

# Difference

A PUBLICATION FOR AND ABOUT DMI CUSTOMERS • 2011 No. 4



# A MESSAGE FROM THE CHAIRMAN



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# We're optimistic about the future



#### Dear Valued Customer:

As we wind up this year, we're looking ahead to 2012 with optimism that the construction industry will begin a strong push toward growth. There have been some positive signs lately that show the industry is experiencing growth. As it does, that's going to mean more need for equipment that can get the job done as efficiently as possible.

Throughout this year, Komatsu has rolled out many of its new interim Tier 4 machines. In this issue of *The DMI Difference*, we spotlight a new excavator, articulated truck and dozer. Komatsu not only changed the engines in these machines to meet emissions standards, but, in many cases, lowered fuel consumption while increasing horsepower and operating weight.

These machines have additional components that require maintenance, and Komatsu is backing up the technology with an industry first — its Komatsu CARE Maintenance Program that provides complimentary services on new interim Tier 4 machines for three years or 2,000 hours.

Our skilled, factory-trained, service personnel take great pride in ensuring your machinery remains productive with as little downtime as possible. We do that on Komatsu machinery and the other manufacturers' lines we carry, as well as competitors' machines. This might be a good time to think about winterizing machinery, if you haven't done so already.

If you'd like more information about any products or services we offer, please don't hesitate to call us or stop by one of our branches. We're here to help.

Sincerely,

Pat Healy
Chairman of the Board



# Difference

# IN THIS ISSUE

#### LIEN TRANSPORTATION

Read how versatility in its offerings has led to continued success for this family contracting company in Aberdeen.

#### INDUSTRY OUTLOOK

Here's an overview of the current funding situation for surface and air transportation and a look at potential funding sources.

#### **NEW PRODUCTS**

Check out the features and benefits the new Komatsu PC360LC-10 excavator offers, including more efficient excavation.

Find out how Komatsu made its new interim Tier 4 HM300-3 articulated haul truck more productive with a larger payload capacity and reduced emissions.

#### PRODUCT IMPROVEMENT

Lower emissions and less fuel consumption are just two of the features of Komatsu's new D155AX-7 dozer that make this interim Tier 4 model more efficient than its predecessor.

#### POINTS OF INTEREST

If the hassle of tooth replacement on your ground-engaging tools is costing you too much downtime, check out Komatsu's KMAX tooth system.

#### **KOMATSU & YOU**

Jim Mathis, General Manager of Manufacturing, Komatsu Peoria Manufacturing Operation, explains how the manufacturer is addressing increased global demand for mining trucks.

#### EQUIPMENT MANAGEMENT

Discover how time spent idling a machine is not only nonproductive, but also drives up owning and operating costs.

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# LIEN TRANSPORTATION

# Versatility equals continued success for Aberdeen family contracting company



Trevor Lien, President



Jason Lien, Vice President/ Operations Superintendent

A Lien Transportation operator loads a hopper with the company's new Komatsu WA470-6 wheel loader its gravel

Very few companies survive through four generations, especially considering economic ups and downs during the course of 95 years in business. Even fewer continue to grow and thrive through challenging times, but such is the case for Lien Transportation.

"Our success is the direct result of understanding the markets and having the versatility to be both proactive and reactive to them," said Trevor Lien. "We've always believed in being diversified so we can work in several sectors. It also helps that we provide a wide range of services that fit into residential, commercial, industrial and governmental markets. We can fill about any need."

Part of the fourth generation of the Lien family business, Trevor is President of Lien Transportation. His brother Jason is Vice President and Operations Superintendent of the Aberdeen company that traces its roots back to 1916, when the boys' great-grandparents Martin and Julia Lien founded M.E. Lien Construction as a grading and road-graveling contractor working in the Dakotas and Minnesota.

"The second generation, which included our grandfather and his brothers, started doing everything from grading and graveling to asphalt and concrete paving in order to take on a more full-service approach," explained Trevor, noting that generation moved operations to Aberdeen in 1968. "We're carrying that on. Even though the name of the business is Lien Transportation, we're geared toward being able

They formed Lien Transportation in 1977. Today, the company mainly works in about a 100-mile radius of its home base.

to offer a full package of excavation and asphalt services. At the same time, we're set up to break

out those services individually."

"Believe it or not, we still do much of that

type of work for county and municipal roads,"

said Jason. "But our offerings go far beyond

that. We do full-service excavation and site

work. We also do all types of paving, from

residential driveways to major highways. Working in this area, you have to be willing

to work with all types of customers. It's the

It's a tradition that's been passed down

through the generations, which included

Trevor and Jason's parents, Joe and Edith.

Working together, apart

nature of the business."

From an excavation standpoint, Lien Transportation's offerings are exhaustive, including site work, bulk excavation, backfilling, trenching, dewatering, dam and dike work, engineered fill, road building and hauling. Asphalt projects include parking lots, city streets, basketball courts, bike trails, patching, seal coating and crack sealing.

"Many of our projects involve both elements of the business working together," Jason noted.





