

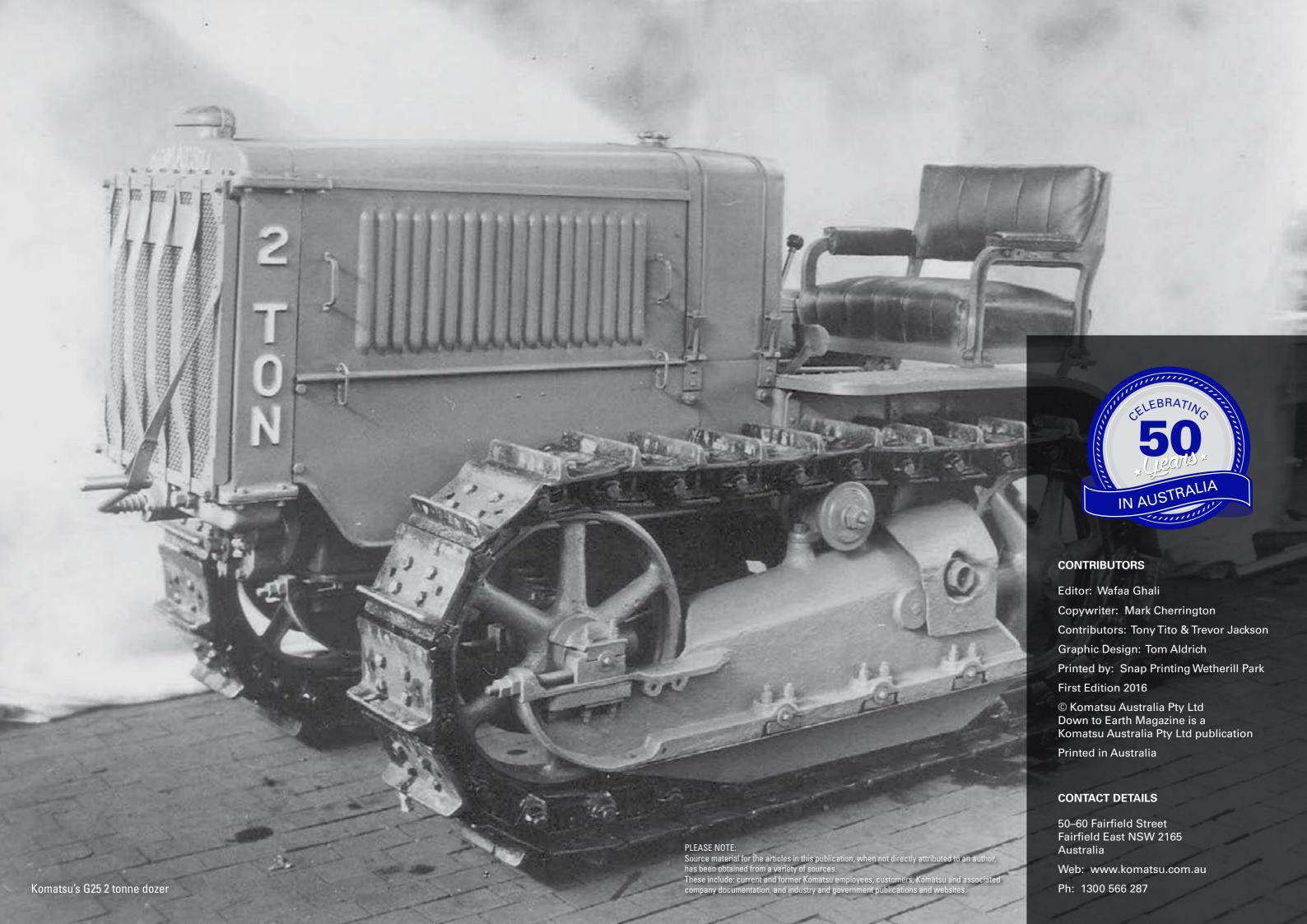
# KOMATSU

1965 - 2015



# KOMATSU

**1965 – 2015** 



### **ACKNOWLEGDEMENTS**

I would like to express my sincere thanks to all who assisted in contributing to this very special edition of Down to Earth, without your support this publication would not have been possible.

I wish to especially acknowledge all the employees who supported this project and especially two very special employees who have been a wealth of knowledge on Komatsu Australia's history – Tony Tito and Trevor Jackson.

Tony Tito is Komatsu Australia's National Contracts Manager, Sales – a role he's held since returning to Komatsu mid 2008 – while Trevor Jackson has been the company's Warranty Claim Administrator for KAC Mining Trucks since 1997.

Both began their careers with Wabco Distribution Australia in the mid-1970s; Tony undertook his apprenticeship at the Villawood facility, while Trevor carried out his apprenticeship at Wabco's Eagle Farm premises in Brisbane (you can read more about Tony and Trevor on page 65).

Needless to say, both men have also played an invaluable role in compiling this 50th anniversary history of Komatsu in Australia.

My sincere appreciation to all our customers who participated in this publication - thank you for your time, your photographs and your support and we look forward to being of service.

I also wish to acknowledge and thank Mark Cherrington, Construction Communications, who has worked tirelessly and diligently in assisting me to complete this book.

Thank you,

Wafaa Ghali

Komatsu Australia



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# **Congratulations from Komatsu Ltd President**

I would like to congratulate Komatsu Australia for its 50 years of successful operations in Australia.

A major part of our success in this market, across Australia, New Zealand and New Caledonia, is the extent to which we understand our customers and the challenges they face.

I believe that if you don't understand your customers and what they want, you have no chance of success in today's markets.

Komatsu Australia has a strong culture of people who strongly care about addressing customers' problems – no matter how challenging or difficult they may be.

That's why we want to continue ensuring that our sales people, our machine service technicians, our spare parts people and our management team all continue to work hard to understand and meet our customers' requirements.

An important factor in us achieving this is through our role as both a manufacturer and a distributor in our Australasian region.

This means we have very strong relationships with our customers — and we see that as being an important factor in giving Komatsu the potential to become the region's dominant supplier of construction, mining and utility equipment in the coming decades.

In addition, because we cover both the mining and construction industries, that gives us higher capacity to successfully meet the service and support needs of both.

Furthermore, through our leading edge technology across both mining and construction — such as our FrontRunner autonomous haulage systems and our new "Smart Construction" concept — we believe we have a very strong future globally.

One thing that is very important to Komatsu is safety. For us, safety is more vital than profits, and we are aware of the impact of serious accidents can have, not only on the individuals concerned but their families and friends, as well as to fellow workers and Komatsu management.

We all know that there are certain sectors having a tough time at the moment, but I have confidence in the mining and construction business in the years to come.

The world population is increasing; in the next 25 years, it will go from 7 billion people to 9 billion people. More and more people are looking for higher living standards, probably in a city or surrounding region. That means they will need housing, schools, hospitals, roads and much more.

In mining, we believe demand for iron ore, thermal coal and coking coal will continue to increase.



Tetsuji (Ted) Ohashi, President & CEO, Komatsu Ltd

All these factors mean that demand for equipment – which eventually wears out and must be replaced – will definitely bounce back.

The next two to three years are likely to be very tough, but when that demand for equipment recovers, our position is likely to be even stronger, because we are always looking at what we can be doing better.

Komatsu Australia has successfully developed innovative ways of directly communicating with our customers, gathering operational data and information about all our machines in the region through our InSite program.

As we continue to develop the understanding of our customers' needs, I believe our future will be bright and we will be prosperous moving into the next 50 years.

Tetsuji Ohashi



# A proud record over 50 years in Australia

As we celebrate 50 years of Komatsu in Australia, we have every reason to be proud of our achievements over the past five decades — and I would like to thank all our people, past and present, for their contributions to our success, and that of our customers.

Komatsu had a modest start in Australia in 1965, when LeTourneau Westinghouse (later to become WABCO) signed a distribution agreement with Komatsu Ltd in Japan, and placed an order for 12 Komatsu dozers — six D60A-3s and six D80A-8s — for delivery to Brisbane, Sydney and Melbourne.

The brand quickly developed a reputation for quality, reliability and productivity, to the extent that in our first seven years in Australia, more than 500 Komatsu dozers and crawler loaders were sold to Australian customers.

From the late 1970s, Komatsu began rapidly expanding its range of construction and mining equipment, adding dump trucks and scrapers to its existing lines of dozers, plus wheel loaders and crawler loaders — which saw a move to a national dealer network in 1980.

By then, in addition to our existing ranges of dozers and loaders, by this time Komatsu had developed its own in-house lines of scrapers, dump trucks, graders and excavators.

In particular, Komatsu saw excavators as being a key construction tool for the global earthmoving business — announcing at the time of launching its Dash 1 range in 1982 that within 15 years it intended to be the world's leading excavator manufacturer.

This was something that we had achieved by the early 1990s, both in technological advances as well as machine sales – internationally and in Australia.

Since then, we have retained our leadership in excavator technology, culminating in our current line of award-winning Hybrid excavators offering fuel savings of up to 40%.

In 1993, Komatsu consolidated its Australian distribution network under a single operation, enabling us to embark on a program of expanding and growing our range of products, services and support infrastructure that still forms the core of our offerings today.

This culminated in the establishment of Komatsu Australia in our present structure in 2001, and the subsequent inclusion of New Zealand and New Caledonia under our regional operations.

Today, we offer award-winning training programs, have three distribution centres in major cities, operate assembly facilities in Sydney, Melbourne, Perth, Brisbane and Mackay and have 41 branches and service agents throughout Australia, New Zealand and New Caledonia



Sean Taylor, Managing Director & CEO, Komatsu Australia

with around 2000 people who are there to support and service our customers.

