

**ROAD
MACHINERY****KOMATSU®**

ROAD TO SUCCESS

A PUBLICATION FOR AND ABOUT ROAD MACHINERY LLC CUSTOMERS

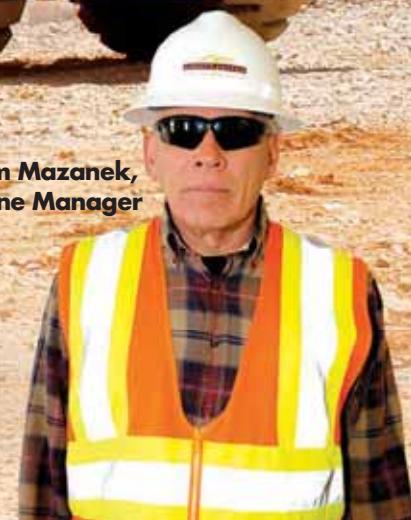
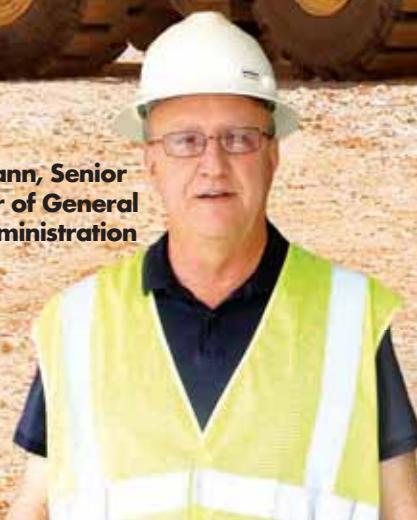
GOLDEN QUEEN MINING COMPANY

Soledad Mountain Project involves
reopening a gold and silver mine
near Mojave, California



Ken Mann, Senior
Manager of General
Support and Administration

Tim Mazanek,
Mine Manager



A MESSAGE FROM ROAD MACHINERY



Sloan Brooks



Dear Valued Customer:

Three years ago, Komatsu introduced its first *intelligent* Machine Control product, a D61i-23 dozer. Now, the second generation is available with the launch of the D61i-24 models, which you can read about in this issue of your Road To Success magazine.

Both of these machines use Komatsu's integrated *intelligent* Machine Control technology, a 3-D-based system with semi-automation, which eliminates masts and cables. The technology does more than keep a dozer's blade on grade. It adjusts loads on the fly and monitors track slippage to ensure that operators are moving as much dirt as possible and are working efficiently.

The same technology was added to three Komatsu excavators with amazing results. The integrated 3-D system takes excavator operation to another level compared to the 2-D-aftermarket systems. Find an interesting article inside that highlights the differences between 2-D and 3-D, helping you make an informed choice on which is better for your business.

Many other new machines have sophisticated technology built-in as well, such as Komatsu's KOMTRAX telematics system, which lets you track hours, idle time, fuel usage and machine location. That capability recently came in handy for one contractor whose machine was stolen. Thanks to KOMTRAX and the assistance of his Komatsu dealer, it was recovered within 24 hours.

If you would like information on any of these products or others, please call or stop by one of our branch locations.

Sincerely,
ROAD MACHINERY LLC

A handwritten signature in black ink, appearing to read "Sloan Brooks".

Sloan Brooks
President & COO

**A second
generation
heads toward
the future**



WWW.RMLROADTOSUCCESS.COM

ROAD TO SUCCESS

A PUBLICATION FOR AND ABOUT ROAD MACHINERY LLC CUSTOMERS

IN THIS ISSUE

GOLDEN QUEEN MINING COMPANY

Read about the Soledad Mountain Project, which involves reopening a gold and silver mine near Mojave, California.

MINING NEWS

Enjoy a recap of the latest innovative mining equipment Komatsu showcased during MINExpo 2016.

GUEST OPINION

Find out why business insiders believe that the construction industry will continue to offer high-paying career opportunities.

INDUSTRY OUTLOOK

The next wave of innovation is on its way for construction professionals, and each new solution could redefine the industry. Check out the latest advancements inside.

INNOVATIVE PRODUCTS

From first to last pass, the new D61i-24 dozers are great choices for high production, low fuel consumption and decreased operating costs. Read the details in this article.

ENHANCED FEATURES

Learn how the D39-24 dozers provide a variety of customizable performance settings to match engine output to application.



ARIZONA

PHOENIX CORP.
4710 E. Elwood St., Ste. 6
(602) 252-7121

PHOENIX REMAN
716 S. 7th St.
(602) 252-7121

GILBERT (PHOENIX)
1339 W. San Pedro
(480) 545-2400

PREScott
1071 Commerce Dr.
(928) 778-5621

SUPERIOR
98 West High School Rd.
(520) 689-2405

TUCSON
3285 E. 44th St.
(520) 623-8681

CALIFORNIA

BAKERSFIELD
3501 Unicorn Rd.
(661) 695-4830

FRESNO
4199 E. Jefferson Ave.
(559) 834-3215

HAYWARD
1441 Industrial Pkwy. W.
(510) 659-1903

MOJAVE
15843 K St.
(661) 824-2319

PERRIS
475 W. Rider St.
(909) 355-3600

PICO RIVERA
3539 San Gabriel River Pkwy.
(562) 699-6767

REDDING
1164 Prestige Way
(530) 229-3820

SACRAMENTO
3650 Seaport Blvd.,
West Sacramento
(916) 375-3540

SANTA ROSA
3350 Regional Pkwy.
(707) 544-4147

Road Machinery LLC is an equal opportunity and Affirmative Action employer. We will not discriminate based on race, color, religion, sex, national origin, veteran status or disability. RML is a government contractor and sub-contractor and is subject to federal provisions as required by the OFCCP.

THE PRODUCTS PLUS
THE PEOPLE TO SERVE YOU!

EXECUTIVE TEAM

Sloan Brooks
President & COO

Hitoshi "Gucci" Sakaguchi
Chief Executive Officer

Akira "Terry" Ito
VP Corporate Planning

Jamie Carson
GM of Sales and Marketing

Ted Alonzo
GM of Product Support

ARIZONA

Jamie Carson
GM of Sales and Marketing

CALIFORNIA

Rick Dennis
Regional Sales Manager
Northern California

Steve Morico
Regional Sales Manager
Southern California



Printed in U.S.A.

© 2016 Construction Publications, Inc.



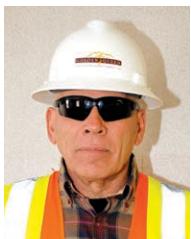
Discover more at
RMLRoadToSuccess.com

GOLDEN QUEEN MINING COMPANY

Soledad Mountain Project involves reopening a gold and silver mine near Mojave, California



Ken Mann,
Senior Manager of
General Support
and Administration



Tim Mazanek,
Mine Manager

About 100 miles north of the greater Los Angeles metro area is a region that once flourished with gold and silver mines. For the last half century however, mining activity has been relatively non-existent. Even though production has shut down, there are still plenty of valuable resources available in the hills that comprise the region. Golden Queen Mining Company is now going after these resources at a mine known as the Soledad Mountain Project, just south of Mojave, California.

"Once we got through the permitting process and financing was in place, we began to put in the infrastructure, including a maintenance shop and testing lab, and ordered equipment," explained Ken Mann, Senior Manager of General Support and Administration. "Preproduction mining, which is overburden removal to reach the ore veins, began last year with a goal of getting to and harvesting the gold and silver veins by last fall. We met that goal."

Among Golden Queen Mining Company's Komatsu fleet are HM400 articulated trucks and 100-ton HD785-7 rigid-frame trucks. "The articulated trucks work very well for mining in small areas," said Mine Manager Tim Mazanek. "If we have additional open space, we turn to the larger HD785s for hauling massive amounts of material more efficiently."



The gold and silver is located in several veins and zones that are between five and 150-feet thick, 325- to 3,000-feet long and 300- to 1,000-feet deep. Production is expected to average approximately 74,000 ounces of gold and nearly 800,000 ounces of silver per year, once full production is achieved. Projections indicate nearly 807,000 ounces of gold and 8.3 million ounces of silver production – depending on several factors – in a span of 11 years, which is the calculated life of the mine, according to a 2015 feasibility study.

"As we drill and blast in new areas, we take samples to our lab for analysis," reported Mine Manager Tim Mazanek. "The lab determines if an area has ore or waste, and that tells us where to haul the material. Ore goes to our primary crusher, and the waste is sent to other locations in the mine for various uses."

