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D2E

DOWN TO EARTH MAGAZINE

- » **KOMATSU'S WORLD'S FIRST iMC EXCAVATOR**
- » **KOMATSU PARTNERS WITH QANTAS BUSINESS REWARDS**
- » **KOMATSU TRAINING ACADEMY ESTABLISHED**



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COMMENTS

We are well and truly into 2017. I hope this year finds you, your family and colleagues healthy and safe. No doubt there will be many challenges for all of us both personally and in business so please accept mine and all of my team's best wishes for your success in 2017.

The beginning of every year is an opportunity to reflect on the year gone, but more importantly set priorities and think about the bigger picture for the year to come. Often if we don't take this opportunity and we find ourselves quickly and fully immersed in the day to day business. Certainly this is how I sometimes feel.

I thought I would use this space to tell you a little about Komatsu's direction in 2017. I think it will be a very exciting year. The global economy and political situation is certainly very dynamic, perhaps exciting is not the right word. My overwhelming feeling though is that change creates opportunity and that is something Aussies and Kiwis are very good at making the best of. So I feel confident about your prosperity in 2017. Certainly in the last few months we have seen an uplift in Mining in Australia with surging commodity prices. I do not believe any forecasts anymore! Civil and housing construction has remained buoyant in South East Australia and New Zealand. Forestry, agriculture and aggregates are doing pretty well in both countries too. So as you know if business is improving it is easy to be excited, and I think that will remain the theme in 2017.

2017 will also be rather exciting for Komatsu as we extend our family to Joy Global this year. Joy is a great company with great products and great people. So as far as I am concerned a great fit! The first priority will be to investigate areas where we can improve customer outcomes for both customers of Joy and Komatsu, many of course being the same. I welcome any feedback or suggestions from you, because as we are fully aware many of the products and services both companies supply to you are mission critical.

Finally I am excited about 2017 because we are continuing on the innovation journey. Innovation is truly the catch word for us; innovating products, innovating market solutions, invigorating our people, and innovating our support and services to you. Hopefully as you read through this edition of D2E you can catch some of what I mean. In the meantime let me express my gratitude for your business and heartfelt hope for your success in 2017.

Sean Taylor
Managing Director & CEO

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FRONT COVER

World's First iMC Excavator -
Komatsu's PC210LCi-10

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Komatsu's new Intelligent Machine Control (iMC) technology provides a solution to one of the major challenges facing the construction industry: the lack of skilled operators at a time when clients are demanding ever-higher levels of precision combined with increased productivity.

Currently available across dozer and excavator models, iMC has already shown its ability to deliver significant improvements in efficiency and productivity for Australian and New Zealand contractors compared with conventional construction processes.

Komatsu iMC is designed to let operators focus on moving material efficiently – from bulk excavation to final trim – without having to worry about over-excavation or damaging the target surface – vastly speeding up site earthworks, while delivering greater precision and accuracy.

Currently covering a range of four dozers and one excavator, each model in Komatsu's iMC range incorporates as standard a factory-installed fully integrated 3D GNSS (global navigation Satellite System) machine control system.

Komatsu iMC is part of the company's SmartConstruction concept, which brings together a wide range of technology solutions, including drones and remote site management, to deliver more efficient, productive and cost efficient construction processes.

According to Aaron Marsh, Komatsu Technology Solution Expert Team Manager, Smart Centre, major industry issues, including skills shortages, demands for increased construction site productivity, finite resources and project management pressures were key factors behind the development of iMC technology.

"At Komatsu, we have a long history of introducing market-leading technology and innovation to the industries we serve," he said.

"Understanding the needs of our customers, we are constantly working towards enhancing and improving their productivity – including meeting the challenge of the ever-growing demand for skilled machine operators."

All machines in Komatsu's current iMC line-up – covering the PC210LCi-10 excavator, and D61EXi-23, D65EXi-18, D85EXi-18 and D155AXi-8 dozers, share some common features.

- » Automated blade and bucket control, from bulk excavation to final grades
- » Integrated factory-installed Komatsu machine control system, with all components highly secure from damage, vandalism and theft
- » Multiple automated dozing modes, with auto grade assist, auto stop control and minimum distance control for the excavator, ensuring jobs are finished faster, more accurately and with minimal rework
- » Conventional "bolt-on" machine control components are replaced with fully integrated factory-installed GNSS antennas, enhanced inertial measuring unit (iMU+) and stroke sensing hydraulic cylinders, ensuring Komatsu reliability, durability and quality.
- » Exclusive cab-top (dozer) and handrail mounted (excavator) GNSS antennas greatly reduce the risk of damage, theft or vandalism associated with conventional blade and counterweight mounted antennas and cables – while ensuring greater accuracy through more stable GNSS antenna positioning
- » Chassis-mounted enhanced inertial measuring unit (iMU+) measures machine pitch and roll to enable precision work equipment control, even when working on slopes.
- » Robust stroke-sensing hydraulic cylinders use proven sensor technologies for accurate finish grade performance, allowing the iMC system to constantly track the angle and location of the blade or bucket edge.

Aaron said Komatsu's integrated iMC technology delivered a wide range of benefits on construction sites.

"iMC allows contractors to complete bulk dozing and excavation, along with grading and final trim operations faster and to closer tolerances, with fewer passes to achieve finish grades or excavation profiles.

"It also allows far more efficient machine use and less rework – just dig or grade it once, then move on," he said.

"In addition, because all 3D design data is held

within an iMC machine, we can greatly decrease times required for staking, survey and even final inspection, as well as allowing contractors to complete multiple tasks with one machine."

Other benefits, said Aaron, included lower machine operating costs and whole-of-life costs, better material yields, reduced fuel consumption, and greater machine availability and uptime

"And because an iMC-equipped machine means simple operation for all operators no matter what their experience levels, we get greatly improved operator performance," he said.



"All Komatsu iMC machines are capable of operating on multiple sites with all OEM type UHF or UHF digital base solutions, including network corrections through a network base solution."

Below is a brief outline of the benefits of iMC technology on Komatsu's new excavator and dozer line-up.

Dozers

Komatsu's iMC system for dozers allows these machines to carry out both bulk and final trim dozing in fully automatic mode from start to finish, delivering final grade performance and accuracy.

The result is significantly increased productivity and efficiency – up to twice as productive as dozers fitted with conventional third party machine control systems according to Australian users and operators – while reducing the cost of each metre of material moved.

The iMC system automatically controls blade elevation and tilt according to target design data – using common industry standard design data software and systems – so not only can the automatic machine control features be used for finish grading but also for bulk dozing.

This capability is unique to Komatsu intelligent dozers.

Loading of the blade at the start of the cut is controlled through set parameters; during the pass, if the load on the blade increases during bulk dozing operation, the blade is automatically raised to control the load and minimise shoe slip, ensuring efficient dozing at all times.

Once the material level approaches the target design surface, the blade will follow it with millimetre-accuracy for close finish grading.



INTELLIGENT MACHINE CONTROL EQUIPMENT THE FUTURE IS HERE

Four different machine control operating modes allow operators to best match performance to the application, covering cut-and-carry, cutting, spreading and final trim grading.

In addition, construction progress can be checked using an integrated as-built mapping display, which collects surface data by continuously measuring actual elevations as the machine operates.

"Komatsu intelligent dozers deliver unmatched productivity, combined with on-grade accuracy first time every time, from bulk dozing to final trim, for faster dozing speeds, fewer passes, less re-work, increased uptime and higher availability," said Aaron.

Excavator

Komatsu's iMC PC210LCi-10 excavator enables operators to achieve optimum speed to final grade accuracy with minimal inputs, while eliminating the need for manual grade checking.

Its iMC capabilities ensure every job is on grade first time, minimising rework or over-excavation.

The excavator includes three built-in automated modes to deliver these high levels of excavation accuracy and efficiency. They are:

Auto grade assist: When the operator moves the arm, the boom adjusts the bucket height automatically, tracing the target surface and minimising digging too deep, allowing the operator to perform bulk excavation without worrying about the design surface, and to perform fine digging

by operating the arm lever only, with the working range increased by moving the boom downward.

Auto stop control: During boom or bucket operation, the work equipment automatically stops when the bucket edge reaches the required grade, minimising over-excavation or damage to the design surface.

Minimum distance control: Bucket control automatically selects a point on the bucket closest to the target surface, so even if the machine is not facing a sloped surface at a right angle, it will still follow the target surface, minimising digging below it.

"With iMC on the PC210LCi-10, operators can focus on moving material efficiently, without having to worry about digging too deep or damaging the target surface," said Aaron.

"This delivers over 60% improvement in work efficiency compared with conventional construction processes."

Drone technology

As part of its iMC and SmartConstruction solutions, Komatsu offers integrated autonomous Unmanned Aerial Vehicles (UAVs) or "drones" for survey and site management, using EVOX3x precision 3D mapping drones through Skycatch.

"Drone capability enhances Komatsu Australia's total site solution for our customers," said Aaron.

"It is fully integrated with the Skycatch cloud platform, using the EVO3x precision 3D mapping drone, which is the only commercial quadcopter capable of creating 3D point clouds with sub-5cm

accuracy without the use of ground control points.

"This technology delivers quick, reliable and accurate survey for all earthmoving, quarry and mining applications, adding value to our integrated iMC operations."

This technology can record current as-built data, plus cut and fill volume reporting, incorporating class leading technologies such as terrain following, for increased accuracy on entire flight plan and improved end results.

"It allows for unprecedented visibility into work site progress," said Aaron.

"In addition to being integrated into our iMC technology offerings, it's also capable of working alongside Komatsu's AHS (autonomous haulage systems).

"This means we are able to offer total end-to-end site planning, management and construction solution for our customers now, tomorrow and in the future," he said.

"Komatsu's innovative intelligent Machine Control (iMC) technology solutions are making our customers more productive today... and into the future.

"Adding Komatsu iMC machines and solutions to a fleet is a formula for unmatched productivity improvement," Aaron said.

"iMC-EQUIPPED MACHINE MEANS SIMPLE OPERATION FOR ALL OPERATORS NO MATTER WHAT THEIR EXPERIENCE LEVELS"



KOMATSU LAUNCHES WORLD'S FIRST

iMC EXCAVATOR

Komatsu has released the PC210LCi-10, the world's first Intelligent Machine Control (iMC) excavator, which features a revolutionary and fully factory-integrated 3D GNSS machine control and guidance system.

With an operating weight of 23.3 tonnes, the PC210LCi-10 is powered by a Komatsu SAA6D107E-2 diesel engine – complying with US EPA Interim Tier 4 emissions requirements – rated at 123 kW.