Our equipment has been at the front and centre of many significant infrastructure developments and mining activities over this period, helping our customers complete large-scale projects that have contributed to the sustainable economic growth of Australia, New Zealand and New Caledonia.

However, all this could not have been achieved without a dedicated team of people throughout our 50-year history in this region, committed to ensuring the strength and prosperity of our customers.

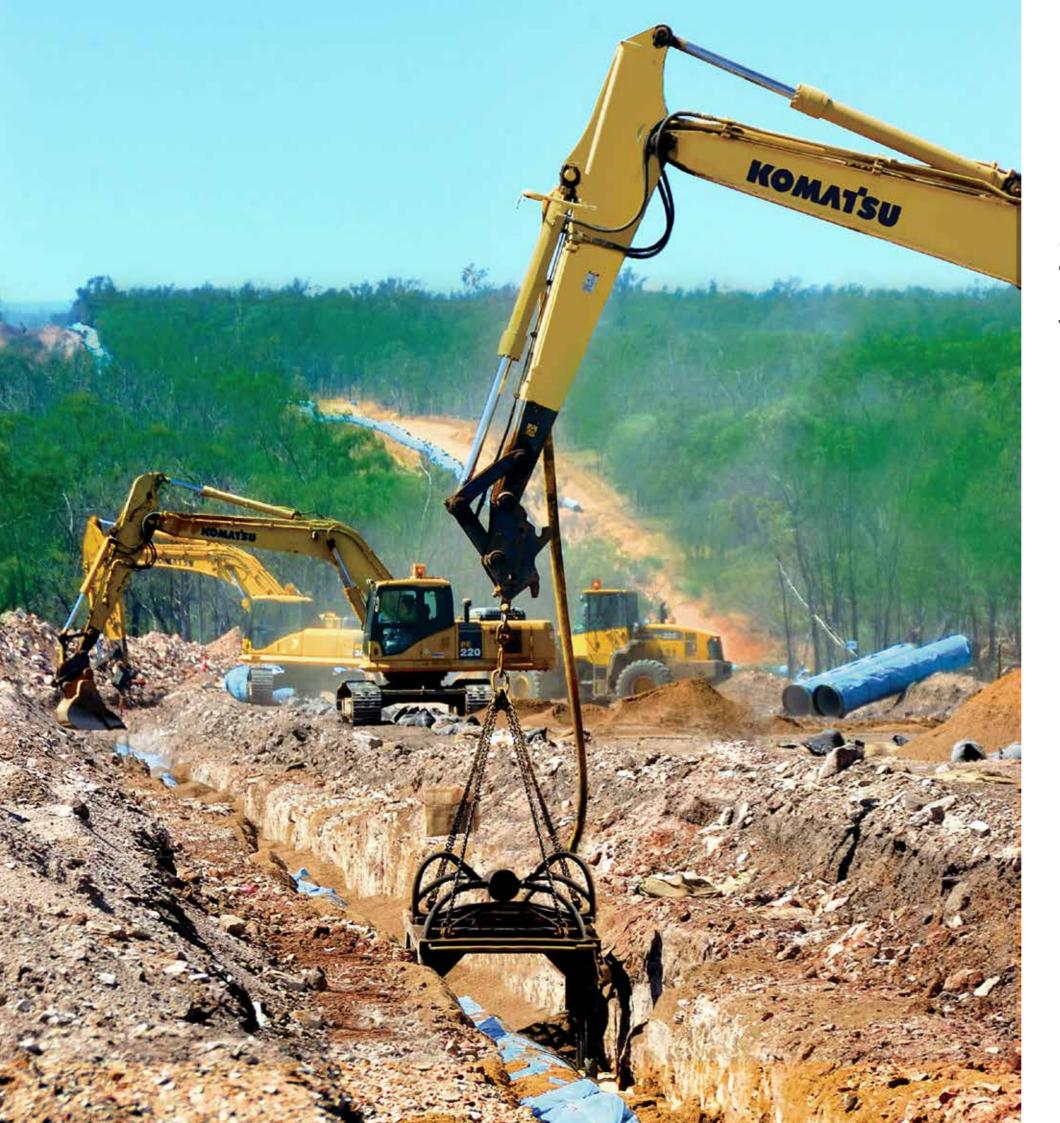
For many years now, we have operated under the motto "Driven by your success", and that is a reflection of our continuing efforts to put our customers at the forefront of everything we do.

We recognise that our customers need reliable and productive equipment, which is backed by industry-leading service and support in order for them to be profitable and for them to succeed. Without our customers we would not be where we are today.

My sincere thanks to all at Komatsu Australia – past and present – who have contributed to our achievements in supplying, servicing and supporting Komatsu equipment over 50 years, and to our many customers who have built and sustained their successful businesses over this period.

I can promise you all that we will continue to develop and build Komatsu Australia's business in this region, so that we become an ever-more indispensable partner for our customers.

Sean Taylor



Section 1: The Journey Begins



D80 Komatsu Dozer at the 1967 handover From left: Bert Stride, Bob McKenzie and Le Tourneau Westinghouse Service Manager, Stan Lynch

# The Journey Begins ...

When we announced in 2014 that Komatsu Australia would be celebrating 50 years in Australia during 2015, we used the photo opposite as part of our promotional campaign; it shows the 1967 handover of a D80 Komatsu dozer with owner Bert Stride (left), his mill manager Bob McKenzie and Le Tourneau Westinghouse service manager Stan Lynch. Imagine our delight to get a call from David Lynch, son of the late Stan Lynch, who put us in touch with Stan's widow Helen. Stan played a key role in Komatsu's introduction to Australia, as Helen told us.

"During the 1960s, Stan headed up Wheel Traction, the service department at LeTourneau Westinghouse.

Stan and Jock West, the company's head salesman, were sent to South Africa in April 1965 to check out the Komatsu equipment that was being sold there – South Africa being one of the first export markets in the world for Komatsu.

The Japanese trading house C. Itoh was very keen for LeTourneau Westinghouse to represent Komatsu in Australia, and helped arrange the trip to South Africa.

As a result of this very successful trip, senior management from LeTourneau Westinghouse went to Japan a couple of months later and signed a distribution agreement with Komatsu Ltd.

They placed an order for 12 Komatsu dozers, which arrived in September that year – and the rest is history."



# Celebrating 50 years of growth, service and innovation

50 years ago, a little-known Japanese construction equipment manufacturer – but with a fast-growing reputation – began selling a range of dozers in the Australian market through a distributor.

Today that company, Komatsu, is a major supplier to the construction, quarrying and mining industries, offering a full range of some of the most innovative, advanced and productive machines on the market.

In Australia, Komatsu products were initially sold through LeTourneau Westinghouse (later to be renamed WABCO), after Jock West and Stan Lynch visited the Komatsu distributor in South Africa in April 1965 to evaluate the performance of the machines there.

As a result of this visit, a distribution agreement signed later in 1965 saw that first order placed for 12 Komatsu dozers.

In their first seven years alone, more than 500 Komatsu dozers and crawler loaders were sold to Australian customers – testament to their quality and reputation for reliability and productivity.

From the late 1970s, Komatsu began rapidly expanding its range of construction and mining equipment, adding dump trucks and scrapers to its existing lines of dozers, wheel loaders and crawler loaders.

This also saw a move to a national dealer network in 1980.

In addition to its existing ranges of dozers and loaders, by this time Komatsu had developed its own in-house lines of scrapers, dump trucks, graders and excavators.

In 1993, Komatsu consolidated its Australian distribution network under a single operation as NS Komatsu, enabling it to embark on a program of expanding and growing the range of products, services and support infrastructure that still forms the core of its offerings today.

Eight years later in 2001, the present Komatsu Australia Pty Ltd company structure was set up, and shortly after expanded its operations to include New Zealand and New Caledonia.

Over the next few pages, we tell the story of Komatsu's growth and development in Australia – and the social, business and historical contexts in which it occurred – in more detail.



# The industry developments behind Komatsu's DNA

Komatsu's development since its establishment in 1921 in many ways mirrors the rise of the earthmoving and heavy equipment industry – and while the company initially responded to trends and developments, today it has a reputation as an industry leader and innovator.

For its first 40 years, Komatsu almost exclusively focused on dozer manufacture and development.

During the 1930s, the company steadily developed its expertise in the manufacture of earthmoving equipment – producing a line of diesel and gasoline powered dozers known as the G40/T40 range for the Japanese Army.

The true industry "workhorse" from the 1920s into the 1960s, for many the bulldozer was the face of the earthmoving industry.

Komatsu's push into full-scale earthmoving production occurred following the war – primarily focussing on the dozer market, with the company selling significant numbers throughout Asia.

Those were still the days when Japan was best known for manufacturing poor quality, cheap earthmoving products – and Komatsu set out to break this image.

It set its sights squarely on developing a quality, reliable bulldozer range, capable of competing with American designed and manufactured machines, developing a reputation for rugged, productive and durable dozers — the only Japanese manufacturer to manage this.

It was during the 1960s that Komatsu committed itself to a strategy of designing and manufacturing high-quality, high-durability equipment to allow it to compete effectively with US and European-sourced machines.

This move towards developing high quality equipment paid off when the company won Japan's prestigious Deming Prize for quality twice – the only manufacturer ever to have done so.

As a result, its dozers were earning respect as high quality, durable, reliable machines.

During the 1940s and 1950s, demand for added versatility and productivity also saw Komatsu and other manufacturers move into crawler loaders, through the combining of dozer-type frames and chassis with loader buckets and arms.