"For example, we may bid a street or parking lot project as a package that includes one or more of our excavation crews doing site prep. Then, the paving side takes over and does the subbase work and paving. Having that ability makes us more competitive, and our customers like dealing with one company."

Nearly 100 percent of Lien Transportation's subbase materials, as well as other sand and gravel products, are hauled in company trucks. The Liens offer crushed granite, dirt, clay, riprap, boulders, landscape rock and crushed concrete base course. Crushed concrete base products come from the company's demolition and recycling of old roadways, building foundations and other concrete sources. Lien Transportation recycles about 100,000 tons of materials each year.

# Trusted employees complete multiple projects

Lien Transportation's main construction season runs from the spring through late fall, usually around Thanksgiving time. During that time it has anywhere from a dozen to as many as 20 projects in various stages of development. Operations Manager Steve Salwei estimates the company does about 75 percent of its work as a general contractor.

Occasionally, Lien Transportation projects run longer than the typical construction season and beyond its usual working radius. One such project was completed during a two-year period for the TransCanada Pipeline. On that job, the company installed booster pump stations from the U.S.-Canada border in North Dakota to the South Dakota-Nebraska border. About every 50 miles, Lien Transportation crews

worked on quarter-mile-square sites where they would bring the stations' building pads to grade and put down gravel materials.

Closer to home, the company recently completed site work and paving for the new Sanford Hospital in Aberdeen, where Lien Transportation overexcavated poor soils and brought in fill materials. It also graded, laid subbase and paved the parking lot.

"That's just one of the hundreds of local projects we've done through the years," said Salwei, who oversees day-to-day field operations. "I really enjoy driving around town and being able to point out all the things we've accomplished, whether it's a small driveway or the \$5 million project we did at Wal-Mart. It's very gratifying."

In addition to Steve Salwei, key individuals include Construction Superintendents
Joe Huffman and Zach Carlson, Paving
Superintendent Loren Olson, Materials
Superintendent Brad Hochalter and
Administrative Assistant Peggy Salwei.

"With as many jobs as we have going, we can't be everywhere," stated Jason. "We place a great deal of trust in our guys, and they take ownership of what they do. It also pays to have employees who have been here 20 years or more, in some cases. They know we'll back them. They deserve much of the credit for our success."

"Our people work very hard and are very conscientious," added Trevor. "Our customers know they are getting an experienced and dedicated crew on their jobs and they appreciate that. We also appreciate the great job they do, and that's more important to us than anything."

Operator Randy Schnaidt loads dirt using a Komatsu PC200LC-8 excavator. "We need equipment that can match our diverse offerings, and the PC200s allow us to do that because we can dig, load, trench, do demolition and place materials with those machines," said Vice President Jason Lien.

# Responding to customers' needs brings success

... continued



Steve Salwei, Operations Manager

## Productive equipment from DMI

Jason noted that supporting those valuable workers includes providing them with equipment that allows projects to be completed on time and on budget, a hallmark of Lien Transportation. Like their father did, the Liens use a variety of Komatsu equipment, including 53,000-pound PC200LC-8 Thumb Specification excavators.



(L-R) DMI Sales Representative Chad Casanova works with Lien Transportation's Trevor and Jason Lien. "The equipment is great, but we have to have a dealer that backs it up. I know I can always call Chad or DMI and get a quick response," said Jason.



Peggy Salwei, Administrative Assistant

Key individuals at Lien
Transportation include
(L-R) Construction
Superintendent Joe
Huffman, Paving
Superintendent Loren
Olson, Materials
Superintendent
Brad Hochalter
and Construction
Superintendent
Zach Carlson.



In addition to Komatsu, Lien Transportation purchases other equipment from DMI, including these SDI side-dump trailers.



"We need equipment that can match our diverse offerings, and the PC200s allow us to do that because we can dig, load, trench, demolish and place materials with those machines," said Jason, who oversees equipment maintenance. "We're able to get around any jobsite with those excavators, even if it's restrictive, so their size plays an important role. No matter the situation, machines have to produce without costing us significant downtime. The Komatsu excavators do that."

Lien Transportation uses Komatsu wheel loaders for a variety of tasks. "The loaders are easy to operate and our guys really like the smoothness of the hydrostatic transmission on the WA320," said Jason. "Because I take care of service, one of my primary concerns when buying equipment is maintenance. The loaders, as well as our Komatsu excavators, are very easy to work on. We do the PM work ourselves with parts from DMI, and if we need additional help, I'll call in DMI."

In addition to Komatsu equipment, Lien Transportation worked with DMI Sales Representative Chad Casanova to purchase Cedarapids crushing equipment, SDI side-dump trailers, Hypac and Dynapac compaction machines, a Superior broom and a Talbert 50-ton lowboy. "Chad and the staff at DMI take excellent care of us," confirmed Jason. "The equipment is great, but we have to have a dealer that backs it up. I know I can always call Chad or DMI and get a quick response."

## Geared up

The Liens believe in being responsive to their customers' needs as well. They say that's a direct reason for nearly a century of success.

