

The



DIESEL MACHINERY, INC

[www.DMIDifference.com](http://www.DMIDifference.com)

# Difference

A publication for and about DMI customers • October 2018

## PETE LIEN & SONS, INC.

See how this Rapid City mining company provides assortment of raw and end materials for area contractors



**KOMATSU®**

# A MESSAGE FROM THE CHAIRMAN



**DIESEL MACHINERY, INC**

Dear Valued Customer:

This year marks the five-year anniversary of Komatsu's *intelligent* Machine Control debut. The first-of-its-kind technology set the bar for integrated GPS dozing, and Komatsu has since delivered a second generation of its original D61i dozers. It has also added several other models, offering customers a broad range of products to move dirt from rough cut to finish grade on a wide variety of jobsites.

Operators can do the same with Komatsu's *intelligent* Machine Control excavators. Four models are part of the family, including the second-generation PC210LCi-11. All are excellent for digging trenches and basements, building ponds, handling mass excavation work and a host of other applications. Read more about the excavators and dozers inside this issue of your DMI Difference magazine.

We have said it before, but it's worth repeating – we are proud to represent such an innovative manufacturer. Komatsu's technology is at the forefront of the construction industry, and they are committed to staying ahead of the competition. That's why Komatsu is not content to rest on its laurels. The organization is always looking for new ways to give customers increased value.

Superior support is one way Komatsu does that. When the company rolled out its Tier 4 machines, it also established Komatsu CARE. This program provides complimentary scheduled service for the first three years or 2,000 hours, with highly skilled distributor technicians performing all of the work. Recently, Komatsu celebrated the 100,000th service completed under this unique plan. See more about that milestone inside.

Komatsu CARE is available on *intelligent* Machine Control and standard equipment, such as the recently introduced WA480-8 wheel loader. This machine is a terrific option for construction and small quarry applications. Several great features stand out, including a new bucket design that boosts productivity by nearly 7 percent.

As always, if there's anything we can do for you, please call or stop by!

Sincerely,

Pat Healy  
Chairman of the Board

**Komatsu's  
innovation  
goes beyond  
intelligence**

## IN THIS ISSUE

### **PETE LIEN & SONS, INC.** pg. 4

See how this well-established mining company takes advantage of its location in the resource-rich Black Hills region.

### **CUSTOMER EVENT** pg. 8

Check out a recap of Demo Days where DMI customers tested a variety of *intelligent* Machine Control equipment.

### **A CLOSER LOOK** pg. 10

Examine the optimism regarding how the new tax law may benefit the construction industry and its employees.

### **GUEST OPINION** pg. 13

Find out why exploring the arts can help members of your work force improve their creativity and productivity.

### **NEW PRODUCT** pg. 15

Get an in-depth look at Komatsu's fuel-efficient, productive WA480-8 wheel loader.

### **SPECIAL RECOGNITION** pg. 17

Review the history of Komatsu's *intelligent* Machine Control technology five years after its debut.

Published by Construction Publications, Inc. for



**DIESEL MACHINERY, INC**  
[www.dieselmachinery.com](http://www.dieselmachinery.com)

**SIOUX FALLS**  
4301 North Cliff Ave.  
P.O. Box 85825  
Sioux Falls, SD 57118-5825  
(605) 336-0411  
(800) 456-4005

**RAPID CITY**  
I-90 & Deadwood  
P.O. Box 2473  
Rapid City, SD 57709  
(605) 348-7438  
(800) 658-3047

**ABERDEEN**  
39288 133rd Street  
(East Hwy. #12)  
Aberdeen, SD 57401  
(605) 725-4364  
(888) 762-6312

**KOMATSU®**

Printed in U.S.A. © 2018 Construction Publications, Inc.

## THE PRODUCTS PLUS THE PEOPLE TO SERVE YOU!

### **SIOUX FALLS**

**Pat Healy**, Chairman of the Board

**Dan Healy**, President

**Dan Rude**, General Manager

**Stan Burgers**, Controller  
(605) 366-3482

**Steve Ward**, Director of Product Support  
(605) 221-1963

**Herb Lohnes**, Sales Manager  
(605) 361-7979

**Roger Horstmeyer**, Territory Manager  
(605) 366-6000

**Darwin Ellis**, Territory Manager  
(605) 330-0448

**Jon Winklepleck**, Territory Manager  
(605) 361-7224

**Loren Fuhrmann**, Topcon/GPS Sales  
(605) 809-6886

**Nick Wallin**, Customer Service Rep  
(605) 254-7002

**Tim Kelly**, Parts Manager  
(605) 212-9997

**Lyle Ruesch**, Service Manager  
(605) 366-4670

**Eric Anderson**, Shop Foreman  
(605) 351-5119

### **RAPID CITY**

**Mark Barry**, Branch Manager/  
Territory Manager (605) 342-1767

**Peggy Wolf**, Territory Manager  
(605) 430-4580

**Justin Larson**, Territory Manager  
(605) 484-5699

**Scott Houk**, Parts Manager  
(605) 574-9043

**Joe Bowman**, Service Manager  
(605) 391-1307

### **ABERDEEN**

**Chad Casanova**, Branch Manager/  
Territory Manager (605) 380-0180

**Jarod Heinz**, Territory Manager  
(605) 228-4434

**Justin Herreid**, Parts Manager  
(605) 290-3878

**Jerald Bankston**, Service Manager  
(605) 228-4821





Discover more at  
[DMIDifference.com](http://DMIDifference.com)

# PETE LIEN & SONS, INC.

## Rapid City mining company provides assortment of raw and end materials for area contractors



**Grant Neff,**  
Aggregates Division  
Manager

Following the conclusion of World War II, the American highway system began a massive westward expansion. At the time, Pete Lien and his sons, Chuck and Bruce, were running a small rock quarry in Rapid City. Capitalizing on the demand for materials to complete the highway projects, the family began expanding their operations. The aptly named Pete Lien & Sons, Inc. has flourished through the decades by acquiring complementary businesses in South Dakota, Wyoming and Colorado.

Today, Pete Lien – the grandson and namesake of the firm’s founder – serves as President of the organization. Many extended members of the Lien family continue to work for the business, which helps this employer of 450 people to maintain the values upon which it was built.

“We started as an aggregates construction supplier and have progressed into more technical operations,” explained Grant Neff, Aggregates Division Manager. “In South Dakota, we produce a large volume of lime and hydrated lime products. We also have a ready-mix concrete division, construction aggregates, sand and gravel operations as well as an iron mine.”

Pete Lien & Sons operates four quarries in the greater Rapid City area – named Black Hawk, Wasta, Oral and Nemo. Production ranges from large aggregates such as Class D riprap to washed and dried fine-materials. Much of what is mined is sent to either the kiln feed at the lime plant or to the ready-mix division for resale as finished products. The ability to run the entire operation within a small geographic area has been an important factor for success.

“The Black Hills area is unique in that it has a large supply of resources readily available

in one of the region’s major hubs,” noted Neff. “Being able to supply our customers from Rapid City makes our location an advantage.”

### Expanding business

As the economy thrives, Pete Lien & Sons continues to increase the number of products and services it offers. Demand from the limestone-producing Black Hawk Quarry has grown steadily. The material is broken down on-site, then taken to a secondary crushing and processing facility before being sold.