Also during these decades, and into the 1960s, driven by the massive post-war highways program in the United States, scrapers became the machine of choice for moving vast amounts of dirt and material.

From the late 1960s, Komatsu began to develop as a full-line earthmoving equipment manufacturer, adding scrapers and wheel loaders to its line up, then expanding and accelerating this program in the 1970s and 1980s.

By the late 1960s and early 1970s, scrapers were becoming increasingly large and complex — but their lack of versatility and high fuel consumption meant that when the mid-1970 fuel price crisis hit, the industry began looking for alternatives.

Advances in hydraulic technology meant that hydraulic excavators, which had been on the scene since the early 1960s, were able to offer a versatile and flexible alternative for a wide range of earthmoving applications, from housing developments up to large infrastructure projects.

Excavators, combined with dump trucks and tippers, offered the industry a way to move massive amounts of earth and materials quickly, effectively and cheaply – and in far more difficult conditions than scrapers were able to handle.



# The industry developments behind Komatsu's DNA cont'd

Having identified that hydraulic excavators would become a major seller in the global construction equipment market, Komatsu management set out about arranging an agreement with an established manufacturer of excavators.

In June 1963, it entered into an excavator technology license tie-up with US-based Bucyrus-Erie.

One of the first machines released under this agreement was the Komatsu-Bucyrus 22B, released in 1964. This agreement continued throughout the 1960s and 1970s.

The Komatsu-Bucyrus KB15-H, released in 1972, was typical of 1970s-era K-B excavators, with an obvious cable lever-controlled power-shovel lineage, especially in its undercarriage and final drives.

Throughout the 1970s, the Komatsu-Bucyrus excavator range evolved into a fully hydraulic controlled range.

However, with the cessation of the two companies' co-operative arrangement in March 1981, Komatsu was able to transform its product line into the wholly Japanese designed and built PC Dash 1 range of hydraulic excavators – and marking its arrival on as a serious contender in supplying a full line of earthmoving equipment.

These machines quickly established a reputation as economical, productive excavators, both in Australia and around the world.

A few years later, Komatsu announced its intention of becoming the world's number one supplier of excavators – something it achieved during the 1990s when it outsold all other brands worldwide.

This performance was echoed in Australia, where Komatsu sold more than 2000 excavators to Australian contractors, plant hirers, forestry contractors, quarries and miners during that decade.

Komatsu's success in the excavator market was in large part due to the innovative HydrauMind hydraulic systems introduced on its Dash-6 line of machines in the early 1990s.

Its closed-centre hydraulic system set new standards of simplicity, reliability, economy and performance in excavators.

Komatsu's commitment to innovation did not stop with excavators.

Over recent decades, it has set new standards in ultra-class mining equipment, including the release of the D575A-3, at 130 tonnes the world's largest dozer, the WA1200-3, the largest wheel loader on the market, and the 930E, the world's largest dump truck.

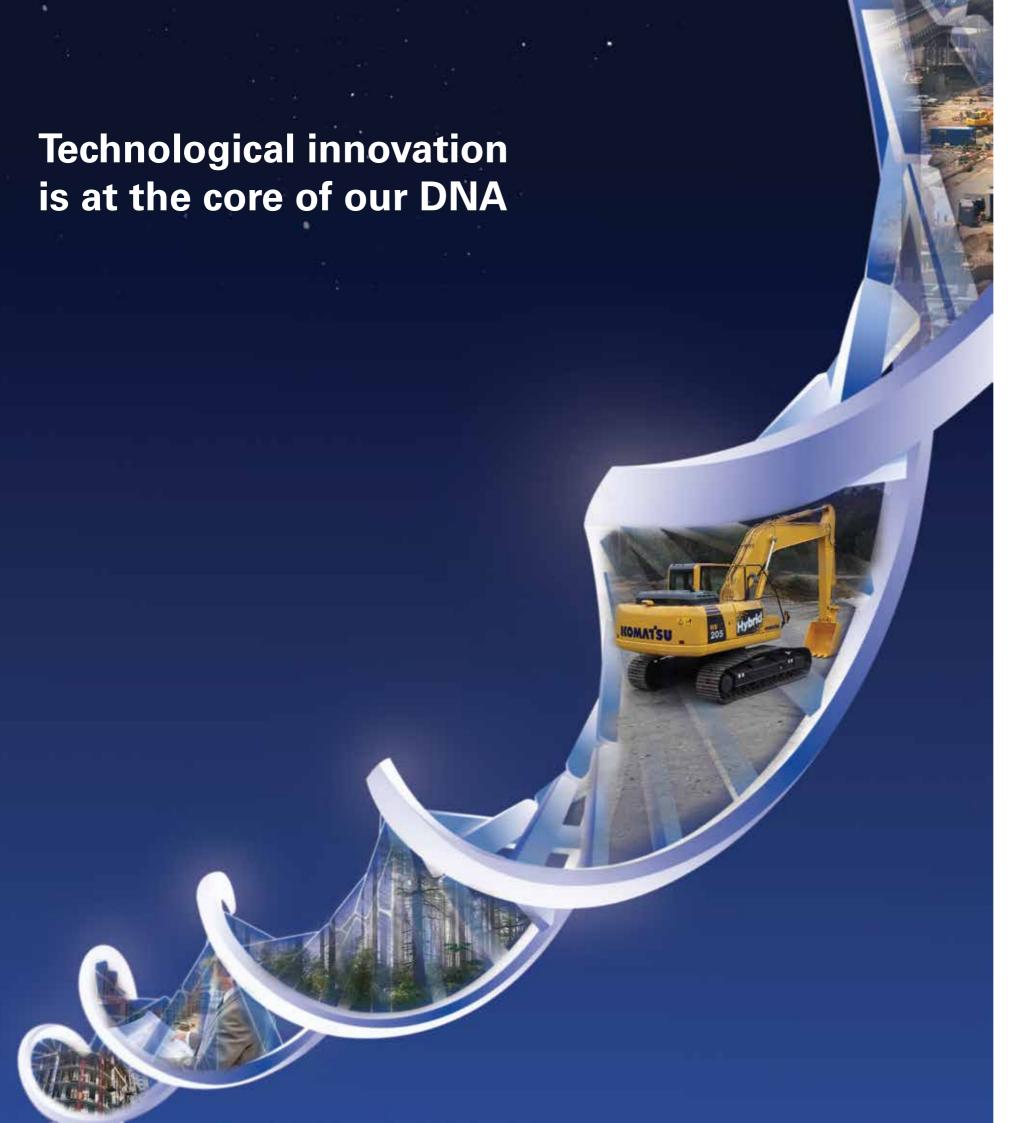
These products have not only set standards in size and productivity, but have also delivered in terms of reliability and durability – with high levels of availability recorded on mines and construction sites around the world.

As well as growing organically, Komatsu also went on the acquisition trail to develop its business.

A mid-1980s joint venture with Dresser in the US eventually saw Dresser Industries exit the construction and mining business, leaving it to Komatsu.

Legacies of the Dresser products include the current Komatsu truck range, including the 290-tonne capacity 930E.

Its purchase of the mining equipment manufacturing operations of Germany's Demag in the late 1990s resulted in Komatsu having a full line of hydraulic mining shovels, including the PC8000, again the world's largest, at the time.



# The industry developments behind Komatsu's DNA cont'd

At the smaller end of the scale, during the 1990s, Komatsu gradually increased its holdings in the Italian-based FAI – ultimately taking the company over.

That purchase brought it into the backhoe and skidsteer loader market – and allowed Komatsu to introduce its innovative and highly productive excavator technology to the backhoe market with the release in 1999 of the WB backhoe series.

As Komatsu Ltd approaches its centenary (in 2021), its commitment to innovative but productive, cost-effective and reliable equipment remains as strong as ever.

In the mining sector, it is an industry pioneer with its FrontRunner™ autonomous hauler concept, with successful fleets running in north-western Australia.

In construction, it is now on its second generation of Hybrid excavators which are delivering industry-leading levels of fuel savings, while its recently released "intelligent" dozer range brings new levels of productivity and machine control to the original industry workhorse.

And across the industries it serves, Komatsu now leads the way with integrating ICT (information communications technology) into the construction and mining industries — and helping achieve its aim of lowering machine operating costs, pro-actively managing machine health and delivering higher productivity.

As the company moves into its next 50 years in Australia/New Zealand (and approaches its global centenary) Komatsu is certainly not resting on its laurels, with a full pipeline of products, developments and innovations which will maintain its leadership role across its industry sectors.



## The age of the baby-boomers

With the end of the war in 1945, Australia was relatively undeveloped, and many changes began — many of which still influence our economy and society today. Australian servicemen and women returned and family life resumed after an interruption of almost six years of wartime conflict.

Nine months later saw the start of a population era known as the "Baby Boom" as birth rates soared; more than four million Australians were born from 1946 to 1961.

Also in 1945 in Australia, there was a desperate shortage of skilled labour and a growing belief that substantial population growth was essential for the country's future.

Therefore, a large-scale program of migration to Australia began at this time, with millions of people throughout Europe displaced by the war and its aftermath.

By 1950, almost 200,000 new migrants had arrived – a figure that now totals more than seven million.

The demands for housing, electricity, food, clothing, industry growth, road and rail infrastructure was related to this rapid population growth.

This growth was also directly linked to the requirements of commodities such as beef, mutton, wheat, wool, cotton, timber, coal, iron ore, copper, bauxite, oil and additional major infrastructure.

This included major projects such as the Snowy Mountains Hydro scheme that ran from 1949 to 1974, the Ord River project that commenced 1960, along with numerous power stations and other essential infrastructure developments.