Komatsu's exclusive iMC concept is designed to let operators focus on moving material efficiently, without having to worry about digging too deep or damaging the target surface – and can result in more than a 60% improvement in work efficiency when compared with conventional construction processes.

According to Komatsu's Aaron Marsh – National Technology Solution Expert Manager, the PC210LCi-10 represents the industry's first move from conventional excavator

machine "guidance" systems – which require the operator to dig according to an in-cab indicate system – to actual machine control automation.

"With conventional excavator guidance systems, the final finish quality depends entirely on the skill of the operator," said Aaron.

"One of the biggest problems customers have had with these systems is speed and accuracy from sensor lag and 100% operator inputs, so operators have had to constantly monitor the system to check they are on design, while also having grade checkers regularly confirming design surface accuracy.

"But with machine automation, Komatsu's iMC excavator enables operators to achieve optimum speed to final

"IT DELIVERS NOT ONLY IMPROVED WORK ACCURACY, BUT ALSO IMPROVED CONSTRUCTION EFFICIENCY, MAKING EVERY PASS COUNT."

Key iMC components – all factory installed and fully integrated into the machine – include:

- » Built-in stroke sensing hydraulic cylinders on the boom, arm and bucket, providing real-time bucket position data sent to the in-cab control box, and tracking the location of the cutting edge of the bucket relative to the body of the machine and target surface
- » An enhanced Inertial Measurement Unit (IMU+), located inside the machine, to detect machine pitch and roll
- » A 12.1-inch machine control box inside the cab with easy to use touchscreen functions; working from 3D project design files, it simultaneously displays such information as magnified grading view, 3D view, current as-built status, and the like
- » Two GNSS antennas, positioned on easily accessed handrails behind the cab, plus a GNSS UHF digital II receiver located inside the machine.

"Due to factory integration of our intelligent machine control components the only obvious sign that Komatsu intelligent excavators are different from a standard machine are the antennas and in-cab control box," said Aaron.

"All other components are internal, and highly secure from damage, vandalism and theft."

As the PC210LCi-10's bucket edge approaches the target surface profile, the system's machine control capabilities come into play. These include:

- » Auto grade assist, using the boom to adjust bucket height automatically as the arm moves, allowing the bucket edge to trace the target surface and minimise over-excavation
- » Auto stop control, which stops the machine during boom, arm or bucket operation once the bucket edge reaches the target surface, again limiting over-excavating
- » Minimum distance control, which controls the bucket by automatically selecting the point on the bucket closest to the target surface, so even if the machine is not facing a sloped surface at a right angle, it will still follow the target surface.

"Our new iMC excavator truly represents the next generation in construction equipment technology," said Aaron.

"It brings the full benefits of the machine guidance revolution we've seen over the past 10-15 years on excavators. "For the first time we now see the next step in machine control evolution moving from machine guidance to automation – a massive step forward for what is the key piece of earthmoving equipment on any worksite.

"It delivers not only improved work accuracy, but also improved construction efficiency, making every pass count.

"Jobs such as staking, survey and even final inspection, which are usually completed manually, can be significantly reduced by utilising the 3D design data held within the machine," Aaron said.

"Studies by Komatsu have shown the iMC excavator achieves up to a 63% reduction in construction time compared with conventional staking/construction/inspection processes, and far greater accuracy in finished surface levels.

"It also eliminates constant redo work, ultimately reducing project costs," he said.

In addition to its iMC capabilities, the PC210LCi-10 incorporates a number of other cost-saving and efficiency-enhancing features. These include:

- » Komatsu SAA6D107E-2 engine, complying with US EPA Interim Tier 4 /EUStage 3B emissions requirements, providing exceptional performance while reducing fuel consumption. Exhaust gas particulate matter (PM) reduced by more than 90% and nitrogen oxides (NOx) by more than 45% when compared with Tier 3 levels.
- » New technology control system to better match engine output to hydraulic pump requirements, resulting in up to 10% lower fuel consumption.
- » Six working modes including Attachment Economy and Power mode
- » Enhanced KOMTRAX remote monitoring system.

grade accuracy with minimal operator inputs, while eliminating the need for manual grade checking."

From bulk excavation to finish grading, the PC210LCi-10 excavator has been designed to drastically improve efficiency and precision on work sites.

The new excavator's iMC system, which shares similarities with Komatsu's recently launched intelligent dozer line, offers real-time bucket edge positioning in relation to the machine and 3D design surface.

Key specs of the PC210LCi-10 are as follows:

Operating weight, 23.3 tonnes; engine SAA6D107E-2 rated at 123 kW; hydraulics, HydraulMind closed-centre load sensing system with variable displacement piston pumps, maximum pressure 380 bar, maximum flow 475 lit/min; bucket capacity range, 0.39-1.1 cu m; maximum dig depth, 6620 mm; maximum vertical wall dig depth, 5980 mm; maximum dig depth for 2440 mm level bottom, 6370 mm; bucket breakout, 13,500 kgf; arm breakout, 10,500 kgf.

BUSINESS REWARDS



Pictured: David Small (General Manager Parts Sales and Marketing)

Komatsu has partnered with Qantas Business Rewards. This partnership will enable our customers to be rewarded every time they purchase Komatsu Genuine Parts.

Komatsu customers will earn one Qantas Point per dollar on Komatsu Genuine Parts, and receive free Qantas Business Rewards membership (normally \$89.50), to celebrate their first month of the partnership.

Komatsu's General Manager Parts Sales and Marketing, David Small said the program was aimed at adding value.

"Komatsu is about People Powered Technology, and we want to reward the businesses using our equipment for recognising the difference that superior quality and support makes and choosing Komatsu," he said.

"The Qantas Business Rewards program is an authentic value-add to support customers in the small and medium sized market segment and recognises our customers' loyalty when they purchase Komatsu genuine parts.

"The partnership with Qantas will also give us the opportunity to organise travel to major international industry events like CONEXPO in Las Vegas, or BAUMA in Germany utilising the Qantas Points earned through this program." David said.

"At Komatsu, we have programs tailored for our customers, whether they own a PC18 mini

POINTS BOOST FOR PARTS BUYERS

excavator or a PC8000 mining shovel, we can support our customers' needs.

Head of Qantas Business Rewards Eric Jelinek said: "Business travellers are a huge part of Qantas Loyalty's member base and we're always looking at adding new partners, such as Komatsu, to the Qantas Business Rewards program to give businesses more opportunities to increase their points balance."

As well as earning Qantas Points with Komatsu, Qantas Business Rewards members can earn points with over 40 partners across a range of everyday business expenses including flights, credit card spend, insurance, energy bills and phone plans. Qantas Points convert at a rate of one to one into any Qantas Frequent Flyer account, and can be used to save the business money or reward the business owner or employees with flights, upgrades, hotel accommodation or products from the Qantas Store.

Giving businesses the choice of who they wish to reward and how is a key benefit of the Qantas Business Rewards program. The program gives members the opportunity to support employee incentives, team building activities or social occasions such as Christmas with Qantas Points deposited directly into employees' Qantas Frequent Flyer accounts or gift vouchers redeemed from the Qantas Store.

For further information about earning Qantas Points with Komatsu contact your Komatsu parts and service representative.

About Qantas Business Rewards:

Qantas Business Rewards businesses are rewarded for flying with Qantas and buying goods and services from Qantas Business Rewards partners that they would ordinarily buy as part of normal business activity.

Business owners can choose whose Qantas Frequent Flyer account is credited with the Qantas Points. Options include: splitting points among business owners; gifting points to employees as reward and recognition; or redeeming points for employees' work-related travel and therefore saving on business travel expenses.

Qantas Points can be redeemed for flights, upgrades, hotel stays, travel insurance, car hire, food and wine, fuel vouchers, gift vouchers or thousands of products from the online Qantas Store.

Any Australian business with an ABN can join Qantas Business Rewards via qantasbusinessrewards.com.au.

A one-off \$89.50 joining fee applies. Terms and Conditions apply and can be viewed online at qantasbusinessrewards.com.au/terms.

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KOMATSU – CUMMINS PROGRAMS GROW

Pictured from left: Students at the Komatsu Wacol site James Harrison, Alex Keegan, Cameron Dowling, Logan Oberholzer, Blake Brooke, Tristan Muir and Declan Ryan.

Komatsu and Cummins Australia have been spearheading a global initiative by the two companies to invest in technical education for students from disadvantaged backgrounds around Australia, with program launches in Queensland and Western Australian colleges during 2016.

In April 2016, Komatsu Ltd President and CEO Tetsuji Ohashi and Cummins Inc Chairman and CEO Tom Linebarger signed a global corporate responsibility partnership agreement to improve communities around the world.

This partnership aims to build on the two companies' already strong business relationship.

Both companies have invested in technical education in their communities – including in Australia – as social contribution activities and have already partnered in some community projects.

Following this global signing, in December 2016, Komatsu Australia and Cummins Australia signed an agreement for our region, committing both companies to working on plans for Technical Education for Communities (TEC) programs around the country.

The TEC programs were rolled out in 2016, at Clontarf Aboriginal College (Perth), Seven Oats College (Perth), WestTEC College, Springfield (Brisbane) and YMCA, Logan (Brisbane).

The first intake from Clontarf Aboriginal College took place during the final term of 2016, and involved four students being offered opportunities to gain experience at Komatsu and Cummins facilities.

At both WestTEC College and YMCA Logan, in Brisbane's southwestern suburbs, Komatsu and Cummins have contributed to the establishment of Certificate II Automotive Engineering programs.

These coincide with the regular curriculum for the final two years of senior school, and link to the Queensland Government's Queensland Job skills program.

Up to 30 students from disadvantaged background have been participating in each program – a total of 60 students across the two institutions.

These programs involve the students attending their usual high schools for four days a week, plus spending a day a week at either WestTEC or YMCA Logan on their Certificate II studies.

These studies include "soft skills" components – a combination of interpersonal people skills, social skills, communication skills, career attributes and emotional intelligence that enable people to effectively navigate their environment, work well with others, perform well, and achieve their goals.

At the end of this process, these students will be in a position to apply for Komatsu's apprenticeship program intakes in 2018 and 2019 – although the first student from this region has been employed as a Komatsu apprentice under this program from the beginning of 2017.

Komatsu and Cummins contributed to the establishment of the WestTEC College program through participation in its governance board, providing audits to ensure compliance with industry HSE standards, and assisting in the launch of the Queensland Government's newly launched Jobs Queensland white paper.

Komatsu also hosted a field day at its Sherwood facilities in late August to show WestTEC College students the standards expected of them in industry, as well as highlighting the many career pathways resulting from employment within the company.

In addition, two students from the YMCA Logan program were provided with a week's work experience at Sherwood, allowing them to participate in a variety of workshop activities.