The primary crusher is part of a three-stage process that includes a high-pressure grinding roll (HPGR) in the third step, which sizes and prepares ore particles for heap leaching. Assessments done by Golden Queen and others showed HPGR benefits could include higher gold and silver recovery and faster extraction rates, among many others.

Producing doré bars

Golden Queen uses open-pit mining methods as well as cyanide-heap leaching and Merrill-Crowe processes to recover gold and silver from crushed ore. Construction of a massive, sloped heap-leach system was part of the infrastructure work. It consists of a clay liner, a plastic liner on top of the clay and a thick layer of rock. Mined materials are placed on top of the system and a diluted cyanide solution is sprinkled over it, dissolving the gold and



► VIDEO

Golden Queen Mining Company utilizes several pieces of Komatsu equipment, including a WA900-3 used to load one of six HD785-7 rigid-frame trucks that move materials to the primary crusher or for use in other areas of the mine. "Road Machinery put together an attractive package, and Komatsu is well-known in the mining industry for its quality and reliability," said Mine Manager Tim Mazanek. "We're very pleased with the performance and production the Komatsu machines provide."

silver as it goes through the rock. The resulting solution runs downhill on the plastic liner and is collected at the bottom.

Upon collection, the resulting solution goes through the Merrill-Crowe process where zinc is added because gold and silver attach to it. Those minerals are filtered off and melted down into a sludge for making doré bars – a combination of gold and silver – that are shipped to a refinery.

"At full production we'll have four major pits and two or three smaller ones," said Mann. "Our workforce will ultimately be about 185 people, and we've worked hard to hire from the local area as much as possible. Our process group that handles the cyanide solution currently operates around-the-clock. The mining group works 24 hours a day, five days a week, but eventually it will be 24/7 as well."

Road Machinery helps build large Komatsu fleet

Golden Queen Mining uses several pieces of Komatsu equipment to mine, process and move materials. The company worked with Road Machinery, LLC to acquire HM400s that were converted into 8,000-gallon water trucks; PC240LC-11 and PC800LC-8 excavators; D275, D375 and D65 tracked dozers; a WD600 wheeled dozer; WA800 and WA900-3 wheel loaders; a GD655 motor grader; as well as HM400 articulated and 100-ton HD785-7 rigid-frame trucks.

Excavators hammer, dig and load materials while wheel loaders help fill trucks for transport to crushers. Dozers pioneer new roads, push and stockpile earth and rip in hard areas.



A Golden Queen Mining Company operator breaks rock using a Komatsu PC240LC-11 excavator fitted with an NPK hammer.

Haul-road maintenance is accomplished with the motor grader.

"Road Machinery put together an attractive package, and Komatsu is well-known in the mining industry for its quality and reliability," Mazanek noted. "We're very pleased with the performance and production the Komatsu machines provide. The articulated trucks work very well for mining in small areas, and if we have additional open space, we turn to the larger HD785s for hauling massive amounts of material more efficiently."

Road Machinery assembled the machines on-site and provided initial service work before Golden Queen mechanics took over their care. Road Machinery also opened a new facility in Mojave

Continued . . .

Dealer support is key in selecting equipment

... continued

so that service technicians and parts are closer to the mine, as well as for supporting other customers in the area.

"That says a lot about Road Machinery's commitment to customer service," Mazanek remarked. "Its location is just a few miles away, and that enables us to keep less inventory on-site. It also means that they are close if we need service, but with the new Komatsu equipment, that hasn't been an issue."

"One of the most important aspects of choosing equipment is dealer support," Mann added. "Road Machinery has been excellent to work with from the start. They answered all of our questions and ensured that we had the proper machines to maximize our productivity. We've built a great ongoing relationship with Road, especially with Steve Morico (Regional General Manager Southern California), Jack Hiatt (Project Manager) and Leonard Swett (Parts Supervisor)."

Aggregate sales

In addition to its gold and silver mining activities, Golden Queen is also focusing on aggregate products and eventually sales of these items. Waste rock and sand from overburden removal and mining activities are processed into new aggregate products, such as riprap, stone and sand. Currently, Golden Queen stockpiles these materials on-site.

Research of the mine site indicated that up to one million tons of aggregate material could be produced and made available. This production is expected to help supply the areas in relatively close proximity to the mine that are considerably short of these products. The California Department of Transportation predicts that aggregate demand in towns and counties immediately surrounding Mojave is nearly 13-million tons per year, and only about 27 percent of that need is currently being fulfilled.

"It's a great use of the by-product from the mining process," said Mazanek. "Eventually, we plan to sell to outside customers. We have permits in place, and we believe there is a great potential opportunity for an aggregate producer to partner with us or subcontract on-site." ■



Golden Queen Mining Company Senior Manager of General Support and Administration Ken Mann (left) meets with Road Machinery Parts Supervisor Leonard Swett at the Golden Queen facility outside of the mine. "One of the most important aspects

of choosing equipment is dealer support," Mann said. "Road Machinery has been excellent to work with from the start. We've built a great ongoing relationship."





PC240LC-11

TIER 4 FINAL EXCAVATOR

- Improved engine efficiency with lower fuel consumption
- Large DEF tank capacity for operation on slopes
- Hydraulic closed-center load sensing system
- Spacious and quiet cab
- Auto idle shutdown

I AM KOMATSU

RYAN HAZELTON / SALES REP / ANDERSON EQUIPMENT / MANCHESTER, NH

"I sell a variety of quality Komatsu equipment. Take the PC240LC-11 excavator. It's got great features like a hydraulic closed-center load sensing system (CLSS) that provides quick response and smooth operation. Its large, quiet operator cab is more comfortable. Better engine efficiency improves response and helps get the most from every gallon of fuel. More innovation and more choices. That's why I AM KOMATSU."

SUPPORTED WITH PRIDE

KOMATSU®

komatsuamerica.com



Copyright ©2016 Komatsu America Corp. All Rights Reserved



MASTER YOUR FUTURE

Komatsu showcases innovative new products at MINExpo 2016



Rich Smith,
Vice President,
Product and
Services Division

Companies often talk about the future at shows like MINExpo 2016, but Komatsu literally gave attendees a sneak peek at what's ahead with its display at the Las Vegas Convention Center. Komatsu's theme was "Master Your Future," and among the highlighted products that drew heavy attention was the cableless Innovative Autonomous Haulage Vehicle (IAHV) with a 254-ton (230-metric-tonne) payload.

"MINExpo is a wonderful event that showcases technology and solutions for the mining industry," said Rich Smith, Komatsu Vice President, Product and Services Division. "For Komatsu, it is a premium opportunity to engage with customers and share our latest technologies in equipment. It also allows us

Attendees check out the new Komatsu PC4000-11 at MINExpo 2016. It features a Tier 4 Final 1,875-horsepower engine and can be configured as a shovel or backhoe.



to work closely with customers to develop real-world solutions that provide actual value today. We deliver products, solutions and services that meet today's needs and open a window to the possibilities of the future."

Komatsu developed the concept 2,700-horsepower IAHV to maximize the advantages of unmanned operation and eliminate K-turns at loading and unloading sites. It distributes equal load to all four tires when loaded or unloaded, and by adopting four-wheel drive, retarder and steering, it aims for high performance in both forward and reverse travel. Komatsu expects the IAHV to significantly improve productivity at mines where existing unmanned haulage vehicles face challenging conditions, such as slippery ground as well as confined spaces for loading. No date is set for its formal release.

"The IAHV is going to change the mining industry," said Smith. "It's a completely radical design – no cab, four-wheel drive, four-wheel steering, and it's autonomous. The IAHV, along with the other Komatsu equipment on display, really shows what the future of mining will look like."

Attendees also saw the present with the North American introduction of the PC4000-11, which is powered by a Tier 4 Final 1,875-horsepower, 16-cylinder engine and features a timesaving engine-oil management system. Best suited to pair with 150- to 240-ton trucks, it can be configured as a shovel or backhoe. Various buckets and wear packages are available to suit multiple material densities and properties.

