

AUGUST 2017

ISSUE 70

# D2E

DOWN TO EARTH MAGAZINE

- » KOMATSU MINING  
CORP CELEBRATION
- » SMARTCONSTRUCTION  
INTEGRATED SOLUTIONS
- » MINEWARE ACQUISITION



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An aerial view of a construction site. In the upper right, a yellow excavator is working on a dirt mound. In the lower right, a white and blue drone is flying, casting a shadow on the ground. A yellow tracked vehicle is visible in the lower left. The ground is a mix of dirt and gravel, with a grid pattern overlaid on the image.

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## COMMENTS

A warm welcome to our valued readers of Down to Earth.

These are exciting times as we see a new chapter with Komatsu officially acquiring Joy Global and establishing Komatsu Mining Corp. I was honoured to be part of the celebration in Milwaukee on 8th May this year and witness the official rebranding and celebration. In Australasia, we are working together to ensure our customers and people succeed moving forward.

Komatsu Australia has also purchased MineWare, a specialist company in the monitoring of draglines, mining shovels and excavators. This acquisition underpins our commitment to continuously drive technology and innovation and I believe this will deliver substantial added value to our customers.

As I mentioned in the last edition 'INNOVATION' is the catch word for us, and is the catalyst for growth, which brings me to our new leading-edge SMARTCONSTRUCTION – a truly innovative concept that will provide you with integrated solutions in an ever increasing competitive environment in which you operate. SMARTCONSTRUCTION will provide an end to end solution, from the initial surveying of the site to the development of detailed as-built information for future construction and infrastructure maintenance. We have also established a Smart Centre with trained technology solution experts to provide you support for the new iMC machines.

We have recently launched our new Used Parts website [usedparts.komatsu.com.au](http://usedparts.komatsu.com.au) offers an alternative to new parts and gives immediate access to all the used parts for both Komatsu and non-Komatsu machines, you can read more about this on pages 8 and 9.

Finally, I'd like to extend my appreciation to you all for your business and we look forward to being of service.

**Sean Taylor**  
Managing Director & CEO

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### FRONT COVER

Komatsu Mining Corp

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# KOMATSU MINING CORP CELEBRATION

**K**omatsu Ltd. President and CEO Tetsuji Ohashi visited Milwaukee, WI, on May 8, 2017 to celebrate the official rebranding of Joy Global Inc. as Komatsu Mining Corp.

In front of an audience of more than 900 people - which included employees, government officials, Komatsu Mining Corp. and Komatsu Ltd. senior executives - Mr. Ohashi and Komatsu Mining Corp. President and CEO Jeffrey Dawes invited everyone to join the journey forward as one Komatsu.

"This acquisition was an important means of rapidly expanding our ability to create enhanced value for our customers," Ohashi said during the ceremony. "The P&H, Joy and Montabert products align perfectly with existing Komatsu offerings, allowing us to provide



*Komatsu Mining Corp Celebration in front of 900 people in Milwaukee, U.S.A.*





*Our goal is to become a unique, unrivalled and services provider.*

customers with a full set of solutions. But it is the people behind the product lines that will truly make our integration a success. We are very excited to welcome more than 10,000 employees with deep knowledge and understanding of the mining industry, and a commitment to service and safety. This brings great opportunity for us to expand upon the direct service approach and, together, bring products to market faster, fully appreciated by customers."

Joining Ohashi and Dawes onstage as part of the celebration were Wisconsin Gov. Scott Walker, Milwaukee Mayor Tom Barrett, West Milwaukee Village President John Stalewski and Japanese Consulate representative Keizo Shirakura. Each addressed the crowd, lauding Komatsu for its plans to grow the company and its offerings, before gathering together on stage to cut a ceremonial ribbon marking the launch of the Komatsu Mining Corp. name and Komatsu brand.

"Joining our companies was not just an option, it was the right fit for a stronger future together," Dawes said during the ceremony.

The National Avenue facility in Milwaukee, WI, now has a new Komatsu sign in front including the P&H, Joy and Montabert logos, as well as new signage throughout. All former Joy Global facilities will eventually be rebranded as we work together to integrate our companies and establish Komatsu as the top mining solutions provider in the world.

The KMC website is now [www.mining.komatsu](http://www.mining.komatsu) and all emails for KMC employees can now be contacted on @mining.komatsu (Please note that there will no longer be a .com or .com.au).

In Australasia we have project teams setup to ensure our customers and people will receive the benefit that the combined business will bring.

***"This acquisition was an important means of rapidly expanding our ability to create enhanced value for our customers"***





# GROUNDBREAKING SMARTCONSTRUCTION PROVIDES INTEGRATED SOLUTIONS

**K**omatsu Australia has launched its **SMARTCONSTRUCTION** concept in Australia and New Zealand – a significant step forward in construction industry technology that offers integrated product, service and support solutions across all phases of a project.

*“With these new technologies, we are now able to provide an end-to-end solution for our customers across construction, quarrying and mining”*

According to Aaron Marsh, Komatsu Australia’s National Technology Solution Expert Manager – Construction, SMARTCONSTRUCTION allows Komatsu to integrate a host of game-changing technologies for the benefit of its customers.

“With these new technologies, we are now able to provide an end-to-end solution for our customers across construction, quarrying and mining,” he said.

SMARTCONSTRUCTION covers critical steps in a project’s development, from initial site survey and design, through to machine control management, machine interconnectivity and review of project progress during the construction phase, and finally development of detailed as-built information for future construction and infrastructure maintenance.

**It covers four key areas:**

- » A UAV (unmanned aerial vehicle) drone service, covering initial site survey, along with cut/fill and stockpile calculations, as well as ongoing progress tracking and site logistics.
- » 3D data services, including conversion of 2D and 3D data files to formats suitable for machine control applications, and a best-industry practice 3D design consultancy, development and management over the life of a project.





Far left: SMARTCONSTRUCTION delivers end to end solutions.

Left: 3D data created for a construction project.

“Komatsu’s ability to offer this fully integrated, end-to-end range of cutting edge products, services and solutions across every aspect of a project, now gives our customers a real edge in today’s increasingly competitive and challenging business environment,” said Aaron.

A key element in ensuring the success of SMARTCONSTRUCTION is delivering the training and support necessary for customers to successfully implement it within their operations and projects.

That’s where the team of Komatsu TSEs (technology solution experts) come in; they will be working with customers providing training, support, assistance and advice across all aspects of the SMARTCONSTRUCTION technologies.

“Our TSEs will be working across all levels with our customers; owners and management, surveyors, engineers, site project supervisors and managers, operators and maintenance crews,” said Aaron.

**“Our TSEs will be working across all levels with our customers; owners and management, surveyors, engineers, site project supervisors and managers, operators and maintenance crews”**

“We are also providing access to more specialist training, specific site machine solutions and advisory services, for example working with a company called Aviassist to provide UAV training.

“In addition, we have a national service and support agreement with the Australian Topcon distributor Position Partners to harness their years of experience in surveying and precision machine control.

“These alliances allow us to effectively offer our customers any machine control or site survey solution that’s required for their operations,” he said.

“SMARTCONSTRUCTION truly is the next big step in construction industry management technology, bringing together some of the key technological developments over the past couple of decades in an integrated end-to-end solution.

“It represents a huge advancement in how contractors, project owners, quarry operators and miners can design, plan, construct and manage their projects,” said Aaron.

- » Komconnect cloud-based service, bringing together all the information relating to a project, from initial survey, design drawings and construction plans, through to machine control data files, project progress data generated by machines and survey equipment as the job progresses, and final as-built information once it is completed.
- » Support services, covering remote monitoring, remote file transfer and operating training; iMC (Intelligent Machine Control) advice, project integration and site set up assistance and professional consultancy with 3D design file development; troubleshooting and servicing of machines and control systems.

To deliver SMARTCONSTRUCTION across the region, Aaron said Komatsu Australia has established a Komatsu Smart Centre, with a team of Komatsu-trained technology solution experts and a national remote support team.

“SMARTCONSTRUCTION builds on our industry-leading expertise in machine management through our iNSITE fleet management centre, KOMTRAX remote monitoring service, along with our highly innovative iMC – intelligent Machine Control – offerings, which are currently available in dozers and excavators,” he said.

“We are building on these technologies with the introduction of our drone-based survey and site management technology and now our cloud-based Komconnect information management offering.



# EASY TO SEARCH. EASY TO FIND.



[usedparts.komatsu.com.au](http://usedparts.komatsu.com.au)



## PARTS PORTAL ONLINE USED PARTS ONLINE STORE FOR KOMATSU CUSTOMERS



**K**omatsu Australia has launched a new dedicated used parts website that gives immediate access to thousands of used, new surplus, discontinued and “seconds” parts suitable for both Komatsu and non-Komatsu machines.

This new platform (<http://usedparts.komatsu.com.au>) offers convenience to customers by allowing them to search for a wide range of used parts with just a few clicks.

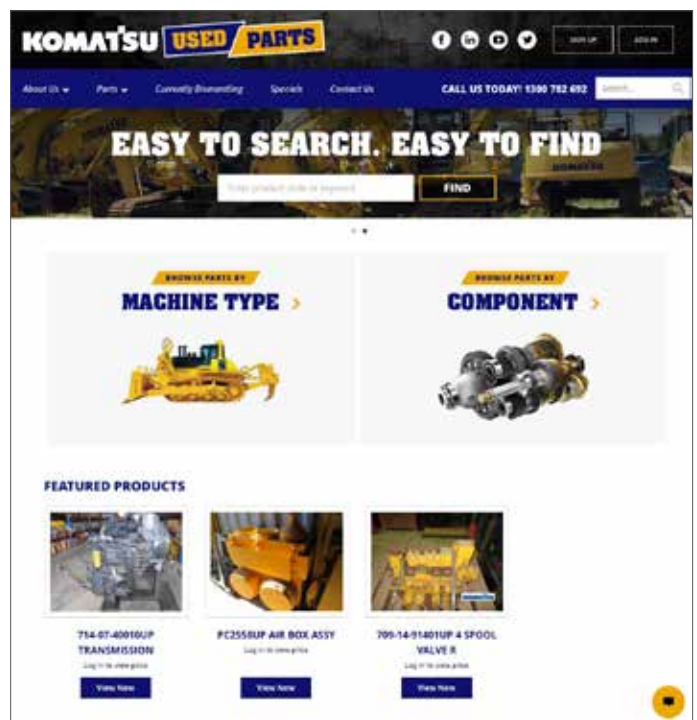
Users can search by key words, product codes or browse by machine or components type; the advanced search function ensures users can easily locate the correct parts they need.