“Lime is an important resource for the economy here,” said Matt Sudbeck, Black Hawk Quarry Superintendent. “It’s used in power plants, water treatment plants and for oil and gas drilling. It serves as a natural filtration device to help projects stay as clean as possible.”

The Nemo Quarry is another success as the four-man, iron-mining operation has grown to a year-round production facility. Accessing the ore that contains the target percentage of iron, however, remains difficult.

“The formation at Nemo is vertical, whereas the limestone lays along the bed at Black Hawk,” said Neff. “It requires more drilling, blasting and hauling to obtain the iron. We chase the limestone horizontally, but to reach iron we have to go down.”

### Komatsu advantage

To help keep pace with its growing operations, Pete Lien & Sons purchased its first Komatsu, a WA500-3 wheel loader, in 1997. Today, the 55,000-hour machine is still a part of the fleet, but is now surrounded by a host of other Komatsu products. The firm has worked with Diesel Machinery, Inc. (DMI) and



**Matt Sudbeck,**  
Black Hawk Quarry  
Superintendent



**Brian Baldwin,**  
Mobile Maintenance  
Manager





## ► VIDEO

Reducing cycle time was an important factor when Pete Lien & Sons, Inc. added Komatsu HD605-8 off-road trucks to its fleet. “Their reliability and limited maintenance have really stood out and have been exceptionally beneficial for us,” shared Brian Baldwin, Mobile Maintenance Manager.

Branch Manager Mark Barry to add a variety of Komatsu pieces throughout the last 20 years.

“Komatsu equipment has proven to be reliable and a good value,” said Brian Baldwin, Mobile Maintenance Manager. “We’ve added many Komatsu machines to our fleet because they have stood up well against competitive brands.”

The company utilizes Komatsu WA500-8 and WA470-8 wheel loaders to move material and load trucks at its Rapid City crushing and processing facility. The cabs provide an unobstructed, 360-degree view with an integrated load meter for improved handling and safety in a busy environment.

Pete Lien & Sons recently purchased an Epiroc SmartROC T40 surface drill rig for its quarrying operations.

“Epiroc spent several days training our operators on the equipment,” recalled Sudbeck. “Because the Black Hawk Quarry is near a community, we want to reduce the vibration and sound generated by the rig as much as possible. We decided to use a smaller-width drill, and the machine has done an excellent job breaking up the rock without disturbing residents in the surrounding area.”

The organization also added three Komatsu HD605-8 off-highway trucks at Black Hawk.



A Pete Lien & Sons, Inc. operator maneuvers this Komatsu WA500-8 wheel loader between piles and dumps material into a truck as it moves through the yard at the Rapid City Quarry. “The machine has great visibility and functionality,” said Grant Neff, Aggregates Division Manager. “Our operators really enjoy working on the Komatsu wheel loaders.”

Capable of hauling up to 70 tons, these trucks have a tight turning radius and good speed out of pits, which shortens cycle time. The vehicles are outfitted with sideboards to hold more of the lighter, less-compactable material.

“The HD605 trucks have been excellent,” remarked Baldwin. “Their reliability and

*Continued . . .*

# KOMTRAX improves efficiency

... continued

limited maintenance have really stood out and have been exceptionally beneficial for us. We can't afford to have trucks down, and they've been a huge asset for the Black Hawk Quarry in uptime alone."

To increase the trucks' efficiency, Neff utilizes My Komatsu and KOMTRAX, both complimentary services, to gather data about fuel efficiency, weight, idle time and other daily data points. He can then adjust the hauling process using the information provided by KOMTRAX.



(L-R) Black Hawk Quarry Superintendent Matt Sudbeck, Mobile Maintenance Manager Brian Baldwin and Aggregates Division Manager Grant Neff, all of Pete Lien & Sons, Inc., call on DMI Branch Manager Mark Barry for their equipment needs.

An operator for Pete Lien & Sons, Inc. uses a Komatsu WA470-8 wheel loader to move material to the crushing and processing facility at the Rapid City Quarry.



"We found that a lot of our trucks were underloaded," explained Neff. "This discovery led to the addition of side boards and, ultimately, to the realization that the additional time spent loading the trucks to the maximum 70 tons didn't affect cycle time and, in fact, improved our efficiency. We were able to monitor and validate those changes through KOMTRAX. The system offers a huge advantage."

DMI also provides Pete Lien & Sons with complimentary maintenance on new Komatsu equipment for the first 2,000 hours or three years as part of the Komatsu CARE program. This benefit has helped solidify the relationship between Baldwin and the team from DMI's Rapid City shop.

"The people at DMI monitor the equipment and let me know when maintenance is needed, so I don't have to worry about that," said Baldwin. "They take care of us. It's been a good partnership."

## Innovation drives growth

One of the main challenges facing the company is the low unemployment rate in the region. With more jobs available than workers, finding and training qualified people requires innovative thinking.

"We're bringing on some people who have less experience in this particular type of mining," explained Neff. "We have a mentor program where we pair new hires with more experienced safety leaders who show them the ropes. We've seen promising results."

These new staff members will be important because Pete Lien & Sons is in the process of increasing the capabilities of its existing mines while also opening multiple new pits. The multi-phase process is aimed at boosting production and drawing in new customers.

"We've evaluated business trends and want to capitalize on the current surging economy," explained Neff. "We also will continue our focus on expanding markets. We expect to be providing material to the area for many generations to come." ■





**"THE PEOPLE WHO MADE IT WORK,  
MAKE IT BETTER."**®



**SDI FEATURES ON ALL  
SIDE DUMP TRAILERS**

100'x10'X6" DOMEX DEEP FRAME RAILS

36" TUB MADE FROM 6MM DOMEX-100 STEEL

HEAVY DUTY PUSH BLOCK w/UNDER RIDE PROTECTION BUMPER

BOLT-ON STEEL FENDERS w/RUBBER BUMP EDGE

50° DUMP ANGLE

SELF-CENTERING SADDLE DESIGN

5 1/2" CYLINDERS w/3" SHAFTS

TARP READY TUB

RIDEWELL RIDELIGHT AIR SUSPENSIONS

LOWEST CENTER OF GRAVITY AVAILABLE

REMOVABLE KINGPIN PLATE & SKID PLATE

25,000-LB. UNI-MOUNT AXLES

REPLACEABLE KINGPIN DESIGN

L.E.D. LIGHTS

**"Original Innovators of Side Dump Technology."**®



**STANDARD TANDEM**

Side Dump Industries manufactures Tandem Axle, Super-Tri Axle, Quad Axle and Converter Dollies tough enough to handle whatever you need them to haul.



**HIGH SIDE REVOLUTION SERIES**

Now you can haul twice the load! Our innovative design means you can have greater hauling capacity with the same speed, safety and reliability of a side dump trailer!



**CUSTOM TRAILERS**

Side Dump Industries can build any trailer to your exact specifications and needs. Simply call 800-800-3904 and we'll get started on building your Side Dump Industries custom trailer.



**SIDE DUMP MINI**

Side Dump Mini's handle a wide variety of your smaller scale dumping needs. Perfect behind a small tractor or ATV, you can use the Side Dump Mini to haul stone, gravel, dirt, mulch, sand, firewood, fertilizer, feed, debris...even liquid loads!



**CONTRACTOR SERIES**

The Side Dump Contractors Series trailer hauls loads up to 4 cubic yards with the same toughness, dependability and stability of our full size side dump trailers...for a fraction of the cost.