"At Komatsu, we are delighted to be participating in such programs as part of our commitment to our corporate social responsibility and diversity strategy," said Colin Shaw, Komatsu Australia's General Manager, People and Strategy.

"Our aim is to have 120 students participating in this program around Australia by the end of 2017.

"These programs are also a means of ensuring these young people improve their employment readiness and have a pathway to careers in our industry.

"In addition, our commitment to and involvement in these TEC programs are an ideal complement to our work with the Beacon Foundation, which has its focus on educational and employment opportunities as alternatives to welfare for years 7 to 10 students," Colin said.

"THESE PROGRAMS ARE ALSO A MEANS OF ENSURING THESE YOUNG PEOPLE IMPROVE THEIR EMPLOYMENT READINESS AND HAVE A PATHWAY TO CAREERS IN OUR INDUSTRY."



KOMATSU TRAINING ACADEMY

AIMS TO TAKE SKILLS TO THE NEXT LEVEL



Pictured: Janine Temple (Komatsu Training Academy's National Business Manager)

Komatsu has established a new business unit, Komatsu Training Academy, a nationally registered training organisation (RTO), to provide technical, operator and management courses for the company's customers throughout the region.

Komatsu Training Academy's National Business Manager is Janine Temple, who has more than 17 years' experience in training and management development roles at leading industry associations, including the Australian Mines and Metals Association, the Civil Contractors Federation, and the Housing Industry Association.

Komatsu Training Academy (KTA) is headquartered at the Komatsu Technical Education Centre (KTEC) in Brisbane, which over the past few years has become the company's primary training centre for

operators and technicians in Australia, New Zealand and New Caledonia.

It is one of the region's most advanced technical training facilities for mining, earthmoving and utility equipment.

According to Janine, KTA was specifically developed to assist Komatsu's construction, quarry and mining customers by delivering nationally recognised and customised training where they need it.

This includes training online, on-site at customers' premises or at the company's dedicated training facilities in Brisbane and other centres.

"Our training course offerings include a mix of fully accredited, nationally recognised courses and modules, along with purpose-designed training developed to meet customers' specific needs," said Janine.

"Through our team of specialist industry-qualified trainers, we can deliver a broad range of customisable training courses, including leadership and management training, operator proficiency development, and specialised technical training and skills development."

In the field of operator and technical training, Janine said a major focus of KTA's courses will be moving beyond basic competency training, and into more advanced proficiency development.

"All too often today, training is merely focused on churning out numbers of trainees.

"In contrast, at KTA, we are focusing on what our customers really need:

up-skilling for increased production, improved fuel efficiency, reduced wear and tear, lower operating costs, better preventive maintenance, and greater safety," she said.

"There is a major difference between a key technician or operator who is merely competent, compared with one who is truly proficient at their job – and these differences can translate into significant benefits to a company's bottom line.

"This philosophy is very much in line with Komatsu's total machine management approach, harnessing our information communications technology (ICT) and intelligent machine systems to drive productivity and reliability improvements, and reduce operating costs.

"An important element of this is having highly skilled operators and technicians who fully understand the machines and the technology behind them, allowing them to take full advantage of these developments," said Janine.

While KTA will be able to deliver its training and educational programs through its branches across Australia, New Zealand and New Caledonia, as well as at customer worksites and facilities, the hub of its operations will be its KTEC headquarters.

Located on more than 3 hectares of land, KTEC has more than 2600 sq m of dedicated training facilities, including seven classrooms, seven technical/electrical laboratories and a large machine operator's workshop.

It also incorporates a number of simulators, providing the ability for both novice and experienced operators to safely learn on a range of machines, from construction and utility size up to ultra-class mining equipment.

Courses available through KTA cover a variety of mining, construction and utility machine types, including backhoe/loaders, dozers, crushers, dump trucks, excavators (conventional and hybrid), graders and wheel loaders, as well as general systems and technologies.

"KTEC was originally designed to specifically increase the technical capability of our own service and support people to the benefit of our customers," said Janine.

"It has evolved to become an important element of our total customer satisfaction experience by ensuring we offer the best trained OEM support in the industry.

"As a result, we were increasingly being asked to provide technical training for our customers' own service technicians, and over the past few years, this has become a growing business for Komatsu Australia.

"This has now seen the KTEC facility becoming part of Komatsu Training Academy, offering a full suite of accredited and custom-developed educational programs across management, technical and operational training.

"Our vision is to see KTEC recognised as a centre of excellence in heavy equipment training throughout the Asia-Pacific, from which KTA delivers training to customers and sites in the region." she said.

"We believe our industry is on the cusp of major changes in how we operate. Through the increasing speed of technological advancement, innovative design and 'SMART' products it has never been more important to train people to take maximum advantage and prepare for our industries future." stated Colin Shaw, GM People and Strategy.



KOMATSU
Training Academy



NEW GM MARKET INNOVATION



Pictured: Todd Connolly (General Manager – Market Innovation)

Komatsu has appointed Todd Connolly to the newly created position of General Manager – Market Innovation, a role designed to ensure that the company remains at the forefront of technology and innovation for the benefit of its customers.

Todd comes to this new role following three years as Komatsu's Head of Information Communication Technology, where he oversaw the successful launch of the company's INSITE fleet management centre at its Fairfield headquarters.

By monitoring key machine, , production and industry parameters across all Komatsu machines operating in the region through INSITE, the company has been able to harness the latest ICT (Information Communications Technology) to derive maximum customer benefits.

In 2016, Todd was awarded Komatsu Ltd's global President's Award in recognition of his work on projects that represent best-of-breed innovation within Komatsu's global operations.

He is now approaching seven years with Komatsu – joining the company as National Manager, Corporate Planning, before being appointed Head of Marketing & Corporate Planning two years later.

Before that, Todd had been in the Automotive industry for 11 years, working in a range of market planning and marketing functions.

His latest role focuses on building the company's successful implementation of ICT, with his brief being to take advantage of Komatsu's developing technologies and innovations to drive further real-world customer benefits.



"AT KOMATSU, WE REALISE THAT IT'S NO LONGER ENOUGH JUST TO HAVE THE HIGHEST QUALITY PRODUCTS IN THE MARKET PLACE – WE MUST PROVIDE INNOVATIVE SOLUTIONS THAT HELP OUR CUSTOMERS ACHIEVE THEIR GOALS."



ICT, CMS (Condition Monitoring Service) and INSITE fleet management, along with some significant additional transformational processes.

In addition to the existing ICT platforms like KOMTRAX and Condition Monitoring Services, the Market Innovation team are responsible for the creation of a 'digital blueprint' for the business, which will align Komatsu's business objectives with its technical innovations.

"Our goal is to be a Customer centric, data driven organisation.

"The objective is to make it easier for our customers to do business with us," Todd said.

"This includes enhancing our systems and processes, so our people can be more efficient in their day-to-day operations.

Innovation is also closely related to business transformation – it's not just about technology, although technology is certainly a key enabler. As we've seen in many other industries, existing business models can be easily disrupted, so its critical that we continue to look at opportunities to enhance our products, services and processes.

"We also need to change our models of digital delivery so we are more agile and responsive to our customers' and our staff needs."

Todd said a real-world example of this more agile digital delivery model, is Komatsu's "Fix It First Time" (FIFT) approach, introduced in the middle of 2016.

"Under FIFT, our staff have all the data they need about a machine before they even leave for a site, so we can pre diagnose machine condition, and take the appropriate skills and parts to the job, and fix the machine on the first visit.

"In turn, that means we are reducing customers' downtime, machines are back to work faster, we have lower costs of repair, and we can eliminate multiple travel trips.

"It's been a tremendous success both internally and for our customers since we introduced it mid last year.

"And it's just a first stage in our transition towards becoming a digitally enabled workforce, so that when a Komatsu technician arrives at a worksite, they can access all the information they need using tablets and other advanced technologies for instant diagnostics and better service delivery."

Todd said that various Komatsu programs that are now successfully up and running are contributing to this vision of a digitally enabled organisation.

"For example, the original objective of our INSITE fleet management program was to help us provide improved machine health and productivity increases to our customers.

"But it also allowed us to use the data from our ICT systems to drive our forecasting processes, so we are more likely to have the right parts at the right times for our customers.

"INSITE has been in place since August 2014 and has certainly delivered all that we'd hoped from it," said Todd.

"It has since become the benchmark for other Komatsu distributors around the world to implement similar strategies."

"At Komatsu, we realise that it's no longer enough just to have the highest quality products in the market place – we must provide innovative solutions that help our customers achieve their goals.

"And that's where we are going with our Market Innovation program," said Todd.

"Over the nearly 100 years of our history, Komatsu globally has become established as a technical leader in our industries, something that has really accelerated in the past few years," said Todd.

"We are leaders across so many areas, such as KOMTRAX remote machine monitoring and telemetry, autonomous haulage, hybrid machines, intelligent Machine Control, and SmartConstruction. So technical innovation really is at the core of our DNA.

"Globally, Komatsu invests heavily in R&D – around \$600Million annually. And of course, the ultimate reason why we do this is to help our customers get the most from their investment in Komatsu products and services," he said.

"Innovation, by its nature, means we always have to be looking forward, to see what trends and disruptive technologies are coming down the line, so we can best serve our customers."

Included in Komatsu's Market Innovation are areas that Todd already held responsibility for, including



KOMATSU NZ APPOINTS NEW SERVICE PARTNER FOR WELLINGTON REGION



Pictured: Dave Bennet (Komatsu team leader to our Transmission Gully project)

Komatsu New Zealand has appointed Machinery Specialists as its Service Partner for the Wellington region, providing a highly regarded service and support facility as massive infrastructure projects in the region get underway.

Komatsu has had a long-term relationship with Machinery Specialists and its owner/manager Rob Miers, with the company having been Komatsu's Manawatu-based Service Agent since 2003.

Machinery Specialists is operating out of newly acquired premises at 8 Kinleith Grove, Porirua – just to the north of Wellington – which it will share with Komatsu NZ's support team for the huge Transmission Gully highway project.

"We have been working closely with Rob and his team to get this operation up and running, and Komatsu will also operate our Transmission Gully service contract from these premises," said Phil Pritchard, Komatsu NZ's Regional General Manager.

"Rob and his team will service Komatsu customers, other than Transmission Gully, in the Wellington region giving us a strong base from which to grow our overall Komatsu market in the lower North Island.

"Machinery Specialists, with service facilities now based in both Palmerston North and Wellington, gives us a very strong aftermarket presence in this part of the country," Phil said.

In addition, Komatsu will soon appoint a Territory Sales Manager for the region.