Combined, the Baby Boomers and large-scale migration to Australia generated massive domestic growth for Australia. That, along with international commodity requirements to rebuild war-torn England, Europe and Japan were vitally important in shaping our nation during the 1940s, 1950s and even into the 1960s.

Soaring energy prices in the late 1960s produced something of a boom in coal sales and the exploitation of oil. Concurrent with this energy boom was a new minerals boom – in iron ore and bauxite.

Japan's rapidly expanding economy, combined with high commodity prices, gave Australia a much-needed boost.

Investment in new mines ballooned as the proximity of Japan gave Australia a significant advantage over other major producers of that time.

In the early 1970s Australia's mining boom faded – but not for long: a new one emerged in the later part of the decade, with coal and gas discoveries made at a time when the world was reeling from an oil supply crisis, and a corresponding explosion in prices.

These combined to drive rapid growth in the industry.

As had occurred 10 years earlier, in the early 1980s, a global economic downturn resulted in reduced world demand for Australia's minerals, causing a drastic drop in mineral prices and a sudden decline in our mining industry.

By 1981, the "resources boom" growth bubble had burst with a global economic downturn cutting heavily into demand for our mining commodities such as coal, iron ore and bauxite.

This in turn impacted on our other industry sectors and significantly slowed national growth.

Gradually over the few years, the economy improved and the industry began to grow again.

Rydalmere 1953 – Model C scrapers road delivered under their own power



Rydalmere - First machine deliveries for the massive Snowy Mountain Scheme

### The age of the baby-boomers cont'd

Australia had developed a worldwide reputation as a reliable, safe source of vast quantities of high-grade mining commodities, along with modern rail and transport facilities, and deep port infrastructures.

However, just a few years later the 1987 stockmarket crash, brought on by excessive levels of debt and some major corporations unable to cope when interest rates rose – to as high as 17%.

This ultimately resulted in the early 1990s "recession we had to have", the worst recession in Australia since the Great Depression.

It saw a number of major companies fail, along with collapses in private and state-owned financial institutions caught out when their borrowers were unable to repay loans totalling billions of dollars.

However, as its effects subsided, it ushered in what has been an unprecedented era of continuous growth for Australia – with important benefits being much lower interest rates and a lasting reduction in inflation, both of which continue to this day.

The rest of the 1990s saw some major infrastructure projects rolled out – including the confidence-inspiring highly successful Sydney Olympics, along with major road, rail and residential developments throughout Australia.

Entering the new century, Australia was probably the world's beneficiary of what has become known as the "commodities super cycle", with a resource-hungry China driving what for a time appeared to be never-ending demand for our coal, iron ore and other resources products.

This resulted in unprecedented investment in mining and resources infrastructure – along with equipment and support services – with Australians being in the fortunate position of being barely affected by the 2008-09 global financial crisis.

However, by 2014, the super cycle was clearly ending, with a host of factors impacting on global resources prices and the Australian economy.

At the same time, it has to be remembered that the enormous investments in mine infrastructure and production systems – including autonomous systems such as Komatsu's FrontRunner<sup>TM</sup> driverless trucks – means that Australia is among the world's lowest-cost suppliers of key resources – and likely to be in that position for many years to come.

As of 2015, the mining industry has firmly switched from "investment mode" to "production mode" with a strong focus on keeping costs as low as possible, and getting the last possible efficient operating hour from every piece of equipment.

But just as mining has tailed off, the construction sector is rapidly picking up, with some major infrastructure projects about to get off the ground. Again, Sydney is leading the way, with a highly ambitious program of major road and rail links just getting underway.

And those baby boomers? They are still here, but many are well into retirement, while others stubbornly refuse to stop working. Birth rates among those who are now their grandchildren – or the children and grandchildren of migrants over this same period are on the rise.

Immigration also continues to contribute to the nation's future. Since 1945, more than 7.5 million people have settled here, and as of June 2013, 27.7% of the country's population is overseas born.

In recent years, Australia has welcomed around 190,000 migrants a year — boosted in 2015-2016 with an undertaking to accept 12,000 refugees fleeing the Syrian civil war.

That's a lot of people coming to this country every year, and looking for homes, work, education, transport, and a whole host of other services. And that translates into ongoing demand for investment infrastructure and our future by suppliers such as Komatsu.



Section 2: Komatsu's Growth from 60s to 90s



# **WABCO Komatsu's forerunner in Australia**

Any history of Komatsu has to include WABCO – the company which first introduced the Komatsu brand in Australia, and who's DNA remains deeply embedded in our DNA today, particularly our mining equipment.

The history of WABCO (Westinghouse Air Brake Company) in Australia spans 41 years, starting with the formation of LeTourneau (Australia) Pty Ltd in July 1941, established as a subsidiary of R G LeTourneau Inc of Peoria, Illinois, USA.

(And it is interesting to note that the current location of Komatsu PMO (Peoria Manufacturing Operation) where Komatsu electric drive trucks are manufactured today is on the original site of R G LeTourneau Inc.)

LeTourneau Australia began manufacturing operations at 107 Euston Road, Alexandria, NSW in July 1941 and on September 3, 1941 received its first official order.

It had been in business just two weeks when the company was thrust directly into full war production, becoming a key supplier of earthmoving equipment to the Allies in the Pacific theatre for the duration of World War II.

The equipment lines manufactured by LeTourneau Westinghouse/WABCO contributed greatly to the development of post-war Australia and the company subsequently became the largest manufacturer of earthmoving equipment in the country.

In July 1961, LeTourneau Westinghouse Sales and Service was established in Australia to distribute and service the equipment built by the manufacturing company, under the management of Jock West.

It did not take long for Jock and his management team to realise they needed to expand on the equipment they offered customers.

They decided to look at obtaining the distribution rights in Australia for a range of crawler tractors.

At that time, the crawler tractor market in Australia was very competitive, with most of the machines available either of US or British manufacture, and with established distribution networks.

There were very few Japanese-manufactured crawler tractors in the country, and there was no distributor in the country for these machines.

It was decided the best Japanese crawler tractor available was from a company called Komatsu.

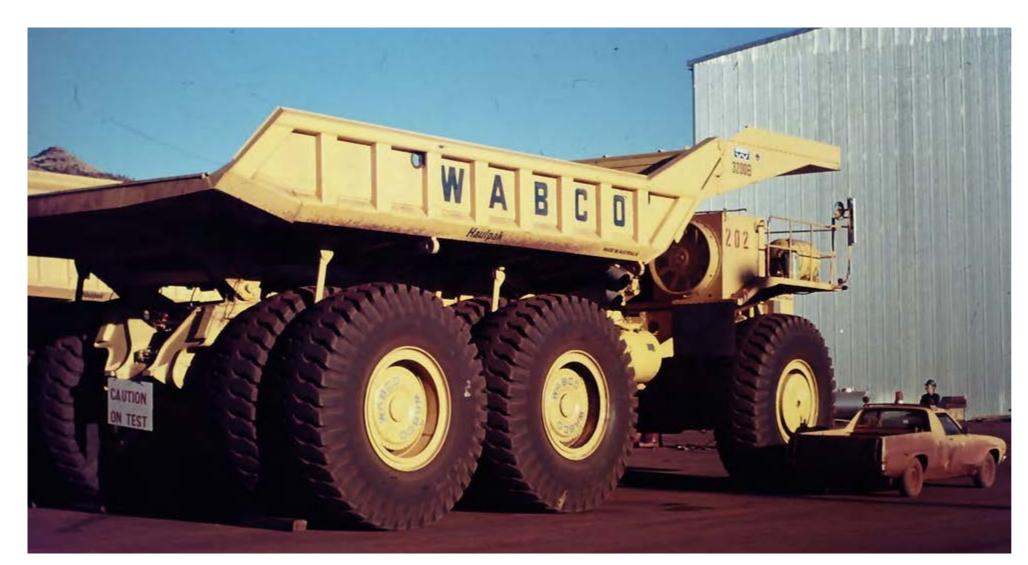
As related earlier in this publication, Jock West and Stan Lynch made arrangements to visit the Komatsu distributor in South Africa to get first-hand information and evaluate the performance of the Komatsu machines there.

As a result, in 1965, Komatsu Ltd and LeTourneau Westinghouse Pty Ltd signed a distribution agreement and the first order was placed for 12 Komatsu tractors – six D60A-3's and six D80A-8's – for delivery to Brisbane, Sydney and Melbourne.

Komatsu's new Japanese bulldozers and crawler loaders quickly established a reputation in Australia for their quality and reliability – equivalent if not better than anything else on the market – achieving significant sales levels within a very short time.

As Australia's economy developed and matured – particularly in the growth of our mining and resources sector – changes were also taking place within LeTourneau-Westinghouse.

On June 7, 1968, its parent company WABCO was acquired by American Standard, Inc., and the various LeTourneau-Westinghouse subsidiary companies around the



WABCO Haulpak 3200B, 1976







# WABCO Komatsu's forerunner in Australia cont'd

world placed under the control of the Industrial and Construction Products Division of American Standard, Inc. and renamed WABCO.

The Australian manufacturing entity at Rydalmere was known as WABCO Australia Pty Ltd, while its sales and service distribution network was known as WABCO Distribution Australia Pty Ltd, and located at Villawood – just a few blocks from Komatsu Australia's head office in Fairfield today.

It's worth noting that from 1960 to 1980, WABCO contributed greatly to Australia's development, particularly its mining industry.