According to David Small, Komatsu Australia’s General Manager of Parts Sales, Komatsu Used Parts offer an alternative to new parts – at very competitive prices.

“Our new parts portal is part of Komatsu’s expanding offerings of people-powered technology aimed at enabling customers to achieve longer machine life and more economical operation.”

“For those looking to keep their repair and maintenance costs down, especially for older or used equipment, used parts provide a very economical alternative,” he said.

“Komatsu equipment is designed to create efficiency. Now, customers can be efficient in every part of their ownership experience, through the ability to search for used parts solutions via the Komatsu Used Parts website from anywhere, at any time.



Komatsu’s new Used Parts website offers immediate access to customers.





***“Our new parts portal is part of Komatsu’s expanding offerings of people-powered technology aimed at enabling customers to achieve longer machine life and more economical operation”***

“The ease of access to used parts means buyers of older Komatsu machines can be confident of being able to access the parts they need. This assurance maintains the value of used Komatsu equipment and improves resale price,” said David.

“And if a customer can’t find the specific part they need, they can contact Komatsu direct, and we can try to source it for them through our extensive global network of Komatsu used parts.”

The website’s responsive design means users can search for the parts they need via computer, tablet, smartphone or other device, directly connecting customers to a vast catalogue of readily available parts for their machine.

Once customers have registered and logged in, they can view parts pricing; registration is free and instantaneous.

“For many years, Komatsu has offered sales of used, new surplus, discontinued and seconds parts through our used parts facilities in Brisbane (Queensland), Newcastle (NSW) and Bunbury (WA) – but our Used Parts website makes our full range of parts accessible to a much wider audience,” David said.

“Our new website also includes the latest information about the machines Komatsu Australia is currently dismantling – highlighting those forthcoming used parts that will shortly become available to the market.

“This is an important source of parts and components for older discontinued models, for which accessing parts can be a challenge.

“Komatsu Used Parts is another example of our development as a truly customer-focussed supplier, to improve our customer service and offerings,” said David.

## QUALITY AT AN AFFORDABLE PRICE.

**PARTS ON SALE NOW!**

# KOMATSU



## SALE ON KOMATSU GENUINE PARTS

At Komatsu, the quality of workmanship and customer support is equally as important as the product itself. Our parts are backed by experienced personnel and advanced technology to ensure machine performance is never compromised. When buying a new part, consider Komatsu for your service work. Our technicians are factory trained and strive to deliver less downtime and greater machine productivity.

**Speak to your local Komatsu branch today!**

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New Zealand 0800 566 2878 | [www.komatsu.co.nz](http://www.komatsu.co.nz)  
f /KomatsuAustralia/





## KOMATSU'S REMOTE MONITORING KOMTRAX SYSTEM REACHES 10,000 MACHINES

*Komatsu's MaryJo O'Donovan, Komtrax Systems Coordinator at the 10,000th Komtrax machine delivery.*

**T**en thousand Komatsu machines across Australia, New Zealand and New Caledonia now beam information skyward in a constant exchange with satellites, control centres and customers.

In January this year, the number of Komatsu machines in the region equipped with the KOMTRAX remote monitoring system, operating across multiple industries ticked over from 9999 to reach the magic five-figure mark.

From its inception in late 2008, KOMTRAX has progressed from a leading-edge technology to become a vital part of machine ownership that Komatsu customers depend on.

The 10,000th KOMTRAX machine, a PC55MR-3 excavator, was delivered to Brian Johnstone of Civil Construction Hire. Johnstone's company supplies equipment, advice and professional services to a number of construction projects throughout southern New South Wales.

In just four years Civil Construction Hire has gone from operating a single excavator to nearly 50.

"We're just a small company trying to service a particular marketplace. We think we do a good job," he said.

"We're pretty proud we've got a fleet of Komatsu machines and that we have grabbed that 10,000th KOMTRAX-equipped unit. It's terrific for us.

"We started in 2012 and in 2013 we got our first excavator and have built up now to our 47th today.

"KOMTRAX is essential for our equipment. It helps us keep track of where they are, first and foremost," said Brian.

"KOMTRAX helps us gauge the hours worked and when machines are due for maintenance and service, and also helps our customers keep track of how many working hours they are getting out of the machine so they can measure their productivity accordingly.

"I access KOMTRAX through my mobile phone app and my office computer. Within a few seconds you can grab the individual unit you're looking for and download a report," he said.

The amount of time, inconvenience and cost avoided through KOMTRAX's ability to provide early warning on potential issues or unsafe use, as well as alerting customers and Komatsu support technicians to upcoming service requirements is immeasurable.

In addition, a large proportion of Komatsu equipment that criminals have stolen from jobsites and private premises nationwide has been recovered at a strike rate of 72% – well above the 38% industry average for recovery of stolen equipment.

KOMTRAX specialist Mary Jo O'Donovan has worked closely with the KOMTRAX system since 2010, where she has watched it become a critical function in customers' businesses.

"To think we just introduced our 10,000th machine is fantastic, not only for Komatsu but also our customers who are able to monitor their equipment at any time of the day."

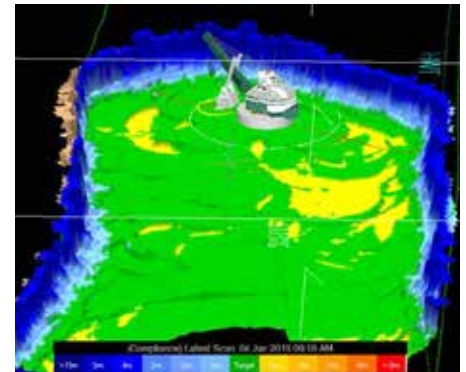
With 10,000 monitored machines now in the field, Komatsu looks forward to the next 10,000, and to continuing to refine the way in which it engages and assists customers, operators and industry.



## KOMATSU BUYS LEADING MINE PAYLOAD MONITORING SPECIALIST MINEWARE

**K**omatsu Australia has bought global mining technology firm MineWare, which specialises in the monitoring of draglines, mining shovels and excavators, optimising mine productivity through real time payload measurement and mine compliance.





***"This exciting acquisition reinforces Komatsu's commitment to drive continuous technology innovation for our customers"***

MineWare's Argus shovel monitoring system improves truck and shovel operations globally by up to 25%, lowering costs and improving production, mine design and planning.

While designed to work with all brands of mining equipment, since the purchase in April this year, Komatsu Australia's and MineWare's development teams have been working together on integrating the two company's technologies.

This will deliver substantial added value for users of Komatsu mining equipment, significantly enhancing the data monitored through Komatsu Australia's iNSITE Centre at its Fairfield, NSW headquarters.

According to Sean Taylor, Komatsu's Managing Director, the purchase of MineWare is a significant development for the company and its customers.

***According to Sean Taylor, Komatsu's Managing Director, the purchase of MineWare is a significant development for the company and its customers***

"This exciting acquisition reinforces Komatsu's commitment to drive continuous technology innovation for our customers," he said.

Using KOMTRAX and KOMTRAX Plus systems, Komatsu's iNSITE Centre monitors and displays a real-time feed of Komatsu machine data, ranging from the productivity to the machine health of equipment throughout Australia, New Zealand and New Caledonia.

"By integrating MineWare's Argus shovel monitor data with data provided by KOMTRAX and KOMTRAX Plus, we can extract a higher level of real-time, actionable information to improve all aspects of our customers' truck and shovel operations," said MineWare CEO Andrew Jessett.

"We are committed to enabling our customers to achieve their goals of lowering their costs per tonne, managing machine health and achieving higher productivity with the use of such technology."

Andrew believes MineWare's real-time technology has a pivotal role to play in improving the performance of payload optimisation, machine health and mine plan compliance.

"Payload optimisation lies at the heart of good fleet management due to its direct role in improving haulage efficiency and production," he said.

"It's about tightening the payload distribution and increasing the average truck payload.

"Loading the truck correctly into its target capacity results in the optimisation of both the truck as well as the shovel fleet which, in turn, reduces fuel costs, tyre wear and road maintenance.

"The optimisation of any fleet starts with an accurate payload. If you can measure it, you can manage it."

He said that with MineWare's systems achieving up to 25% productivity improvement, they deliver a payback anywhere between three and six months.

"It's not just about the data we can collect, it's about the quality of the information produced and our ability to help customers extract maximum value," said Andrew.

"Our systems produce actionable information for multiple personnel – from machine operators to our engineers, maintenance teams and technical service people – to drive real-time improvements in mine compliance, production, maintenance and safety, while reducing overall running costs."





# ALANNA DENNIEN MENTORING PROGRAM

*Alanna Dennien, John Davidson, Gladstone Branch Manager and Lucas Crick, Workshop Supervisor.*

**A**lanna Dennien, a second-year Diesel Technician Apprentice at our Gladstone branch, who has recently been accepted for a keenly contested place in the 2017 Women in Mining and Resources Queensland mentoring program.

Sponsored by BHP, the Queensland Resources Council/WIMARQ Mentoring Program was created to meet proven demand for formal mentoring from the rising number of women working in Queensland's minerals and energy sectors.

The six-month program aims to support professional mentees through career guidance and direction by sharing mentor/mentee experiences, developing career goals and forging exceptional mentoring partnerships.