**TRUCK BOX SIDE DUMP**

Hauls loads up to 16 cubic yards and can be mounted on standard tractors. Can be custom built as a removable unit, and mount above the fifth wheel coupling, enabling the truck to serve dual functionality.

[www.SideDumpIndustries.com](http://www.SideDumpIndustries.com)



[sidedumpindustries.com](http://sidedumpindustries.com)

Side Dump Industries' side dump trailers have a dump angle that is 10+ degrees greater than other manufacturers. Loads come out quicker with less sticking, so your tub will be cleaner.

**THE PEOPLE WHO  
MADE IT WORK,  
MAKE IT BETTER**

*Give us a call. Get the facts. And get back to business.*



**DIESEL MACHINERY, INC**  
[www.dieselmachinery.com](http://www.dieselmachinery.com)

**SIOUX FALLS**  
4301 North Cliff Ave.  
P.O. Box 85825  
Sioux Falls, SD  
(605) 336-0411  
(800) 456-4005

**RAPID CITY**  
I-90 & Deadwood  
P.O. Box 2473  
Rapid City, SD  
(605) 348-7438  
(800) 658-3047

**ABERDEEN**  
39288 133rd Street  
(East Hwy. #12)  
Aberdeen, SD  
(605) 725-4364  
(888) 762-6312





Discover more at  
[DMIDifference.com](http://DMIDifference.com)

# FULL SHOWCASE

## Demo Days makes it easy for customers to test latest Komatsu equipment.



Bill Chimley,  
Komatsu Director  
of Training and  
Publications

More than 250 current and prospective customers attended Komatsu's spring Demo Days at its Cartersville Customer Center in Georgia. Mornings began with a tour of the Chattanooga Manufacturing Operation, where many of the Komatsu excavator models are assembled. After lunch, attendees listened to a brief informational tech session before heading to the recently renovated demonstration site to check out the latest equipment that Komatsu has to offer.

"The Demo Days event is a great opportunity for customers to see the facility

and operate a wide range of Komatsu products," explained Director of Training and Publications Bill Chimley. "Customers can get first-hand experience with the newest *intelligent* Machine Control capabilities as well as a variety of our other equipment with experienced staff readily available to answer any questions."

### New excavator included

The event showcased the full lineup of *intelligent* Machine Control dozers and excavators, including the new PC390LCi-11 excavator. In total, 26 machines were

The recently renovated Cartersville Customer Center features several safety updates, including new gravel walkways between working zones and permanent stairs.

### ► VIDEO







An attendee tests the new Komatsu PC390LCi-11 excavator and its *intelligent* Machine Control features while digging a trench during Demo Days. The PC390LCi is the most recent addition to Komatsu's extensive line of *intelligent* Machine Control dozers and excavators.

available for customers to operate, including wheel loaders, haul trucks, excavators, dozers and a motor grader.

"It's a great event," said BC Construction President Ray Borges, who came from Hawaii to attend Demo Days. "There are a lot of machines to try out. Operating the equipment and seeing how it's assembled was worth the trip."

The updated demo site includes gravel walkways to increase safety between machine operation zones and permanent stairs. The various zones allow current and potential customers to test each machine to its fullest capabilities. ■



Randy Herrick of Agtegra (left) and DMI Territory Manager Jarod Heinz

(L-R) Chad Kockx and Andy Haas of Concrete Materials, DMI Territory Manager Roger Horstmeyer and Billy Polleman of Concrete Materials



(L-R) DMI Branch Manager Chad Casanova and Darren Drum and Jeremy Jeschke of Lien Transportation



(L-R) Bryan Goeden of First Rate Excavating, DMI Territory Manager Jon Winklepleck and DMI Sales Manager Herb Lohnes



Owner Josh Spielman of Spielman Excavating (left) and DMI Territory Manager Dar Ellis



# TAX LAW SPURS OPTIMISM

## Lower rates and faster write-offs could provide major boost to contractors

### Editor's note:

*This article is based on data from Associated General Contractors of America and is for informational purposes only. It does not reflect all changes under the tax law. You should seek advice from a professional tax adviser on how the legislation affects you and/or your business.*

Tax reform took firm hold this year, affecting both individuals and businesses, including major changes for some in the construction industry as Congress passed and President Trump signed H.R. 1, The Tax Cut and Jobs Act, last December. This legislation, in most cases, increased take-home pay, lowered corporate tax rates and included provisions designed to increase expensing limits.

The signature piece of the legislation may be a reduced corporate tax rate, which was slashed from 35 to 21 percent and was made permanent. Personal-services corporations are also now taxed at 21 percent.

Pass-through businesses – those that are structured to allow owners to include profits on their personal tax returns such as partnerships, S Corporations or sole proprietorships and are taxed at the individual's marginal income tax rate – received significant savings, too. A section

was added to the tax code (199A) that provides a 20-percent deduction on such income through 2025. Limitations do apply such as phase-outs at certain income levels.

“Lowering the tax rate provides substantial savings that allow us to keep more capital to invest in new equipment and pay off machinery that we have financed sooner,” said Don Satoski, President/Co-owner of Landmark Materials, LLC, of Union Mills, Ind. “Those are excellent benefits for us.”

Service businesses, including architecture and engineering firms, are eligible for a deduction, but are excluded from receiving the 20-percent deduction above \$157,000 for individuals and \$315,000 for married filing jointly. Phase-outs apply as does the expiration after 2025.

### Section 179 doubled, made permanent

The Tax Cut and Jobs Act affects business expensing in a variety of ways, such as temporary full expensing for property currently eligible for bonus depreciation for five years. That applies to property placed in service after September 27, 2017, including new and used equipment.

“The tax plan is great for us, especially on equipment purchases,” shared David Bussman, Vice President of MGL, Inc., a utility contractor based in Cullman, Ala. “Combine that with the zero-percent financing on the machines we bought last fall, and the savings are significant.”

Section 179 Expensing – which allows taxpayers to deduct the cost of certain property types as an expense rather than

Construction workers saw a boost in take-home pay, because the law reduced most tax rates and increased amounts subject to new and unchanged percentages. A Business Insider analysis showed laborers' average federal tax owed would drop by nearly 20 percent.







The Tax Cut and Jobs Act affects business expensing in a variety of ways, such as temporary full expensing for property currently eligible for bonus depreciation for five years. This applies to property placed in service after September 27, 2017, including new and used equipment.

being capitalized and depreciated – was permanently increased from \$500,000 to \$1 million with a \$2.5 million phase-out and is indexed to inflation. The definition of property now includes roofs as well as HVAC, fire protection, alarm and security systems added to non-residential buildings already placed in service.

### Employee take-home pay rises

While the final legislation reduced nearly all tax rates for individual and married filers alike, there are still seven brackets. Two remain the same, including the lowest at 10 percent; however, the amount subject to that rate increased from \$0-9,325 to \$0-9,524 for single filers and from \$1-18,650 to \$0-19,049 for married filing jointly. Previously, income above \$9,325 and \$18,650 would have been subject to a 15-percent rate. The 35-percent bracket also increases the amount subject to it.

All other previous tax brackets were lowered, including the top rate, which went from 39.6 percent to 37 percent. The biggest change was to the previous 28 percent rate, which dropped to 24 percent. The 15-percent and 25-percent brackets were each reduced by 3 percent to 12 and 22 percent respectively. The 33-percent rate decreased to 32 percent.