LeTourneau Westinghouse/WABCO manufactured and delivered 875 Haulpakbranded haul units — more than 90% of the off-road haulers delivered in Australia during this 20-year period.

And from 1965 to 1972 alone, the company's sales registers indicate total Komatsu machines sales of 517 machines in just seven years, being 5 x D355A's, 14 x D155A's, 20 x D125A's, 2 x D120A's, 96 x D85A's, 54 x D80A's, 20 x D65A's, 142 x D60A's, 16 x D60P's, 49 x D50A's, 3 x D50P's, 63 x D55S's, and 33 x D75S's.

On August 1, 1980 the Komatsu distribution agreement between Komatsu Ltd and Wabco Distribution Australia Pty Limited was terminated, setting up a new era for Komatsu in Australia with the appointment of distributors for its entire range.

Amid the global economic turmoil of the early 1980s, WABCO became a victim of economic circumstances which eventually led to the closure of WABCO Australia's Rydalmere plant on December 13, 1982 – ending the era of Australia's largest heavy equipment manufacturer.

However, the relationship between Komatsu and Haulpak dump trucks was not over. In 1984, Haulpak became part of Dresser Industries – which a few years later entered into a joint venture with Komatsu Ltd. Then by 1994, Komatsu Ltd had purchased all Dresser's shares in the JV, and took on full ownership of Haulpak.

And today, the Haulpak brand, quality and reputation remains embedded in Komatsu's "DNA" – the 730E, 830E (the world's best selling electric-drive 221 tonne class truck), 860E, 930E and 960E all have their origins as Haulpak-branded trucks.

WABCO advertisments, 1960s

Completion of the first 3 Australian-built Model LW-65 Haulpaks at Rydalmere, 1965



Building the WABCO Model 170 Haulpak, 1978



Australian-built Model 75 Haulpak, 1968



WABCO Haulpak 3200B's, 1980

# Haulpak foundation to ultra-class mining trucks

Introduced in 1971, the 235 US ton (213 tonne) electric-drive WABCO's Haulpak 3200 was a quantum leap in development from the 120 US ton payload class haulage units previously considered the ultra-class trucks of that era.

Despite its unorthodox three-axle configuration and GE EMD diesel-electric locomotive style engine and drive system, the 3200 proved to be a rugged and reliable truck.

A total of 34 Haulpak 3200's (both 3200A's and 3200B's) were manufactured, before improvements in tyre and off-highway engine technology heralded the introduction of more conventional two-axle 170 US ton (154 tonne) payload class trucks in the 1980s.

Of these 34 Haulpak 3200's manufactured, 22 trucks were delivered to the Pilbara during the 1970s, seeing service in a number of mines.

Twelve were built at WABCO's Peoria Illinois factory, being shipped directly to Mt Newman, while 10 were built at WABCO's Rydalmere NSW factory.

Five of the Australian-built trucks were 3200A's and five were 3200B variants, which were then road freighted from NSW to the Pilbara – a distance of nearly 5000 km.

Some years after their delivery, in 1980, five 3200B trucks originally delivered to Hamersley Iron's Mt Tom Price mine, made another journey, this time under their own steam.

The five 3200B's at Mt Tom Price were sold to Mt Newman Mining's Mt Whaleback Mine, located 6 km west of the township of Newman.

They were then driven cross-country under their own power to their new location — a distance of 250 km as the crow flies, although the overland trek was longer due to the trucks having to detour around Karijini National Park.

On their way, the trucks were supported by a mining grader and wheel loader for road forming.

Although the trucks had a maximum speed of 40 km/h, the trip reportedly took 72 hours to complete, requiring the convoy to camp several times along the way.

This fleet of 3200B's remained in production at Mount Whaleback for another 12 years until 1992, having a total operating life of 16 years.

The 235 US ton (213 tonne) payload of the WABCO 3200 series trucks used in the Pilbara makes them roughly equivalent to Komatsu's current model 830E-1AC, which has a payload of 243 US tons (221 tonnes). ■



## The Komatsu dealership years: 1978–1993

As Komatsu Ltd developed its range of construction and mining equipment – including dump trucks and scrapers – during the late 1960s and 1970s, it was keen to introduce these new products to the fast-developing Australian market with its strong resources sector.

However, with then-distributor WABCO offering its own Australian-manufactured lines of dump trucks and scrapers, there was a fundamental conflict between the two companies.

As a result, Komatsu decided to set up a network of distributors across Australia to handle its new lines, so in early 1978, it appointed ANI Corporation (NSW and Queensland) and Mitchell Cotts Engineering (Western Australia) as distributors of Komatsu dump trucks and scrapers.

Interestingly, the then-ANI Sargeants facilities at Fairfield in Sydney and Sherwood in Brisbane remain Komatsu facilities to this day. Fairfield as its regional headquarters, and Sherwood for its Australian used and rental equipment and training facility.

The following year, on July 6, 1979, Komatsu Ltd established Komatsu Australia Pty Ltd (KAP) as its importer/wholesaler, based in premises in Botany.

A year later, in August 1980, Komatsu Australia discontinued its distributor agreement with WABCO Distribution, appointing the following dealer network to handle its entire range of construction and mining equipment:

- » ANI Komatsu: NSW and Queensland
- » Forcepower: Victoria, South Australia and Northern Territory
- » MC Komatsu: Western Australia
- » Associated Machinery Services (taken over by Forcepower in July 1982): Tasmania.

During the 1980s, Australian businesses embarked on a flurry of acquisitions, mergers and takeovers, and Komatsu's dealer holding companies were among those affected.

In August 1987, Hawker Noyes Pty Ltd acquired MC Komatsu parent company Mitchell Cotts Australia, to become Komatsu's distributor in Western Australia (retaining the name MC Komatsu). A few months later, in April 1988, the Northern Territory was added to MC Komatsu's distribution territory.

Later that year, in October 1988, ANI Corporation acquired the assets of Forcepower, expanding ANI Komatsu's distribution territory from NSW and Queensland to include Victoria, South Australia and Tasmania.

Three years later, in October 1991, NS Komatsu Pty Ltd was established as a joint venture between Nippon Steel Trading Co Ltd and Komatsu Ltd.

It then acquired all the assets and employees of ANI Komatsu to become the Komatsu distributor in Queensland, NSW, Victoria, South Australia and Tasmania.

Just over a year later, on January 1, 1993, NS Komatsu acquired the assets and employees of WA/NT distributor MC Komatsu, forming a single national Komatsu distributor for the first time since the WABCO years — a situation that remains to this day.



Komatsu S.E. QLD field service fleet 1990's



Tarong HD785-3 autonomous truck pilot project, 1996

# NS Komatsu 1993–2001: Building a national operation

As the single national distributor for Komatsu in Australia, NS Komatsu embarked on a program of expanding and growing the range of products, services and support infrastructure that still forms the core of Komatsu Australia today.

In March 1993, NS Komatsu acquired the assets and employees of Komatsu Australia Pty Ltd (KAP), the-then Komatsu Ltd Australian based importer wholesaler, taking on responsibility for both importation and wholesaling.

As a result of NS Komatsu's acquisition of MC Komatsu as part of the move to a single national organisation in 1993, the company took over Hawker Noyes' distributorship of Haulpak dump trucks and Dresser products to become their national distributor.

In February 1995, it moved into the equipment finance business with the establishment of NS Komatsu Corporate Finance to assist customers – particularly in the mining sector – to finance large equipment purchases and lease options.

As the population of Komatsu equipment in Australia expanded, the company opened an east coast REMAN centre at Acacia Ridge, Brisbane in September 1998, followed by the Perth REMAN centre in April 1999.

In line with the industry transition from scrapers to using the more flexible and economical excavator/articulated dump truck combination, in April 1996, NS Komatsu began distributing articulated dump trucks manufactured by Moxy (under a joint venture between Komatsu and Moxy from 1991 to 2000).

These were sold under the Komatsu-Moxy brand name to pair with Komatsu's excavator range.

August 1996 saw a significant expansion into the mining industry, when NS Komatsu was appointed distributor for Demag Komatsu hydraulic mining shovels.

In June 1999, NS Komatsu further developed its aftermarket services when it entered into a number of key distribution arrangements with:

- » Fleetguard Nelson, for the complete range of Fleetguard filtration
- » Hensley and KVX ground engaging tools.

Then in August 2000, it rolled out its in-house KOWA (Komatsu Oil Wear Analysis) service, which was later incorporated within Komatsu Australia's CMS (Condition Monitoring Service) offering, providing a fully integrated equipment monitoring and testing service.

Another significant development took place in April 2001, when NS Komatsu expanded into New Zealand, taking over the operations of the previous national distributor Motor Holding Machinery— and bringing the benefits of a single importing, distribution, sales and support organisation to the whole of Australasia.

In June 2001, Komatsu Ltd purchased Nippon Steel Trading Co Ltd's shares in NS Komatsu, and entered into a joint venture with Mitsui, to form Komatsu Australia Pty Ltd, (KAL) — and establishing the next phase in the path that has made us the organisation we are today.



# **Section 3: The Twenty First Century**



Komatsu Australia's Wacol Branch, Brisbane



KTECH training facility at Komatsu Australia's Sherwood Branch, Brisbane

### Komatsu Australia: The current era

Komatsu's current era in Australia began in July 2001, when Komatsu Ltd purchased Nippon Steel's shares in NS Komatsu, then formed a joint venture with Mitsui & Co to create Komatsu Australia – the company name and structure that continues today, and is responsible for supplying and supporting customers across Australia, New Zealand and New Caledonia.

Coinciding with the "commodities super cycle" of the next 12 years, this new structure was the catalyst for massive growth in Komatsu's service and support capabilities across the region, and an ever-increasing focus on meeting customer needs.