New dozer, truck coming soon

Back to the future, Komatsu previewed its new 930E-5 mining truck and D375Ai-8



► VIDEO

The centerpiece for Komatsu's MINExpo 2016 display was its new cableless Innovative Autonomous Haulage Vehicle (IAHV), a 2,700-horsepower mining truck with a 254-ton (230-metric-tonne) payload, four-wheel drive and four-wheel turning.

dozer, both of which will be available in 2017. The 636-horsepower D375Ai-8 is the first mining-class dozer with *intelligent* Machine Control, and it has structural enhancements for increased durability of the mainframe and track frame. It increases production and cycle times and delivers 20 percent greater horsepower in reverse.

The 930E-5 will join a 930 line that is the world's most popular for ultra-class mining trucks. It has a 2,700-horsepower Tier 4 Final engine that reduces fuel consumption up to 5 percent and delivers a 320-ton payload. It's a good match in large-scale mining applications with big bucket shovels of 49 to 55 cubic yards, such as the Komatsu PC7000 and PC8000.

Additional features of Komatsu's display booth included the recently released WA600-8 wheel loader and information on maximizing production and efficiency. More than 43,000 people attended the event, which had more than 2,000 exhibitors, and 840,000 square feet of exhibit space.

"We were very excited to debut our newest mining machines at MINExpo," proclaimed



Komatsu's D375Ai-8 dozer is the first mining-class dozer equipped with *intelligent* Machine Control. It was featured at MINExpo 2016 and will be available in 2017.

Smith. "We have a commitment to the mining industry. These new machines were designed to lower the total operating costs for customers. We want to help them work as productively and as efficiently as possible." ■

NPK ATTACHMENTS

NPK manufactures an extensive line of the most productive attachments, offering you a wide variety of solutions to most of your construction, demolition, recycling, mining and quarrying needs! The NPK trademark has become a symbol for quality products worldwide, including the greatest selection of hydraulic hammers, pedestal boom systems, primary/secondary crushers, scalers, compactor/drivers, and material processors.



Please contact your
local Road Machinery Branch

**ROAD
MACHINERY**
www.roadmachinery.com

CORPORATE - PHOENIX, AZ • (602) 252-7121
GILBERT (PHOENIX), AZ • (480) 545-2400
TUCSON, AZ • (520) 623-8681
SUPERIOR, AZ • (520) 689-2405
PREScott, AZ • (928) 778-5621
FRESNO, CA • (559) 834-3215
PERRIS, CA • (909) 355-3600

REDDING, CA • (530) 229-3820
SACRAMENTO, CA • (916) 375-3540
BAKERSFIELD, CA • (661) 695-4830
HAYWARD, CA • (510) 659-1903
PICO RIVERA, CA • (562) 699-6767
MOJAVE, CA • (661) 824-2319

Visit us on the web at
www.npkce.com

GUEST OPINION

HIGH-PAYING CAREERS

Construction affords a wealth of opportunities with substantial pay and benefits

There's no better time to work in the construction industry. With a growing shortage of skilled workers, salaries remain high and career opportunities are plentiful. Earlier this year, the National Center for Construction Education and Research (NCCER) released its annual Construction Craft Salary Survey, which lists the average annual salaries of craft professionals from industrial and commercial construction firms across the country. Average annual salaries ranged from \$47,100 to more than \$88,000.

As high as these salaries are, the reality is that what skilled craft professionals earn is typically far greater. The salaries listed in NCCER's survey are average, base salaries, not including overtime, per diem, bonuses or other incentives. Construction is known for having plenty of overtime and travel opportunities as well as bonuses. In addition, many contractors have incentives that pay for employee training, vacation time, retirement plans, cell phones, vehicle allowances and/or per diem or housing, depending on the length of a project.

Few industries offer the high salaries, incentives or growth opportunities found in the construction sector. While many craft professionals can earn well over six figures, it is important to remember that project location, company size, construction type, credentials, certifications and experience are some of the factors that determine a skilled professional's salary.

No limits on where craft professionals can go

These salaries show the earning potential that the construction industry offers individuals with or without a college degree. Construction

is one of the few sectors where individuals can earn while they learn through industry training programs at local community or career colleges. Regardless of where a person starts, there's no limit to where he or she can go in this industry.

In construction, individuals can enter the workforce straight out of high school and start earning a salary. From there, they can develop their skills and take advantage of endless opportunities with huge earning potential. There's no better way to earn a living if you ask me! ■



Jennifer Wilkerson,
Director of Marketing,
Public Relations and
Build Your Future
at NCCER

This article is reprinted with permission from "Breaking Ground: The NCCER (The National Center for Construction Education and Research) Blog" at blog.nccer.org.

Earlier this year, the National Center for Construction Education and Research released its annual Construction Craft Salary Survey, which lists the average annual salaries of craft professionals from industrial and commercial construction firms across the country. Average base salaries ranged from \$47,100 to more than \$88,000.



INDUSTRY OUTLOOK

TECH BOOM

See how today's technology is shaping tomorrow's jobsites

Technological revolutions don't happen overnight. Instead, they typically resemble the progression of a jobsite; one area is built, connected to another, tied to a third and so on. Once a project nears completion, the full picture finally begins to emerge. When looking at the future of technology in the construction industry, that picture is starting to come into focus.

While other industries may receive more mainstream attention for exciting advances, construction has already experienced its share of revolutionary breakthroughs, such as GPS-based grade control for machines. The next wave of innovation is on its way for construction professionals, and each one could redefine the industry.

Same tech, new purpose

Some of the most exciting technological advancements allow users to take full advantage of everyday items. Smartphones have become an essential part of daily activities, and the construction industry is adopting these new tools into its practices.

Construction companies are taking advantage of smartphone popularity and using project-management software and apps to help increase information sharing and connectivity among employees.

The Associated General Contractors of America (AGC) says that 83 percent of companies list mobile devices as their main choice of technology when managing projects outside of their traditional market area. In the AGC's 2016 industry outlook, 56 percent of companies surveyed said they planned to incorporate more mobile software and other apps in 2016. The most commonly noted was project-management software that enables companies to log daily field reports, share documents and track inventory. The AGC outlook also reported that 41 percent of companies planned to increase their information technology departments in 2016, while 11 percent expected to create one.

To access this technology and save on costs, companies are adopting a bring-your-own-device policy, which allows employees to use their personal mobile devices to access the software. This policy has proven to increase the adoption rate of the software among workers and increase connectivity and sharing of information within the company, without the expense of purchasing a new device for every employee.

Just as smartphones have demonstrated their staying power, industry professionals are betting that today's trendy tech-wearables like the Apple Watch, Fitbit fitness trackers and Google Glasses will find a place on jobsites. Steve Smith, Vice President of Strategic Industries at ClickSoftware, says that these pieces can assist companies in monitoring employee movement and help place staff members in optimal locations to increase efficiency. Additionally, the next area for potential advancement in wearable technology is clothing, which could make workplaces safer for employees.

Virtual reality (VR) – technology that was once a pipe dream saved for video games and



science-fiction movies – is also finding its way into construction applications. Thanks to innovations in cameras, virtual-reality glasses and software, the technology is becoming more cost-efficient and user-friendly. VR permits engineers to build a complete jobsite in a computer-generated program, allowing them to try multiple strategies in order to determine which is most efficient. Operators can also benefit by practicing dangerous maneuvers in a controlled environment before performing them on a jobsite. This technology application reduces the risk of injury and avoids costly rework.

Construction overhaul

Residential construction has remained largely unchanged for decades, but it may receive a major overhaul thanks to 3-D printers. Instead of raising walls and setting roofs with cranes, a 3-D printer enables contractors to create structures by laying down successive layers of material on top of each other. For 3-D construction printing, concrete is pumped through a nozzle that follows a CAD program to create the shell of a structure.

The advantages of 3-D printing come in the form of time, labor and material savings. The printer doesn't require a crew to cut and secure the materials – it prints only what it needs, where needed, in little time and with no excess material. According to a May 2015 BBC News report, the Chinese company WinSun used a 3-D printer to build 10 full-sized, single-story homes in one day.

Simon Austin, a lead researcher for the School of Civil and Building Engineering at the United Kingdom's Loughborough University, tempers expectations. He thinks 3-D printing won't make an impact in efficiently mass producing complex elements and pieces used in traditional, pre-fabricated and modular construction until 3-D printers become easier to transport and cheaper to purchase. "The idea of bringing a gantry and printing machine to a site to print entire houses is a bit far-fetched at this time," Austin said.