Alanna had originally started working for Komatsu in 2011 as a parts interpreter/customer service representative (CSR) at Gladstone, a position she held until 2013, before moving to Thiess Contractors as a Maintenance Planner.

She returned to Komatsu in 2015 again as a CSR, before successfully applying for the company's 2016 apprentice intake as an adult apprentice.

In addition to her apprenticeship, she is studying for a Graduate Diploma in Asset and Maintenance Management through Central Queensland University – and is about three-quarters of the way through this course.

Alanna had applied to do the WIMARQ program in her own time and at her own expense, but upon hearing of her application, Gladstone branch manager John Davison recommended that the company fund and support her participation if she was successful.

"We are delighted that Alanna has been accepted for the WIMARQ mentoring program," said John.

"She is a real asset to the company, putting in a lot of work herself after-hours with her diploma to develop her knowledge and expertise, and now applying for this mentoring program.

"She has real potential for a great future with Komatsu; once her trade is finished and, once she's done a few years as a fitter, she could move up to higher level support and sales roles," he said.

And with Komatsu's Promoting Diversity program including a commitment to increase its female workforce population to 20% by 2020, assisting enthusiastic and committed female employees in working towards achieving their career goals helps reach this target.

According to Alanna, she had always had an interest "in how machines and components work and how they fit together", something which prompted her to start off doing maintenance work for a crane hire company in her home town of Biloela when she left school.

She then made the move to Gladstone when she was offered the position of CSR with Komatsu.

"After working for Komatsu and Thiess, and with incredible opportunities and support from managers, I found myself interested in maintenance planning and management," said Alanna.

"I decided I needed to do a trade or an engineering degree to learn what I wanted to learn to create my desired career, and doing a trade was the best option for me.

"Once I finish my apprenticeship in another two years, I would like to continue diesel fitting for a while to learn a lot more.

"Eventually I want to get back into a planning role, as a maintenance planner or project manager and continue on to become a maintenance superintendent and manager, essentially working in

mining or the heavy equipment industry, though I'd be happy working anywhere in Australia," she said.

Following her first 2017 WIMARQ mentoring session in Brisbane in early June, Alanna described the program as "awesome".

"It was pretty mindblowing to meet all these other women in this industry.

"Komatsu is a very good company to work for; I find everyone is great to work with, and the guys are all really supportive of my apprenticeship and my being in the workshop and in the field."

And while she is a supporter of the company's diversity program, she believes that increasing female participation should not be its sole aim.

"I don't believe we should just be focusing on reaching a certain percentage of women in the industry; instead we should be focussing on changing the mindset of gender norms that has been imbedded in society for years – starting in the workplace," said Alanna.

According to Francesca Vechi, Komatsu Australia's Transition and Change Manager, Komatsu's diversity strategy is very much aligned with Alanna's goals.

"This strategy aims to build an inclusive environment where people from diverse backgrounds and experiences feel they can wholly contribute.

"This includes removing biases including the mindset of gender norms," Francesca said.

Alanna's attitude is that by encouraging every person to achieve their greatest and to do what they love, will bring the best employee to a position – "because at the end of the day, it's not about being a male or female it's about what skills you bring.

"I believe anyone can do what they set their minds to, and hopefully I'm making a contribution towards breaking that barrier," Alanna said.



# KOMATSU TRAINING ACADEMY SEES STRONG CUSTOMER DEMAND – AND GROWTH

**S**ince it was launched at the beginning of 2017, the Komatsu Training Academy, a nationally registered training organisation that provides technical, operator and management courses for Komatsu customers throughout the region, has undergone significant growth.

It has delivered a range of accredited training programs, from business management and leadership training, through to accredited programs for working at heights and first aid, to technical training for fitters, operator training as well as customised on-site training to meet customers' specific needs, said Janine Temple, Komatsu Training Academy's National Business Manager.

"Over the past six months, we have delivered over 30 courses, training and upskilling 300 participants," she said.

In June, Komatsu Training Academy (KTA) won a major tender from a leading national civil and mining contractor to deliver all of its apprentice training Australia-wide.

This includes a new intake of eight apprentices beginning their apprenticeships in July, as well as taking over the training of approximately 40 other apprentices at various stages of their trade qualifications.

"We are offering three sets of qualifications as part of the package for this company," said Janine.

The three are:

- » AUR30316 Certificate III in Automotive Electrical Technology.
- » MEM30205 Certificate III in Engineering Mechanical Trade.
- » MEM30305 Certificate III in Engineering - Fabrication Trade.

"This is one of the biggest projects we've been awarded to date, and it's a measure of the facilities, resources and professionalism we can offer – and our focus on the mining and resources sector," she said.

In addition, KTA has developed a partnership with Halls Head College at Mandurah, South Perth, putting selected senior high school students through a Certificate III course in management.

"The school is passionate about providing learning and employment options for its students, and has partnered with a range of training and further educational providers to deliver the best-possible opportunities for their future careers," said Janine.

"We are delighted with this opportunity to work with Halls Head College, to engage with its students, and give us access to a potential pool of new employees."

KTA is also delivering a large amount of technical accredited industry training.

This includes restricted electrical licences for major contractors and mining companies, as well as customised technical training for fitters with mining and construction industry clients on both the east and west coasts.

"This training can cover anything from an introduction to general servicing, through to in-depth test-and-adjust skills and machine troubleshooting," said Janine.

"So far, it's been a very positive industry response; we are getting lots of support as the word gets out to customers and potential clients, and we are continuing to build and develop our resources.

"Currently we have eight trainers, soon to be 10, working with clients across Australia and New Zealand. We aim to deliver most of our training out of KTEC (Komatsu Technical Education Centre), because of the resources available at that facility, unless it's customised training on clients' sites," she said.

Komatsu Training Academy is headquartered at 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.

Located on more than 3 hectares of land, KTEC offers 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.

Equipment-specific 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.







# KVX GET

## SETTING THE STANDARDS

**O**ver the past few years, KVX's line of GET (ground engaging tools) has become a de facto standard for demolition and recycling applications, through significantly longer life and – most importantly – excellent physical retention that eliminates tooth loss when loading crushers.

KVX is now widely used on excavators in the demolition/recycling sector in South Australia, and has been used successfully for a number of years by Divall's Earthmoving and Bulk Haulage in NSW for excavators feeding crushers with material for recycling, as well as virgin quarry materials.



*Divall's Hybrid uses KVX in the demolition/recycling segment.*





***“This ensures significantly greater toughness, strength and abrasion resistance, for much longer wear life, and vastly improved tooth retention reliability; it is virtually unheard of for a K VX tooth to fall off a bucket into a crusher”***

“This makes the product ideal for recycling and demolition applications, which often involve harsh and abrasive products being fed directly into crusher units.

“GET falling off a bucket and getting into a crusher jaw can cause a lot of very expensive damage, not to mention posing a potentially lethal safety risk,” he said.

“But K VX users are finding they never have GET components coming loose and getting into a crusher, due to its unique metallurgy and bolted retention system.”

Chris said that while K VX products had a higher up-front cost, their significantly longer wear lives, excellent physical retention and reversible design generally resulted in lower whole-of-life costs.

He summarised the key advantages of K VX as being:

- » No adapters to replace
- » No adapter welding or maintenance
- » No adapter noses to wear
- » No pins to fall out
- » Slimmer frontal profile for improved penetration
- » Harder tougher bucket lip
- » Better protection for the underside of the lip and bucket, by combining teeth, adapters and bucket protection all in one component
- » Longer service intervals
- » More reliable GET retention (protection against GET loss, crusher damage and associated costs)
- » Ability to re-use worn out remnants on site as welded wear protection.

A number of leading demolition/recycling and civil contractors around Australia have gone on the record regarding their experiences with K VX in these applications.

**Old Red Brick Co:** This family-owned South Australian-based demolition contractor has been in business for over 30 years, specialising in housing and commercial demolition.

Its fleet of five 20-30 tonne excavators – including three Komatsu units – have K VX’s recently released 131222 HD Penetration teeth, designed for sub-30 tonne excavators, fitted to the sieve buckets on all five machines.

Maintenance manager David Burton, who provided design input and suggestions to K VX for the new tooth line, described it as “amazingly good”.

The sieve buckets fitted with K VX HD Penetration teeth are used for ripping out concrete footings, then loading the material out into tipper.

“We’ve found when we are scraping along concrete with teeth, these new design HD Penetration teeth are giving us a lot better wear even than we previously got with the standard K VX teeth— like amazingly good,” he said.

“With the new teeth, we can go about a year and two months, say around 4000 hours for a full set, including rotating them; they last even longer than the previous ‘paddle’ teeth, probably because they have more material in them.

“They can also get in under footings so much better, because they can dig in way more, and our operators love them.

“One very good thing with the new HD Penetration tooth design, which was actually one of our K VX suggestions to Chris Guntner and Komatsu’s Ben Rowe, is the higher raised back where they bolt on,” said David.

“With the new HD Penetration teeth, we can use same bolts over multiple changeovers. So far, we’ve done one change over reusing the bolts, and I anticipate we can use them again on our next set of teeth as well.

“We think we had this issue because we do so much scraping along concrete surfaces, which is probably something unique to our kind of demolition operation.”

David said since switching to K VX teeth, three years ago, he hasn’t seen a single issue of a tooth snapping off.

“With our previous conventional teeth, we were snapping teeth sometimes within a month, and we were always breaking retainers. Often we’d snap off a tooth well before it was fully worn, and we’d just have to chuck it away.

“The way these K VX teeth are retained is so much better because nothing can rip them off,” he said.

“That’s the trouble with GET in demolition applications: if a tooth catches on rebar or bit or metal in wrong place, it tends to snap off. That doesn’t happen with K VX.

“For me, the biggest advantage of K VX teeth is you can just bolt them on and never have to worry about them for a year.