A short time before the establishment of Komatsu Australia, Komatsu's distribution operations in New Zealand were included in a broader Australasia-wide region for the first time ever.

Then in 2002, Komatsu Australia was appointed distributor for Komatsu products in New Caledonia, setting the scene for significant growth in this important nickel mining country.

That same year, Komatsu Australia began what has become a very successful long-term (that continues today) relationship with the Beacon Foundation, which works with business and community organisations to keep young people off welfare and assist them towards meaningful work and study.

Komatsu Australia also recognised that to secure its long-term future, it was essential to invest in training and developing its people in their chosen careers in the mining and construction industry.

A key element of this at trade level has been its Apprentice Development System (ADS) which was launched in 2010 following a successful trial in 2009. Since this launch, nearly 300 apprentices and trainees have participated in this system.

As the new millennium's commodities super cycle gathered steam, Komatsu was well positioned as a primary supplier to Australia's resources companies, beginning on a path of selling record numbers of mining trucks, shovels, loaders and other mining equipment across the country.

In 2008, in partnership with Rio Tinto, it began initial trials with its groundbreaking FrontRunner<sup>TM</sup> autonomous haul truck system in the Pilbara, as part of Rio's Mine of the Future<sup>TM</sup> program.

These trials were so successful, that in 2011 Rio Tinto put in an order for a total fleet of at least 150 Komatsu 930E autonomous trucks to operate across its Pilbara mines.

To support its fast-growing customer throughout Australia, particularly in resources areas, from 2012, Komatsu Australia began a major expansion program across its Queensland, NSW and Western Australian operations.

New facilities developed under this expansion program – the largest in the company's history – include:

- » Flagship assembly and repair facility in Wacol, Brisbane (opened in 2012), incorporating Komatsu Australia's Queensland head office, its national mining headquarters, East Coast Reman operation, oil analysis labs, plus mining, construction and utility assembly operations, as well as parts and service operations
- New KTEC (Komatsu Technical Education Centre) facility in Brisbane (opened early 2013), one of the most advanced technical training facilities for mining, earthmoving and utility equipment in the region.

# IOMAI'S U

Welshpool Distribution Centre, Perth

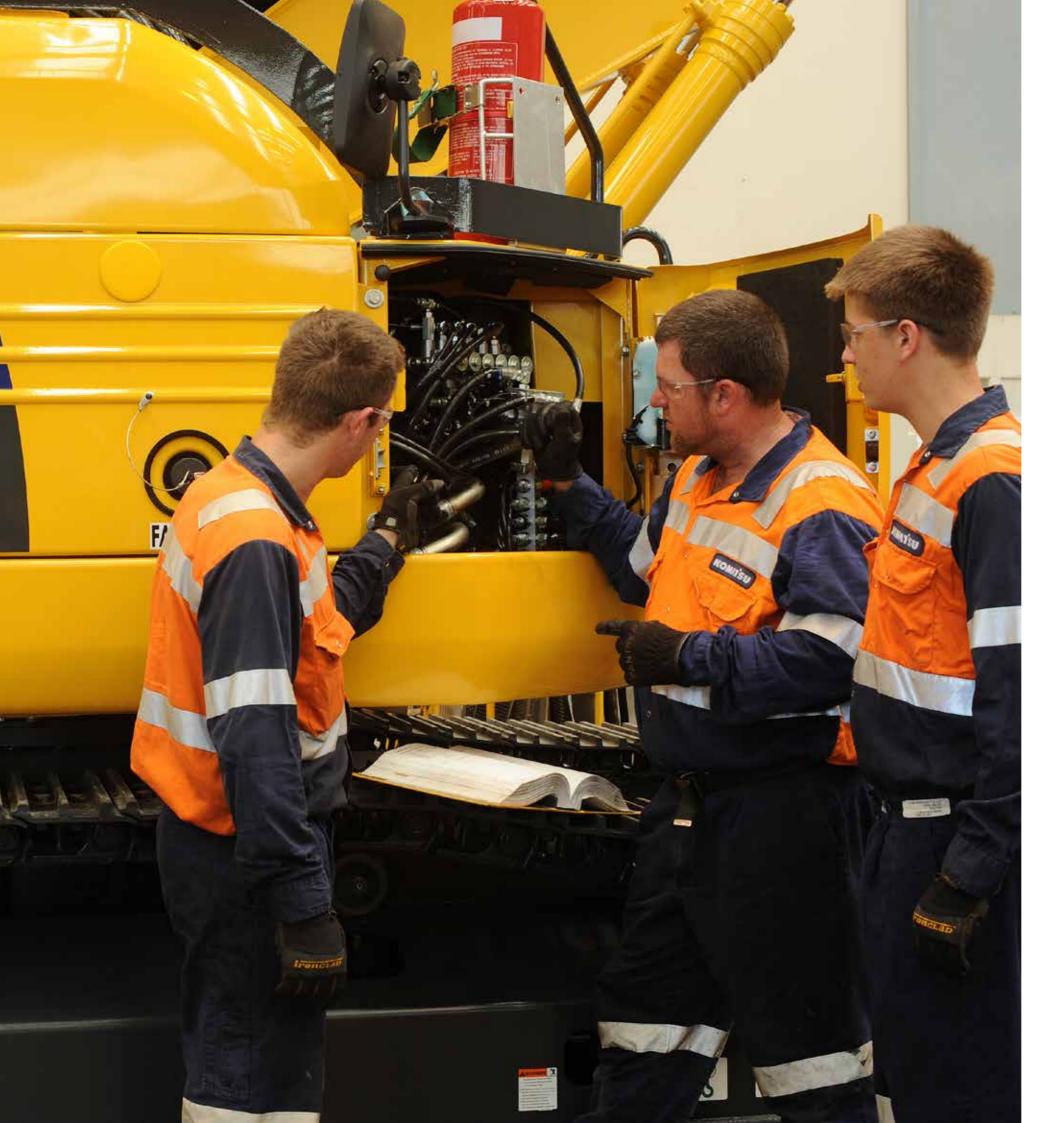


Komatsu Australia's National iNSITE Centre, Headquarters in Sydney

### Komatsu Australia: The current era cont'd

- Expansion of its Mackay Mining Assembly facilities (opened in mid-2013), which has increased mining assembly capacity by 75%, and now facilitates assembly of Komatsu's largest truck, the 960E, which has a 330 tonne haulage capacity
- Expansion of its Perth Mining assembly facility (opened in 2013), increasing mining assembly capacity by 30% and doubling paint shop capacity. This site has also been developed to support the rollout of the world's largest Autonomous Haulage Fleet, being deployed in the Pilbara
- » Greenfields development of a new Mackay Customer Support Branch (opened January 2014), including mining spec service bays, a doubling of warehouse capacity and a new track shop
- » A new world-class Parts Distribution Centre in Perth with an area of 16,000 sq m (opened late 2014); this project includes the purchase 47,000 sq m of land adjoining the existing Perth site, and takes Komatsu's total site area in Perth to 127,000 sq m
- » A new service and rebuild centre in Port Hedland (opened late 2014), to service North Western Australia's iron ore mining industry, and including two high-bay mining spec workshops capable of handling rebuilds of ultra-class mining equipment
- A new Fairfield National Head office (opened late 2014) at Komatsu Australia's existing Fairfield Assembly & Warehouse site; this project includes over 6400 sq m of office space and incorporates its iNSITE Fleet Management Centre.

Despite the downturn in the mining industry over the past couple of years, Komatsu Australia very much sees this expansion program as being an investment in its long-term future in the region, setting it up to become the dominant supplier in years to come through this single-minded focus on customer service and support.



# Komatsu's ADS highlights long-term commitment to industry-leading training

Throughout its history, Komatsu Australia and its predecessor organisations have been committed to offering industry-leading training and support to its employees, and in turn delivering the highest standards of service and support to customers.

In 2010, Komatsu Australia rolled out its innovative apprenticeship scheme, the Apprentice Development System (ADS), designed to give entrants to the industry not only key trade skills, but also life and personal responsibility skills and awareness.

The ADS program has been highly successful, producing more "well-rounded" apprentices and trainees, who have the trade, life and people skills for satisfying long-term careers within Komatsu Australia and the broader industry.

The end result is highly trained, motivated and enthusiastic service technicians and tradespeople, with clear benefits for Komatsu and its customers.

Following a pilot program in NSW in 2009, nearly 300 apprentices and trainees have participated in the ADS program. Komatsu is committed in continuing to train, develop and engage apprentices nationally through the ADS program, even at a time when sectors of the industry are experiencing a downturn.

The first intake of apprentices completed their training in January 2013 and are now fully qualified tradespeople working on Komatsu equipment and with our customers.

In addition to "traditional" on-the-job training and attendance at TAFE (Technical And Further Education) and vocational education facilities around Australia, Komatsu's ADS aims to give apprentices and trainees important life and people skills.

These include Toastmasters (public speaking), road safety and fatigue management, personal interaction training, and drugs, alcohol and sexually transmitted infections (STIs) awareness.

Komatsu Australia's ADS has set new national standards for the way Komatsu Australia trains its apprentices and trainees, and has become an industry benchmark for training throughout the region.

It has produced measurable results and a higher standard of learning outcomes than had previously been achieved.

Komatsu's rigorous recruitment methods incorporated within the ADS enables better hiring decisions, including targeting group age and life experience diversity – such as mature-age people – which further improves results.