Pictured from left: Brian Kennedy (PDI Leading Hand), Shane Webcke (QLD Safety Ambassador), Paul Goldsbrough (Executive Director, Office of Industrial Relations), David Dickin (Senior Manager, Operations), Matthew Forrester (PDI Fitter), George Palfreyman (PDI Fitter), Dr Simon Blackwood (Deputy Director-General, Office of Industrial Relations), Dean Gaedtke (Queensland Regional General Manager) and Andrew Harris (Executive Director, Office of Industrial Relations).

WACOL WINS QLD GOVERNMENT SAFE WORK AWARDS



In October 2016, Komatsu's Wacol PDI (Pre-Delivery Inspection) team won a Queensland Government Safe Work Award for its solution to a hazardous manual handling issue when changing tracks on small excavators.

This solution, in addition to eliminating the risk of injury, also significantly reduced the time and cost of changing the tracks.

At a ceremony on October 17 the Komatsu team picked up first place in the Queensland Government's 2016 Safe Work and Return to Work Awards, for the Best solution to an identified work health and safety issue.

These awards recognise significant contributions made by Queensland organisations or individuals to improve workplace health and safety or return to work, with more than 140 organisations and individuals entering the awards in 2016.

According to David Dickin, Komatsu's Operations Senior Manager, the PDI team at Wacol identified a hazard in the workplace involving the task of changing the tracks on PC45 and PC55 excavators – which each weigh between 190 and 290 kg – after two people sustained minor back strains when carrying out this task.

In addition, the task originally took three people and over 12 hours to complete.

"Our team worked with Komatsu's engineering team to design, manufacture and test a cradle to hold and support the tracks in the correct position and shape, removing the requirement for people to manually complete this task," said David.

This track cradle uses a frame and forklift to lift, fit and secure equipment tracks.

"With the implementation of the track cradle, the team has managed to reduce the manual handling in the task by 95%, minimising the potential risk of injury to employees conducting the task, while also eliminating pinch point risks in the process.

"And not only has the cradle significantly reduced the risk of injury from manual task activities, it has also created time efficiencies and significant cost savings," he said.

"The cradle, which cost around \$2000 to make, has reduced the time taken to complete a track change from 12 hours down to four hours, and now only requires one person to complete the task.

"Over the course of building the last 36 machines, this has saved Komatsu nearly \$30,000 in labour costs – and more importantly, no further injuries have been sustained."

Wacol's PDI team won Komatsu's own 2015 Queensland HSE Awards for the best solution to a high potential hazard, and as a result of this win, the solution was entered into the 2016 Queensland Government Awards.

"This is an outstanding achievement and the new solution will be implemented across all Komatsu operations that are exposed to similar conditions," said David.

"WITH THE IMPLEMENTATION OF THE TRACK CRADLE, THE TEAM HAS MANAGED TO REDUCE THE MANUAL HANDLING IN THE TASK BY 95%, MINIMISING THE POTENTIAL RISK OF INJURY TO EMPLOYEES CONDUCTING THE TASK"

930E MACKAY REBUILD

Komatsu's Mackay branch is nearing the end of a major rebuild of a fleet of thirteen 930E-2 dump trucks for a central Queensland coal miner – an 18-month project that has brought much-needed work to the region, while delivering a fleet of as-new trucks at around half the cost of new.

According to Gary Clarke, Komatsu's Branch Manager – Mackay, the 930E-2 rebuild program began in October 2015, when the first truck was rebuilt as a trial.

"The project hasn't stopped since then, and we'll be completing the final two or three in the early months of 2017," said Gary.

The trucks in this fleet are around 15 years old, and are typically at 55,000 to 65,000 hours, with some onto their third engines.

"We are aiming to get these trucks out to 110,000 hours – which is basically doubling their design life – and there's no reason why they shouldn't get to this, given the good maintenance practices in place at the mine," he said.

"The value of work on each truck is less than half the price of a new vehicle.

"Depending on each mine's capital situation, maintenance and purchasing strategies, for some customers with fleets at this age, it makes a lot of sense to carry out a full rebuild program, as they are getting a good, reliable fleet of trucks for much less than the price of new," Gary said.

"Of course the other key factor in this program is the quality and durability built into each Komatsu machine; our haul trucks have a proven record of operating reliably out to 100,000 hours and more in Australian conditions.

"WE ARE AIMING TO GET THESE TRUCKS OUT TO 110,000 HOURS – WHICH IS BASICALLY DOUBLING THEIR DESIGN LIFE –"



Pictured from bottom left: Melmar Baluran (Project Manager), Darcy Dougan (Workshop Supervisor), Phil Sobetzko (Painter), Phil Eder (Technician), Chris Walker (Leading Hand), Scott Lewis (Auto Electrician), Glen Waddington (Technician), Lucas Street (HV Electrician), Gary Clarke (Branch Manager) and George Price (Service Manager).



Pictured: 930E-2 rebuild complete

“With the combination of Komatsu quality and durability, proper mine site maintenance practices and procedures, and Komatsu’s service and support capabilities means there is no reason why numerous other mining fleets around the country shouldn’t achieve the same machine longevity,” he said.

The rebuild program – in addition to bringing each truck back to as-new condition – includes a number of technology and safety upgrades. Work carried out under the program includes:

- » Each truck stripped back to its bare chassis
 - » The bare chassis fully crack tested and any necessary repairs carried out
 - » All hydraulic hoses, electrical cables and associated fittings replaced
 - » Hydraulics systems fully serviced, including replacement pumps and cleaning valve bodies
 - » Drive systems updated, including upgraded wheel motors and drive cooling packages
 - » Other updates include changing the lights from HID to LED and incorporating more current technologies for improved safety and reliability
- » Engines, if due for replacement, are changed out, otherwise they go back into the re-assembled trucks
 - » Once everything is stripped down, checked and repaired as necessary, the truck is re-assembled as an as-new vehicle.

“The quality of the finished trucks is so good that they literally look like new units, to the extent that the freight companies we use to move our new gear are asking us where all the new trucks are going,” Gary said.

In addition to benefiting the customer by providing a fleet of as-new trucks at half the cost of new, the program is also delivering benefits to Mackay, which has been hit hard by the mining downturn.

Each rebuild takes around 3000 labour hours over 10 weeks, and involves six tradespeople and two apprentices working two shifts a day, six days a week.

“We’ve been able to grow our permanent workforce at our Mackay branch by at least 20%, plus we’ve brought in contractors equivalent to a further 10% of the workforce,” he said.

All this work is being carried out at Komatsu’s main Connors Road facility in Mackay, which underwent a significant upgrade back in 2012 to help cope with the volume of work at the time.

“We wouldn’t have been able to carry out this project without that investment in upgrading these facilities three or four years ago,” Gary said.

“At that time, it was constantly full with building new trucks; now that the industry is not selling new truck fleets, we are very fortunate to have that capacity to carry out these rebuilds.

“This program will take us through to around Easter 2017, then we have some other projects on the go, giving us some very good medium-term work prospects,” he said.

To view the 930E-2 dump trucks rebuild visit: <https://www.youtube.com/watch?v=77s7N7JdXWY>

DEMOLITION CONTRACTOR LONG TIME KOMATSU CUSTOMER

Family-owned Victorian commercial demolition specialist Bernie Leen Demolition & Contracting has been buying Komatsu excavators for over 25 years.

With its original PC200-3 – purchased in 1992 – still working to date, in late 2016 the company took delivery of two brand-new PC220-8s and a PC138US-8.

According to director Trent Leen, Komatsu excavators are “the best going around”.

“They’ve always been a reliable honest machine, and we like the Komatsu ‘feel’ and the way they operate,” he said.

The company, which was founded by Trent’s grandfather, Bernie Leen over 60 years ago, is today operated by Bernie’s son Tony as Managing Director, along with Tony’s son Trent, carrying out a wide range of demolition contracting works throughout Victoria.

Bernie Leen Demolition & Contracting’s services include commercial demolition, project management and co-ordination, asbestos removal and full site remediation works.

Specialising in technical refurbishment demolition and engineered partial demolition, Bernie Leen Demolition manages projects both large and small, long-term and short-term.

In addition, the company is a Licensed Class B Asbestos Removalist and can facilitate the safe removal of contaminated materials above and below ground.

Bernie Leen Demolition’s company fleet includes eight Komatsu excavators; in addition to that original PC200-3 – which has logged around 13,000 hours – and the two latest PC220-8s and PC138US-8 (traded up from a PC128US-5), the company also runs a PC60-6, a PC200-6, a PC400-5 and PC400-6.

With 90% of its activities mainly specialising in Demolition, the machines work with a number of attachments, including shears, pulverisers, crushers, grabs and hammers, as well as a full range of buckets and rippers.

“We’ve continued buying Komatsu not only because of their reliability and performance, but also because of their standard specifications,” said Trent.

“For example, we will spend a bit of money on machine guarding, such as protective systems for demolition, rub rails along the bottom of the machines, and so on to minimise damage to the machines on our worksites.

“We put turret rails along the bottom of that original PC200-3 25 years ago to protect the panel work and the undercarriage area – something Komatsu has introduced as standard on its machines.



“WE’VE CONTINUED BUYING KOMATSU NOT ONLY BECAUSE OF THEIR RELIABILITY AND PERFORMANCE, BUT ALSO BECAUSE OF THEIR STANDARD SPECIFICATIONS”

“Komatsu also uses heavier duty underbelly plates. They are a lot thicker than most other manufacturers, so we have no need to add on heavier plates, and the expense that is involved with this.

“That means new Komatsu machines arrive virtually ready to go straight out to work,” he said.

While demolition work is demanding, it also involves relatively low machine hours, which is why Bernie Leen Demolition has opted to hang on to some of its machines for many years.

“Our machines generally average only 1000 hours a year, and they are not constantly digging or hammering like most contractors’ excavators,” said Trent.

“In the past 12 months, we’ve relocated our original PC200-3 to the yard feeding our crushing operation. It doesn’t go out to sites anymore, mainly because it doesn’t meet OH&S requirements for demolition sites, but it still performs pretty well loading and hammering.

“And that’s why we still have our original PC400-5 40 tonner, which has 14,000 hours and our PC400-6, which has 31,000 hours.”

Trent said the latest machines, with their additional power, combined with the KOMTRAX remote monitoring systems and Komatsu Australia’s service packages, have added a lot of value to the company’s operations.

“We’re very pleased with the latest machines. With the new PC220-8s, we’re finding the extra power is good for us,” he said.

“A lot of our jobs are short duration, so we can float the machines in that morning and put them straight to work, plus they have a lot more capacity than the older machines, so we can get them back out pretty quickly.

“Our operators are also pretty pleased with them, and the standard Komatsu spec these days.

“Every time we go to buy a new machine, the boys are always pushing hard for a Komatsu. Always.”