Wide-sweeping innovations related to how buildings are made could be a few years away, but the future of what's used in their construction is already here. Today, many designers are looking to use "smart" materials that are both sustainable and enhance the efficiency of



their structures. Emerging Objects is developing materials, such as its Cool Bricks, that can respond to environmental conditions. The bricks are printed in 3-D and are porous, so they can hold water and allow air to pass through, creating natural air conditioning.

In Mexico City, Elegant Embellishments used a titanium dioxide paint that absorbs smog and converts it into calcium nitrate, which is harmless, to coat the façade of a hospital. The company reports that the façade reduces pollution equal to that created by approximately 1,000 cars per day.

One of the most unique material advancements is the introduction of self-healing concrete. Microbiologists at Delft University of Technology in The Netherlands created it by embedding self-activating, limestone-producing bacteria. This innovation could help reduce the amount of new concrete produced and lower the cost and frequency of repairs to streets and buildings.

The future of labor

One of the most common fears associated with these innovations is that the approaching technology will make human labor obsolete. While reducing expenses, especially labor costs, is at the center of these innovations, experts say that those fears are unfounded. Currently, the latest technology is either too expensive for many companies to own or too difficult to transport and store. While some positions may be lost, most of these advancements also create new jobs in other areas of the industry.

The central goal of the latest technology – whether it's the grade-control machines or self-healing concrete – is to improve the productivity, safety and efficiency of jobsites and make the construction industry stronger. ■

Self-healing concrete features self-activating, limestone-producing bacteria embedded in the concrete. The rise of "smart" materials such as this could dramatically reduce the amount of new concrete produced and reduce the frequency of road repairs.

INNOVATIVE PRODUCTS



D61PXi-24

D61EXi-24

SECOND GENERATION

See how Komatsu's new D61i-24 dozers ensure high production from first pass to last



Sebastian Witkowski,
Komatsu Product
Marketing Manager



Chuck Murawski,
Komatsu Product
Marketing Manager

During the past three years, Komatsu has launched several *intelligent* Machine Control dozers that provide greater productivity and efficiency from first rough cut to finish grade. Now, Komatsu introduces the second generation of the dozers that started it all, with the new D61EXi-24 and D61PXi-24, which feature more efficient Tier 4 Final engines.

Like their predecessors, the new D61i-24 models include factory-integrated GPS grade control that eliminates the need for blade-mounted cables and masts. Once engaged, the system automatically starts the cut and lowers the blade to grade in a typical dozing pass. If the load increases to maximum capacity, the blade automatically raises to minimize track slip, ensuring productive

Komatsu's new second-generation D61i-24 dozers feature factory-integrated GPS grade control that eliminates the need for blade-mounted cables and masts. They achieve up to 8 percent greater efficiency in moving materials, based on start-to-finish-grade testing against typical aftermarket machine-control systems.

Quick Specs on Komatsu D61i-24 Models

Model	Horsepower	Operating Weight	Blade Capacity
D61EXi-24	168 hp	41,094 lb	4.41 cu yd
D61PXi-24	168 hp	43,167 lb	4.98 cu yd



dozing. This allows the dozers to achieve up to 8 percent greater efficiency in moving materials, based on start-to-finish grade testing against typical aftermarket machine-control systems.

"From first pass to last – rough cut to finish grade – the machine senses blade load, minimizes track slip and ensures that operators get the most from every push," said Sebastian Witkowski, Komatsu Product Marketing Manager. "Also, eliminating the need to install or remove blade-mounted sensors each day not only reduces wear and tear and potential downtime, but it also saves the operator's valuable time that can be used to run the machine longer."

Operators can select from among four distinct machine-control operating modes (cut and carry, cutting, spreading and simple grading) to optimize performance to the application. They can also tailor blade loads to material conditions by choosing from light, normal or heavy-blade load settings.

Lower maintenance, repair costs

The new D61i-24 dozers feature Komatsu's Parallel Link Undercarriage System (PLUS) that provides up to double the wear life of traditional systems, lowering maintenance and repair costs. A new Triple Labyrinth final drive provides added protection for the final-drive floating seals.

"Standard and *intelligent* Machine Control D61 dozers remain popular because their size makes them a great fit on a wide variety of jobsites and in a broad range of applications," said Chuck Murawski, Komatsu Product Marketing Manager. "D61i dozers combine all the benefits of a base machine with the greater efficiency of our integrated machine control. The new D61i-24 is a great choice for high production, low fuel consumption and decreased operating costs." ■

D61PXi-24



intelligent MACHINE CONTROL

- First to last pass grading technology
- Revolutionary track slip control
- External stroke sensing hydraulic cylinders
- New Tier 4 Final technology



I AM KOMATSU

ANDY CHAPMAN / SALES REP / LINDER INDUSTRIAL MACHINERY / GREER, SC

"From financing to product quality to support and training after the sale, Komatsu delivers everything my customers demand. I've been selling their full line, including the PXi and EXi series dozers, for years. Innovation and the exclusive *intelligent* Machine Control set them apart from the others. And that's why I AM KOMATSU."

SUPPORTED WITH PRIDE

KOMATSU®

komatsuamerica.com



Copyright ©2016 Komatsu America Corp. All Rights Reserved.

014



RENTAL MACHINES



KOMATSU® ARTICULATED TRUCKS

MODEL	MAX WEIGHT	PAYOUT	CAPACITY	TRAVEL SPEED	H.P.	TIER
HM300	116,823 lbs	30.9 TONS	22.4 yd	36.6 mph	332	T4f
HM400	162,597 lbs	44.1 TONS	31.4 yd	34.7 mph	469	T4f



KOMATSU® CRAWLER DOZERS

MODEL	WEIGHT	BLADE	CAPACITY	BLADE WIDTH	H.P.	TIER
D39EX*	20,834 lbs	PAT	2.89 yd	8'11"	105	T4f
D39PX	21,804 lbs	PAT	3.01 yd	9'9" LGP	105	T4f
D51EX*	28,484 lbs	PAT	3.5 yd	10'0"	130	T4f
D51PX	29,145 lbs	PAT	3.8 yd	11'0" LGP	130	T4f
D61EX*	37,237 lbs	PAT	4.5 yd	10'9"	168	T4f
D61PX	41,734 lbs	PAT	5.0 yd	12'8" LGP	168	T4f
D65EX	47,355 lbs	PAT/Sigma	5.9 yd	11'2"	205	T4f
D65PX	49,315 lbs	PAT/Sigma	5.78 yd	13'2" LGP	205	T4f
D65EXi	49,559 lbs	PAT/Sigma	5.78 yd	11'2"	205	T4f
D155	87,100 lbs	Sigma	12.3 yd	13'4"	354	T4f
D275	113,604 lbs	Sigma	17.9 yd	14'1"	449	T3
D375	157,940 lbs	Sigma	24.2 yd	15'5"	610	T3

*Machine is available with integrated GPS controls.



KOMATSU® HYDRAULIC EXCAVATORS

MODEL	WEIGHT	DIG DEPTH	CAPACITY	DIG FORCE	H.P.	TIER
PC88	18,558 lbs	15'2"	.37 yd	13,780 lbs	55	T4f
PC138	31,504 lbs	18'0"	.34 - 1.0 yd	18,300 lbs	92	T4f
PC170	37,740 lbs	20'6"	.48 - 1.24 yd	24,470 lbs	115	T4f
PC210	48,722 lbs	21'9"	.66 - 1.22 yd	29,762 lbs	165	T4f
PC210i	48,950 lbs	21'9"	.66 - 1.57 yd	29,762 lbs	158	T4f
HB215	48,175 lbs	21'9"	.66 - 1.57 yd	31,080 lbs	139	Hybrid
PC228	54,405 lbs	21'9"	.66 - 1.57 yd	31,085 lbs	148	T4f
PC240	55,129 lbs	22'8"	.76 - 1.85 yd	34,171 lbs	177	T4f
PC290	70,702 lbs	22'8"	.76 - 1.85 yd	34,171 lbs	196	T4f
PC360	80,547 lbs	24'3"	.89 - 2.56 yd	51,150 lbs	257	T4f
PC490	109,250 lbs	30'2"	1.5 - 4.0 yd	53,790 lbs	359	T4f
PC800	188,670 lbs	28'3"	2.5 - 6.0 yd	72,750 lbs	487	T3