“These days, I never get a call from an operator telling me ‘my teeth have just snapped off,’” David said.

It has also recently been commissioned by Victorian-based contractor Delta Group for its demolition/recycling operations with positive results.

Chris Guntner, K VX Regional Sales Manager for Oceania, said feedback from customers indicated they appreciate the longer life, reduced downtime and excellent physical retention of K VX’s adapter-less weld-free configuration.

He said K VX GET is unique in that, unlike other GET products on the market, all elements are forged or rolled rather than cast, and are bolt-on rather than being welded.

“This ensures significantly greater toughness, strength and abrasion resistance, for much longer wear life, and vastly improved tooth retention reliability; it is virtually unheard of for a K VX tooth to fall off a bucket into a crusher.





# CAREER -CHANGING SUCCESS

**A former investment banker and honours graduate in economics is applying his analytical and business development skills to a greenfield waste management project in Western Australia – skills which saw him opt for a fleet of Komatsu-only equipment as being the best choice for a successful operation.**

Rocky Zamin, formerly director, Metals and Mining Finance for Barclays Capital, has undergone a major career change, establishing an innovative construction and civil waste recycling facility in Perth's far northern suburb of Neerabup – and he has ambitious plans for expansion.

It is far more than a passive investment for Rocky.

He has cast off his Italian wool suit for workman's greens to own and operate the site with two full-time staff supported by a growing list of committed business associates, including Komatsu.

Rocky's company, Westralian Resources Solutions – trading as Terra Verde, Italian for green earth – has picked a niche in the expanding recycling market, providing a one-stop "drop-and-shop" solution for home builders and contractors looking to manage the challenge of disposing of unwanted waste materials generated on their construction and building sites.

Contractors and builders are able to deposit waste material with Terra Verde, then backload with processed sand and aggregates, providing efficiencies in the same round trip.

Located on a 2.5-hectare site, Rocky started Terra Verde in late 2016 following an extensive evaluation of the appetite of several Perth councils to support it. It has since captured the imagination of businesses and town planners.

"There are perhaps only 20 suitable landfill and recycling opportunities in Perth, so to be able to secure one or even two is a rare asset," Rocky said.

"Wanneroo and Joondalup Councils are two of the fastest-growing in Western Australia and it was logical to position myself with them."

Logic is the cornerstone of Rocky's business philosophy.

He describes himself as a "one-brand" man, preferring to develop long-term mutually beneficial relationships with a single business partner for each element of his business – but only after extensive investigation.

For example, Rocky chose his equipment supplier after initially hiring plant to discover what did, and what didn't, work for him.

"I quickly honed my requirements down to price, reliability, and compatibility with all attachments, suitability on site, warranty, service agreements and the support of the supplier for my future plans," he said.

"I rejected a number of other leading suppliers, and chose Komatsu on the basis of its broad range and suitability for my requirements."

Rocky bought four new Komatsu machines – PC55MR-3 and PC270LC-8 excavators and a WA430-6 wheel loader and WA200PZ-6 toolcarrier option – and initiated a long-term business relationship with Komatsu's business development manager, Lindsay Nelligan.

"The wheel loaders, for example, were a real find," he said.

"My hiring investigation had revealed how vulnerable wheel loader tyres are in close-encounter situations such as mine.

"So I specified flat-side walls, only to discover Komatsu had already anticipated this requirement at no additional cost. Lindsay gets it."

All attachments are factory-fitted and all service requirements for the first three years or 2000 hours carried out by Komatsu's own service technicians under its standard Komplimentary Maintenance package.

"This makes good economic sense," Rocky said.

"I believe its false economy to have service on site by your own people. We strictly follow Komatsu guidelines including rigorous start-up procedures each day. All I ask of my top operators is that they treat their machines like they belong to their mum!"

Rocky foresees the Komatsu fleet having a relatively easy life at Terra Verde compared with what is generally accepted in waste recycling.

"The face of the industry is changing," he said. "It wasn't long ago that you could separate waste into three categories with sand and building materials making up around 45% each and non-recyclable rubbish the other 10%.

"Now they are split evenly, which means there's a lot more work in separating the rubbish."

Terra Verde, according to Rocky, has now effectively instituted phase one: the front-end of the business.

The size of the site has so far allowed him to stockpile waste, but now the time has come to install reclaiming and crushing machinery – to be purchased on the same principles as his Komatsu fleet.

In the future is a 20-hectare site, capable of accommodating the lessons Rocky has learned in establishing Terra Verde on a far greater scale.

"Recycling is a bad choice of words," he said. "The term re-use is much more appropriate. The more you can control the feed resource, the greater will be the quality of the re-usable end product – and that is the key to success."



# COALCLIFF

## TAKE IMC EXCAVATOR

**A**ustralia's first iMC (Intelligent Machine Control) Komatsu PC210LCi-10 excavator recently made construction of a complex bioretention basin system a straightforward, no-dramas project for Western Australian-based Coalcliff Plant Hire & Civil Contracting.

Construction of the three basins, part of the Lefroy Street Bio-Infiltration Basin project located at Collie, incorporated different levels to be boxed out, along with placement of varying materials – and involved multiple design changes throughout the six-week program.

The PC210LCi-10 took all these issues in its stride – and in fact allowed the entire project to be completed with just the single machine, with no need even to bring in a grader or skidsteer to complete the final cleanup work.

Coalcliff Plant Hire & Civil Contracting, which has been in operation since 1995, works throughout Western Australia – although primarily in the state's south western and wheatbelt regions – carrying out a range of civil works including roadworks, bulk earthworks, dams, land clearing, drainage and cleanup and repair of storm damage.

Its new PC210LCi-10 is its fourth Komatsu excavator, according to the company's operations manager Darrell Scott.

"We have started buying more Komatsu in the past year or so, due to the quality of the equipment, plus the backup and support they were offering.

"That's especially been the case with our local rep Curtis Batemen, who's always there to help whenever I need him," said Darrell.

"We also find the service people are really helpful, especially with its Komplimentary Maintenance program; they just ring us and tell us it's time for a service – we never have to call them – then they go out to wherever the machine is working and carry out the service."

Coalcliff took delivery of its new iMC excavator in late March, but it wasn't until mid May that it went to a job that took advantage of its technology.

"We'd initially had it out on some mine sites, but in May we put it onto a job constructing a series of three bioretention basins," said Darrell.

"We had different levels to box out for different bio-media, applying layers of different materials according to the design specs.

"The machine was excellent; over the whole six weeks of the job, we just had the one machine, and never needed to bring in anything else.

"If we'd been doing this conventionally, we'd have had to use survey and pegs, then spent hours trimming to design. But the PC210LCi-10 was so precise we didn't need to," he said.

"We never had to worry about losing or burying pegs. Particularly when we were digging out the basin, the job kept getting rescoped, with levels and design changes, which we were easily able to cope with using this machine.

"Certainly it was a tricky job, with lots of changes; I think we changed design about five times.

"But with the help of Scott Jamieson Komatsu's SMARTCONSTRUCTION Centre – Remote Support National Manager, we'd just modify and uploaded the new design files remotely and kept going," said Darrell.

"We do have a conventional bolt-on indicate system on our PC350, but this was the first with iMC in place. It's just excellent in practice; you can dig to a grade, and when you get there it stops – it won't let you overdig."

Coalcliff's next project for the Komatsu iMC excavator will be upgrade works for the Collie Motorplex, carrying out clearing and drainage works.

"This includes multiple larger culverts with long runs in the design, there are different lines and levels we have to work to," he said. "It will all be done with that machine, and it will really reduce the need for laser levels and boning out."

The decision to go with the iMC excavator was an easy one for Coalcliff, which was in the market for a new excavator with GPS-based indicate capacity.

"Essentially it's the same price as a bolt-on system from one of the major GPS companies, but it does more and gives you a lot more control.

"As well, the larger screen in the cabin is a lot better than on the standard machine control systems, plus it comes with an 8000 hour warranty.

"This is definitely the way of the future; now we're looking forward to seeing it on some bigger machines," said Darrell.







# THE WINNING ADVANTAGE

**O**ne of Australia's largest coal miners, Yancoal has specified a newly-engineered version of the Cummins QSK60 for major environmental and cost reduction benefits at its Moolarben mine in NSW.

The Cummins QSK60 'Advantage' engine has been engineered to deliver both lower total cost of ownership and significantly reduced emissions – the key factors behind Yancoal's decision to specify the engine as part of the upgrade of its haul truck fleet for extended life.

With the 'Advantage' engine – the single-stage QSK60 rated at 2500 hp – Cummins has achieved a huge particulate matter (PM) reduction of 63% through in-cylinder combustion technology with no after treatment. This reduction is over the existing Tier 1 QSK60 engine.

Additionally, a fuel economy benefit of up to 3% – dependent on duty cycle – has been calculated as well as longer life-to-overhaul.

Yancoal is the first miner in NSW to put the QSK60 'Advantage' engine into service – an engine developed specifically for Australian conditions by Cummins' high horsepower technical centre in the US and the Cummins engineering team in Australia.

At the end of January, the miner had three 'Advantage' engines powering Komatsu 830E haul trucks at its Moolarben mine, and will progressively upgrade the rest of its Komatsu 830E fleet – 17 units – when the QSK60 engines are ready for change out at 30,000 hours.

#### The 'Advantage' rebuild package

So what precisely is the 'Advantage' engine? In simple terms, it is a rebuild upgrade for the QSK60 from Tier 1 to the latest generation Tier 2 platform with the addition of Tier 4 component technology. The upgrade features Cummins' Tier 2 modular common rail fuel system (MCRS) as distinct from the HPI unit injection system on the Tier 1 engine.





***In fact, the joint customer-focused approach of Cummins and Komatsu and the major engineering effort put in by both companies has been critical to meeting Yancoal's requirements***

Importantly, the MCRS 'Advantage' solution utilises the original factory cooling system package.