According to Trent, the standard Komatsu service packages add a lot of value when selecting a new machine.

“When you compare the Komatsu packages with other manufacturers, and you add in the value of the full service contracts they offer, then the costs are a lot more equal,” he said.

“We operate our machines all over Victoria, and being able to have them serviced anywhere in the state rather than having to bring them back to the yard, is a big advantage for us.

“Komatsu’s service guys have been great. We deal with quite a few different servicing departments because our machines are all over the place, and we have been very pleased with all of them.”



HIT THE GROUND RUNNING

WITH NEW KOMATSU FINANCE PACKAGE FOR UTILITY MACHINES

Komatsu has announced a new finance package for buyers of the company's utility-sized excavators, wheel loaders and backhoes, offering an interest rate of just 1.99% with a 20% deposit in Australia.

Promoted under the tagline "Hit the ground running", this latest finance package began on February 1, 2017, and finishes on March 31, 2017.

Available to utility equipment buyers across Australia, it covers excavators ranging from the PC18MR-3 through to the PC88MR-8, WA70-7 and WA100M-7 wheel loaders, and WB97R-5EO and WB97S-5EO backhoe/loaders.

"We're offering this low rate of finance to allow prospective utility machine buyers to really hit the ground running in 2017," said Carl Grundy, Australia's National Sales Manager, Utility.

"Whether you are a current customer, an existing contractor or owner-operator looking to make the move to Komatsu, or just starting out in your own business, it's an unbeatable opportunity to own the best performing, best supported machines available through highly competitive financing.

"All Komatsu utility machines include our unique KOMTRAX remote monitoring and tracking system, for exceptional peace of mind against unscheduled breakdowns or equipment theft – backed by the Australia-wide Komatsu service and support network," he said.

Trent has been finding the KOMTRAX remote monitoring system on the new machines is also helping him better manage running costs and operational issues.

"We've been using KOMTRAX to monitor fuel usage and a couple of other issues," he said.

"For example, we've been able to educate operators as to the best mode they should be working in. KOMTRAX was indicating they were running in full power mode 99% of the time, where fuel consumption was much higher than it should have been.

"We had a chat to the operators and explained full power mode wasn't necessary all the time. As a result, we cut fuel consumption by 40%.

"We also had one attachment that automatically switched the machine to full power mode whenever it was being used, and another that kept the machine in attachment mode whenever it was connected, which meant the oil was overheating.

"KOMTRAX picked up what was happening with both these issues, and we were able to adjust the attachment settings to fix these issues," Trent said.

"We are also getting requests from some of our builders to provide energy use and CO2 emission reports. We can get all that straight out of KOMTRAX, so that's something very easy for us achieve.

"To date, we are really only using KOMTRAX reactively if we have issues such as high fuel consumption or oil overheating," he said.

"We now need to look at this more closely and see how much more we can get out of the system.

"So, taking everything into account with the machine reliability and durability, the better base build means there's less to do to the machines when we get them.

"With the field service packages from Komatsu Australia, you can see why we are still buying Komatsu," said Trent.

KOMATSU LEGACY AT CENTURY ZINC PART II

Part 1 features in the previous edition of D2E #68.

Rob Venema, currently Komatsu's National Technical Support Manager, Mining Trucks, was maintenance manager at Century during the initial machine commissioning and mine development stages. Rob and others from the then NS Komatsu worked together closely to develop successful and effective fleet management, maintenance and safety programs and procedures that formed the basis of many of Komatsu's systems today. Here he reflects on the challenges and achievements at Century.

Many of Komatsu's current-day systems and processes were born out of our experiences at Century, because we had never run such a large contract maintenance program before – and many of these had to be brought in simultaneously.

Our history at Century goes back to the mid-1990s, when we were awarded the contract by then mine owner Pasminco; I was appointed maintenance manager at the mine, working closely with Steve Green, our Branch Manager from Mackay.

In conjunction with our Head Office Contracts management team, we looked at the people we'd need, the tooling we'd require, and started our hiring and purchasing processes.

Komatsu also worked closely with mine owner Pasminco and local Indigenous communities to develop employment and contracting opportunities with us.

I went to the site for the first time in May 1998, helping to arrange new machine assembly at the assembly pad we'd been allocated.

By that time, Mobil was there putting in the fuel tank systems, and Bechtel was on site building the processing plant. With the main camp still under construction, we were able to use some of Bechtel's facilities.

As Roche-Eltin Joint Venture was the mine's operating contractor, they purchased the machines from Komatsu, (although the equipment was bought back from REJV by the mine operators some years later).

That meant we were working with REJV directly, and we fairly quickly formed a very good relationship.

Once the machines were assembled and commissioned, and work begun, it very quickly became apparent that the natural surface layer (NSL) of the site, which had to be removed before actual mining could start, was extremely challenging to work on.

The ground was very rugged, undulating country, with huge loose boulders, not only on the surface but also below it.

The boulders were usually set aside and blasted individually, although from time to time they were carried in trucks.

At the time, Komatsu was also the national dealer for Ingersoll-Rand mining drills, and we had supplied a number of these to the mine, including the EMC690, DM45 and DMH which was the largest on the market at the time.

We had drills operating off hillsides, and we were breaking a lot of drill rods as they hit the buried boulders. We also had to deal with unstable ground and the associated issues.

As a result, we experienced a fair bit of accidental damage. For the first six months, we had frequent truck body, digger and drill rig repairs coming through the workshop.

The NSL removal process soon became refined, so that the REJV operators would dig out the boulders using the Demag H255S backhoe configuration (later to be rebadged as the PC3000 model) then pop them during the night shift with the EMC690 crew so the trucks could handle them more easily.

Once the production team got below this layer, they could start properly benching and then extracting the ore.

During the NSL removal stage, the contractor used the WD900-3 wheel dozers to run down after the blasts and race around the pit floor to clean up any throw rock before the next shift could begin. This high-speed forward and reverse work quite quickly resulted in a shortened wheel brake life.

Because of this we engaged with Komatsu in Japan. Komatsu engineers soon came to the site and developed a brake cooling system similar to what was used on the Komatsu mechanical drive mining trucks; this worked so well that it's now used in all large Komatsu loaders.

The factory had the new cooling system parts manufactured and fitted to these wheel dozers within a few months.

In my experience Komatsu Ltd has always been very quick to respond to issues such as this on our new model machines in unique or challenging applications.

I'd like to look at some of the individual solutions and innovations we developed for Century, and which contributed significantly to the way Komatsu operates today.

Fleet management systems

At Century, NS Komatsu as a company introduced a number of important systems that we'd essentially developed within Australia for this project.

We were also able to draw on our existing NS Komatsu distributor network at the time for exchange components as well as our newly developed KOWA oil analysis laboratory and software program.

Maintenance management

As part of our maintenance contract at Century, we needed to set up workshop facilities, offices, computers, and machine management systems.

Our own Shane Whittington in Mackay, in conjunction with a consultant, designed what we called MARS (Maintenance and Repair System), using Microsoft Access.

We did this as there was no specific, cost-effective, easy-to-use, low computer-RAM consumption software available at the time.

I recall sketching up screens and process flows with Shane on the way back and forth from Townsville travelling in light aircraft at the time!

MARS was used to record all machine hours, as well as any defects, accidents, repairs, planned tasks, lubricant consumption, trending of Komatsu PM Clinic diagnostic measurements, electric truck motor brush wear data, and so on.

We worked to ensure we did not over-complicate the system by adding financials and labour records, which were handled via our normal mainframe job system. Jobs numbers were manually recorded as each maintenance case was closed off for cross reference.



This system eventually became the genesis for our more advanced MARS2 and now Komatsu's global R and M Care systems.

Automatic data transmission

Our fuel contractor on site, Liquip, had a radio communications system that could automatically transmit data between the fuel trucks and our workshop computers.

Whenever a service truck went out to a machine, the truck operator would punch in the machine number, and the amount of fuel and oils used, then as the truck approached the workshop, the data would be automatically uploaded to MARS via modem.

Oil analysis

Komatsu Oil Wear Analysis (KOWA) service was being introduced at around this time, and the great advantage of our system was that it had a "flash filer" (low RAM use) software process which meant that even though we may have a massive file of oil samples, we could very quickly bring up the machine files we were working on.

Having KOWA on this site really demonstrated to everyone involved how, when you have an effective oil sampling system in place, you have very minimal unplanned failures.

This was a big change at the time, away from the traditional system of just troubleshooting once a problem became evident during machine operation, across to much more predictive maintenance planning.

Component exchange

As the Century project progressed and machines aged, there was also a much larger volume of Exchange components coming out of our relatively small Brisbane based ECRC (East Coast Rebuild Centre) at the time.

This larger volume ultimately resulted in the development of our Reman program and its dedicated facilities (now in both Brisbane and Perth).

Having all these support systems operational within a very short time of going onsite at Century meant that we had very good management of our machine maintenance records, and could respond quickly to the changing site conditions.

Our Maintenance team was able to provide the JV with very detailed reports on each piece of equipment at all times.

This detailed monthly cost breakdown allowed REJV to then adjust production techniques and plan machine maintenance days more accurately, paying off in higher availability and lower running costs.

Safety management

At the time the Century project was starting, the industry was rapidly embracing much higher levels of safety management.

Komatsu was quick to examine the best systems available across the industry and adapt them to our company culture.

Remember this was in the late 1990s, and today's industry-wide awareness of the critical importance of safety management was not anywhere near as widespread as it is today.

From my point of view, this and other major projects we were engaged with at the time really helped Komatsu in Australia to be at the forefront of this change, introducing this culture via programs like Take 5 and detailed risk assessments.

As part of this change, Komatsu spent a lot of money early on to purchase the correct manual handling systems and equipment for example, so that our people were not using incorrect manual handling practices.

Also introduced at this time were toolbox talks and suggestions boxes, which took some time to manage, brought very good ideas to the fore. Pasmenco found this approach aligned well with their expectations in terms of WHS management.

The mined ore also had reasonable amounts of lead and cadmium in it, so we had to be very careful to stay right on top of seals and cabin pressurisation to safeguard the operators.

Operator training was carried out in cycles to ensure safe and efficient mining practices.

Other risk factors at such an isolated site included fatigue due to the 12 hour shifts, four-weeks-on/one-week-off roster, and off-site road travel.

To minimise these risks, Pasmenco developed very rigorous procedures in relation to road travel, work hours, recreational activities and fatigue management.

Community engagement

Another very satisfying element of this project was the opportunity to engage with the local Indigenous communities.

Pasmenco, REJV and Komatsu worked closely with community leaders – several of whom had close family operating the machines.