"We've always worked to develop solid relationships with our customers," said Trevor. "The direct result of that is that they continue to call us back, whether it's for a small job or to bid on a larger, multifaceted project."

"We acknowledge our past," Jason concluded. "Our ancestors modeled a good work ethic and the value of customer service to every client. We're geared to handle just about anything, and that's a reason we've had long-term success and will continue to be why we experience success going forward."



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# WHERE ARE WE HEADED?

# There's a need for infrastructure investment, but how to fund it remains in question

Congress passed and the President signed an act that provides an extension of funding for surface and air transportation. It came as welcome news to construction companies, their subcontractors and suppliers who work in those sectors, but the reality is that they can only breathe a sigh of relief for a short period of time.

The Surface and Air Transportation Extension Act of 2011 only provides monies into the first quarter of next year — another short-term mechanism for funding, much like what Congress has done since the previous highway bill expired in September of 2009. That means the fight for dollars to build the nation's infrastructure will be brought up again soon.

This comes at a time when numerous studies show America's highways, bridges, airports and other modes of transportation are suffering from a serious lack of investment. An American Society of Civil Engineers (ASCE) report shows that to bring the nation's surface transportation infrastructure up to tolerable

The nation's transit systems, including roads and rail, are in need of repair. One study shows \$1.7 trillion is needed during the next eight years to bring infrastructure up to tolerable levels.



levels, about \$1.7 trillion is needed between now and 2020. Current funding levels fall short of that total by \$846 billion or \$94 billion per year, according to the report.

The results of underfunding are stark, the report notes. It will cost the economy 870,000 jobs and suppress growth of the country's Gross Domestic Product (GDP) by more than \$3 trillion by 2020. It will also cost American households and businesses more than \$129 billion in vehicle operation, delays, accidents and environmental damage.

"Clearly, failing to invest in our roads, bridges and transit systems has a dramatic, negative impact on America's economy," said ASCE President Kathy J. Caldwell, P.E., F.ASCE. "The link between a nation's infrastructure and its economic competitiveness has always been understood. But for the first time, we have data showing how much failing to invest in our surface transportation system can negatively impact job growth and family budgets. This report is a wake-up call for policymakers because it shows that investing in infrastructure contributes to creating jobs, while failing to do so hurts main street America."

According to a study by the Harvard Center for Risk Analysis, inadequate infrastructure systems also contribute to health problems. The analysis looked at health costs resulting from higher emissions associated with road congestion. Results showed traffic-related air pollution as a contributing factor to heart attacks and strokes, with emissions from idle vehicles causing nearly 4,000 premature deaths.

It also costs the country in terms of stature. A World Economic Forum report in 2007-2008 ranked our nation's infrastructure systems sixth best in the world. In a new report released in September, the U.S. slipped to 16th.



A government report said America spends about 2 percent of GDP on infrastructure, about half what it did 50 years ago and well below other global leaders.

#### Gas tax increase unlikely

A recent Market Watch article, "How to fix crumbling U.S. roads, rails and airways," pointed out that "Deficits in the U.S. trust funds that support the country's Interstate system and civil aviation have been widening for years, as tax revenue failed to keep up with inflation. To fill the gaps, Congress has been taking cash from the general fund.

"But tax revenue for the general budget has declined as well because of the economic recession and the Bush-era tax cuts, and now Congress is determined to eliminate the shortfall by reducing spending across the board," it continued. "For every \$1 billion pulled from the U.S. budget for highways, an estimated 30,000 jobs are lost, according to a 2007 report from the Department of Transportation."

The ASCE report noted a modest investment would go a long way, saying an amount "equal to about 60 percent of what Americans spend on fast food each year, would: protect 1.1 million jobs, save Americans 180 million hours in travel time each year, deliver an average of \$1,060 to each family and protect \$10,000 in GDP for every man, woman and child in the U.S."

The gap in funding isn't likely to decrease soon, and may widen further. The national 18.4-percent gas and 24.4-percent diesel per-gallon taxes haven't been raised in nearly



Numerous roads and bridges have been rated as structurally deficient or in need of repair, causing our nations's global rank to fall from sixth to 16th in terms of infrastructure systems.

Funding for surface and air transportation was extended into next year, but long-term plans remain elusive.

two decades, and the recession has meant less driving, which in turn means less fuel purchased. More fuel-efficient cars and new standards to further improve fuel efficiency equate to even fewer fill-ups.

### **Potential funding sources**

So where will the money come from to repair and replace an ever-increasing deterioration of the nation's surface, air and other transit systems?

Given the economic and political climates, an increase in the gas tax isn't likely any time

Continued . . .

# Various funding sources offer potential solutions

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soon. Alternate funding methods have been discussed, but there are no sure bets right now. Past research from a survey by the firm HNTB showed Americans preferred tolling to increased gas taxes.

HNTB's Pete Rahn said tolls will likely be a more prominent source of future funding. The organization's survey revealed most of the nation supports highway tolls with 82 percent saying the rate should be a dollar or less for every 10 miles on an Interstate. Fifty-six percent of those said the rate should be less than 50 cents.