Ultimately this is good for customers and Komatsu - and ensures our people are powered for ongoing success into the future.  $\blacksquare$ 

Holcim Lynwood worksite

Application engineering, part of the Brand Management approach

# Komatsu's Brand Management approach: a customer-centric focus Over the past few years, Komatsu Australia has been developing a unique concept

Over the past few years, Komatsu Australia has been developing a unique concept in customer relationships, known as "Customer Brand Management".

This provides the company and its customers the opportunity to forge far deeper relationships, while delivering significant mutual benefits.

The concept has three core elements:

- 1. A fundamental shift in Komatsu's typical marketing paradigm, from one that is primarily transactional to a truly mutual and equal relationship
- 2. Designed to render Komatsu invaluable to its customers, in order to continue to be selected as the partner of choice
- 3. Driving change on Komatsu's part to a fully customer-centric mindset, combined with a strong human resource development aspect.

Brand Management relationships are negotiated and implemented at the top management levels of both Komatsu and customers, allowing high levels of mutual trust and opening opportunities to run "open-book" relationships.

This includes giving Komatsu unprecedented access to these customers' production and financial plans, data and systems, with a view to working closely with senior customer management to develop optimised fleet management solutions.

At the same time, customers gain increased access to Komatsu's technical expertise, equipment capabilities and developments, allowing highly accurate long-term costing, availability and production planning.

This deep engagement between supplier and customer also allows Komatsu to come up with tailored engineering solutions – which can involve modifications or extending operational parameters – to suit particular site requirements.

In addition, the philosophy of openness and transparency around which the Brand Management concept has been developed means that when the inevitable issues do arise, they are discussed in an atmosphere of complete trust and frankness.





Komatsu machines working at Kaipara, NZ



Komatsu NZ Hybrid Launch

# Komatsu's long-term success story in New Zealand

Komatsu's "official" history in New Zealand began in the early 1960s when machinery dealer John Ward happened to see a photo of a Komatsu machine on the cover of Time magazine.

Shortly after, while on a fishing trip to Japan, he visited Tokyo to ask Komatsu for the New Zealand franchise or agency.

Komatsu Ltd advised John that the company already had a representative — Five Star Motors in Otahuhu, Auckland, a vehicle assembly plant and sales outlet owned by the Turner Family.

Five Star Motors were just that, and not marketing people at all, so had never sold a single Komatsu while it had been representing the brand.

John was very keen to see Komatsu reach its potential in NZ, but being unable to finance a deal to buy out Five Star Motors distributorship, persevered — ultimately forming a partnership with his existing business partner Les Hill and Five Star's owner Noel Turner.

Komatsu Ltd agreed to an arrangement under which Five Star Motors would continue to import the machines while Ward and Hill would become the sole agents for Komatsu, working out of Rotorua, the country's major forestry centre in the middle of the North Island.

Most of their work was associated with forestry due to previous business relationships.

Ward Hill Ltd was established on April 10, 1964 and the company became the face of Komatsu in NZ.

Ward and Hill immediately bought two D80 dozers, one fitted with hydraulic angle blade and the other with cable controls, along with an RS60 scraper, which arrived in the country in 1965.

Just a year later, Five Star Motors was renamed Motor Holdings Ltd, taking back the sales franchise from Ward Hill – although retaining both John and Len in management roles for a number of years.

This was a very successful operation, and in fact in both 1967 and 1968 Komatsu outsold its arch-rival in bulldozer sales.

Unfortunately Motor Holdings proceeded to then go through a rather tumultuous period, passing through several owners in a series of somewhat convoluted exercises, during which time Komatsu sales in New Zealand significantly declined.

However, in November 9, Motor Holdings (Komatsu) Ltd (MHK) was established, remaining the New Zealand Komatsu distributor for the next 14 years.

In April 2001, NS Komatsu, having been highly successful as Komatsu's Australian distributor throughout the previous decade, expanded into New Zealand, and taking over MHK's premises, staff, facilities and well-established service agent network.

Only two months later, NS Komatsu was transformed into Komatsu Australia, and embarking on the next phase in the journey that has made Komatsu a significant player in the mining and construction sectors throughout Australasia.



### Komatsu in New Caledonia

Over the past decade, Komatsu's presence in New Caledonia has grown strongly, to the point where today it is the dominant supplier of mining and earthmoving equipment in this French state.

Komatsu's history in New Caledonia (one of Australia's nearest neighbours, just 1470 km northeast of Brisbane) dates back to the mid-to-late 1980s when the Ballande Group secured distribution rights.

Along its ideal location and primary reputation as a Pacific tourist destination, New Caledonia has been blessed with having 30% of the world's nickel reserves – with many mines located on the main island of Grande Terre.

As a result, for many years, there has been strong demand for productive, reliable mining equipment that supported and serviced to high professional standards.

The Komatsu brand established itself as offering an ideal product range to service New Caledonia's nickel mining operations; in 2002, Komatsu Australia took over all distribution, service and support.

Since then, Komatsu's Brand Management fundamentals have become well established, with the company building strong customer relationships, as well as upgrading operations and improving service and support levels.

As a result, Komatsu has seen significant growth in market share in the region, including a more than 400% increase in the units sold in the year to April 2014, and a total market share now of 65%.

Recent machine sales have included three PC2000-8 mining excavators and three HD1500-7 dump truck – the first-ever 150 tonne capacity truck sold in New Caledonia.

Komatsu is now firmly established as the dominant player on the island, including current maintenance contracts extending over at least the next seven years. ■

# Komatsu's 50 Year Journey

Komatsu Australia is celebrating over 50 years in Australia and during this period there have been considerable changes in the industry and at Komatsu - this can be seen in the array of advertising that has been published through the years.





Harbour fill

WABCO Perth to Alice canal



Ward Hill NZ





NS Komatsu



"Take Five" Safety







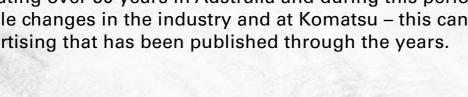
"Control freak"

















Old Gov't Mining

Komatsu ADT





Botany H.O. brochure, 1982



"You're in the system"

**BETTER BY** 

DESIGN





"There is only one Genuine link"



"The Name to

Rely On"

"Designated to Dominate"





"Load Your Business for Success"







Old Gov't Mining Journal, 1974

120,000 DIFFERENT PARTS

Warehouse NZ



Journal



Beacon foundation



"Less is More"

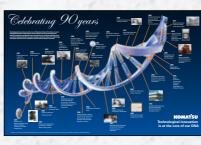
"Six of the best"



"Bring it On"



"We understand this business"



Celebrating 90 years as DNA timeline



Service promotion



Komatsu Hybrid

Genuine Axle Oil









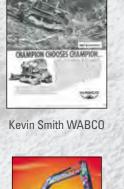
"Fill Up on Us"



AHS Frontrunner



50 Years in Australia

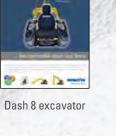




"All Hart"













Super X

"Mates Rates"





Aged stock clearance



# Komatsu Rental on a rapid development curve

One of Komatsu Australia's most recent developments has been the establishment of its Komatsu Rental business, which began operations in mid-2013.

Komatsu Rental has grown quickly since then, and today offers more than 200 machines for rent throughout Australia's eastern seaboard plus New Zealand, with the support of a dedicated rental team.

As the only national OEM-backed rental operator, Komatsu Rental offers a number of advantages compared with other rental companies.

For example, Komatsu Rental customers receive all the benefits provided to Komatsu machine owners including access to the company's KOMTRAX and KOWA machine management reporting systems, and complete integration with its technical and service operations.

Because of this, Komatsu Rental customers are able to enjoy the same level of support and peace of mind that is available to a traditional Komatsu machine owner.

Demand for the business's services is coming not only from existing Komatsu customers looking for equipment on a short-term basis, but also from contractors and plant hirers looking to free up capital to grow and develop their operations.

Komatsu provides the opportunity for its customers to balance fleet profiles with the right machines as and when they need them, giving them access to the latest equipment technology without any maintenance or upfront costs — along with full service and technical support.

Komatsu Rental's product line-up includes:

- Excavators from 5.5 to 85 tonnes, including Hybrid excavators, plus a full range of attachments.
- » Wheel loaders from WA250PZ-6 to WA600-6
- » Rigid dump trucks from HD405-7 to HD605-7E0
- » Articulated dump trucks from HM300-2 to HM400-2
- » Dozers from D51EX-22 to D275A-5
- » Graders GD555-5 and GD655-5
- » Backhoes

All dozers and graders are "machine control ready" able to take a range of 2D and 3D machine control, GPS systems.  $\blacksquare$ 



# Komatsu Finance plays key role in company's growth and success

For more than 20 years, Komatsu Finance has played a key role in funding the Komatsu equipment that has contributed so much to the development of Australia's infrastructure and mining operations.

Initially established to assist major resources projects in funding the equipment required to gear up their operations, during its first decade, Komatsu Finance provided the finance for a significant number of Komatsu mining fleet sales to mining companies and mining service providers throughout Australia.

Due to this very successful program, in 2004, Komatsu Finance's operations were expanded significantly to cover sales of construction and utility equipment.

These finance services are available for a wide cross-section of Komatsu customers, ranging from those who typically purchase just one or two machines at a time, through to mid-sized civil construction companies buying fleets of 10, 15, 20 machines.

Today, the proportion of Komatsu Finance's "book" in terms of numbers of units has become far higher for its smaller customers, with the average deal size being around \$200,000.

Currently around 50% of Komatsu's new equipment sales in Australia and New Zealand are funded through Komatsu Finance – with the business looking to increase that percentage.