A Business Insider analysis showed the average annual pay for construction laborers is \$37,890, which made their previous federal tax \$3,645. Under the new bill, it estimates a reduction to \$2,916, for a savings of nearly 20 percent.

Along with rate changes, the standard deduction nearly doubled to \$12,000 for individuals and \$24,000 for those married filing jointly. Previously it was \$6,350 and \$12,700. The new standard deduction and tax rates are temporary and expire at the end of 2025.

### Firms hiring

Now is a good time for workers seeking employment in the construction industry. Seventy-five percent of construction companies plan to expand their payrolls in 2018, according to results of an Associated General Contractors of America (AGC) survey, *Expecting Growth to Continue: The 2018 Construction Industry Hiring and Business Outlook*.

“Construction firms appear to be very optimistic about 2018 as they expect demand for all types of construction services to expand,” said Stephen E. Sandherr, AGC’s Chief Executive Officer, upon release of the survey results. “This optimism is likely based on current economic conditions, an increasingly business-friendly regulatory environment and expectations that the Trump administration will boost infrastructure investments.”

There is hope that the tax law will help with the latter as it kept a provision for Private Activity Bonds, which will assist with financing transportation infrastructure as well as low-income housing and other public construction and public-private partnership projects, according to AGC. ■



# SCREEN MACHINE®

AMERICAN-MADE INNOVATION SINCE 1966

# CRUSH EVERY JOB™



**NEW!**

The industry leader and your best choice for crushing and screening equipment:

- Seven U.S. patents provide unmatched innovation, durability and productivity
- Built with U.S.-made, Grade 80 steel — *the strongest available!*
- Manufactured in the USA for over 50 years
- Same day shipping on in-house parts
- See Diesel Machinery Inc. for full details

4043TR Recirculating Impact Crusher



**NEW!**

514TS3 Triple Screen Spyder



4043T Impact Crusher



Watch Video

CXT Cone Crusher



514TS Spyder



5256T Impact Crusher



JHT Jaw Crusher



516T Spyder



Stacking Conveyors For All Needs



JXT Jaw Crusher



622TH Triple Screen Spyder

# BUILD A HEAD OF 'STEAM'

## Adding the arts to technical skills can generate more productivity, innovation

In 1871, engineer James Watt patented a steam engine that produced continuous rotary motion. Steam engines both figuratively and literally drove the Industrial Revolution and introduced the expression “build a head of steam.”

When critical pressure is applied to pistons, things happen. Construction-sector professionals and organizations must strive to achieve the same momentum by building a head of STEAM – that is, by adding the “A” to STEM, the already-developed skill levels of science, technology, engineering and mathematics.

That “A” is knowledge of and skill in the arts. The combination may seem odd to those who have a technology-focused education. But, by embracing the broad and exploratory STEAM mindset and engaging both sides of our individual and collective brains, we can generate more personal and organizational productivity, innovation and enhanced service for clients, customers and stakeholders.

### Promotes better connections

A STEAM perspective provides a clearer understanding of how almost everything connects with everything else to the extent that science, technology, engineering, art and mathematics help us comprehend the increasingly complex world in which we live. The “everything is connected to everything” realization enables individuals and organizations to be more aware of the consequences of actions and empowers us to recognize many and varied opportunities.

Studies show that homogeneous teams – made up of those only STEM-skilled or only arts-oriented – tend to experience high communication effectiveness and require little time to make decisions. Unfortunately, they

may produce results that are low in creativity or innovation. In contrast, heterogeneous teams comprised of both STEM and arts members take longer to make decisions but may arrive at more creative and innovative results.

If you’re deeply into STEM by virtue of interest or vocation, on a whim, enroll in a one-day drawing class or sign up for ballroom dancing lessons. Urge deeply arts-focused colleagues to read some science and engineering articles, audit an engineering class or visit an automobile manufacturing plant. To those in leadership or management positions, help your personnel understand STEAM and how embracing it could benefit them, their employers and those they serve. Ask colleagues to share their art or STEM passions at “brown bag” lunch sessions. You and others will be surprised and inspired by the variety of talents in your midst. ■

Stuart G. Walesh, independent consultant, teacher and writer says that embracing a science, technology, engineering, arts and mathematics mindset along with engaging both sides of the brain generates more productivity and innovation.



**Stuart G. Walesh,  
PhD, PE**

*Stuart G. Walesh is an independent consultant, teacher and writer who has worked in engineering, government and academia. This viewpoint is adapted from his book **Introduction to Creativity and Innovation for Engineers**. An edited version also appeared in *Engineering News-Record's* magazine in December 2017.*





# KOMATSU®

## WORKS FOR ME™

**"THEIR FINANCE PROGRAM ROCKS!"**

LANCÉ LANNOM, RACHELLE REIGARD & EDUARDO MORALES / GRADE A CONSTRUCTION / LEBANON, TN

### COMPETITIVE AND FLEXIBLE

**KOMATSU**  
*FINANCIAL*

"Komatsu has been a great partner for us. They've been with us through the years, even when we started small and not many other places wanted to talk to us. They believed in us and helped us grow. From a custom financing plan to tech like KOMTRAX, to customer service and Komatsu CARE, and of course reliable products—they offer everything to help our bottom line grow." **Rachelle Reigard, President**

# KOMATSU®

THAT'S WHY I AM KOMATSU

[komatsuamerica.com](http://komatsuamerica.com)

© 2018 Komatsu America Corp. All Rights Reserved





Discover more

# THE RIGHT FIT

## New wheel loader for specialized needs offers improved production and fuel efficiency

To do a job right, an operator needs the correct equipment. For a certain set of customers, that machine is the Komatsu WA480-8 wheel loader.

“The WA480 fills a need for a select group of users,” said Komatsu Product Marketing Manager Craig McGinnis. “For them, the WA470 isn’t big enough, but the WA500 is too much. The WA500 is approximately 20 percent larger than the WA470 when it comes to horsepower, tipping and other metrics, while the WA480 is closer to 8 percent bigger, providing a much better fit.”

The 56,262-pound WA480-8 wheel loader replaces its Dash-6, Tier 3 predecessor and sports a 299-horsepower Tier 4 Final engine that delivers as much as 20 percent greater fuel efficiency. Komatsu’s dual-mode Engine Power Select System lets operators choose between two standard options: E-Mode for greater fuel efficiency during general loading or P-Mode when they require maximum power output for hard digging operations or uphill climbing. The E-Mode Light option, which is selectable from the monitor, further reduces fuel consumption.

The WA480-8 is equipped with a steering wheel, but customers can opt to replace it with Komatsu’s Advanced Joystick Steering System (AJSS), which allows operators to handle steering and directional travel through wrist and finger control.

### Buckets of efficiency

Komatsu further enhanced the productivity of the WA480-8 by adding an auto-dig function that enables the machine to automatically lift the boom and curl the bucket when in a pile – a feature that was previously offered only on the larger WA500 and WA600 models. The WA480-8

also includes a redesigned bucket that is available in 6.0- or 6.5-cubic yard capacities.

“We reconfigured the curves in both the front and back of the bucket to increase productivity by as much as 7 percent compared to the previous model,” detailed McGinnis. “The design enables material to flow into the bucket easily and also helps with load retention to prevent material from spilling over the sides.”