Liam Whittaker, maintenance manager at Yancoal's Moolarben mine, has worked closely with Cummins mining business manager Jason Linke and Komatsu regional service manager Andy Wiggan to develop a plan to meet ambitious cost saving targets.

In fact, the joint customer-focused approach of Cummins and Komatsu and the major engineering effort put in by both companies has been critical to meeting Yancoal requirements.

Even before the Cummins 'Advantage' engine came into being, extending life of the original QSK60 HPI engines in the Komatsu 830E fleet at Moolarben was examined.

#### **Extended engine life**

"The original life-to-overhaul target was 24,000 hours, but the decision was made to extend life to 30,000 hours – a realistic engine life as long as the maintenance history is top notch," says Jason Linke.

Teardown of Moolarben's first 30,000-hour QSK60 HPI engine at Cummins' Master Rebuild Centre in Brisbane proved this extended life was achievable.

The introduction of the MCRS 'Advantage' engine at Moolarben now sees further extension of targeted life-to-overhaul, to 36,000 hours – and with minimal mid-life change out of components.

While significant total cost of ownership benefits are calculated for the 'Advantage' engine, Liam Whittaker is quick to point out: "We are committed to the highest environmental standards across our operation, and the QSK60 'Advantage' engine is contributing to those standards with its reduced emissions."

The Moolarben mine, which has both open cut and underground operations, is producing 13 million tonnes per annum of ROM coal from its open cut operations. Cummins engines total 45, ranging from the 60-litre V16 QSK60 in the Komatsu haul trucks to the 3.3-litre four cylinder QSB used as pit pumps.

Liam Whittaker describes Cummins' service support as "excellent" – support that is headed up by Cummins regional branch manager Phil Wright and mine site representative Ashley Waugh.

"Our own maintenance people take a lot of pride in their work," says Whittaker. He points out availability of the Komatsu 830E fleet is averaging 92% - "a terrific number for trucks that have done 25,000-plus hours".

**Article written with  
Cummins Collaboration**



# NZ FIRST iMC EXCAVATOR AT WORK

## **N**ew Zealand contractor gains major safety and productivity benefits with first iMC excavator

The contractor using New Zealand's first Komatsu iMC (intelligent Machine Control) excavator is finding its fully integrated system is delivering significant productivity, safety and cost-saving benefits – even when compared with existing “bolt-on” GPS-based excavator indicate systems.

Komatsu's newly released PC210LCi-10 iMC excavator was purchased by Dunedin-based Clarke Machine Hire – One of the country's largest Komatsu owners with around 300 Komatsu machines in its fleet – in early April, and sent out to work on long-term hire with client BG Contracting.

BG Contracting is a civil contractor based in Canterbury, and has been in operation for about 30 years. It offers a full range of civil construction services, including greenfield subdivision projects, as well as pump station installation and drainage works.

The company is a significant owner of Komatsu equipment in its own right, owning half of its fleet, and hiring in the other half – pretty much all Komatsu – from Clarke Machine Hire. Its total machine fleet based on its current work levels is around 34 machines.

According to Mike McNeil, BG Contracting's Operations Manager, the new PC210LCi-10 – which he described as “absolutely great” – has been at work every day since it was delivered to the company.



“We've been running conventional ‘bolt on’ machine control systems for a few years now, and we have two dozers, two graders, and five excavators – all using Topcon machine control,” said Mike.

“Paul Clarke gave us the heads up that this new excavator technology was in the country and was going to be on display at THE Expo at Mystery Creek Hamilton in March, so we flew up there to have a look.

“We were very impressed with what we saw, and told Paul we would definitely use it,” said Mike.

“In the 12 weeks since we've had the iMC PC210LCi-10 on site, we've found it's a really big step forward compared with conventional GPS-based excavator indicate systems.”

Mike said the Komatsu iMC excavator was more productive, improved site safety, and meant substantial potential savings in materials costs.

“Because you can set up the machine so it won't overdig; as soon as it gets to the required level, it won't dig any further.







"That means you are not wasting time and effort digging out material you don't have to – and you don't need to fill overdig sections with valuable aggregates or other fill material.

"We do a lot of undercuts as part of our road construction activities, and for every 50 mm extra you take out, you have to replace it with metal – and that gets expensive.

"Sure, with a conventional machine control operation, you can set a subgrade, but in undercut work, it comes down to operator skills to avoid over-digging. It's easy to overdig if you do it wrong – and if you don't get it right, it can cost the business a lot of money.

"Because we can set the depths we want to cut, you can never overdig, which is great from a QA and business point of view," said Mike.

Improved site safety is another advantage BG Contracting has found with the iMC machine.

"We have to do a fair bit of work under overhead powerlines, and that's a risk for the operator and those around the machine.

"With the iMC excavator, we can set a safe work height within the design so that the machine alarms the operator a certain distance from the powerlines; that's safer for the operator, and it's peace of mind for us because we know that machine will never come in contact with live wires," said Mike.

One big difference the BG Contracting team has noticed compared with other 20 tonne machines is the increased stability due to its longer undercarriage and heavier counterweight.

"When you're working at full reach with machine control, the bucket can tend to wobble a bit, so Komatsu have put on a longer undercarriage and bigger counterweight, which gives great stability. That's something you really need with this machine, because it absolutely can't move or you lose accuracy."

Shortly after arriving on site, BG Contracting took the opportunity to compare the iMC excavator with a similar-sized excavator fitted with a standard "bolt-on" GPS-based excavator indicate system.

The test involved two service trenches, both 2 m wide by 1.2 m deep, one on each side of a new section of road.

"On one side of the road, we had a 20 tonne machine fitted with a Topcon indicate system, and the iMC excavator on the other side," said Mike.

"They both started at the same time, and we told them to go for it.

"The standard machine achieved 238 lineal metres in an eight-hour day, and the Komatsu iMC got to 352 m – so 124 m or 48% further.

"I think the difference was the iMC operator not having to constantly stop digging and use his bucket to check his depths to ensure he wasn't over-digging.

"As well, the iMC trench was absolutely dead straight and level, while the other one had little ridges all the way along."

Mike and the BG Contracting team actually carried out a similar test when they first introduced a machine guidance excavator some years ago.

"Before we got our first GPS system on a 20 tonner, we were averaging 120 lineal metres a day using conventional manual techniques, and we doubled that with the GPS machine. Now with the iMC excavator, we are tripling that.

"We have our own survey team who are responsible for getting all our survey designs into the machine, but all technical issues are handled by Komatsu," he said.

"And getting a system off the actual factory production line which is fully compatible with the machine is a no-brainer.

"The cost of the iMC machine is similar to that of a standard machine plus a bolt-on aftermarket GPS system – and in fact there are savings in setting it up and calibrating it.

"iMC is definitely the way of the future, we can see that," said Mike.

For his part, having seen the success of the iMC excavator with client BG Contracting, Clarke Machinery Hire owner Paul Clarke will be looking to add more to his fleet.

"BG Contracting is very happy because everything is factory fitted; this iMC option beats aftermarket for similar cost, and it comes with an 8000 hour warranty," he said.

"We supply machine control on quite a few of our machines, responding to customer demand.

"iMC is a good option for us, as the machines are all set up ready to go, and we are just dealing with the one supplier," said Paul.



# RAWLINGS RELIES ON KOMATSU SUPPORT

**T**he resurgence of Tasmania's forest industry has led to extensive investment in plant and machinery by private operators – and Komatsu has been on hand to lend support.

Greg Rawlings of GJ & LM Rawlings Bulldozing, a near 40-year veteran of the industry in the state's north-west has increased the size and strength of his exclusively Komatsu fleet in response to new business opportunities arising from this industry comeback.

Greg and others in the industry like him are being increasingly encouraged to ramp-up productivity as demand for Tasmanian plantation timber products expands.

"We are more and more relying on our machinery providers to give us an edge in being able to meet the demands," Greg said.

"Times have changed immensely in the way we go about our work and the machines we work on.

"When I bought my first new machine – a Komatsu D65-8 dozer back in 1985 – it was a heap better than the equipment I'd been using, but it was still relatively crude compared with what I have from Komatsu, today.

"Cabin ergonomics are just one example. These days, in pretty extreme conditions, my blokes are able to work 10-hour days, five days a week and some of them are backing up to do an extra eight to 10 hours on the weekends.

"You couldn't do that on the old open-canopy machines, but today with closed cabs and climate control the work environment has improved immensely," he said

GJ Rawlings operates in the specialised area of forest clearing, preparing plantations for re-planting. It uses three Komatsu PC200-8 excavators to rake and slash in windrows and three D65 bulldozers – one with specialised attachments – to ridge-plough mounds as well as build and maintain tracks.

Speed and accuracy are both essential as the company's equipment prepares plantations to accept up to 1100 stems (new trees) per hectare.

Extreme weather conditions including heavy rainfall, sometimes high on the side of Tasmania's well known Surry Hills Plantation, have caused Greg to specify attachments and modifications purpose-built for the job.

His excavators are fitted with heavy belly guards and rock guards around the track rollers.

His dozers use variable pitch rippers, and one is fitted with a blade, minus push arms, to enable precise manoeuvrability in tight areas.

"The good thing is that Komatsu is anticipating many of our needs and making our job easier," he said.

"There was a time when we had to fit our own ROPS (roll over protection system) canopies. Now the cabs are fitted as standard with ROPS and FOPS (falling object protection)."

ROPS and FOPS are close to Greg's heart.

"I've been in a roll-over (on a dozer) and it wasn't fun. Once I got out it was OK, but it all happened in slow motion and I wouldn't want to do it again."

Greg increasingly relies on his local Komatsu operation to maintain and report on his fleet.

"Right now, we're transitioning from old arrangements we had with external suppliers of lubricants to encompass Komatsu genuine products," he said.

"It's better to be able to have one service contract with the primary supplier and to rely on them to maintain our machinery."