From our point of view we wanted to ensure the local community were able to gain benefit from us working in their region, and also that our people respected their special sites and culture while off site in the local area.

We also helped build up a good business for a local Aboriginal-owned company, Kings Transport, transporting parts, consumables and small components between Mt Isa and the mine – a distance of 377 km.

They had a small fleet of Toyota utes and light trucks, and we found them very quick and flexible compared to major truck companies in this remote area, and ended up using Kings exclusively for these critical local logistics.

In conclusion

In my opinion, this maintenance contract, along with others Komatsu was involved in across Australia at the time, really matured the company in Australia in the world of contract maintenance.

They helped inspire our own people to build in-house systems and procedures to provide the best service and value to our customers, and with a strong focus on safety.

This attitude certainly continues in what we do today.

Nyanda Excavations “intelligent dozer” creating new work opportunities



Pictured from left: Alec Harries (KAL Major Account Sales rep), David Parker (Nyanda Site Manager), Tim Platt (KAL Sales rep) and Jay Harrison (Operator).

A Queensland contractor is finding its Komatsu D61EXi-23 “intelligent” dozer is resulting in higher production across bulk earthmoving and final trim applications – and giving it the opportunity to carry out works it couldn’t have handled previously.

Family-owned Nyanda Excavations has specialised in excavation, construction and mining services Australia wide for more than 10 years, owning a range of equipment, including excavators from one to 65 tonnes, skidsteers, dozers, graders, trucks and tipplers.

It is a real family operation, with father and son Robin and Nathan Stokes directors and overall management, sister Melanie handling administration, and brothers Trent in the field operating, and Justin looking after survey, machine control and file preparation.

Justin Stokes said that since the machine’s purchase in March 2016, he could only describe its performance as “great”.

“We have no issues to report whatsoever; it does exactly what it was supposed to do,” he said.

“It’s being used for a lot of our cut and fill work; the first site it was used on was for a large carpark project in Springfield where it made light work of shaping the construction site.

“It since moved on to housing development site where it has cut and filled over 15,000 cubic meters, and most recently it’s shaping a small shopping village and service station on the Gold Coast,” said Justin.

Initially the Nyanda team just used the D61EXi-23 for bulk earthworks, but it quickly proved its capabilities beyond that.

“The integrated GPS machine control system has proven to be extremely accurate and we have found ourselves being able to use it for final trim also,” he said.

“Overall, we have found the performance to be great. The machine has been more than capable of handling what we have thrown at it so far; it’s always exciting taking it to a new site to see what it can do there!”

Nyanda also runs two other pieces of gear fitted with aftermarket machine control, an excavator and grader.

The machine control excavator is used for bulking and trimming, while the grader is typically used for final trimming via total station, with jobs ranging from carparks, sports ovals and roads, to basements, housing developments and the like.

“We have been using machine control systems for coming on two years now in our other machines,” Justin said.

“It was a little hit and miss to start with: file format problems, calibration issues, and damage to exposed sensors and cables causing some downtime.

“However, since moving to the D61EXi-23 with its integrated Topcon system, we have found it increases productivity, and has given us the ability to complete jobs we simply couldn’t have done before,” he said.

“As well, the integrated system requires almost no maintenance and yields consistent results day after day, while being user friendly.

“Having the system built in also means, there’s no sensors or wires to worry about accidentally damaging and causing downtime.”

Currently the dozer is working along side both grader and excavators, making their job easier.

“In particular, final trim with the grader now is much easier as the Komatsu dozer’s machine control system gets it very close to finished level – meaning less to trim and quicker to finish.

“And from the operator’s point of view, comfort and ease of operation are both good – probably better than we expected,” he said.

“We keep the same operator on the machine where possible; he has come from a background in using dozers, and rates the Komatsu very highly.

“In fact, the machine is so intelligent that he has had to discard some of his previous teachings on a ‘basic’ dozer, and adopt the newer more intelligent ways of doing things – which yields a better result and causes less wear and strain on the machine,” Justin said.

Fuel consumption on the D61EXi-23 is very much in line with what was expected.

“The Komtrax reports supplied monthly help us to understand how the machine is being operated, allowing us to see how we can be improving fuel consumption by using features like economy mode when performing light work, and auto mode when operating with machine control.

“From a management point of view, the machine is efficient and reliable, and as a result it’s saving time on site; basically the machine control system has been a simple set-and-forget for us,” he said.

“I’m used to constantly having issues arise with other machine control systems, so after working with the Komatsu system it has been a pleasant surprise to find I don’t have these issues.”

In terms of support and service with the new machine, particularly in the light of its new technology features, has been “second to none” according to Justin.

“We couldn’t fault the team at Komatsu; they are professional, knowledgeable, and always available to help at a minute’s notice. Aaron Marsh (Komatsu Australia’s Technology Solution Expert Team Manager, Smart Centre) knows the system inside out.

“If we ever have a problem or question he knows exactly what to do to correct it - he has even gone so far as to help us resolve problems pertaining to other machine control systems that have held us up.

“The guys at Komatsu demand great results from their machines – and it’s evident they do whatever it takes to make sure we are seeing these great results in the field,” said Justin.



A PERFECT FIT FOR VALLEY SEPTICS

Gippsland-based Valley Septics has taken delivery of the latest in a number of Komatsu PC78 excavators.

Maintaining an excellent reputation over a wide area, Valley Septics Director David Baldassa chooses Komatsu excavators for their reliability, versatility and outright performance.

The new PC78UU-8 replaces one the company has been operating for several years that logged around 3000 hours, and joins the fold alongside their other PC78.

Valley Septics is a family business offering wastewater drainage services across a large area of more than nine of the local councils in the south-east of the state. The company supplies and installs complete septic systems and specialise in sand filter systems.

David and his son Nick both operate the excavators and find the PC78UU-8's compact dimensions and lifting power a perfect fit for Valley Septics.

"We are very happy with the machines. We've had seven or eight of them, as well as other Komatsu equipment! I have been doing this for nearly 30 years and we have a great reputation that our Komatsu gear has helped us build," he said.

"They are versatile and perfect for our line of work. They have strength in the hydraulics but are also small enough to get around houses. We do most of our work with the PC78."

"The jobs we do are generally in confined spaces. With the Komatsu's we can be self-sufficient in installing septic tank systems and sand filters and they're still small enough to get down the side of houses to do drainage work."

When it comes to excavators Valley Septics likes to set and forget; reliability is non-negotiable.

David keeps perfectly maintained equipment thanks to Komatsu's local branch support and the KOMTRAX remote monitoring system.

"I want to go out there, hit the key and go to work. Komatsu does all the servicing; I buy them new and in three years I don't have to touch the machine."

"I have a good rapport with the Komatsu sales and

maintenance people. I am getting the right back-up. When we are installing septic at a mine and they want maintenance schedules for the machines, Komatsu has it all on record."

Valley Septics takes great pride in its equipment, with the resale value of the Komatsu gear another

reason David chooses the brand.

"You can look at my gear and it is always clean. People comment on how good it looks.

"When it comes time, I have never had any trouble selling a second-hand Komatsu machine. People come from everywhere to buy them."

"I HAVE A GOOD RAPPORT WITH THE KOMATSU SALES AND MAINTENANCE PEOPLE. I AM GETTING THE RIGHT BACK-UP."



One of New Zealand's newest quarrying and aggregates companies has just opened a new quarry close to the centre of Christchurch, giving it the capability to supply a full range of product for the region's post-earthquake reconstruction program as well as other major infrastructure projects.

SOL Quarries Ltd's Yaldhurst Quarry, located behind Christchurch Airport, began selling product in June 2016 following a two-year consent application and development process.

It hit the headlines straight away with the announcement that recently retired New Zealand All Black legend Richie McCaw was a shareholder who – along with high-profile entrepreneur and philanthropist Michael Watt – had joined company founders, schoolmates Simon Apperley and Ben Dormer.

Simon and Ben had started in the aggregates and quarrying business in 2011, with the establishment of SOL Shingle Ltd, supplying aggregates in North Canterbury.

They founded the company after both returned from working and studying overseas; Simon in the US construction industry, and Ben studying at Cambridge and playing rugby.

"We came back to Christchurch post-earthquake, and were looking for business opportunities," said Ben.

"My brother Pete runs Dormer Construction in the region, and I didn't want to step on his toes, so Simon and I looked for a business that would be complementary to that."

They purchased a number of consents in the North Canterbury region, and through SOL Shingle have access to around 2.5 million tonnes of material, supplying sand and aggregates to councils, contractors and builders in the region.

They also quickly established a relationship with Komatsu NZ – as Ben puts it "almost accidentally" – after picking up a couple of Komatsu machines as part of the resource consent purchases.

"There was a Komatsu machine that came with one of these consents, but it didn't really suit our needs, so we spoke to Wayne Hawtin at Komatsu NZ in Christchurch about disposing of it," said Ben.

"As a result of that conversation, we purchased a WA380-6 loader for tailing out and stockpiling at our North Canterbury operations – and the relationship developed from there."

Three years later, Simon and Ben established SOL Screening & Crushing (SSC) to cater for significant industry demand for mobile screening and crushing services throughout North and South Canterbury.

In setting up SSC, they also purchased Paul Smith

ALL BLACKS LEGEND AND KOMATSU



Pictured left: Richie McCaw retired New Zealand All Black legend (SOL Quarries Ltd's Yaldhurst Quarry Shareholder)

Earthworks' mobile operations, and with that the rights to produce all aggregates for Downer's nine-year South Canterbury maintenance contract.

As part of this purchase, Ben and Simon picked up a Komatsu BR380JG-1 jaw crusher.

"WE ALSO FIND THE ONLINE KOMTRAX REMOTE MONITORING SYSTEM IS VERY HELPFUL TO OUR OPERATIONS"

"We've found this to be a very flexible and versatile machine," said Ben. "We are using it at Yaldhurst, as well as in our mobile operations, and also for crushing

concrete on demolition sites around Christchurch."

SSC also operates soil and sand screening operations throughout Canterbury, along with carrying out concrete crushing.

Since that first Komatsu WA380-6 purchase, the SOL Group has standardised on Komatsu loaders across its operations, with a fleet that includes four WA470-6 loaders purchased as low-hour used units out of Komatsu's Australian used equipment division.

Two of these units are used in its mobile SSC operations in North and South Canterbury, with the other two used in the new Christchurch quarry at Yaldhurst.

They also recently have been joined by two brand-new WA480-6 purchased for Yaldhurst.

With its Komatsu fleet, SOL Group has all servicing carried out by Komatsu NZ.

"We wanted to standardise our maintenance activities as much as we could; we find that's a good way to keep everything as simple as possible, and all under control," said Ben. "Their servicing and support has been very good."