### In-cab experience

In addition to enhanced engine performance and overall design, the WA480-8 delivers upgrades that improve the operator experience. The cab boasts a low-noise design, an Electronic Pilot Control air-suspension seat, an auxiliary jack, a pair of 12-volt outlets and two 7-inch, high-resolution, color monitors. One displays machine diagnostics and menus while the other is for the rearview camera. ■



Craig McGinnis,  
Komatsu Product  
Marketing Manager

The new Komatsu WA480-8 has a 299-horsepower, Tier 4 Final engine that boosts fuel efficiency up to 20 percent and a redesigned bucket that increases productivity by as much as 7 percent.





# KOMATSU®

## WORKS FOR ME™

**"THERE'S NOTHING THIS  
HI-TECH OUT THERE!"**

ANTHONY CARLTON / OWNER / CARLTON, INC / ALPINE, UT

"Using and understanding the new product technology, available from Komatsu for our business, made me apprehensive at first. But our dealer and their technical support have worked with us to help us make the tech work for our needs. I am seeing the benefits now. I'm on board and love it!"



# KOMATSU®

THAT'S WHY I AM KOMATSU

[komatsuamerica.com](http://komatsuamerica.com)

© 2018 Komatsu America Corp. All Rights Reserved



029





Discover more

# 'INTELLIGENT' ANNIVERSARY

## Komatsu marks five years of saving customers time, money with integrated machine-control technology

To say that Komatsu is observing the five-year anniversary of *intelligent* Machine Control is slightly misleading. While the first dozer made its debut in 2013, the genesis of its factory-integrated GPS equipment goes back much further.

"Research and development started many years earlier," shared Jason Anetsberger, Senior Product Manager, SMARTCONSTRUCTION and *intelligent* Machine Control. "Komatsu uses the

*Continued . . .*



Jason Anetsberger,  
Komatsu Senior  
Product Manager,  
SMARTCONSTRUCTION  
and *intelligent*  
Machine Control



Mike Salyers,  
Komatsu Senior  
Product Manager,  
SMARTCONSTRUCTION



Ron Schwieters,  
Komatsu Product  
Manager, *intelligent*  
Machine Control



Komatsu's *intelligent* Machine Control excavators feature semi-automatic operation that goes beyond traditional indicate-only systems. Once target elevation is reached, the system limits the machine from digging deeper, eliminating overexcavation and the need for expensive fill material.





# Quick acceptance results in repeat customers

... continued

PDCA (Plan, Do, Check, Act) model for continuous improvement to ensure that each machine it brings to market will meet customer expectations for productivity and support. From an *intelligent* Machine Control standpoint, that included having technology solutions experts (TSEs) at each distributor to educate customers on how to set up and implement the technology."

## No masts or cables

The first model was the D61i-23 – since replaced with a second-generation D61i-24 – which ushered in fully automatic blade control from rough cut to finish grade.

Because it's integrated into the machine, *intelligent* Machine Control eliminates the masts and cables associated with traditional aftermarket systems, so operators gain production time that was previously lost in setting up and tearing down at the beginning and end of each day.

"Eliminating the need for operators to climb on the machine or blade to mount components is a big plus, too," said Mike Salyers, Senior Product Manager, SMARTCONSTRUCTION. "The bottom line is that customers are moving dirt faster, more efficiently and at lower costs."

Komatsu introduced *intelligent* Machine Control five years ago with the original D61i dozers. Today, that model is in its second generation, the D61EXi-24, pictured here.





Komatsu quickly augmented its *intelligent* Machine Control lineup. In 2014, it brought the D39i and D51i dozers to market. It has since added D65i, D85i and D155AXi models. Additionally, more than 100 TSEs are in the field to provide customers with a wide spectrum of support options.

## Excavators introduced

Early 2014 saw the introduction of the world's first *intelligent* Machine Control excavator, the PC210LCi-10. PC360LCi-11s and PC490LCi-11s followed soon after, along with a PC210LCi-11 to replace the original. Komatsu recently launched the PC390LCi-11. Each features semi-automatic operation that goes beyond traditional indicate-only systems. Once target elevation is reached, the machine limits the operator from digging deeper, eliminating overexcavation and the need for expensive fill material.

"Our data indicate that *intelligent* Machine Control has been a resounding success," said Ron Schwieters, Product Manager, *intelligent* Machine Control. "As more and more customers saw the positive results, the word spread. Five years ago if you mentioned machine control, Komatsu was likely left out of the conversation. Now, we are at the forefront. This technology has changed the industry."

Today, there are more than 2,000 *intelligent* Machine Control dozers and excavators combined that are moving earth across North America. Anetsberger noted that a large percentage of users were new to GPS technology before they tried one of Komatsu's integrated machines.

"Skeptical is a good way to describe some of them," Anetsberger reported. "After they operated one and experienced its accuracy, production and simplicity, acceptance came quickly. Throughout the years, many became repeat customers. They bought one piece of *intelligent* Machine Control equipment, saw the time and material savings and added more. I think this evidence speaks volumes to the value that *intelligent* Machine Control provides business owners and operators on a daily basis." ■

**KOMATSU®**

## SMARTCONSTRUCTION

The Komatsu PC490LCi is revolutionizing the work site. This intelligent excavator increases production, improves the profitability of other machines, saves time and doesn't need a dozer to support it.



### Make the dozer work for you

Supporting an excavator with a dozer used to be necessary, but not profitable. The Komatsu PC490LCi can handle its business all by itself, now you're free to use your dozer to increase production.



### Do it faster

#### Save an extra

31

Hours of production  
time each month

372

Hours per year

46.5

8-hour work days

#### Conventional Construction



Material needs to be moved two times

## SMARTCONSTRUCTION



Excavator achieves both tasks



### More yards

Move an extra 220,118 yards per year

That's enough to fill:



66 Olympic-size  
swimming pools



4.5 National  
rotundas



75 hot-air  
balloons



30 Goodyear  
blimps



### Increased profitability

Intelligent Machine Control by Komatsu saves you



31 cents  
per yard



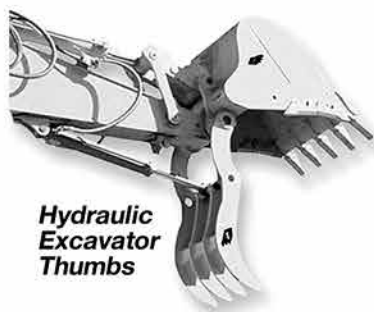
\$31,000  
per month



\$372,000  
per year

**KOMATSU®**

**DMD**  
DIESEL MACHINERY, INC.



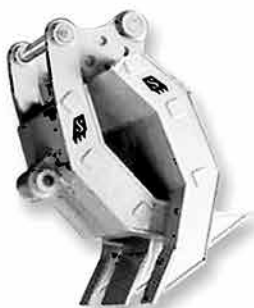
**Hydraulic  
Excavator  
Thumbs**



# Solesbee's®



**Excavator  
Thumbs**



**Excavator  
Demolition  
Grapples**



**Excavator  
Grapples**



**Excavator  
Wood  
Shears**



**Stump  
Pullers**



**Loader  
Forks**



**Loader Rakes  
with  
Top Clamp**



**Skid Steer  
Bucket Grapples**



**Skid Steer  
Buckets**



**Skid Steer  
Grapple Rakes**



**Skid Steer  
Brush Cutters**



**Skid Steer  
Forks**

**All attachments available for on time delivery!**

**770-949-9231**

# 800-419-8090

**[www.solesbees.com](http://www.solesbees.com)**



# OSCILLATION INTRODUCTION

## Dynapac's new CO4200 VI provides high-quality, consistent compaction with every pass

Dynapac brought oscillation to its lineup of Generation VI double-drum rollers with the addition of the CO4200 VI, delivering operators a new heavy compaction solution in a balanced and durable machine. It also allows them to select the system that is most suitable to the application at hand.