Sixty-six percent of the people polled by the organization said they would like their toll money to go toward relieving congestion issues, with 41 percent saying they would support their toll money going to road and bridge repair. Others said they would like to see the money go toward dedicated truck lanes or adding lanes to existing roads.

The American Recovery and Reinvestment Act — also known as the stimulus bill — that was passed in 2009 funded some road construction project during the past two years. In a speech before Congress in September, the President proposed additional spending on infrastructure as a way to boost the economy.

One idea he mentioned was an "infrastructure bank" that would provide loans or loan guarantees for transportation and other projects. The idea has been brought up several times before, including bills proposed by congressional leaders. One put forth in the Senate would make the bank an independent government entity with congressional oversight. The proposal would give the bank a one-time appropriation of \$10 billion that would lead to more than \$600 billion in future projects.

The rest of the money would come from private investments in the infrastructure bank. Investors could partner with local, state and regional governments and propose a project to the bank, which would determine its worthiness based on factors such as public demand and support and the ability of the project to generate revenue that would pay back investors.

If deemed a worthy project, the bank would loan up to 50 percent of the total cost, making the bank another investor. Loans would be repaid through revenue generated from the project, which may come from such sources as dedicated state taxes, fees, tolls and passenger tickets.

#### **PPPs**

These "public-private partnerships" (PPPs) have already worked together on some state-level projects. According to the National Conference of State Legislatures, PPPs are agreements that allow private companies to take on traditionally public roles in infrastructure projects, while keeping the public sector ultimately accountable for a project and the overall service to the public. A government agency typically contracts with a private company to renovate, build, operate, maintain, manage or finance.

"Though PPPs are not optimal for many transportation projects, they have been shown to reduce up-front public costs through accelerated or more efficient project delivery," said the organization. "PPPs don't create new money but instead leverage private-sector financial and other resources to develop infrastructure."

Not everyone agrees on how to pay for the infrastructure investment, but most everyone agrees that something has to be done.

"We can no longer ignore the growing liability our aging roads present to U.S. economic competitiveness and the mobility of our citizens," said HNTB's Rahn. "Americans are feeling the pain, every day, as they commute and cross the nation's highways and bridges."

Several funding sources have been proposed, including public-private partnerships, which allow companies to pair with government entities as investors in a project. Known as PPPs, they have been used on state-level projects around the country.



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# DASH 10 EXCAVATORS

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# MORE POWER, LESS FUEL

# New Komatsu PC360LC-10 offers more efficient excavation

Efficiency is the name of the game when it comes to moving dirt. Now, a new player in the excavation game, Komatsu's interim Tier 4 PC360LC-10 excavator, has taken the lead. Using its proven Tier 3 platform, Komatsu added features to provide greater efficiency with lower fuel consumption, improved operator comfort and enhanced serviceability, all of which maximize productivity while lowering operating costs.

In addition to meeting interim Tier 4 engine standards, the 257-horsepower PC360LC-10 uses an integrated design with Komatsu-exclusive hydraulic pumps, motors and valves. The design has a closed-center, load-sensing hydraulic system that uses variable speed matching to adjust engine speed based on the pump output. To make the excavator even more efficient, Komatsu enhanced the hydraulic system to reduce hydraulic loss and fuel consumption.

Komatsu lowered the fuel consumption while providing additional horsepower (compared to its predecessor, the PC350LC-8) with a larger-displacement engine that features an advanced, electronic control system to manage air-flow rate, fuel injection, combustion parameters and aftertreatment functions. An integrated Komatsu Diesel Particulate Filter (KDPF) reduces emissions without interfering with machine performance.

"Komatsu's mid-size excavators have always been considered the top of their size class, and the PC360LC-10 fits right in," said Product Manager Doug Morris. "Users will find it an excellent digger for speciality work, such as trench and large foundations, as well as for productive bulk excavation. It also has good power to run attachments, such as demolition grapples or hammers."

## Strong, comfortable cab

A new, strong, ROPS-certified cab has a reinforced pipe-structure framework with viscous damper mounts for low vibration. A high-back, fully adjustable seat uses air suspension and is heated for improved comfort. An auxiliary input and two 12-volt ports are standard.

"Outside the cab, the PC360LC-6 has handrails that surround the upperstructure for easy access to service points," noted Morris.

"We want users to get maximum production with minimal downtime. The PC360LC-10 delivers just that," he concluded. ■



Doug Morris, Product Manager

Brief Specs on PC360LC-10			
Model	<b>Operating Weight</b>	Horsepower	Digging Depth
PC360LC-10	79,930 lbs.	257 hp	26 ft., 10 in.

"Komatsu's new PC360LC-10 excavator offers excellent digging power for large trenches as well as bulk excavation," said Product Manager Doug Morris. "It also has good power to run attachments, such as demolition grapples or hammers."