"We also find the online KOMTRAX remote monitoring system is very helpful to our operations; we can easily view equipment hours, we always know exactly where each item of plant is, and when the next service is due.

"It's just a matter of logging in whenever we want, and it's all very user-friendly."

The SOL Group of companies' latest venture, the SOL Quarries operation, has access to around six million tonnes of material – giving a projected life of 10-15 years, depending on demand.

"The chance to develop this operation was a real opportunity for us, considering the predicted demand for aggregates, gravel and sand for the Christchurch rebuild, along with some major local road projects," said Ben.

"Having said that, it's a fairly contested market, plus we operate under a number of environmental constraints – including a requirement that we can't dig deeper than a metre above the water table, and a need to return its quarry area to its original condition using clean fill once the resource is exhausted."

Ben said Canterbury's existing consented quarries would be "stretched over the next 15 years" and the shortage would be compounded by these tight rules for gravel extraction from the Waimakariri and other Canterbury rivers.



"Our resource is a good mix of alluvial rock from the former course of the Waimakariri River, plus pit material, all sized at 130 mm and under, which gives us an excellent blend that allows us to meet most requirements," he said.

"We started production here in mid-June 2016, basically producing our core products: AP65, AP40, AP20, M4, along with raw materials from our pit run, such as sand and soil. We can also take clean fill and turn that around as clean fill dump material.

"Our clients include local civil and roading contractors, developers, local councils and the like.

"Christchurch's post-earthquake rebuilding program, plus those couple of major Transit NZ infrastructure projects coming up, mean there is a very high demand in the region for quality material.

"That upcoming work and the demand for material was a key factor in us deciding to establish this quarry," Ben said.

"Our intention is to build up the SOL group of companies as another alternative supplier of aggregates, sand and gravel in the Canterbury region.

"We are very much the new kids on the block, and our aim is to produce good quality products, look after our clients and work in with the local construction industry," he said.

And how did an All Black great become involved in the quarrying business?

"I've known Ben since we played together in a Canterbury Crusaders Colts team 15 years ago," said Richie McCaw.

"I've taken a 10% stake in the business as a way to get more hands-on business experience in my post-rugby career.

"Joining SOL is a chance to learn about running a business, and seeing the very rigorous resource consent process that we've gone through over the past couple of years has been quite an eye-opener for me," he said.



Pictured above from left: Richie McCaw and Ben Dormer (SOL Quarries Ltd's Yaldhurst Quarry Director)

LACY'S SUCCESS ASSISTED BY KOMATSU GERALDTON



Over the past 12 years, Western Australian-based Lacy Contracting has built a highly successful business based around a fleet of used Komatsu equipment – a business developed through a close relationship with the company's Geraldton branch.

"Without the help and support of the people at Komatsu's Geraldton branch, we could never have built up this company like we have," says owner Peter Lacy.

Lacy Contracting is based at Cue, in the state's Murchison district, 650 km northeast of Perth, and 420km inland from Geraldton.

It carries out a range of contracting and heavy transport activities for WA Main Roads as well as the region's mines, shires and private companies. Activities include major roadworks, civil works, ROM crusher works, mine infrastructure, and heavy haulage.

The company is also about to enter the crushing and screening business, having recently purchased two screen decks and is looking to purchase a used BR380JG-1EO Komatsu jaw crusher.

Lacy Contracting's fleet includes 24 Komatsu machines – all purchased used – as well as a number of other brands, also bought used through Komatsu Australia, along with 14 trucks, including tippers, side-tippers, prime movers, tilt tray recovery vehicles and 50 tonne floats.

Its Komatsu equipment includes 11 excavators from 5.5 tonnes to 45 tonnes (PC55-8, PC138-8, PC220LC-6, PC270-8, four PC300-7s, PC350-7 and a PC450-8), seven wheel loaders (WA120-3, WA250-3, WA320-1, WA470-5, two WA500-6s, WA600-6), two SK714 skidsteers, GD655-3 and GD655-5 graders, a D275AX-5EO dozer and an HM400-2 articulated dump truck.

Peter Lacy's relationship with Komatsu began shortly after he started his business in September 2004 with just a skidsteer and small tipper, and one other employee.

"Dean Jones [Komatsu Australia's Business Development Manager Murchison and Midwest] turned up at Meekatharra one day and found me," said Peter.

"The first machine he sold me was a used WA470 loader, and I've basically bought everything else off him ever since, part from a WA320-1 I bought from a local shire and our PC220LC-6 I bought at auction.

"And we've held onto everything we've bought since we started," he said.

Currently Peter has 19 employees on his books.

"We've had up to 40 people, but we're still going pretty strong. We got through the 2008-2009 bad time pretty well, and we've been busy ever since – in fact we haven't really ever had a quiet time," he said.

And why has he focused on only buying used equipment?

"I guess I haven't really had the finance to buy new – although having said that, our WA600-6 was a Komatsu Premium Used low-hour machine with only 11 hours on it when it was delivered.

"Generally we buy our equipment at around the 4000 hour mark, the price suits my market, and we've found the reliability and performance of our Komatsu equipment to be very good," said Peter.

"Just as an example, we purchased the first PC300-7 digger ever sold in WA – a 2004 model with about 6000 hours on it in 2007 – and it's now done 18,000 hours with no problems at all.

"We did a hydraulic pump change out at around 13,000 hours as part of our preventive maintenance program on Komatsu's recommendation, but otherwise we've done nothing to it.

"It's been trouble-free, and it's done a lot of hard work; rockbreaking and hard digging," he said.

"Across the whole fleet, performance has been very good, we've rarely had any issues."

Peter does all his day to day servicing in-house, getting major service work done through Komatsu Geraldton.

"Dean, Geraldton Branch Manager Adrian Hallgarth and Kevin Cockburn [Komatsu Geraldton's Customer Support Sales Representative] have been very good for us, very helpful with our GET needs and backup.

"And Nicole Truran [Komatsu Geraldton's Customer Service Representative] has always been great to deal with.

"She really makes it all work, and without her life would be a lot harder! She will even pull a part off a machine to get me back to work overnight," he said.

"The team has always got me going again if I've had a breakdown, and Geraldton field service will always call me if they are coming out our way so we can get any larger service jobs done."

About seven of Peter's machines are fitted with Komatsu's remote monitoring KOMTRAX system, and he's found it very useful for troubleshooting as well as monitoring machines working in more remote areas.

"We used KOMTRAX quite a bit when we had a few issues early on with our GD655-5 grader, which we bought at 8000 hours.

"It turned out that a previous user had carried out some unauthorised work and never told anyone, but we were able to track down the cause and fix it with the help of KOMTRAX.

"It's also very handy for monitoring machines such as our WA600-6 when it's on ROM pad work, seeing what the operators and others are doing with it," he said.

"And if we ever have a theft of one of the smaller machines, we'll be able to track them and see where they go.

"Overall, we've had exceptional service from the likes of Adrian, Dean, Kevin, Nicole and the Geraldton branch; we couldn't have achieved what we have without them.

"And I could never complain about their backup and support," said Peter.

NEW KOMATSU ELECTRIC FORKLIFTS

FB25-12 AND FB30-12

Komatsu Forklift Australia has released a new range of battery-electric forklifts that is fully rated for use in outdoor applications where previously only internal combustion (IC) engine forklifts could operate.

The new models are the FB25-12 and FB30-12, with lift capacities of 2.5 and 3 tonnes respectively.

Complying with the rigorous water protection requirements of IPX4, the new forklifts have been designed and built from scratch for use not only indoors – where most battery electric trucks operate – but also outdoors in applications where traditionally only IC trucks could operate, such as transport yards and the timber industry.

“The IPX4 waterproof rating on our new FB-12 forklifts provides a level of water protection that is unparalleled in battery electric trucks,” said Jack Socratous, National Product Support Training & Marketing Manager with Komatsu Forklift Australia.

“THIS NEW RANGE HAS BEEN DEVELOPED FOR SAFE USE, EVEN IN HEAVY DUTY OPERATIONS, WHERE IC TRUCKS ARE TYPICALLY USED.”

“This new range has been developed for safe use, even in heavy duty operations, where IC trucks are typically used.”

“Advantages of our battery-electric forklifts over IC engine trucks include greatly reduced running costs, reduced noise levels for operators and other workers, zero emissions, a lower profile for ease of getting on and off, and significantly higher stability due to a lower centre of gravity,” said Jack.

The new forklifts feature highly efficient “permanent magnet” (PM) traction motors and, combined with an advanced control system, deliver savings in power consumption of up to 20% compared with previous generation battery-electric forklifts.

The new forklifts also take advantage of Komatsu’s advanced ICT (information and communication technology) capabilities.

This includes a large colour monitor providing truck status at a glance, as well as giving full diagnostic and testing capabilities without the need for additional diagnostic equipment.

Komtrax remote monitoring system is standard on the new range, allowing Komatsu to monitor the machines, check service history and diagnose any fault codes, leading to more efficient servicing and response times for customers and end users.

The newly released FB25-12 and FB30-12 electric forklifts complement Komatsu’s existing range of 1.8-2 tonne electric forklifts.

Available in three and four wheel options, these existing forklifts feature two totally enclosed AC drive motors designed to completely eliminate the entry of water and dust, and which are direct coupled to the right and left front wheels.

“This system results in a true dual drive system, ensuring higher levels of traction, straight-line travel and stability on slippery or rough surfaces,” said Jack.

“In addition, totally enclosed wet-disc brakes ensure safe and dependable braking across all conditions, whether outdoors, in ports and fish markets, cold storage warehouses, as well as in conventional materials handling applications.”

Brief specs of the new forklifts are as follows:

FB25-12: Rated lift capacity at 500 mm load centre, 2500 kg; up to 6000 mm lift height; travel speed, loaded/unloaded, 14/16 km/h.

FB30-12: Rated lift capacity at 500 mm load centre, 3000 kg; up to 6000 mm lift height; travel speed, loaded/unloaded, 13.5/15.5 km/h.





SICON AND KOMATSU GRADERS

Sicon Ltd, a leading infrastructure maintenance contractor operating in the greater Canterbury region, took delivery of two Komatsu GD655-5 graders in April 2016 – its first Komatsu graders – for frontline maintenance works.

Sicon has operated Komatsu equipment – primarily excavators – for a number of years, but this was its first move into Komatsu graders, a decision it made based on brand reputation, after sales service and backup, and value for money.

And since taking delivery of the new graders, it has found Komatsu’s KOMTRAX remote monitoring system offers a significant advantage in managing their operations and maintenance.

The two new graders, which replace machines of another brand, are now the frontline machines for Sicon’s road maintenance contracts with Waimakariri and Hurunui District Councils.