"This machine was developed based on feedback from end users of our trusted roller product line, and we're extremely pleased to launch the new double-drum roller with oscillation to the North American marketplace," said Tim Hoffman, Dynapac North America Product Manager, Rollers. "Operators will appreciate the overall durability coupled with Dynapac's commitment to providing an extremely balanced roller, ultimately contributing to outstanding compaction results. This roller is, without a doubt, designed to perform and built to last."

According to Hoffman, the latest oscillation technology offered in Dynapac tandem rollers meets specific needs in the marketplace, particularly high-quality compaction in areas where reduced vibration is needed – such as bridge decks and areas adjacent to foundations – or in thin asphalt overlay applications. The oscillation-compaction concept can also help reduce the risk of damage for less qualitative aggregates.

### Easy to service

Like other Dynapac rollers, the new CO4200 VI also features an extremely balanced operating mass for front

and rear modules, weighing in at 11,023 pounds and 10,802 pounds respectively. The design helps reduce roller marks and delivers a consistent, compacted surface with every pass.

In addition to the incorporation of harder and more durable steel, the new roller model streamlines serviceability by providing easy access to belts and other components through the integration of manholes in the drum. Belts can be accessed and replaced in as little as two hours, ultimately reducing downtime and maximizing productivity. ■



The new CO4200 VI brings oscillation to Dynapac's double-drum roller lineup. The design reduces roller marks and delivers a consistent, compacted surface with every pass.

# KOMATSU®

## WORKS FOR ME™

**"THE TECH MAKES ME FASTER."**

JEROME HAYCRAFT / ASPLIN INC. / FARGO, ND

### INTELLIGENT MACHINE CONTROL

"We have a Komatsu PC210LCi and it's been better than I even expected. The speed and time you save just having your line work and not having to worry about over excavating—that's huge. I hated those bigger commercial jobs where you'd have hundreds of stakes marking all your corners, offsets and gridlines. And to not have a need for any of that, especially if it's an export site or it doesn't even really have to be, just room for your spoil piles. Keeping track of corners—major time saver! I'd say, with iMC, I'm about a third faster getting the job done."

**SMARTCONSTRUCTION**

# KOMATSU

THAT'S WHY I AM KOMATSU

[komatsuamerica.com](http://komatsuamerica.com)





# ANTICIPATING YOUR NEEDS

## Visits with customers give perspective for addressing future parts and service requirements

**QUESTION:** Parts and service support is critical to equipment users. Is Komatsu doing anything new in this area?

**ANSWER:** During the past two years, Komatsu focused heavily on customer engagement, being side-by-side with them at jobsites. We want to know what's working, what isn't and how Komatsu can improve its capabilities and resources, so we can anticipate their needs and proactively talk to them about solutions. We are now extending this initiative to focus on customers' needs when they are interacting at distributors' parts counters and over the phone. Our goal is to make sure Komatsu machine owners have the right parts, the first time and every time.

**QUESTION:** What information have you discovered in these customer visits?

**ANSWER:** Customers told us what they really need from Komatsu, things we can do to improve our support levels and ensure their machines continue to be productive, with as little downtime as possible. They also expect parts to be on-hand when needed. Are we always perfect? No, but customers understand that we always strive for continuous improvement, so we can show how we add value to their operations. That's our mission.

**QUESTION:** What are some examples of how Komatsu is working to better support customers?

**ANSWER:** One is our General Construction Undercarriage, which was introduced for certain mid-size PC200-300 class excavators a couple of years ago and will expand to include dozers. It offers a competitively priced Komatsu undercarriage option that is guaranteed to fit the

*Continued . . .*



**Paul Moore, Vice President,  
Parts Sales & Marketing**

*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.*

Paul Moore joined Komatsu in 2006 as a Remanufacturing Product Manager and became the Vice President, Parts Sales & Marketing in 2015. His career path to that point included two continents and several jobs in the heavy-equipment field, including in the defense industry. He started as an apprentice technician in his native United Kingdom in 1984. Six years later, he joined a global agricultural-equipment manufacturer and then moved to the United States with that company in 2000, before coming on board with Komatsu.

"Growing up on a farm, I have been around equipment my entire life," said Moore. "If you're a 'big iron' person like me, then construction and mining are the best industries to work in. Komatsu is a global leader in both, so I really enjoy being a part of a company that's setting the bar in terms of equipment and the support behind it."

Moore said parts and service have become increasingly important. "Customers base their equipment-buying decisions, in large part, on how a manufacturer and its distributors meet their after-sale needs. We are committed to being the best in the industry in that regard."

Moore is married and has two children. In his free time, he enjoys motorcycle riding and spending time with his family.

# Monitoring equipment health is vital

... continued

customer's machine. It's all supported by an industry-best, four-year/5,000-hour assurance program. Another example is the new Komatsu Genuine Oil. Equipment technology continues to expand and so does the need for upgraded maintenance items to keep machines running at peak performance.

In the near future, we will introduce a new online parts-ordering system that will integrate KOMTRAX data, manuals, factory campaign notices and much more information

to assist with machine management activities and improve the customer's experience.

**QUESTION: Earlier you mentioned being proactive. Why is that so important?**

**ANSWER:** Think of it in terms of your own health. If you wait until you are sick to go to the doctor, recovery may take longer and cost more time and money. A regular checkup may identify a potential issue that can be addressed and taken care of quickly. Monitoring the health of the equipment, taking oil samples and performing daily walk arounds as well as having regular machine inspections by the Komatsu distributor's PSSR for example, are vital to its performance. If something shows up, it may or may not need immediate attention. If not, the owner can plan to have it fixed as soon as possible.

We also offer several parts-related programs such as Firm Future Order and zero-percent parts and service financing. Solutions such as these help owners save thousands of dollars, plan for downtime, guarantee parts and technician availability and allow repair payments on a schedule that works for them. The idea is to preplan the machine maintenance and let customers lock in pricing, guarantee parts availability and schedule the work at a convenient time. We encourage customers to contact their Komatsu distributor for more information. ■



Monitoring a machine's health with oil sampling, daily checks and other proactive steps is essential to its performance, according to Paul Moore, Vice President, Parts Sales & Marketing. "Think of it in terms of your own health. A regular checkup may identify a potential issue that can be addressed and taken care of quickly," said Moore.

Komatsu focuses on customer engagement to better understand owners' operations. "We want to know what's working, what isn't and how Komatsu can improve its capabilities and resources," said Paul Moore, Vice President, Parts Sales & Marketing. "Our goal is to make sure Komatsu machine owners have the right parts, the first time and every time."





# CUSTOMIZED MACHINES

## Modification packages for waste-handling machines add durability and make maintenance easier

Machines that work in waste-service applications like landfills, transfer stations and scrap yards encounter unique hazards every day. To keep those machines performing at optimum levels, Komatsu's Marketing Engineering Group developed specialized waste packages.

"That type of equipment requires specific modifications in order to meet job requirements," said Komatsu Marketing Engineering Group Manager Sue Schinkel. "We visited with customers to learn what they wanted and then created and implemented packages to incorporate all of those elements for each machine model."

