, labor-saving equipment in the years to follow.

Finn also invented the first HydroSeeder® in 1953 to efficiently disperse seed and



Clairemont Equipment Company now offers sales and rentals of FINN Corporation products, including bark and mulch blowers, hydroseeders and straw blowers.

fertilizer over broad areas. This invention generated an entirely new industry of turf- and erosion-control contractors. More than 20 years ago, FINN added bark blowers to its product line and offers five small to mid-size models. ■

# USDOT final report highlights future infrastructure challenges

A final report from the U.S. Department of Transportation (USDOT) showed the country's current transportation system won't be able to meet future demands. Titled, "Beyond Traffic 2045," the report emphasizes the challenges the transportation sector will face in the next few decades. Its original draft was released nearly two years ago, with the final report released in early 2017.

"Beyond Traffic started a long overdue conversation about whether the transportation infrastructure will keep pace with our changing country," said former Transportation Secretary

Anthony Foxx. "The final report again shows that if we do not invest in our infrastructure, we will let conditions move us backward."

Several key topics are covered, including how we move as a population, how we move freight and how we align revenue to match transportation decisions. The USDOT also designated 18 non-profit Beyond Traffic Innovation Centers to lead research on the transportation challenges identified in the study. The full report is available at [www.transportation.gov/policy-initiatives/beyond-traffic-2045-final-report](http://www.transportation.gov/policy-initiatives/beyond-traffic-2045-final-report). ■

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