"We have an arrangement in which Komatsu fits in with our work schedules to ensure they provide service to minimise impact on productive downtime. They'll service the machines on the weekend if that's what it takes."

Komatsu's KOMTRAX remote monitoring service is also proving a benefit.

"I've had some of my blokes with me for 15 to more than 20 years so it's not like we don't know or trust each other," Greg said.

"But it's handy to get a monthly KOMTRAX report or be able to look it up at any time on my iPad to know what today's fuel consumption is, what idle time we've had, when the machine has started and finished – even when it's due for its service.

"I don't like to use it as a surveillance tool – it's just something that helps us all understand when something pops up that's not quite normal.

"I think KOMTRAX would be essential for a big company with machines all over the country.

"For me, we largely know what we're doing, but it's still a help."





# EARTHTEC NZ OPTS FOR KOMATSU



**A**uckland-based rock excavation specialist Earthtec Projects has recently purchased 16 new Komatsu excavators – ranging from 3 to 30 tonnes – as part of a major fleet renewal program, with company management putting a challenging scenario to all stakeholders in order to come up with the best-possible equipment supply and support partner.

Working primarily in the Auckland region, Earthtec undertakes bulk excavation works for large commercial and industrial developments.

With Auckland located on a series of extinct volcanoes, the underlying material is volcanic basalt which, according to Earthtec's Nick West, "is as hard as".

The company has built up a reputation as a rock excavation specialist, with a mixed fleet of excavators from 3 to 75 tonnes, all fitted with rock breakers.

Once excavated, Earthtec then crushes and processes the rock, and on-sells it as a value-added product.

With much of its fleet getting on in years, Earthtec management decided it was time to renew a significant portion; to assist in making the decision, it posed the following question to key company stakeholders: operators, workshop technicians, site managers and management:

"All things being equal, you have to dig a trench from Auckland to Wellington non-stop; the machines can't break down and your life depends on it – all things considered, what would you choose?"

"From the start, most people responded with 'Komatsu'," said Nick.

"From our point of view, it was an interesting scenario to put to our guys, that if all bets were off, what make of machines would you choose to best do the job.

"I was surprised at how many of them came back and opted for Komatsu. As part of this process, we had informal chats with all our operators about what their preference would be in terms of sitting in the one machine for 10-12 hours a day.

"Based on these responses, we then went through the process of talking to all suppliers to see what they could offer us particularly in terms of service support.

"We were also looking at things such as reliability, durability, machine longevity and so on.

"We have a preference for Japanese steel in our machines, which experience has shown is superior to that produced in other parts of the world," he said.

"Sales like this in the Auckland market are a little unorthodox, so there was a lot of backroom work to make it all happen. In the end, Komatsu came through with a really good package from top to bottom for us.

"In the process of talking to Komatsu, Komatsu Finance also became involved; they really came to the party to aid the sale, and that worked very well for us – and so we made our decision.

For their first three years or 2000 hours, the new fleet is covered by Komatsu's Complimentary Maintenance for all service requirements, "and we are looking to extend our servicing from Komatsu past this period", said Nick.

"We also have our own workshop team, who monitor the KOMTRAX reports, as well as Komatsu, and that's working well for us.

"Certainly it will help us longer term, as we'll easily be able to see which machines are working the hardest and should maybe be turned over sooner."

In taking on a significant new fleet, Komatsu has also provided Earthtec with additional machine familiarisation and training.

"The whole Komatsu team here in Auckland has been great to deal with," said Nick.

"Geoff O'Leary, who provides the training/familiarisation package and has been dedicated to our account, has been really good. We've also developed very good relationships with our sales representative Dave Barnes and his sales manager Garth Dixon.

"On the whole, everyone is stoked with the new machines.

"Obviously it's a good image for the company having new machines, which is minimising our downtime because they are spending so much less time in the workshops," he said.





# DOZERS MAXIMISE ON PRODUCTIVITY FOR ABP

**A**BP was formed eight years ago to acquire and manage high quality Blue Gum plantations located in the “Green Triangle” region of south-west Victoria as well as south-eastern South Australia and south-west Western Australia.

ABP’s plantation estate comprises more than 60,000 hectares of Eucalyptus Blue Gums originally established in the Green Triangle from 1992 and a further 31,000 hectares of Eucalyptus Blue Gums in WA’s Great South-West region. Plantations are managed on a 10- to 15-year rotation length.

Worldwide competition has spurred the ABP to develop new efficiencies to maintain its competitive edge, and it is investing in new plant and equipment to meet growing demand.

ABP has recently added a third purpose-built Komatsu D275A dozer, which works round-the-clock, to its line-up at its Portland facility in Victoria – and has ordered another to be delivered in the new year.

The dozers join two eight-year-old Komatsu machines already on the Portland fleet, each with more than 24,000 hours of unrelenting service.

ABP Portland Terminal Manager Gus Mclean, a 27-year veteran of the forestry and woodchip industry, uses the dozers in three shifts daily to help load onto specifically designed ships.

The machines build the stockpile stacks and break them down, pushing the chips to the ship loaders at a rate of 1000 tonnes an hour.

“Our job has been to provide efficiencies at every stage of the process. The new dozer has further facilitated the efficiency of our loading rates” Gus said.

Some of those efficiencies have been highly innovative. The company modified Canadian-designed autonomous-truck unloaders to enable B-Double woodchip carriers to be unloaded from a tipping surface plate, rather than using on-board lifting hydraulics.

Trucks drive onto the plate and are then tipped at an angle of 60-degrees to shed their cargoes without their driver being on board.

Uniquely for Australia and far in excess of Canadian design limits, the platforms have a 90-tonne lifting capacity and have regularly accommodated trucks of up to 82.5-tonne gross weight, providing significant operational gains.

Komatsu’s dozers have also been purpose-modified to maximise productivity.

Baskets built on site to comply with Komatsu machine specification are capable of capturing 80 cu m of chips on every sweep on the company’s two D275A bulldozers and 65-70 cu m on the smaller D155A machine.

The full baskets place substantial operational loads on the bulldozers, increasing fuel use; however, financial calculations have determined that payload advantages outstrip fuel cost.

And critically, the machines are capable of easily accepting the higher load requirements.

Aftermarket Mesabi radiators, made in the USA and fitted to meet Komatsu operational standards, are meeting the immense pressure of constantly pushed-through woodchips with minimal damage to cooling fins.

Fast-operation on-board fire extinguisher systems – the equal of those used in top-end racing cars – are able to foam-down any fire which may be caused by trapped chips.

“In all cases we’ve been careful to work within factory specification and to adhere to service and maintenance requirements,” Gus said.

“That’s been the secret to maximising operational efficiency and productivity.”

Potentially damaging woodchip dust is a huge factor in maintenance scheduling. ABP uses Komatsu Oil Sampling services, genuine air cleaners and changes air filters on a regular three-week rotation.

“We use genuine parts exclusively,” Gus said. “The rationale is simple: would you use Ford parts on your Holden?”

Operator comfort, safety and well-being are essential considerations in ABP’s operations, especially as each machinery operator is working a full eight-hour shift in one cabin.

“The cabins are fully sealed and the only dust ingress is when the door is open. You’d be hard-pressed to get that sort of cabin sealing in a luxury car,” he said.

Operators work in air conditioned cabins with air suspension seats which maximise long-term comfort and with controls that are ergonomically designed to optimise operator efficiency.

“It’s important to provide our operators not only with real security but also a feeling of stability when they are working on the woodchip stacks,” Gus said.

“By the time they spread the chips from the trucks, some of the stacks can rise 25 m in the air and there is a need to provide operators with a safe operating platform in every movement they perform. Machine stability is a critical factor in that delivery.”

At every touch-point ABP has sought financial efficiency from its machinery deal. It has used Komatsu Finance, rationalising that the finance package is more efficient than tying up capex on machinery purchases.

With the introduction of the latest D275A, ABP has begun using Komatsu’s KOMTRAX remote monitoring system, a vital tracking device now being used on more than 10,000 machines across Australia.

“We’re in the early days of understanding the benefits of KOMTRAX,” Gus said. “Yet it’s the next generation of machine operation and protection.

“We have operated to high standards by conventional means and reaped the rewards of having a dedicated on-site technician who abides by strict factory protocols.

“Now KOMTRAX has opened new avenues to make our business even more efficient.”



# BRC DIRTWORKS STAYS WITH KOMATSU

**T**hirteen years ago, then 21-year-old semi-pro motocross rider Beau Crichton was looking to establish himself in the earthmoving business. Due to his age and lack of experience, only one supplier would even consider selling him a machine – and he has been repaying that faith in him ever since.

That supplier was Komatsu Australia, from whom he bought a WA180-3 wheel loader so he could remain engaged with his passion – by building motocross and supercross tracks.

Today Beau owns six Komatsu machines – and so long as the machine he needs is in the Komatsu range, he won't look elsewhere.

Based in Victoria's Mornington Peninsula, southeast of Melbourne, his company BRC Dirt Works carries out a wide range of general earthworks, including housing sites, and golf course construction.

But BRC Dirt Works' major area of specialisation remains in building motocross/supercross tracks; and it has built around 90 over the 13 years since Beau started up in 2004.

Today he owns a Komatsu SK714-5 skidsteer, along with a WA200PZ-6 wheel loader, and four excavators: a PC30MR-2, a PC35MR-3, a PC130-8 and a just purchased PC200-8MO.

Beau has also branched out into the recycling business, running a concrete crushing operation.

"Because I was a semi-pro motocross rider and it's really in my blood; so when I stopped riding semi-professionally to start this business, it gave me great insights into what people want in their motocross and supercross tracks," said Beau.

"That meant we were able to build up the business quickly, to the extent I needed to expand fairly fast."

Shortly after starting his business, Beau's brother Dane – also a semi-pro motocross rider – gave that away to join him in BRC Dirt Works, and today is his second in command. Beau also has five other operators working for him.