## **NEW ARTICULATED TRUCK**

# Increased load capacity among more productive features of Komatsu's new HM300-3 truck



Rob Warden, Product Manager

When Komatsu made changes to its articulated dump trucks to meet interim Tier 4 regulations, it took the opportunity to also make the trucks more productive. Case in point, Komatsu's new HM300-3. The artic truck now reduces emissions and offers increased capacity compared to its predecessor model.

Komatsu also increased operating weight, while maintaining a maximum ground speed of 36.4 miles per hour in order to move more material in the same amount of time. "The HM300-3 has a low, nine-foot, three-inch loading height, so it matches up well with 30-ton to 60-ton hydraulic excavators and five-yard to seven-yard wheel loaders," said Product Manager Rob Warden. "In addition, it has two, single-stage,

body-lift cylinders that give it a 70-degree dump angle. It's a very efficient and productive truck that fits well into load-and-carry applications."

The HM300-3 features a new Komatsu Traction Control System (KTCS) that automatically provides optimum traction when operating in soft ground conditions. The HM300-3 continually monitors machine performance and detects changes in momentum due to soft ground conditions. When a change in momentum is detected, the inter-axle differential lock applies automatically, activating KTCS. KTCS monitors tire slippage with sensors located on four wheels. If slippage occurs, the four independent brakes automatically apply as necessary to regain traction.

In addition, a Komatsu Advanced
Transmission with Optimum Modulation
Control System (K-ATOMiCS) offers a
six-speed, fully automatic transmission that
selects the ideal gear based on vehicle speed,
engine rpm and shift position. It results in
powerful acceleration, smooth downshifting
and synchronized engine speed when climbing
slopes. K-ATOMiCS also helps keep the load in
the body and increases productivity.

A new cab design on the HM300-3 provides a more comfortable and quiet work environment, including a rounded front dash panel with easy-to-reach switches. A redesigned dashboard and relocated, air-ride seat improve visibility. From the new, high-resolution monitor, the operator can modify settings, such as reversing the fans or selecting the starting gear.

"A newly designed engine hood provides convenient access to service points and improved forward visibility," Warden pointed out. "Of course, it has the same standard features, such as KOMTRAX, that make it a true Komatsu machine, so we know users will find the HM300-3 a valuable addition to their fleets."



# COMPLIMENTARY TIER 4 SERVICES



Komatsu CARE for Komatsu Tier 4 Interim models is a new, complimentary maintenance program designed to lower your cost of ownership and improve your bottom line. It provides factory-scheduled maintenance on the machines for the first three years or 2,000 hours, whichever comes first. This includes up to two exchange Komatsu Diesel Particulate Filters. Be sure to contact your Komatsu distributor for all the details.

Once again, Komatsu leads the industry. No other construction equipment manufacturer offers a complimentary maintenance program like this.

It's what you've come to expect from the service experts at Komatsu.

# ICOMATSU®



# **NEW D155AX-7 DOZER**

# Interim Tier 4 model builds on already productive features for greater efficiency



Bruce Boebel, Product Manager

On its surface, Komatsu's new D155AX-7 dozer is much like its predecessor: the operating weight, net horsepower and blade capacity all remain the same. However, many comparisons stop there as the new interim Tier 4 D155AX-7 offers lower emissions, yet maintains low fuel consumption for reduced per-yard costs.

Coupled with a highly efficient, automatic transmission, the new interim Tier 4 engine uses advanced electronic control to manage air-flow rate, fuel injection, combustion parameters and aftertreatment function for optimal performance. The automatic gearshift transmission and lock-up torque converter transfer engine power directly to the transmission, providing a 10-percent decrease in fuel consumption compared to conventional models. The D155AX-7 uses a much larger cooling package

with improved airflow to keep the engine running cool in harsh working conditions.

"Even in the toughest working conditions, the D155 remains efficient and productive," said Product Manager Bruce Boebel. "It meets all the interim Tier 4 standards for reduced emissions, without sacrificing the excellent power previous D155 models have become known for in dozing and ripping applications where mass quantities of material are involved."

To fit the application at hand, operators can choose from automatic or manual gearshift modes: automatic for general dozing and manual for dozing and ripping in rough ground. The automatic gearshift transmission shifts to the optimal gear range based on working conditions and load.

## Auto blade pitch, ripper controls

Equipped with Komatsu's unique SIGMA dozer blade, the D155AX-7 has a capacity of 12.3 cubic yards. While that's the same as the previous model, Komatsu incorporated a new, automatic, blade-pitch function that reduces operator effort and increases efficiency. With the flip of a switch, it sets blade-pitch position between digging and dump positions with no additional lever movements. Operators can set the blade-pitch control through the seven-inch HD monitor to automatically return to the digging position when they select reverse.