KOMATSU® MOTOR GRADER

MODEL	WEIGHT	MOLDBOARD	DRIVE	H.P.	TIER
GD655	37,346 lbs	14'0"	4WD	218	T4f



KOMATSU® WHEEL LOADERS

MODEL	WEIGHT	TIPLOAD	CAPACITY	BREAKOUT	H.P.	TIER
WA270	28,531 lbs	20,216 lbs	3.0 yd	29,487 lbs	149	T4F
WA320	33,731 lbs	21,186 lbs	3.5 yd	36,310 lbs	165	T4F
WA380	40,532 lbs	29,630 lbs	4.0 yd	35,495 lbs	191	T4F
WA470	53,352 lbs	29,630 lbs	5.0 yd	43,163 lbs	272	T4F
WA500	79,802 lbs	54,326 lbs	8.0 - 9.8 yd	51,150 lbs	353	T4F
WA600	118,385 lbs	67,200 lbs	10.2 yd	87,230 lbs	527	T4F

KOMATSU®



ROAD
RENTS



HAMM® COMPACTION ROLLERS

MODEL	TYPE	SIZE	CLASS	OPERATING WEIGHT	H.P.	TIER
H7iPB	PAD	66"	6-8 TON	15,542 lbs	91	T4i
H7iS	SMOOTH	66"	6-8 TON	15,542 lbs	91	T4i
H11iPB	PAD	84"	12-14 TON	23,975 lbs	134	T4i
H11iS	SMOOTH	84"	12-14 TON	22,730 lbs	134	T4i



HAMM® ASPHALT ROLLERS

MODEL	TYPE	SIZE	CLASS	OPERATING WEIGHT	H.P.	TIER
HD12	VV	48"	3-5 TON	5,964 lbs	31	T4i
HD14	VV/VT	56"	4-5 TON	7,651 lbs	46	T4i
HD110	VV/V0	66"	12-15 TON	22,388 lbs	134	T4i
HD120	VV/V0	78"	15-17 TON	28,164 lbs	134	T4i
HD140	VV/V0	84"	15-17 TON	29,310 lbs	124	T4i



HAMM® PNEUMATIC ROLLERS

MODEL	CLASS	OPERATING WEIGHT	H.P.	TIER
GRW280	8 WHEEL	32,926 lbs	134	T4i
HD14 TT	6 WHEEL	7,651 lbs	47	T4i



NPK HYDRAULIC BREAKERS

MODEL	IMPACT ENERGY CLASS	EXCAVATOR CLASS	WEIGHT
PH4	1300 ft lbs	PC88	1,064 lbs
GH6	2000 ft lbs	PC138	2,150 lbs
GH7	2500 ft lbs	PC170	2,900 lbs
GH10	4000 ft lbs	PC200-290	4,200 lbs
GH12	5500 ft lbs	PC290	5,650 lbs
GH15	8000 ft lbs	PC300-360	6,800 lbs
GH18	12,000 lbs	PC400-490	7,800 lbs



NPK MATERIAL PROCESSORS & SHEARS

Model	JAW OPENING	JAW TYPE	EXCAVATOR CLASS	WEIGHT	MAX CRUSH
M-28G	35.8 in	Pulerizing	PC200	6,850 lbs	125 tons
M-28K	25.1 in	Shearing	PC200	6,900 lbs	133 tons
M-35G	38.6 in	Pulerizing	PC300	7,544 lbs	127 tons
M-35K	22.8 in	Shearing	PC300	7,831 lbs	125 tons



drumcutters DRUM CUTTERS

Model	WIDTH	WEIGHT	CUTTING FORCE PSI	EXCAVATOR CLASS	PICKS
ER600	30.7 in	1,800 lbs	6,800-8,100	22-40 K	48
ER650	31.0 in	2,200 lbs	7,300-10,900	33-55 K	48
ER1500	35.0 in	3,858 lbs	9,100-15,700	44-88 K	48

General Rental Information

All rates are 28 day billing cycle (one month). Rates reflect 160 hr per month / 70% overtime rate. All units with GET will be shipped with minimum 50% wear. All units will be subject to excessive tire wear and or tire damage. All units are FOB Road Machinery Facilities

ROAD MACHINERY

KOMATSU®

CALIFORNIA

Pico Rivera 562.699.6767
 Perris 909.355.3600
 Mojave 800.989.7121
 Bakersfield 661.695.4830
 Fresno 559.834.3215
 Hayward 510.659.1903
 Santa Rosa 707.544.4147
 Sacramento 916.375.3540
 Redding 530.229.3820

ARIZONA

Gilbert 480.545.2400
 Phoenix 602.252.7121
 Prescott 928.778.5621
 Tucson 520.623.8681
 Corporate 602.252.7121



www.roadmachinery.com



"IT'S ABOUT RELATIONSHIPS"
MY CUSTOMERS LOVE KOMATSU!

I AM KOMATSU

GENE SNOWDEN III / MACHINE SALES REP / BRANDEIS MACHINERY / LOUISVILLE, KY

"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."



SUPPORTED WITH PRIDE

KOMATSU®

komatsuamerica.com



Copyright ©2016 Komatsu America Corp. All Rights Reserved

010

ENHANCED FEATURES

ANOTHER SET OF VERSATILE DOZERS

Komatsu's D39-24s feature customizable settings for maximum efficiency

Customers have come to expect innovative quality coupled with industry-leading efficiency from Komatsu's dozers. The new D39EX-24 and D39PX-24 crawler dozers deliver on those expectations. The latest editions of the popular dozers continue to produce outstanding power while increasing fuel efficiency.

"If you're looking for nimble, powerful machines that are easy to transport and a breeze to operate, these are the dozers for you," said Komatsu Product Manager Jonathan Tolomeo. "Residential and commercial development, highways or golf courses – the D39-24s get it done in any of these light-to-medium dozing and fine-grading applications."

The D39-24s still sport the award-winning, super-slant-nose design, but feature a host of enhancements. The improved Tier 4 Final-certified, 3.26-liter engine boasts 105 horsepower. Fuel efficiency was improved by nearly 5 percent with the addition of the Selective Catalytic Reduction system and diesel exhaust fluid. The Komatsu Diesel Oxidation Catalyst provides 98 percent passive regeneration, and the new auto-idle shutdown and economy modes help reduce idle time and save fuel.

Customized working modes

The D39-24 dozers also include a variety of customizable performance settings to allow operators to match engine output to application. Operators can work in either a quick-shift, three-speed mode or a 20-speed transmission setting to suit personal preferences.

"Operators now have the ability to work in a mode that is best-suited for the jobs at hand," explained Tolomeo. "Working this way, in conjunction with the other upgrades, helps boost productivity and efficiency."

Monitoring efficiency

The working environment inside the D39-24s provide operators with all the tools necessary to make sure they are working as efficiently as possible. The dozers are equipped with a Level 5 KOMTRAX telematics system that tracks key machine metrics, such as diesel exhaust fluid consumption, fuel level, operating hours, location, cautions and maintenance alerts. The new Operator ID feature makes it possible to display those metrics by operator, application or job.

The cab features a large, multi-lingual, seven-inch, high-resolution LCD monitor with Ecology Guidance, in addition to a standard, rearview-monitoring system. ■



Jonathan Tolomeo,
Komatsu Product
Manager

Quick Specs on Komatsu D39-24 Models

Model	Horsepower	Operating Weight	Blade Capacity
D39EX-24	105 hp	21,891 lb	2.89 cu yd
D39PX-24	105 hp	22,817 lb	3.14 cu yd

The new Komatsu D39-24 crawler dozers feature a variety of customizable performance settings to allow operators to match work modes to application. "Anyone looking for nimble, powerful machines that are easy to transport and a breeze to operate, these are the dozers for you," said Komatsu Product Manager Jonathan Tolomeo.



KOMATSU & YOU

KOMATSU CUSTOMER CENTER

Facility provides acres of opportunities to help customers find the best machines for their jobs



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.

Tom Suess, Director of Training and Publications

Tom Suess joined Komatsu's Customer Center about a year ago after working most recently as a National Account Manager for the company. As the Director of Training and Publications, Suess oversees the Cartersville, Georgia, facility's operations related to demonstrations, training and publications.

"I view the Customer Center as a showcase that's dedicated to providing world-class services to Komatsu personnel, distributors, and most importantly, our customers," said Suess. "One of my goals is to increase the number of people who utilize the Customer Center and take advantage of all that it offers. For most of my tenure with Komatsu I have visited our customers; in my current role I am now lucky enough to have them come and visit me!"