The research led to a design that maintains accessibility and improves durability.

"Customers want machines that can stand up to their environments, yet are still easy to maintain," explained Schinkel. "The waste packages offer enhanced protection to vital components without sacrificing accessibility to service areas or machine performance."

The Marketing Engineering Group handles the full life cycle of the waste packages. This level of involvement allows the group to respond to customer feedback quickly.

"The packages are created specifically for each model by our engineers – we decide which elements are needed, design the features, develop marketing literature and continue to track performance in the field," noted Schinkel. "This is not an aftermarket add-on kit. Design, development and testing are in accordance with Komatsu engineering standards. The waste package is integrated into the base machine design, resulting in a purpose-built machine."

### Dozing growth

Komatsu offers four waste packages for wheel loaders, three for excavators, and the

demand for dozer packages is growing. Komatsu currently outfits the D65-18 and D85-18 models and expects to release a waste package for the D155AX-8 in late 2018.

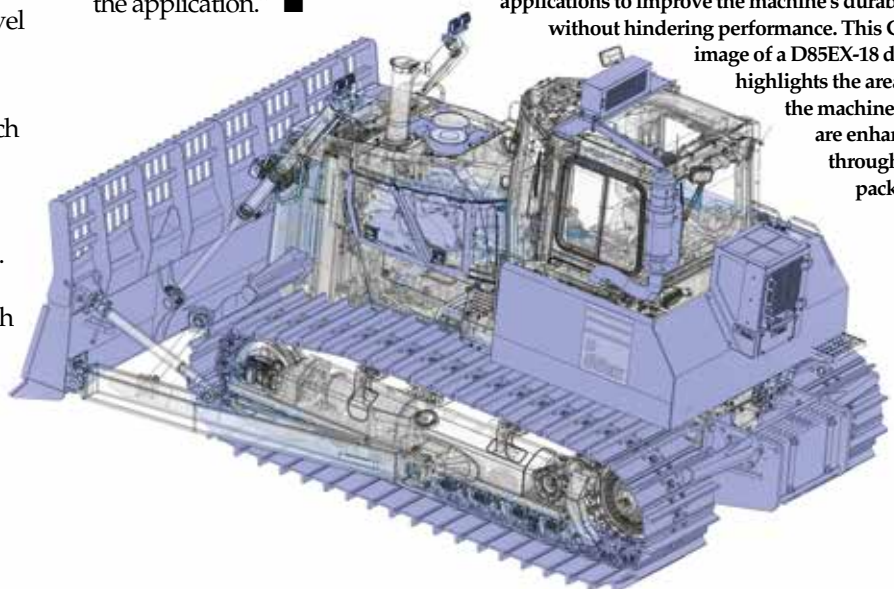
"The popularity of dozers is growing among our waste-service customers," stated Schinkel. "The package includes striker bars near the front and rear of the tracks to help clear debris, additional gap sealing to minimize the amount of material that gets into the engine compartment and a tank guard to protect the fuel and hydraulic tank."

While Schinkel says it is impossible to completely seal a machine, the packages are designed to extend the equipment's longevity and ensure that customers experience the full benefits of a Komatsu dozer. "The waste packages include many enhancements, but the most important thing is that it's a Komatsu dozer. We want to make sure it performs the way it was intended to – no matter the application." ■



Sue Schinkel,  
Komatsu Marketing  
Engineering Group  
Manager

Waste packages are available for machines that work in landfill and other waste-service applications to improve the machine's durability without hindering performance. This CAD image of a D85EX-18 dozer highlights the areas of the machine that are enhanced through the package.





Discover more

# KOMATSU CARE

## Technicians complete 100,000th complimentary maintenance visit to customer's jobsite



Mike Hayes,  
Director of Service  
Marketing &  
Distributor  
Development,  
Komatsu

When Komatsu's first Tier 4 construction-size machines rolled off the assembly lines in 2011, they came with Komatsu CARE, a pioneering, complimentary maintenance program providing service for the first three years or 2,000 hours of operation. This spring, the program marked its 100,000th service interval, performed on a PC228USLC-10 excavator owned by J. Fletcher Creamer & Son.

The program includes scheduled factory maintenance, oil sampling of each lubricated reservoir, a 50-point inspection at every service and up to two complimentary Komatsu Diesel Particulate Filter exchanges in the first 9,000 hours for qualified machines. Having the experts at Komatsu perform this maintenance has benefits well beyond free service.

"Komatsu CARE demonstrates our commitment to meeting customers' needs. It's the most comprehensive offering in the marketplace, and we are extremely proud of

this milestone," said Mike Hayes, Director of Service Marketing & Distributor Development for Komatsu.

### More than complimentary service

"This program is an asset to us because we know that our distributor is taking care of our Tier 4 equipment," said Michael Schuhlein, Equipment Manager at J. Fletcher Creamer & Son. "With Komatsu servicing those machines, it frees us up to work on other maintenance. It makes us more efficient.

"We have 58 machines, and most of them are covered by Komatsu CARE or were under it," continued Schuhlein. "Having the experts from Komatsu in our garage keeps them familiar with our equipment, and it helps our service technicians learn and stay on top of the latest technology. Also, when a machine receives proper service at the recommended maintenance intervals, it ensures that it will reach the full potential of its life cycle." ■

Komatsu Director of Service Marketing & Distributor Development Mike Hayes (third from left) and Komatsu representatives present J. Fletcher Creamer & Son, Inc., with a certificate marking the 100,000th Komatsu CARE service interval that was performed on its Komatsu PC228USLC-10 excavator.





# MORE UNDERCARRIAGE OPTIONS

## Komatsu General Construction product line to add new dozer replacement offering

Nearly three years ago, Komatsu introduced its competitively priced General Construction Undercarriage (GC), designed to reduce replacement costs on PC200 and PC300 excavators. The lineup will expand to dozers in 2018, with Genuine Undercarriage product replacements for D51, D61 and D65 models.

The initial excavator product release was specific to track-link assemblies. The dozer offerings will consist of conventional-style link assemblies, according to Komatsu Senior Product Manager Jim Funk, who pointed out that the GC product line fills a void for customers who prefer quality products and great support, but are looking at all options due to the status of their machine's life cycle or their business.

"Typically, a dozer's undercarriage is replaced more often than other tracked machines because of the nature of the work it does," said Funk. "Throughout the course of its life, a dozer's undercarriage will account for nearly half of owning and operating costs. We strive to provide effective and reliable undercarriage products that meet customer needs and machine situations of all types. With the continued expansion of the GC options, we are showing once again that we listen to our customers by providing products that fit their needs as well as their owning and operating targets."

### Expanded lineup built to fit and last

All GC products are designed and manufactured by one of Komatsu's

three undercarriage factory, research and development facilities. "They are built to our specific quality standards," said Funk. "The heat-treat process and hardness levels are the same as with any new undercarriage. That means the GC components are interchangeable with non-GC parts, giving customers peace of mind they will be a proper fit and have the same durability as their original undercarriage. We back it with the best assurance coverage in the industry.

"We encourage anyone who is looking at undercarriage replacement options to contact their distributor or Komatsu about a GC undercarriage," Funk added. "It's a great choice at a competitive price." ■



Jim Funk,  
Komatsu Senior  
Product Manager –  
Undercarriage

The Komatsu General Construction Undercarriage for dozers will provide another high-quality, competitively priced alternative for replacement options. They will be available for D51, D61 and D65 models.