"We've built tracks for private individuals, clubs, for training and just for people who want to have fun on their bikes.

"We know exactly what people are after. And in a few weeks, we're building one for the Victorian titles.

"We've built tracks down in Mornington, out to Stawell and Horsham, all sorts of places," he said.

"We find we've got plenty of work here; in fact we have so many motocross tracks to build that there's a bit of a backlog – though these days, I do need to give precedence to our builder clients," he said.

While the key reason Beau sticks with Komatsu is due to the loyalty and faith the company offered him when he started, that's not the sole factor keeping him coming back.

"As a company, Komatsu helped me out immensely when I was starting out; I was only 21, and no one else would even talk to me," he said.

"They got me started, but I stick with them because backup, support, everything about the company is great.

"Today I mainly deal with Andrew Fowkes (Komatsu's Major Accounts Manager – Victoria), and I worked with Bob Jones before him. Andrew is brilliant, we have a great relationship, and he does a lot for me," said Beau.

"I also go for Komatsu because their machines are the best in the market, especially for the price they are.

"I really can't fault them; they are great on fuel, all functions work perfectly, the finish inside and out is great, and they are just engineered a lot better than anything else around."

Beau's latest machine, the PC200-8 excavator, is being used for bulk excavations, basements, dams and large house cuts, as well as in the recycling plant feeding the crusher, loading out trucks and any other tasks required of it.

"We've had it around six to eight weeks (as of mid-May) and I love that machine!" said Beau.

"We've just got a job for it for six weeks, which means I get to sit in it for a full six weeks.

"I can't believe how strong it is, yet how fine and detailed work we can do with it," he said.

Thirteen years after getting his start in the earthmoving business, Beau is happy to give full credit to the company that was prepared to give a 21-year-old dirt bike rider a go.

"Today, we have nine machines in total, plus a concrete recycling plant – and that's all largely due to Komatsu and their belief in me."







# COMPLETE "PACKAGE" KEEPS DANIEL SMOLENAARS COMING BACK

**G**ippsland-based plumbing and civil contractor Laser Plumbing Sale and Traralgon has been a long-term owner of Komatsu excavators – finding the complete package of service, support, machine quality, operator preference, and the “visibility” provided through the KOMTRAX remote monitoring system, serves the business very well.

Gippsland-based plumbing and civil contractor Laser Plumbing Sale and Traralgon has been a long-term owner of Komatsu excavators – finding the complete package of service, support, machine quality, operator preference, and the “visibility” provided through the KOMTRAX remote monitoring system, serves the business very well.

Now owned by Daniel Smolenaars, the company was started by Daniel’s uncle Peter around 40 years ago as Smolenaars Plumbing, initially as a plumbing business and branching into civil construction in the late 1990s.

In 2008, Daniel joined up with the national Laser Plumbing group, an alliance of non-competing plumbing and draining specialists who share business tools, staff, human resources and PR expertise and business development assistance.

Today the company is heavily involved in Gippsland’s water and infrastructure sectors, carrying out sewer, water supply and stormwater installations for developers throughout the region, along with working for Gippsland Water and local shires on infrastructure and asset management.

The company’s fleet of equipment includes a PC200-6, a PC300LC-8, a PC138US-8 delivered new in 2013, plus a second new PC138US-8 and a new PC18MR-3, both delivered in September 2016.

To support the needs of clients from inception to completion of a project, in addition to its Komatsu excavators, the team at Laser Plumbing offers a

large variety of specialist equipment, allowing it to deliver large and small hydraulic and civil construction projects.

This specialist equipment includes directional drills, non-destructive vacuum trucks, backhoes, drain cameras, specialist drainage repair equipment and others.

Laser Plumbing also invests heavily in operator training across the business’s many disciplines.

“This investment ensures a progressive approach to the development of operators and team leaders across the business so that we continually up-skill staff and have the capabilities to support emerging market opportunities and changes in industry compliance,” said Daniel.

**LASER PLUMBING SALE & TRARALGON’S “GUN OPERATOR” BRAD LANGFORD WITH PROJECT MANAGER ADAM HELMKE. “ANY TIME WE GET A NEW MACHINE, BRAD GOES IN IT FIRST, AND ANY TIME WE GET A VERY TECHNICALLY CHALLENGING PROJECT, BRAD WILL OPERATE THE MACHINE,” SAYS OWNER DANIEL SMOLENAARS.**

He bought his first Komatsu, his PC200-6 as an ex-demo machine with 200 hours on it in 2003 and has had it ever since.

“We’d had other brands, but as we shifted our machines around, we realised Komatsu served us best, with the least amount of downtime and maintenance requirements,” he said.

“Then in 2013, we won a large commercial project at East Sale RAAF base, so we bought the PC138US-8, then a couple of years later bought a used PC18MR-3.

“Both these machines worked really well for us, and as a result of some new contract work, we swapped over our original PC18 for the new one.

“This machine had served us unbelievably well, with excellent breakout force and operator approval, so we

purchased a new one that would present better for our new client,” said Daniel.

“Around the same time, we bought our second PC138 new, along with a used PC300LC-8, to handle the growth in our operations. We had been really stretching our machines to their capabilities before that.

“We sourced the 30 tonner because it helps us with our pump station installation and delivery; we can capably complete this style of work with a 20 tonne excavator, but the larger machine increases site productivity and lets us deliver a more effective client program.”

Daniel said one factor keeping him returning to Komatsu was the high operator acceptance.

“Our guys are very comfortable using Komatsu machines; they enjoy all the creature comforts they have, the power, the useability, the access and the reliability.

“And from a management point of view the visuals we get of our machine usage through KOMTRAX is second to none.

“It shows us that the machine efficiency is excellent, with very good fuel consumption.

“Also, with some of our projects, we are required to provide an indication of CO2 usage; that comes as standard as part of the KOMTRAX reports, and I can just submit it to our clients.”

Daniel has also been very pleased with the service and support he’s received from Komatsu.

“Our nearest branch is Morwell, and Toby Piper there is brilliant. It may be 70 km away, but that’s no barrier to fantastic service,” he said.

“While I don’t necessarily believe in standardising our fleet around one brand, I do know that Komatsu’s turnaround on breakdowns and scheduling services to complement the efficiency of our business is just another factor that keeps me coming back.”



# SEG PURCHASES LOW-HOUR KOMATSU USED EQUIPMENT

**Sydney Excavation Group (SEG), a rapidly growing earthmoving and demolition contractor, has recently seen a significant expansion of its fleet – and the range of services it can offer clients – through purchasing low-hour ex-rental used equipment through Komatsu Australia.**

Formed in 2012 by owner and director Elias Azzi with a single excavator and tipper, and three employees, today it employs 35 people and runs a fleet of 30 machines and 20 trucks – including 10 Komatsu units.

Its services include demolition, bulk and detail excavations, including shoring and underpinning works, as well as earthworks-specific waste removal, site remediation, transportation of contaminated materials and plant hire.

Operating throughout Sydney, its clients include leading builders and civil contractors, as well as large developers.

Elias started SEG after working for a major Sydney contractor for a number of years – and for whom he still provides services.

Shortly after starting the business he purchased his first used Komatsu machine, a PC200-7.

"I've always liked Komatsu – personally I think they are one of the better machines on the market; they've always been reliable – and reliability is the most important thing for us on any job," he said.

Since then, as the business and its reputation for quality and professionalism has grown, the fleet has expanded. Today it includes two PC200-7s, two PC200-8s, a PC270-7, a PC400-7, two PC450-8s, a PC600-8 and a D375A-6 dozer.

"Dave Madgwick (Komatsu Australia's Used Equipment Business Development Manager at its Ingleburn branch) is my main point of contact there, has been since day one; he's a fantastic bloke, very helpful," Elias said.

SEG's latest additions are the dozer, the two PC450-8, the two PC200-8s and the PC600-8, all purchased as part of a package for the prestigious Lachlan's Line residential development project at Macquarie Park in Sydney's northwest for Greenland Australia.

"These latest machines are all ex-rental near-new low-hour machines – with nothing over 2000 hours – that have come out of Komatsu's rental fleet," said Elias.

"When Dave pitched the low-hour used option to me, I just jumped on it. Before he suggested it, I was looking at buying brand-new machines, but now I wouldn't go back.

"It's just great, awesome, to have the option of buying a low-hour machine that's still got warranty, and throughout its working life has been serviced and looked after by Komatsu.

"You just can't go wrong," he said.

Elias also gets all his servicing done through Komatsu, based around notifications via the KOMTRAX remote monitoring system.

"Komatsu's service and support has been phenomenal," he said.

"We just call them in when we need them, otherwise they contact us when KOMTRAX flags that we are due for a service call."







## GRADEROLL ATTACHMENTS ADD VERSATILITY TO KOMATSU GRADERS

**Komatsu graders have now been certified for use with Broons' ripper-mounted Graderoll roller attachment, which provides added productivity to graders for gravel road compaction – and are available for sale through Komatsu branches.**

According to Guy Bowden, Broons' Marketing Manager, Graderoll attachments incorporate a sleek, modern design, safe and easy coupling, and minimal daily maintenance requirements.

Designed and manufactured in Australia, a base unit Graderoll costs less than \$40,000 and is available for all Komatsu grader models.

The latest development is a tilt attachment option.

"With the simple flick of a switch, the operator can retract the roller right up out of the way, allowing the road to be ripped without having to unhitch the roller – and all from the comfort of the cabin," said Guy.

"With the road surface ripped, the lowered roller can then compact while the blade spreads the material.

"Only Graderoll with tilt attachment allows this efficiency from a single grader," he said.

Easily and quickly attached to the grader's ripper frame, Graderoll uses a secure coupling system to eliminate any movement, while the heavy duty frame comes with an industry-leading 10-year structural warranty.

"Our new tilt attachment option also offers an improved turning circle on tight rural roads as well as safer highway travel by improving ground clearance," Guy said.