"A new ripper-control lever is more ergonomic for increased operator comfort," said Boebel. "Like our other interim Tier 4 machines, we didn't stop with just putting in a new engine. Komatsu worked with customers to identify features that would improve their dozing and ripping performance. We believe we've made a dramatic improvement with the D155AX-7." ■



# **ENGAGING EXCAVATION**

# Komatsu's KMAX tooth system offers cost-effective solution in a large range of applications

In 2003, when Komatsu introduced its KMAX tooth system, it was limited to six tooth styles strictly for excavators. Today, those numbers have expanded to more than 20 ground-engaging tools for both excavators and wheel loaders — PC120 to PC800 and WA150 to WA800 — that handle a wide range of applications.

"There's a right fit for virtually anyone who does excavation or similar types of work, whether they need teeth for digging in clay or rock, or they need something with good penetration into a pile, such as quarry work," said Gary Jones, General Manager Product Support & Marketing for Hensley Industries, a Komatsu company that produces the KMAX tooth system. "The number of styles we have is a direct result of listening to our customers' needs and cost-effectively crafting teeth that meet those needs."

The KMAX tooth system, which now comes on Komatsu buckets, is cost-effective for several reasons, said Jones. Chief among them is durability, which is achieved through superior heat treatment that hardens KMAX teeth to the core, as opposed to some teeth that have hard exteriors but are soft on the inside.

"That gives our teeth a longer life, allowing use to 60 percent of wear as opposed to the usual 40 percent before replacement," said Marketing Manager Brent Dennis. "Heat treatment to the core is one part of the equation. Another is our streamlined design that allows KMAX teeth to offer better penetration of the material while staying sharper longer. That means added efficiency and durability for lower owning and operating costs."

### Fast, easy, safe

When teeth need to be changed, the process is fast, easy and safe. Users simply need a socket wrench to unlock the reusable, non-load-bearing fastener in order to remove the tooth from the adapter on the bucket. After placing the new tooth on, it's easy to tighten it back down. In most cases, the process takes less than a minute.

"We believe it's the best system on the market because there are no pins to be hammered out," said Jones. "Our teeth are designed so that if users see uneven wear, they can flip the teeth."

"While KMAX teeth are first-fit on Komatsu machinery, the KMAX system can adapt for use on other brands," Dennis pointed out. "If you add it all up — durability, better penetration of material, speed of tooth changes, safety — we're convinced the KMAX system offers the best tooth value in the industry." ■



Gary Jones, GM Product Support & Marketing, Hensley Industries



Brent Dennis, Marketing Mgr., Hensley Industries



Komatsu's KMAX tooth system offers durability in more than 20 tooth styles for a wide range of excavators and wheel loaders. It's easy and safe because the system requires only a socket wrench — no pins to hammer — to remove and replace teeth from the adaptors.



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# **FORECASTING THE FUTURE**

# GM says PMO continues to expand production to meet present, future global mining demand

QUESTION: There have been a few sparks in construction, but overall activity remains low. How's mining?

ANSWER: Mining has been strong for quite a while now. We are producing more than four or five times the number of trucks we did just 10 years ago. It's probably more than many of us here at Peoria Manufacturing Operations (PMO) thought was even possible back in 2002. Mining continues to be very strong globally, so there's a great demand for the five Komatsu mining trucks we manufacture.

#### QUESTION: How are you meeting demand?

ANSWER: Taking into account several factors, such as historical trends, current mining and what we see down the road, we update our forecast frequently. More recently, our firm-order backlog is very strong and we are able to see the future more clearly. We're basing our production on what we believe the long-term trends will be. Again, we expect mining to remain strong, so we're being proactive.

Most of our operations are running around the clock to ensure we meet our production goals and the demand for our mining trucks, which is globally very high. Because demand is so high, we added a second assembly line and further refined our processes to make them even more efficient. That's allowed us to double the number of trucks produced a day, and we're working to further increase that.

## QUESTION: Why are Komatsu mining trucks in such demand?

ANSWER: Komatsu trucks have always been at the top of the class in terms of per-ton costs because they're not only efficient, but reliable and have a long life cycle. A big reason why is because the trucks are electric-drive as opposed



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.

Jim Mathis, General Manager of Manufacturing, Komatsu Peoria Manufacturing Operation (PMO)

Jim Mathis has returned to his roots. Mathis is a General Manager of Manufacturing at Komatsu's Peoria Manufacturing Operation (PMO), where he has spent most of his career with Komatsu.

Mathis started at PMO in 1984 as Production Scheduler and moved his way up to Superintendent of Component Manufacturing. In 2008, he was promoted to Director of Manufacturing Administration, which meant a move to Komatsu America's headquarters in Rolling Meadows, Ill.

"I've spent my entire adult life with Komatsu," Mathis said. "I'm very happy to be returning to Peoria and getting the chance to work with many of the same people I worked with during the 20 years I was here before. I can't say enough good things about the people who work here. Their hard work, dedication and commitment have helped PMO expand its production capacity greatly."

Mathis, along with another general manager, oversees a staff of more than 600 salaried and hourly workers at PMO, where five models of electric-drive, mining haul trucks are produced. He's responsible first and foremost for safety, then quality, followed by production, delivery and profit and loss.

"It's a challenge, but one that I enjoy," said Mathis. "I've seen many changes through the years that have made our equipment better, both in production and reliability. There's nothing more satisfying than knowing we're building a truck that's going to help a customer be more profitable."