# CONSTRUCTION WAGES RISING

## AGC analysis indicates firms paying more, but labor market remains tight



Stephen E. Sandherr,  
AGC CEO

An Associated General Contractors of America (AGC) analysis showed construction wages on the rise, which appears to be attracting workers to return to the industry. The organization cautioned, however, that labor conditions still remain extremely tight.

"Many firms are boosting pay and taking other steps to compete for a relatively small pool of available, qualified workers to hire," said Stephen E. Sandherr, AGC's Chief Executive Officer. "While these measures appear to be luring construction workers back to the job market, firms report they would hire additional workers if they could find enough qualified candidates."

### Highest levels in past decade

The most recent data, in April, showed construction employment totaled 7,174,000, a gain of 17,000 for the month and 257,000, or 3.7 percent, throughout the last 12 months. Construction employment is at the highest level since June 2008. Association officials note that the year-over-year growth rate in industry jobs was more than triple

the 1.1 percent rise in the total nonfarm payroll employment.

Hourly wages in the industry averaged \$29.63 in April, an increase of 3.5 percent from a year earlier. That put the average hourly earnings in construction 10.4 percent higher than the average for all nonfarm private-sector jobs, which rose 2.6 percent in the past year to \$26.84, Sandherr added.

Construction officials urged federal, state and local leaders to take steps to make it easier for schools, construction firms and local associations to develop and offer construction-focused programs to recruit and prepare future workers. They noted that such measures would signal greater numbers of students that there are multiple paths to success in life.

"It is time to start showing young adults that high-paying careers in construction should be on the list of professions to consider," Sandherr said. "Too many students amass a mountain of college debt just to earn mediocre wages working in a fluorescent-lit cube farm." ■

A recent analysis by Associated General Contractors of America showed hourly earnings in the construction industry averaged \$29.63, an increase of 3.5 percent from a year earlier. That's attracting some workers back to the industry, but the market remains tight.





## NEWS & NOTES

### Survey shows banks opening up commercial lending

A recent Federal Reserve Board survey showed banks loosening lending policies for commercial projects. According to Construction Dive, a significant number of bank officers responding to the questionnaire said that their institutions had eased standards, in part, because of aggressive competition from other banks and nonbank lenders.

Eric Lemont, Real Estate Partner at Sullivan & Worcester in Boston, told Construction Dive last year that uncertainty around new high volatility commercial real estate (HVCRE) transaction requirements was one of the reasons. Construction loans fall under HVCRE rules, which require the lender to put aside 50 percent extra cash reserves, creating greater exposure for the lender. ■

### Study reports mobile technology improves projects

Mobile technology enhances contractors' ability to collect and distribute timely and accurate jobsite data, according to a new Dodge Data & Analytics and B2W Software study. Respondents said better access to project data trends was the

top benefit to mobile connectivity. Significant numbers said it improves communication; helps with budget and scheduling, fleet management, maintenance, efficiency and uptime; and increases productivity. ■



**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 CUIS FFC HARLEY JEWELL J:B KODIAK McMILLEN SWEEPSTER**



**IES**  
INTERNATIONAL  
EQUIPMENT  
SOLUTIONS

[www.paladinattachments.com](http://www.paladinattachments.com)

# KOMATSU®

## WORKS FOR ME™

**"I'VE USED THEM ALL AND  
KOMATSU IS THE BEST."**

TAD GRIFFITHS / ROYAL T ENTERPRISES / UTAH

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



# KOMATSU®

THAT'S WHY I AM KOMATSU

[komatsuamerica.com](http://komatsuamerica.com)

© 2018 Komatsu America Corp. All Rights Reserved



028



Call for more information: (800) 456-4005 See more at: [www.dieselmachinery.com](http://www.dieselmachinery.com)



2011 KOMATSU WA250-6HL SERIAL #76407

**\$83,800**



2015 KOMATSU D39PX-23 SERIAL #90934

**\$114,250**



2012 KOMATSU PC138USLC-8 SERIAL #27284

**\$87,500**

Year	Mfgr./Model/Descr.	S/N	Tag #	Hours	Price
------	--------------------	-----	-------	-------	-------

## WHEEL LOADERS



2007	KOMATSU WA200-5	68496	WL1527	7,080	\$72,500
2011	KOMATSU WA250-6HL	76407	WL1819	9,381	\$83,800
2004	KOMATSU WA320-5L	60237	WL1322	6,224	\$87,400
2004	KOMATSU WA380-5	A52262	WL1614	7,018	\$111,000
2008	KOMATSU WA500-6	A92525	WL1502	9,639	\$169,000

## CRAWLER DOZERS



2013	KOMATSU D37PX-23	80061	CD536	660	\$96,500
2015	KOMATSU D39PX-23	90934	CD600	1,065	\$114,250
2012	KOMATSU D61PX-15E0	B47224	CD506	3,140	\$140,785
2007	KOMATSU D65WX-15	69038	CD554	6,216	\$148,500

## CRAWLER EXCAVATORS



2012	KOMATSU PC130-8	83181	HE1047	4,653	\$69,000
2012	KOMATSU PC138USLC-8	27284	HE933	2,663	\$87,500
2001	KOMATSU PC300LC-6	A84091	HE521	8,595	\$59,900

*Special low finance and lease rates  
on most used equipment!  
Equipment subject to prior sale or  
change without notice.*





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

Presorted Standard  
US Postage Paid  
C.P.I.

18-02



**DIESEL MACHINERY, INC**  
[www.dieselmachinery.com](http://www.dieselmachinery.com)



**Aberdeen, SD**  
39288 133rd St.  
(East Hwy. #12)  
(605) 725-4364  
(888) 762-6312



**Rapid City, SD**  
I-90 & Deadwood  
P.O. Box 2473  
(605) 348-7438  
(800) 658-3047



**Sioux Falls, SD**  
4301 North Cliff Ave.  
P.O. Box 85825  
(605) 336-0411  
(800) 456-4005

**Sales • Rentals • Financing • Parts • Service**

**KOMATSU®**

**JCB**

**DOOSAN®**

**DYNAPAC**  
FAYAT GROUP

**GROVE**

**BOMAG**  
FAYAT GROUP

**Link-Belt**  
EXCAVATORS

**RANCO**

**SCREEN MACHINE**  
AMERICAN-MADE INNOVATION SINCE 1986

**SIDE DUMP**  
INDUSTRIES

**Superior Broom**

**Talbert**  
SINCE 1938

**TEREX**  
CEDARAPIDS

**TEREX**  
SCRAPERS

**TOPCON**

**AMERICAN LUMBER COMPANY**

**ALAMO**  
INDUSTRIAL

**Atlas Copco**

**BTi**  
BREAKER  
TECHNOLOGY

**Cummins**

**EIW**  
EAGLE IRON WORKS

**ESCO®**  
A Weir Group Division

**FELLING**  
TRAILERS

**Galion®**

**J&B**  
BY PALADIN

**PALADIN**  
POWERFUL ATTACHMENT TOOLS

**MDS**  
DISTRIBUTION

**SWIFT**

**Paxton-Mitchell Company**

**TCI**  
Manufacturing & Equipment Sales

**WE**  
WERK-BRAU CO., INC.

**Challenger**  
LIVESTOCK TRAILERS



**NEW & USED CONSTRUCTION EQUIPMENT  
FOR SALE OR RENT  
FINANCING AVAILABLE**