"Wear resistant polymer blocks and bushes are used throughout the Graderoll to eliminate routine daily greasing, leaving the operator free to do more grading and rolling."

Other features include optional solid filled tyres, recovery hitch, LED brake lights and brake-safe pressure release system have been designed to satisfy any work environment or risk assessment requirements.


Back at the yard, integrated "drop down" supporting legs allow the roller to free stand once detached.



One recent customer has been the rural Victorian City of Benalla, which purchased a Graderoll with its recently purchased Komatsu GD555-5 grader.

"Used to great effect in their gravel road maintenance program, the council has found the combination very user-friendly and effective," said Guy.





# AVIASSIST AERIAL SURVEYING

Left: Ken Suzuki – Technology Solution Expert Southern Region, Scott Jamieson – National Remote Support Manager, Ramesh Muruganandan - Mining Dozers National Key Accounts Manager, Aaron Marsh – National Technology Solution Expert Manager, Ralph Goad - Engineering Support, Bart Genson -Compliance Engineer & Chief Pilot

**Komatsu national technology solution expert manager Aaron Marsh said obtaining the remote pilot licences was crucial for the company because it dovetails into Komatsu's SMARTCONSTRUCTION integrated business model, providing a multitude of advantages for the initial site surveying stage and beyond.**

"The main advantage of aerial surveying using unmanned aerial vehicles is that it is fast and accurate and creates efficiencies in subsequent construction stages such as earthmoving," said Aaron. "For example, the 3D drone data can be fed into our Komconnect application to automatically calculate the area and volume of earth to be moved and our customers can access it in real-time. Likewise, our factory-integrated intelligent Machine Control machines operating on the ground can update the as-built ground conditions as they go for accurate cut-and-fill volume reporting. The drone-captured data can also be used for stockpile calculations and ongoing review of construction progress and site logistics. All round, it makes for a much more streamlined and therefore more economical process. What used to take days and weeks can now be completed with negligible manual effort."

The remote pilot certifications were obtained via Newcastle, New South Wales-based specialist training company Aviassist. Aaron said that the Komatsu pilots sat a week-long intensive unmanned aerial vehicle (UAV) course, certified by CASA, the Civil Aviation Safety Authority, which Komatsu required to fly its high-precision drones commercially. With the help of Aviassist and its professional training team, all six pilots successfully completed the course. On course completion, Komatsu applied to CASA for a commercial operator's license and during this time "Aviassist were kind and helpful enough to help us work under their operators' licence until we received our accreditation and have been great with ongoing advice for our company and our chief pilot if we need any guidance or assistance. Now we are fully qualified and ready to fly directly for our customers entirely as Komatsu, under our own business model which includes our own insurances."

Aviassist managing director, Ross Anderson, said he was impressed with Komatsu's in-depth embrace of drone technology for its business offerings. "It's great working alongside industry leaders such as Komatsu integrating drone technology into their day-to-day business. The integration between drone technology and machine control is very powerful," Ross said.

"It is crucially important that drone technology is implemented safely, as industry stands to benefit from safer and more efficient ways to capture information. Komatsu has proven this in their processes and culture"

Komatsu employs Skycatch high-accuracy survey quadcopter drones which create sub-5cm accurate 3D point clouds. He said that while he recommends Komatsu pilots operate the drones, there are also other alternatives for our customers to fly themselves or for their own pilots to use.

"With the SMARTCONSTRUCTION business, this really rounds out our offering providing an end-to-end solution for our customers. Now we can handle everything. We can fly the drones and collect the data and use that data through Komconnect which is part of the SMARTCONSTRUCTION part of the business, or we can hand the data over to the customer. We're conducting flights and doing demonstrations for customers right now so get in touch."

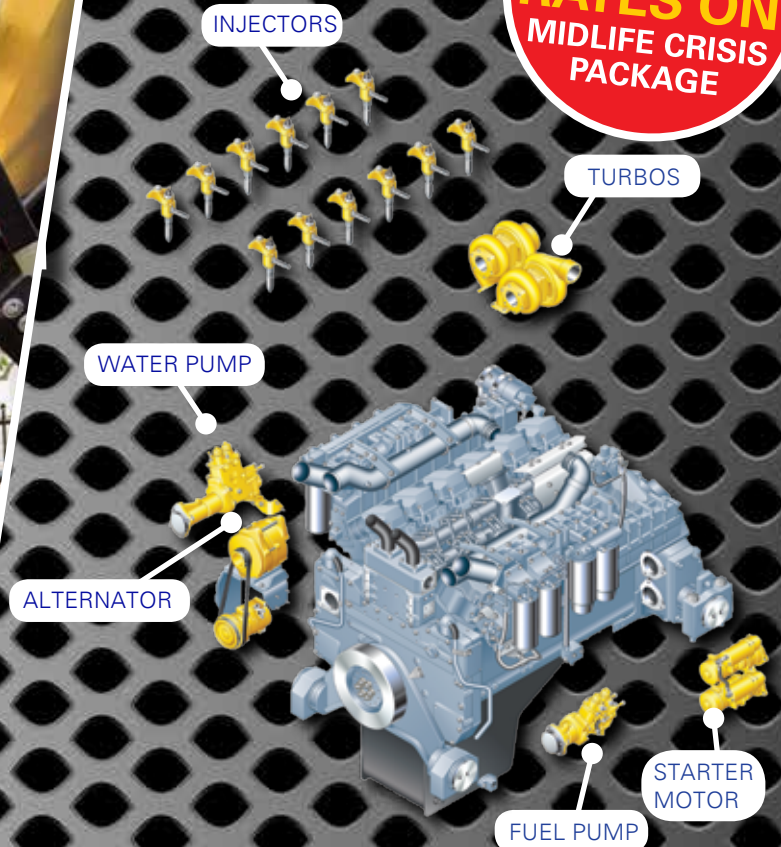


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# WELCOME TO THE NEW KIDS CORNER



**Hi Komatsu fans!**

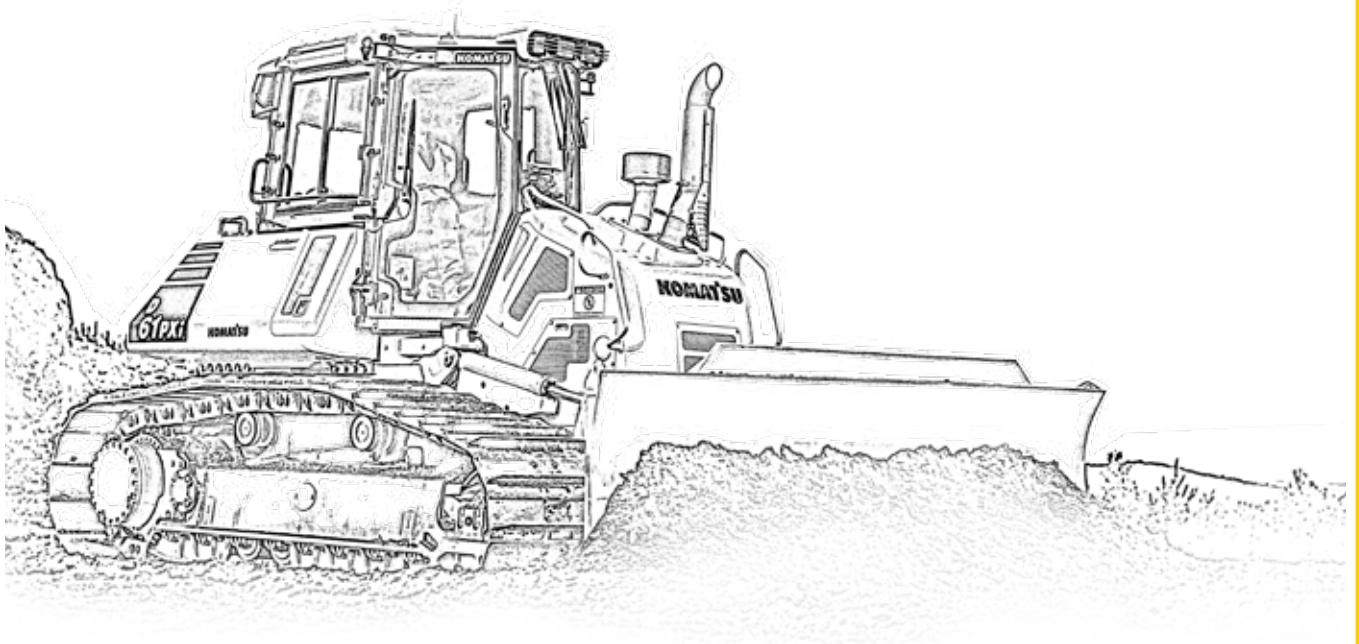
**It's been a while since we've had a Komatsu competition.**



Colour in the Komatsu Machine and tell us what makes it the best machine!

The best 3 drawings will be featured in the next D2E issue later this year. And, that's not all, you will receive a Komatsu Kids Pack that includes the new Komatsu PC210LCi-10 Scale Model, a Komatsu Bucket Hat and a Komatsu Duffle Bag.

Please send your drawing in an A4 page to Marketing Department, Down to Earth, 50-60 Fairfield St, Fairfield N.S.W. 2165. Remember to add your contact information: Full name, age, phone number and address.



Name: \_\_\_\_\_

Age: \_\_\_\_\_ Phone Number: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State \_\_\_\_\_

Country: \_\_\_\_\_ Postal \_\_\_\_\_

*Kids must be 12 or under to participate. Contest closes on Friday 29th of September 2017. Winners will be chosen by Friday 6th of October 2017 and will be contacted directly. This contest applies in Australia, New Zealand and New Caledonia only. Participants may send as many applications as they like but only one prize will be given per winner. The prize will be a Komatsu PC210LCi-10 Scale model, a Komatsu bucket hat and a Komatsu Duffle Bag as shown in the photograph. Komatsu reserves the right to choose the winners of the contest. This is a skill competition, not chance.*



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