Suess began his career with Komatsu in the finance division nearly 20 years ago after graduating from Illinois State University. He later went on to obtain a master's degree in Business Administration from the University of Phoenix. After working in finance, Suess transitioned into sales and served as a District Sales Manager, then as a Regional Sales Manager before earning a promotion to Director of Business Planning and Development. Suess later advanced to Director of the West Region and finally into national accounts. His diverse background allowed him to easily transition into his new role and provide a valuable customer perspective.

"I truly enjoy working with customers and helping them find the right pieces of equipment," Suess said. "I believe the Customer Center is a perfect complement to our machinery as it shows customers our commitment to providing more than a product."

He and his wife, Erin, recently celebrated their 14th anniversary. The couple has three children, and they enjoy spending time together as a family. Suess also likes to play basketball, read, golf and fish.

QUESTION: What is the Cartersville Customer Center?

ANSWER: Komatsu opened this facility in Cartersville, Georgia, in 2002 as a place to take customers so that they can see and operate Komatsu equipment first hand. It's been known by different names throughout the years, but we recently changed it to the Customer Center as a way to better reflect what it represents. As they say, only the name has changed. The focus and intent remain the same.

QUESTION: What does the Customer Center provide?

ANSWER: The center offers three main things: a demonstration site, training and publications, all of which benefit Komatsu customers. We have 600 acres of property and a wide assortment of equipment available, so that customers can visit our world-class facilities and run machines through their paces before making purchase decisions. One way we do that is by hosting customer-focused events such as Demonstration Days, which are typically in the fall and spring. The added benefit is that customers can talk with other industry professionals and compare notes. Komatsu has product managers and other personnel on hand to answer questions and ensure that customers are operating in a safe environment. In addition to large events, we also host individual customers and their respective distributors. We encourage our dealers to schedule these events through our website: www.komatsuamerica.com/service-and-support/training-and-publications.

Whether a customer or distributor, our center provides complete training and unmatched educational support services. We offer classes for our customers and dealers at our state-of-the-art center, or we can conduct either operator or technical training at a company's facility or dealer site. Customers can set up this training through their distributors. We have in-house operator



trainers who work closely with clients from the moment they arrive on site, both in our classrooms and during machine operation, to ensure that operators have a full understanding of how to get the most out of a machine. For example, they can learn which operating mode to use for the best match to an application and soil conditions.

Finally, the publications team is responsible for printing and distributing all technical documents, including shop, operating and maintenance manuals as well as field assembly guides. All of these are critical to the success of both customers and distributors as they support Komatsu products in the field. These materials provide a wealth of knowledge about Komatsu machines, so again, our customers can get the most out of their equipment. Our focus is on providing comprehensive, accurate information.

QUESTION: Does the Customer Center offer more from a training standpoint?

ANSWER: Yes. Not only does this facility conduct training for Komatsu distributors and our customers, but we also focus on providing our Komatsu customer-facing employees with routine training from the Customer Center. For instance, we held a cross-functional training course this year that provided the opportunity for our sales, service, and parts teams to collaborate in a classroom setting by working together on case studies. In addition, we also offer specialized, technical training for Komatsu's large, electric-drive trucks that are used in mining operations.

Additionally, we design online classes through our learning management system. These classes are a good way to obtain background knowledge that



Komatsu's Customer Center offers a variety of machines available for demonstration, including wheel loaders, dozers, excavators, trucks and motor graders.

Komatsu personnel are available to help with demonstrations and provide hands-on training.

The Customer Center provides classroom training to customers as well as to Komatsu distributor technicians so that they can properly diagnose and resolve issues quickly to minimize downtime.

can then be applied in the more hands-on setting provided in the Customer Center.

QUESTION: How does that benefit customers?

ANSWER: Our goal is to maximize productivity and minimize downtime. Komatsu makes world-class machinery, but even the best can experience an occasional issue or breakdown. Technicians with comprehensive knowledge of Komatsu machinery know how to resolve issues quickly to reduce downtime. If an issue or error code pops up, they know the proper procedures to diagnose and repair a machine quickly so that customers are up and running again as soon as possible. ■





Discover more

A CLOSER LOOK

THE NEXT DIMENSION

Learn how 3-D GPS-technology from Komatsu provides full picture for excavator operators



Mike Salyers,
Senior Product
Manager

Aftermarket grade-control systems revolutionized the construction industry by slashing project times, wasted material and labor costs in the late 1990s. When Komatsu's integrated *intelligent* Machine Control with semi-automation hit the market in 2013, it took the industry to another dimension, literally.

"Komatsu's *intelligent* Machine Control technology works in 3-D, so the machine knows where its reference points are in all directions, at all times," said Komatsu Senior Product Manager Mike Salyers. "With a 2-D only system, the machine simply knows where target grade is relative to a known elevation and only in the posture that the known point was measured."

When Komatsu introduced *intelligent* Machine Control on the PC210LCi-10 excavator in 2014, the improvement was dramatic. Grading efficiency increased by as much as 66 percent compared to conventional grading on a sloped surface.

The excavator's integrated, 3-D GPS technology was a massive upgrade over 2-D aftermarket machine control systems as well. The 3-D system doesn't require operators to re-establish elevation after moving the machine.

Komatsu's line of 3-D *intelligent* Machine Control excavators with semi-automation, including the PC360LCi-11, recognize the full dimensions of the bucket and how it works with the boom and arm to curl when excavating dirt. This ensures that operators maintain grade and limit overexcavating.

"With 2-D, every time operators move their machines – either to a new spot or to dump a load – they have to re-establish their positions using the bucket to define certain elevations," explained Salyers. "With the GPS system, the machine's position is updated in real time providing information so the operator can focus on digging."

"The *intelligent* Machine Control equipment can have the project plans uploaded to its computer, providing all of the information the operator needs to cut and grade even the most complex designs accurately," he continued.

For example, many house pads today have unique designs that present challenges to even the most experienced field personnel. Carving detailed bump outs can be easily and accurately performed because the machine's position is continually updated without the need to re-establish its position.

The *intelligent* Machine Control excavators are pre-programmed with the bucket's full dimensions. In combination with the semi-automatic function of the boom, the operator is ensured not to undercut the target surface no matter the position of the bucket, giving full control of cutting and grading applications.

"In conventional 2-D systems, the bucket can only be referenced from a single point – usually the bucket teeth. This can be an issue if the body of the machine is sitting on a slope; one edge of the bucket may be below the target surface and one edge above," Salyers explained. "A 3-D bucket allows the system to determine the closest point to target surface to prevent any undercut."

Komatsu is the only manufacturer to offer excavators with integrated 3-D *intelligent* Machine Control with semi-automation – the PC210LCi-10, PC360LCi-11 and PC490LCi-11. ■



TECHNOLOGY TALK

KOMTRAX LOCATES MACHINE

Telematics system helps Ates Construction recover stolen PC55MR excavator

Emergencies come in many different forms. Sometimes it's a water line break. Or, it could be finding out that the machine you need to help fix the water line has gone missing. Such was the case for Alan Ates when he went to pick up his Komatsu PC55MR excavator.

"We were doing a job and had parked the machine for the night at a designated yard," explained Ates, Owner of Ates Construction. "I got an emergency call to repair a ruptured water line the next morning and sent my guys to pick up the machine and take it to the new job. When they told me the excavator and the trailer it was on were missing, I called the police and then my Komatsu Sales Rep."

Using Komatsu's KOMTRAX telematics system, within minutes the distributor was able to pinpoint the PC55MR's location in another state about three hours away.

By simply entering the serial number of the machine, KOMTRAX showed the exact location of the stolen excavator. The police department in the city where the excavator was taken quickly confirmed the PC55MR's location and secured the machine.

Will use it more

Using information from KOMTRAX, as well as surveillance and other video, police were able to trace the time line of the machine's theft to its recovery, helping them build a case against the thieves.

"I knew the PC55MR had KOMTRAX, but I never really used it," said Ates. "That will change after this experience. I don't

think I would have seen the excavator again if it weren't for KOMTRAX. I appreciate everything my Komatsu distributor and the police did to ensure the machine was recovered." ■



Ates Construction Owner Alan Ates (second from right) is pictured with his crew and the company's PC55MR excavator, which had been stolen. Ates recovered it with the help of Komatsu's KOMTRAX telematics system. "I knew the PC55MR had KOMTRAX, but I never really used it," said Ates. "That will change after this experience. I don't think I would have seen the excavator again if it weren't for KOMTRAX."