According to Sicon CEO Dave Wilson, the company’s two existing graders were due for replacement. In addition, while it’s held maintenance contracts with Waimak for nearly 20 years, its contract with Hurunui had been in place less than a year.

“What with starting our contract with Hurunui, and our long term relationship with Waimak, we really wanted to put our best foot forward,” said Dave.

“This was a very significant purchase for us, and it was critical to make sure the machines were reliable and they had good after-sales service, because often they would be operating a long way from service agents or technicians.

“These graders had to be able to do the basics well, and also run reliably for long periods of time,” he said.

“Certainly Komatsu offered us the best value for money, but what was really important to us was their after-sales service and backup – and they have a good reputation for that in this area.

“For us, it was very important that if any issues did arise they were quickly dealt with; so far that’s worked out well for us, and we’ve been very happy with their responses to any issues we’ve had.”

At the same time as taking delivery of the graders, Sicon purchased a PC228US-8 zero-swing excavator for general construction duties (and subsequently a third GD655-5 grader in November last year, after this article was written).

“For us, this was a much easier decision; the PC228 is a proven model that we knew would perform well, and we’ve had them in our operations for a number of years.”

Dave said that, while Komatsu graders have not been widely sold in the South Island, it was the strength of the brand and Sicon’s 20-year relationship with Komatsu that convinced the company to go with them.

“Komatsu graders are not necessarily as tried and tested in this region as other brands, and initially we were also concerned they were a little bit light to meet our needs.

“But since we commissioned them in April, we’ve found them to be performing extremely well,” he said.

“We’ve been very happy with the power-to-weight ratios and torque – both will be doing over 2000 hours a year, so they are fully utilised machines that need to be able to perform and be reliable.

“Our operators like them – one of them was initially not so keen on the Komatsu – but now they have both put in some hours on them, they are very happy with the graders and how they are performing.”

All the roads being maintained by Sicon’s graders are gravel, primarily on fairly flat terrain among mainly farmland, and frequently used by heavy trucks for the forestry and dairy industries.

Dave said a key element of the grader purchase decision was that the machines have steering wheels.

“We do a lot of grading on low-volume roads, and the graders are frequently working at fairly high speeds.

“As safety is the number one issue for us, we felt the ability to manoeuvre the grader with a steering wheel would be critical in the event of an issue with an oncoming vehicle.”

Another important selling point in the GD655s’ favour was their excellent visibility from the cab, to both the blade and front wheels, and also out the rear.

“That was something important to the guys operating them.”



It has a high focus on staff engagement and ensuring clients needs are met and exceeded. It understands the impact of the work they do in the community and how important good infrastructure is to people's everyday lives.

Its core business operations include:

- » Road and bridge maintenance and construction
- » Water and wastewater maintenance and construction
- » Parks and reserves maintenance and landscaping (including arboriculture work)
- » Gravel extraction
- » Landfill management and maintenance
- » Sub-division development
- » Earthworks and civil construction.

Further information: www.sicon.co.nz

About the KOMATSU GD655A-5 grader

The GD655A-5 grader is part of Komatsu's Dash 5 Vantage range, with key features including the best cab visibility of any grader on the market, increased engine power, and an upgraded version of its unique dual-mode transmission system.

Operating weight of the GD655-5 is 18.5 tonnes, with variable power ratings of up to 163 kW.

A hexangular ROPS cab incorporates a patented front Y-shape pillar and rear side pillar to give better visibility in all grader applications.

A cast circular saddle linkage provides an unobstructed view of the blade and front tyres, while a tapered engine hood provides good visibility to the rear of the machine, particularly the rear ripper.

It is powered by Komatsu's Tier 3-compliant SAA6D107E-1 – the same engine which is used in a number of other Komatsu machines, including WA250PZ-6 to WA380-6 loaders, PC200-8 to PC270-8 excavators and the D51EX-21 dozer.

As with previous generations of Komatsu graders, the Dash 5 Vantage series incorporates a dual transmission system, designed to give operators the choice of direct drive (manual) transmission, as used on conventional graders, or torque converter transmission for improved control at low speeds and in final finishing.

A powershift transmission has been designed and built specifically for Komatsu graders, providing on-the-go, full power shifting as well as inching capability and automatic shifting in higher ranges.

When power for tough grading or low-speed fine control is required, the operator can select the Torque Converter auto (T/C Auto) mode for significantly more tractive effort and control, as well as a new anti-stall function.

Dave and his operations team have been very impressed with how much value the KOMTRAX remote monitoring system has added to the machines and their day-to-day operational and maintenance management.

"KOMTRAX has been really good; our guys really like the ability to look at how things are going with them out in the field, and it's certainly helped with operational efficiency on the ground," he said.

"Our operations manager is also very happy to have this centrally managed by Komatsu as well, knowing they are watching out for any issues.

"Already, KOMTRAX monitoring has shown its potential for saving on downtime," Dave said.

"For example, we found that one machine was idling a lot longer than other machines, something that was happening just out of habit – but it had a potential impact on warranty down the track as it was needlessly building engine hours, so we were able to manage that better.

"It also helps us keep track of grading kilometres per hour, which in the past was always a manual task – but now it's very easy to see what speeds we are grading roads at, which allows us to give our clients a very accurate indication of our productivity.

"The other good thing about KOMTRAX is that it allows us to pre-plan our servicing and maintenance programming so much better; it's far more convenient and efficient for us," said Dave.

About Sicon

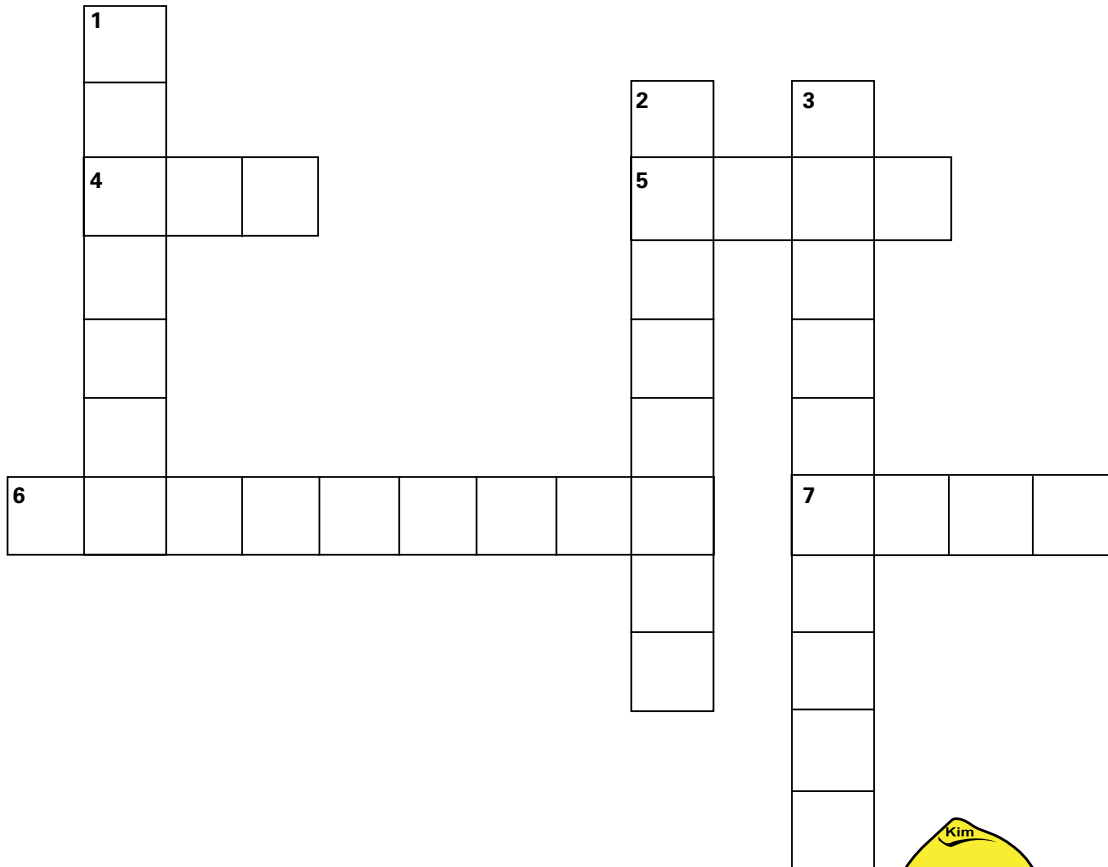
Established in 1994, Sicon Ltd carries out work throughout Canterbury holding major maintenance contracts with a number of district councils, and works with private clients in the region completing civil construction works.

At the heart of the company is its Mission Statement: "To build and preserve the foundations for communities to thrive".





KIDS CORNER KOMATSU PUZZLE CHALLENGE!



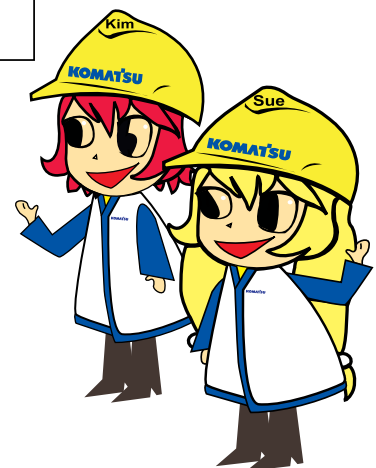
QUESTIONS

Across

- 4. Month in which Komatsu is established
- 5. Komatsu Prototype vehicle released at the 2016 MinEXPO
- 6. I am used to move earth
- 7. I am used to carry bulk material

Down

- 1. The name of our company
- 2. Meaning of the word Komatsu
- 3. I am a dozer with tyres



ANSWERS:

- Across
4. May
5. IAHV
6. Bulldozer
7. Dump Truck
- Down
1. Komatsu
2. Pine Tree
3. Wheel Dozer

PARTS

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Terms & Conditions: (1) Komatsu Australia Pty Ltd (Komatsu) provides a standard warranty for Komatsu genuine parts of 6 months (unlimited hours) from the date of sale. (2) Under this offer, Komatsu will provide a 24 month or 4,000 hour warranty (whichever occurs first) on new Komatsu genuine parts sold and installed exclusively through Komatsu's Service department. This warranty is in place of the standard warranty referred to in (1) above; (3) This offer only applies to new Komatsu genuine parts sold and installed by Komatsu's Service department on Komatsu machines. (4) The offer excludes superseded models and non-Komatsu branded parts. (5) In order to apply for this offer you must call Komatsu Service on PH: 1300 566 287 to book your service. (6) The warranty is subject to the full terms and conditions of Komatsu's warranty for new parts sold and installed by Komatsu Service, available at www.komatsu.com.au and only applies in Australia and New Zealand.

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