Mathis completed an MBA at Peoria's Bradley University a few years ago, while working at PMO. Jim and his wife, Suzanne, have five children, the youngest of which started her freshman year of college this fall.

# Komatsu — at the forefront of technology

.. continued

Komatsu's Peoria Manufacturing Operation works around the clock to ensure timely assembly and delivery of five sizes of mining trucks.



Some of the world's largest mining trucks, including electric-drive 830Es are assembled at PMO. "It's been proven that our trucks work longer with less downtime. That makes a huge difference to a mine that's running 24 hours a day," said Jim Mathis, General Manager of Manufacturing at PMO.



to mechanical. It's been proven that our trucks work longer with less downtime. That makes a huge difference to a mine that's running 24 hours a day. Our customers tell us that.

Of course, many other features have been a direct result of our working with customers and listening to their needs to incorporate those into our trucks. Based on their recommendations, we've integrated convenience features, such as ramp-style staircases to the driver's cab rather than a ladder hanging on the side.

QUESTION: Komatsu has built its reputation for mining trucks based on the foundation of reliability. What does the factory do to ensure each truck reinforces this reputation?

ANSWER: It's important to recognize that product quality begins with unrivaled design, followed by rigorous testing and confirmation. Only then can manufacturing truly excel at producing high-quality products and deliver reliability to our customers. We make countless quality checks and confirmations every day on every truck throughout the production process. This also includes the critical role our suppliers play in supporting us. It's not something special or unique. It's what we do every day with every process.

# QUESTION: What does the future hold beyond Tier 4?

ANSWER: In some sense, Komatsu is already there and has been for quite some time. We've been developing, producing and testing autonomous haul trucks — trucks that run without a driver — for several years. They are already being used in active mines. That's a huge technological advantage for the customer because it keeps costs down, and for us because it puts us at the forefront of the mining equipment industry.

We've always been strong in technology, especially in tracking machine usage, function, production and maintenance with our KOMTRAX PLUS system. It allows both us and the customer to see how a truck is being used so we can build future machines based off that information and customer recommendations. We never stop trying to improve.

# AGC lauds EPA's decision to back off on new stormwater rule

The Associated General Contractors applauded the EPA's decision to temporarily withdraw limits on the amount of dirt it will allow in stormwater from construction sites. At the same time, the organization is pushing for the EPA to not impose the measure altogether.

"The fact that the EPA recognizes the serious flaws in the data supporting its efforts to impose a rigid, one-size-fits-all limit on the amount of dirt in rainwater leaving construction sites is encouraging," said AGC

Chief Executive Officer Stephen Sandherr. "Indeed, contractors are already required to take significant measures to ensure that dirt — clean, uncontaminated dirt — does not escape from project sites. Setting a specific limit on how much dirt should be in rainwater will only force contractors to spend billions more on new dirt-busting measures that may not work; expose firms to costly lawsuits from outside groups; and put them at risk of receiving tens of thousands in daily fines." ■



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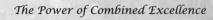
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## **END EXCESSIVE IDLING**

# Komatsu personnel explain how non-productive hours negatively affect your machinery

Equipment monitoring systems, such as Komatsu's KOMTRAX, provide valuable information on machine functions, including hours, fuel consumption, machine location, trouble warnings and more. All items are important, but there's one function that's often overlooked, and Komatsu's Goran Zeravica and Rizwan Mirza are on a mission to let users know that it may be the most important one of all.

"Owners and operators don't seem to take idle time into account as much as they should," emphasized Zeravica, Distributor Operations Development Manager, ICT-Construction Business Division. "It has a huge impact on owning and operating costs, in many cases driving up those costs well beyond what they should be."

Studies show that a rather large percentage of a machine's working hours are spent idling rather than actually working. According to Mirza and Zeravica, the industry average is about 37 percent of time idling. "If that's the average, it means there are machines out there idling well above that, sometimes in the range of 50 percent or more," said Mirza, Manager, KOMTRAX, ICT-Construction Business Division. "In nearly every case, it would be better to shut the machine down when it's not in production and reduce the idle time."

Idle time adversely affects machines in several ways. "The most obvious is the amount of wasted fuel," Zeravica noted. "But something else to think about is the number of unnecessary hours being put on that machine. That drives up owning and operating costs, too."

"Letting a machine idle means reaching service intervals sooner, thereby raising owning and operating costs even more," added Mirza. "Tier 4 machines will increase the need to eliminate idling

because the Komatsu Diesel Particulate Filter (KDPF) must be cleaned/serviced at 4,500-hour intervals, according to Komatsu's recommended specifications. In addition, idling for extended periods prevents the KDPF's passive regeneration system from meeting optimal temperatures for maintaining cleanliness. The result could be additional active regenerations consuming more fuel or additional KDPF cleanings at less than 4,500 hours."

## Warranty affected

Piling up the hours idling also hurts your bottom line from a warranty standpoint. Idle hours count against the warranty clock just as productive hours do. If you're idling, you'll reach the end of the extended warranty period sooner.