CLOSE TO OUR CUSTOMERS



WIRTGEN GROUP

CLOSE
TO
OUR
CUSTOMERS

► Find out more: www.wirtgen-group.com/america



WIRTGEN



VÖGELE



HAMM



KLEEMANN



www.roadmachinery.com

CORPORATE OFFICE
PHOENIX, AZ
4710A E. Elwood St., Ste. 6
(602) 252-7121
FAX: (602) 253-9690

TUCSON, AZ
3285 E. 44th St.
(520) 623-8681
FAX: (520) 798-1419

GILBERT (PHOENIX), AZ
1339 W. San Pedro
(480) 545-2400
FAX: (480) 545-2457

PRESCOTT, AZ
1071 Commerce Dr.
(928) 778-5621
FAX: (928) 778-5640

SUPERIOR, AZ
98 West High School Rd.
(520) 689-2405
FAX: (520) 689-2475



SPECIAL RECOGNITION

Discover more at
RMLRoadToSuccess.com

CELEBRATING 30 YEARS

Chattanooga Manufacturing Operation builds the future as it reflects on the past

As it celebrates its 30th anniversary, Komatsu's Chattanooga Manufacturing Operation (CMO) is firmly planted in the present and looking ahead to the future. This forward focus is evident as the Chattanooga, Tennessee, facility recently began mass production of the *intelligent* Machine Control PC490LCi-11, the world's largest excavator with a fully factory-integrated machine-control system.

"The future of construction is already here thanks to innovative machines like the PC490LCi-11," said General Manager Bruce Nelson. "We couldn't be prouder to assemble this revolutionary excavator at CMO. This plant continues to be a production leader, and having the PC490LCi-11 as one of the many products in our lineup highlights our staff's exceptional capabilities and the trust Komatsu puts in CMO to produce quality products."

The Tier 4 Final, 359-horsepower PC490LCi-11 handles a wide variety of jobsite tasks, including mass excavation, trenching and fine grading. It boosts production and efficiency while removing

Continued . . .



Bruce Nelson,
General Manager,
Chattanooga
Manufacturing
Operation

Komatsu demonstrated its first PC490LCi-11 at a Jobsite of the Future event earlier this year. It recently began mass production of the *intelligent* Machine Control excavator at its Chattanooga Manufacturing Operation.

► VIDEO



Komatsu personnel assemble an *intelligent* Machine Control PC490LCi-11 at the company's Chattanooga Manufacturing Operation. The PC490LCi-11 is the newest model built at one of Komatsu's premier excavator plants.

Innovation goes into building every machine

.. continued

the worry of overexcavation. The excavator's exclusive control function lets operators focus on moving materials efficiently without digging too deep or damaging the target surface.

Like other *intelligent* Machine Control excavators, the PC490LCi-11 uses 3-D design data loaded into the touchscreen display to show machine position relative to target grade. When the bucket reaches the target surface, automation kicks in to limit overexcavation. Once the target elevation is reached, no matter how hard the operator tries to move the joystick control to lower the boom, the excavator won't allow it.

Standard bearer in excavator production

CMO opened in 1986 and originally assembled WA600 wheel loaders. It has also produced dozers, articulated and rigid-frame dump trucks as well as motor graders during the past three decades, but it eventually became a premier excavator plant. In addition to the PC490LCi-11, CMO produces six standard Tier 4 Final models that range in size from the PC210LC-11 to the PC490LC-11.

"We offer additional options, such as pipeline-spec excavators and modifications to base machines," noted Nelson. "Throughout the years we have developed ways to reduce lead times for most distributor orders, from about two months in 2009 to now, less than

New state-of-the art robotic welders perform more than 90 percent of the welds on excavator track frames. Each robotic unit can hold an entire track frame and rotate it, maneuvering in more sophisticated ways than older robotic welders.

a week. That's due to a constant focus on efficiency, as well as the dedication and hard work of the 360 CMO employees."

Additionally, this facility is the only Komatsu plant in the world that builds specialized forestry tracked machines. It produces four sizes of forestry excavators along with tracked harvesters and feller bunchers.

State-of-the-art robotic welding

Innovation goes into building every machine, and recently CMO upped the ante with the installation of new Komatsu-designed robotic welding units, technology that's not yet used in any other Komatsu plant in the world.

The robotic units make a large number of the welds on excavator track frames, while skilled, experienced welders apply the final touches manually. Each unit can hold an entire track frame and rotate it.

"We have used robotic welding units for many years, and they are good, but these state-of-the-art welders really take efficiency to another level," said Nelson. "They can maneuver in more sophisticated ways than older machines."

Adding more intelligent machines

The mix of robotic welding units and human assemblers have produced tens of thousands of machines since CMO opened 30 years ago. In addition to the current excavator lineup, the plant will begin mass producing *intelligent* Machine Control PC360LCi-11s relatively soon. Like the PC490LCi-11, it will have more components than a standard machine due to the built-in technology.

"Because we only make Tier 4 Final products at CMO, we have not yet taken on the PC210LCi-10, which was the first *intelligent* Machine Control excavator and is an Interim machine," explained Nelson. "It's anticipated that when the second generation of that machine comes around, we will likely produce it, too. As with previous products, we will refine the process of building the PC490LCi-11 and apply that to make the assembly of other *intelligent* Machine Control excavators more efficient." ■



HM300-5

THE MOST RUGGED TRUCKS

- Built-in payload meter and external display lamps
- Hydraulic wet multi-disc brakes with retarder
- Komatsu traction control system
- Selectable working modes



I AM KOMATSU

JASON ROGERS / PRODUCT SERVICE MANAGER / KIRBY-SMITH / TULSA, OK

"I've been around Komatsu products for decades. Working close with our customers and specing the right machinery for them is a key part of our success at Kirby-Smith. A full product line, including high-quality articulated trucks like the HM series, keeps my customers rolling. And that's why I AM KOMATSU."

SUPPORTED WITH PRIDE

KOMATSU®

komatsuamerica.com

Copyright ©2016 Komatsu America Corp. All Rights Reserved



015

NEWS & NOTES

Article notes rise of crowdfunding in real estate construction

A recent article on the National Real Estate Investor website noted that crowdfunding has become an important part of real estate financing, especially for apartments. A growing number of developers are using this source of funds to help build or renovate properties, in part

because banks are less likely to lend due to financial-reform regulations.

"Certainly from where they started, the growth of these crowdfunding portals seems exponential," said Lee Weaver, Senior Vice President for Northmarq Capital, a commercial real estate debt and equity provider. ■

Green building materials could hit \$255 billion in three years

The global green building materials market is on pace to hit \$255 billion by 2020, according to Zion Research and reported by Construction Dive. Public facilities, education, commercial and industrial sectors lead demand for green

materials, which was valued at more than \$127 billion two years ago. The report points out that North America accounted for more than 40 percent of the total green building materials market. ■



PALADIN
POWERFUL ATTACHMENT TOOLS

The Power of Combined Excellence®

PALADIN OFFERS THE WIDEST BREADTH OF ATTACHMENT SOLUTIONS ACROSS ALL APPLICATIONS



- CONSTRUCTION
- MATERIAL HANDLING
- VEGETATION MANAGEMENT
- LAND CLEARING
- LANDSCAPING
- AGRICULTURE MATERIAL HANDLING
- SNOW REMOVAL
- ENERGY
- DEMOLITION

BRADCO CP CUSTOMWORKS CWS FFC HARLEY JEWELL J:B KODIAK McMILLEN SWEEPSTER



SIDE TRACKS

On the light side



"This will be my first experience in a 'Gated Community'!"



"It's very important for every organization to have someone to be able to bounce ideas off of, Benson."

Brain Teasers

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

1. T G N E L E I T L N I _____ L _____
2. N R O T I O M _____ T _____
3. A M U N L A _____
4. S S M E S I O N I _____ S _____
5. A Z E R _____

Did you know?

- Bubble wrap was originally intended for use as wallpaper.
- Tears caused by sadness, happiness and onions look different under the microscope.
- Any month that starts on a Sunday will include a Friday the 13th.
- Caterpillars have approximately 4,000 muscles.
- A pumpkin is a fruit. Most people think of it as a vegetable.
- Auburn is the only school where John Heisman coached and has produced a Heisman Trophy-winning player.
- A day on Venus lasts nearly a year; it is 243 Earth days.
- The highest waterfall in the world, Angel Falls in Venezuela, has a total drop of 3,212 feet.

BUYING WITH CONFIDENCE



Discover more

CERTIFIED EQUIPMENT DELIVERS

Komatsu's Tier 4 machines offer peace of mind for buyers of used equipment



Josh Alters,
Senior Manager,
Komatsu
ReMarketing

When Komatsu introduced its Tier 4 machines in 2011, it also launched Komatsu CARE, a complimentary program that provides factory-scheduled maintenance for the first three years or 2,000 hours of the machine's life. "Today's buyers understand that the better a machine is maintained, the longer it will last and, in the long run, lower their owning and operating costs," explained Senior Manager, Komatsu ReMarketing Josh Alters.

Komatsu CARE Certified Equipment gives customers a chance to purchase used equipment that has been maintained by certified Komatsu CARE technicians for the first 2,000 hours or three years of operation, providing a much clearer picture of the machine's history.



Under the Komatsu CARE program, machines receive Komatsu Genuine fluids, filters and coolants. They also undergo a 50-point inspection at each interval, and certified technicians log the information from the services. "We are now seeing owners trading in machines that were covered under the program," said Alters. "This careful monitoring paints a very clear picture about the machine, providing a detailed history compared to other used equipment."

Just as Komatsu CARE assures that late-model Komatsu equipment receives proper maintenance, Komatsu CARE Certified Equipment offers peace of mind for buyers in the secondary market.

"Only machines with less than 6,000 hours of operation on them and that have been maintained for by certified technicians at regular service intervals are selected for our rigorous certification process," noted Alters.

The program covers all eligible Tier 4 machines, which includes Komatsu's intelligent Machine Control line.

"Those who purchase CARE Certified Equipment will also receive a CARE Report that shows the machine's service history and complete records, eliminating many of the unknowns that are associated with purchasing used machines. This way customers know exactly what they are buying," shared Alters. "Additionally, if a machine has any Komatsu CARE coverage remaining, the balance will transfer with the machine to the new owner. That's a lot of added value, which provides peace of mind for customers looking to purchase a used machine." ■



KOMATSU®

WIRTGEN GROUP

WIRTGEN

VÖGELE

HAMM

KLEEMANN

NPK



2003 Komatsu WA380-5



2012 Komatsu D375A-6



2013 Komatsu HB215-1



2012 Komatsu D61EX-23



2013 Komatsu PC800LC-8



2011 Magnum 640R

USED EQUIPMENT FOR SALE

YR	MODEL	HRS	STK#	PRICE
----	-------	-----	------	-------

WHEEL LOADERS

2013	Komatsu WA270-7	1,449	EMD009267	\$95,000
2013	Komatsu WA320-6	569	EMD008565	\$119,000
2005	Komatsu WA320-5	5,359	EMD011947	\$52,000
2003	Komatsu WA380-5	9,200	EMD013187	\$49,000
2012	Komatsu WA380-7	3,986	EMD012070	\$129,000
2014	Komatsu WA470-7	4,214	EMD010830	\$170,000
2013	Komatsu WA470-7	2,467	EMD009251	\$209,500

EXCAVATORS

2013	Komatsu PC800LC-8	3,090	EMD009389	\$450,000
2012	Komatsu PC360LC-10	2,698	EMD011203	\$172,500
2012	Komatsu PC360LC-10	2,752	EMD012170	\$169,000
2013	Komatsu HB215-1	636	EMD009226	\$119,000
2013	Komatsu PC240LC-10	1,585	EMD009223	\$139,500
2012	Komatsu PC490LC-10	2,477	EMD008283	\$269,000

DOZERS

2012	Komatsu D61EX-23	2,350	EMD012209	\$139,500
2012	Komatsu D375A-6	2,691	EMD009839	\$767,000
2013	Komatsu D61EX-23	1,351	EMD009286	\$159,000
2013	Komatsu D65PX-17	1,479	EMD011191	\$195,000
2012	Komatsu D155AX-7	2,000	EMD008896	\$327,500

MISC.

2013	Hamm HD120VV Roller	158	EMD009552	\$55,000
2011	Magnum 640R Shear	Low hrs.	EMD007524	\$49,500
2011	Magnum RHB340 Hammer	Low hrs.	EMD007527	\$25,000

C.P.I.
P.O. Box 1689
C.R., IA 52406-1689

Change Service Requested

Presorted Standard
US Postage Paid
C.P.I.

16m03



KOMATSU®

**WHENEVER, WHEREVER
AND HOWEVER NEEDED**

ARIZONA

Gilbert 480.545.2400
Phoenix 602.252.7121
Prescott 928.778.5621
Superior 520.689.2405
Tucson 520.623.8681
Corporate 602.252.7121

CALIFORNIA

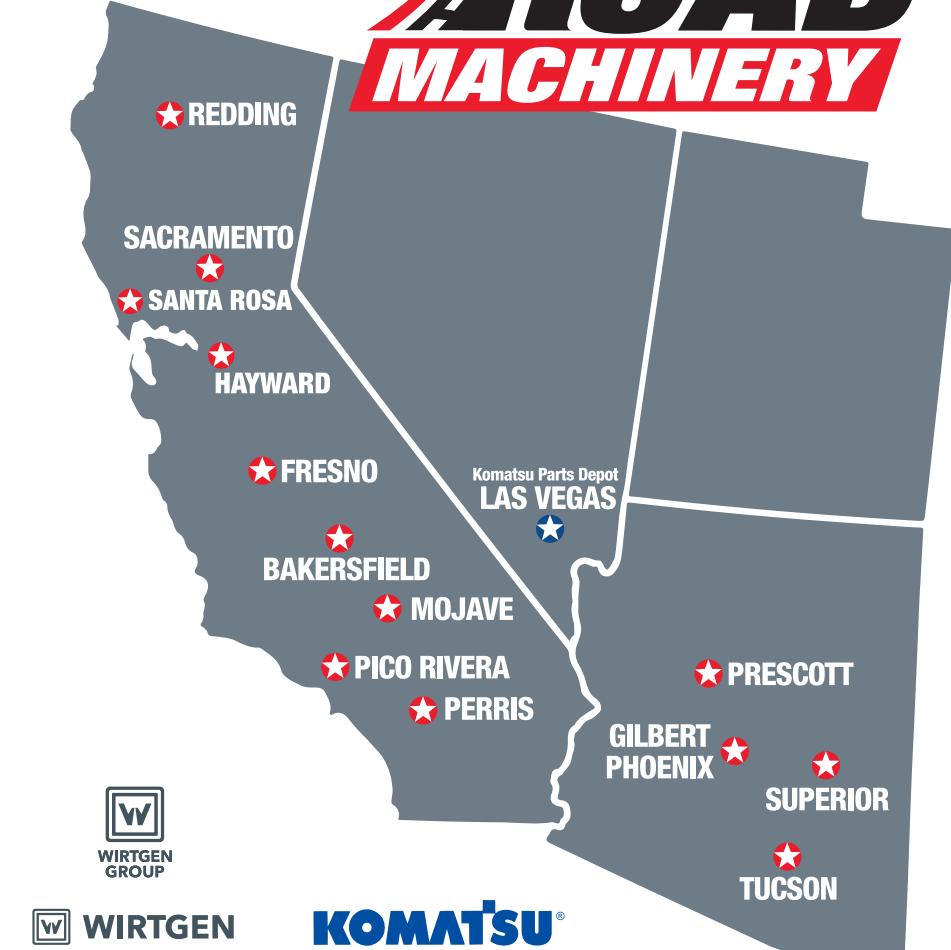
Bakersfield 661.695.4830
Fresno 559.834.3215
Hayward 510.659.1903
Mojave 661.824.2319
Perris 909.355.3600
Pico Rivera 562.699.6767
Redding 530.229.3820
Sacramento 916.375.3540
Santa Rosa 707.544.4147

ROADMACHINERY.COM

**SERVING OUR CUSTOMERS
FOR OVER 60 YEARS. >>>>**

THANK YOU TO ALL OF OUR CUSTOMERS
WHO MADE THE LAST 60 YEARS POSSIBLE.

**ROAD
MACHINERY**



WIRTGEN

KLEEMANN

VÖGELE

HAMM

KOMATSU®

HENSLEY

JRB
BY PALADIN

NPK

MEGA

**ROAD
RENTS**