"That's something that hardly ever crosses most users' minds, and it should be at the forefront of their thinking," Zeravica pointed out. "One other area most don't consider is resale value. If you have a five-year-old machine to sell or trade with 10,000 hours as opposed to 5,000 or 6,000, you're obviously going to get less for it. Bottom line, machine owners and operators need to take a proactive approach to idling. If the machine isn't producing, shut it down." ■



Rizwan Mirza, Manager, KOMTRAX, ICT-Construction Business Division



Goran Zeravica,
Distributor Operations
Development Manager,
ICT-Construction
Business Division



# A STEP IN THE RIGHT DIRECTION

# Congress temporarily extends transportation funding; a multi-year bill should be a priority

In September, the Senate approved the Surface and Air Transportation Extension Act of 2011 (H.R. 2887). The bill, which the President signed, extends the surface transportation and airport construction programs until March 31, 2012, and January 31, 2012, respectively. Had the programs lapsed, the Highway Trust Fund would have lost \$100 million per day in gas tax revenue and more than 1.6 million jobs would have been at risk.

"AED applauds Congress for putting politics aside and moving forward with extensions of federal transportation construction programs," said Associated

Congress passed a bill that extends surface transportation and airport construction funding through January 31, 2012. The Associated Equipment Distributors believe a long-term bill is a necessity.



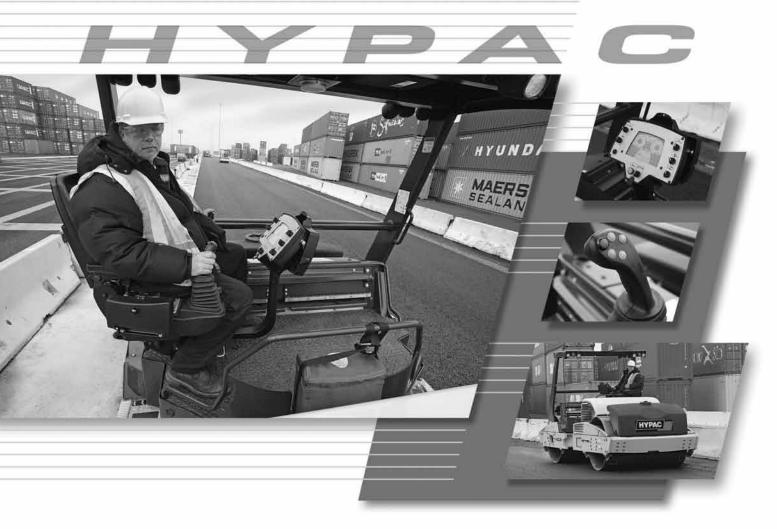
Equipment Distributors President Toby Mack. "This legislation ensures that the hundreds of thousands of workers who build and maintain our highways, bridges and airports can continue their work, at least temporarily."

Given the current political situation in Washington, this is an important victory. House Republican leaders, who previously advocated cutting the highway program, were willing to go along with the deal, recognizing the massive job losses that would result from funding cuts.

The bill effectively extends highway and FAA construction programs at current spending levels. "While the extension is welcome news, it falls short of giving the construction and equipment industries the certainty essential to recovery and job creation. By delaying action on a new multi-year highway bill, Congress is putting off much-needed investment in the infrastructure the U.S. economy needs to grow and flourish," Mack said.

As further evidence that the Hill is waking up to the need for action on highway reauthorization, a memo on job creation by House GOP leadership released in September cited infrastructure spending as a possible area for bipartisan cooperation saying, "Congress and the President should spend the next few months working out a multi-year transportation authorization bill."

This article is from the Associated Equipment Distributors, a trade association representing companies in the distribution, rental and support of equipment. Its members account for more than \$15 billion of annual sales of construction equipment and related supplies and services in the U.S. and Canada.



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## **Brain Teasers**

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

- 2. T A M O K U S \_\_\_\_\_ U
- 3. L I R A X A U Y I \_\_\_\_\_X\_\_\_\_\_\_
- 4. P E G A R L P \_\_\_\_\_ <u>L \_\_</u>
- 5. GILIND \_\_D\_\_\_\_

# Did you know...

- George Washington was the only unanimously elected U.S. president.
- The average human body contains enough:
  - iron to make a three-inch nail,
  - sulfur to kill all fleas on an average dog,
  - carbon to make 900 pencils,
  - potassium to fire a toy cannon,
  - fat to make seven bars of soap,
  - phosphorous to make 2,200 match heads,
  - and water to fill a 10-gallon tank.
- The average mature oak tree sheds approximately 700,000 leaves in the fall.
- Snails move at a rate of approximately 0.000362005 miles per hour.
- A "jiffy" is an actual unit of time for 1/100th of a second.
- A typical lightning bolt is two to four inches wide and two miles long.
- The Hoover Dam was built to last 2,000 years. The concrete in it will not even be fully cured for another 500 years.

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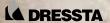
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