Komatsu Finance's approach is to ensure that Komatsu is easy to deal with for customers by offering a 'one-stop-shop' solution combining machinery sales, support and services with a range of financial services.

In addition, personnel have the knowledge of the functions and role of each piece of equipment in Komatsu's lineup, and how they can help make customers more competitive and efficient.



# Komatsu Forklifts share a long history in Australia

Komatsu Forklift Australia has been a wholly owned subsidiary of Komatsu Australia since 2009 – but its history in this country goes back to 1964.

Komatsu's production of forklifts began in 1953, initially for the Japanese market, and within two years was exporting internationally.

Today, Komatsu Forklift's range runs from hand pallet trucks through to container handling equipment, incorporating a full line-up of diesel and LPG/petrol powered units with capacities from 1.8 tonnes to 28 tonnes, plus battery-electric counterbalance forklifts and reach trucks from 1.6 tonnes to 3 tonnes capacity.

In addition, Komatsu Forklift is the Australian distributor for a number of other materials handling product lines, including OMG Warehouse Equipment, Baumann sideloaders and Kevrek truck-mounted cranes.

As well as offering sales, Komatsu Forklift Australia also offers a range of fully maintained materials handling equipment products for long and short term rentals.

The company manages and owns one of Australia's largest forklift fleets, currently consisting of almost 3000 units.

This experience and expertise in owning and managing a large forklift fleet has also led to its development of a forklift fleet management system – also available to both owning and renting customers – designed to optimise the mix of models and sizes to applications, and maximise unit utilisation.

Backed by the resources of Komatsu Australia, Komatsu Forklift Australia owns and operates 11 branches nationally, augmented by an extended network of partners and service agents to provide unmatched levels of forklift repairs, maintenance and service around the country.





# Komatsu Forest leads industry innovation and development

Komatsu Forest has been at the forefront of innovation in the global forestry industry since the introduction of its first forestry machines in Sweden in 1961 by what was to become Valmet – acquired by Komatsu Ltd in 2004, and renamed Komatsu Forest.

Today, Komatsu Forest develops, manufactures, and markets machines and attachments for the forestry industry throughout the world, operating as a specialised forestry company wholly owned by Komatsu Ltd.

In Australia, it operates as an independent company, while benefitting from the support and resources of Komatsu Australia.

Komatsu Forest is regarded as the leading forestry equipment supplier in Australia offering products from Sweden, USA and Japan.

It has established this leadership with a strong history of industry knowledge and expertise, product support, and quality, reliable equipment throughout Australia since beginning operations here in 1990.

Products available from Komatsu Forest include a full range of forwarders, wheeled and crawler harvesters, along with processing heads to suit any forestry application.



# Section 4: People Powered Technology



## Putting our people at the heart of our business

The key to Komatsu's strength and reputation – both locally and globally – is our brand. The Komatsu brand has been built in Australia over the past 50 years – and globally for close to a century.

Today, Komatsu is recognised as a world leader in the technology behind state-of-the-art earthmoving, mining, construction and utility equipment.

But we want to be more than that. Our vision is to be an indispensable partner to our customers through our brand philosophy.

For us, the key to achieving this is by putting our employees at the heart of our business, because we know that to sustainably grow Komatsu we need the trust of our customers – trust which can only be gained through engaged employees who are both valued and respected.

At Komatsu, we know a lot about big machines, from their tiniest bolt, to the most intelligent operating systems. But above all, we realise that there's one thing that makes a good machine a great one: people.

People power our ideas, they drive our development, they stand behind the innovations that lead to advances like autonomous machines and hybrid technology.

Our people have the knowledge to provide the service that supports the machines, through innovative fleet management systems that mean we're proactive with our customers, backed by the support of our global family – so that we can continue helping our customers best optimise their Komatsu machines.

"Driven by your success" is the mantra that we live and work by.

It's what focuses us and what keeps our feet on the ground; it reflects our commitment to our people, our customers and our business.

It's behind our commitment to making Komatsu a great place in which to work – and with which to partner.

We pride ourselves on having people who are passionate and committed about providing support to our customers that puts their business first.

We know that by being an integral partner in their business we earn their trust and build a long term relationship that is always more beneficial than quick fixes.

Komatsu's approach — one that will take us and our people forward into our next 50 years in this region — is to redefine what success means to our customers, moving beyond the traditional supplier/customer relationship to become a valued partner for their business. ■



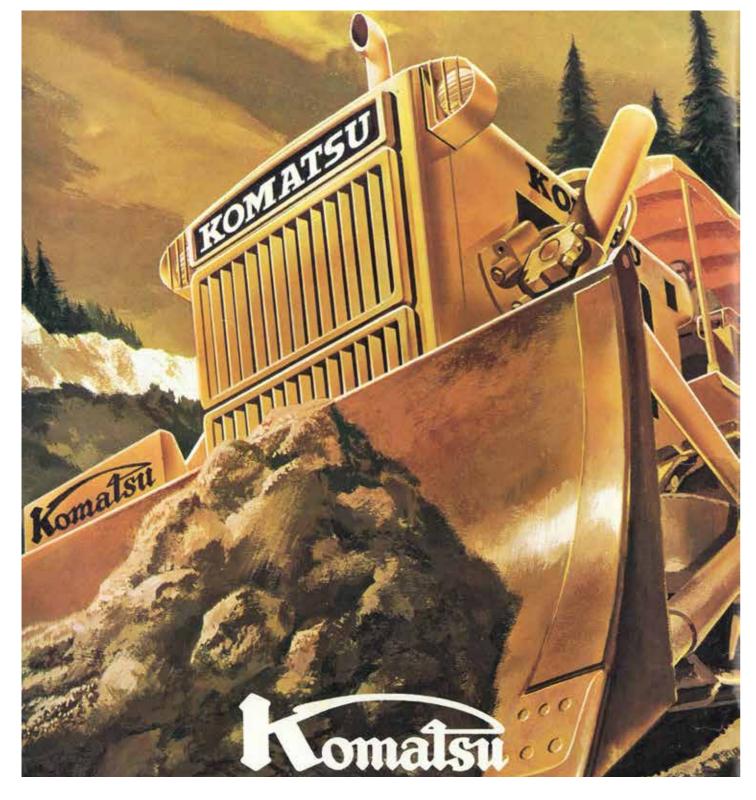
Colin Shaw, General Manager, People & Strategy

### Lifetime careers with two Komatsu veterans

With a career history each going back close to 40 years since beginning their working lives with Komatsu, and with a passion for historical mining and earthmoving equipment, two current Brisbane employees have made themselves an invaluable source of information and background on the company's history in Australia - Tony Tito and Trevor Jackson.

Tony Tito is Komatsu Australia's National Contracts Manager, Sales – a role he's held since returning to Komatsu mid 2008 – while Trevor Jackson has been the company's Warranty Claim Administrator for KAC Mining Trucks since 1997.

Trevor has been continuously employed with Komatsu-related companies, while Tony had a two-year stint with BHP Saxonvale in the NSW Hunter Valley in the mid 1980s and later 18 years with a Komatsu competitor, before returning to the fold. ■





### Tony's story

Tony's start in the industry – and with Komatsu – was in December 1975 as an apprentice plant mechanic with Wabco Distribution Australia.

Once qualified as a plant mechanic, Tony soon became a field serviceman and for several years travelled the length and breadth of NSW, gaining experience first-hand in many different types of industries and work environments.

"As a result of working with all this equipment, I developed a passion for mining equipment – the biggest and most advanced machinery around – and this lead to a two-year stint as a mine maintenance fitter with BHP Saxonvale in the Hunter Valley," he says.

Tony came back to Komatsu in 1980 then represented in NSW by ANI Komatsu – initially as a field serviceman, before being promoted to leading-hand, then to workshop foreman.

In this role, he was in charge of new mining equipment assemblies and major refurbishment of mining equipment, before moving to another supplier for nearly 20 years.

Tony was often called upon to assist mining sales with tenders, which eventually led to him being offered the position of National Mining Tenders and Administration Manager, one he held for several years, before taking on his current role seven years ago as National Contracts Manager − Sales, Mining and Construction. ■



### Trevor's story

Trevor has been continuously employed with Komatsu Australia and its predecessor companies – Wabco Distribution, Morgan Equipment, and Hawker Noyes Equipment – for his entire working life of almost 40 years.

He started out in January 1976 as an apprentice fitter, diesel and heavy earthmoving equipment with Wabco's Brisbane operation, and scored his first mine site representative position in 1980 – the week after completing his apprenticeship.

Trevor subsequently spent many years working in various field and workshop roles throughout Australia and New Guinea, mainly with Wabco Haulpak trucks and twin powered scrapers, GM Detroit Diesels, Allison transmissions, Komatsu machinery, and a score of other equipment franchises.

He transferred to NS Komatsu in 1993 when Komatsu Ltd purchased the controlling interest in what was by then the Dresser Haulpak product range, and NS Komatsu took on national responsibility for Haulpak truck sales and service.

In 1997 he moved into his current role in warranty administration.

"This role has been challenging, with politics, policy and procedure the order of the day, but I take a great deal of satisfaction in seeing the successful resolution of often complex warranty claims," he says.

### **Grant's 30 year commitment to Komatsu**

Grant Menhennett, Komatsu Australia's charismatic and highly successful Business Development Manager, Major Accounts – Construction & Quarry for its Western Region is a prime example of how the company develops and nurtures talented individuals.

One of the company's most successful sales people – he even has an annual sales success award named after him – Grant has been responsible for selling many hundreds of items of new and used Komatsu equipment over his nearly 30 years with the company.

Grant joined MC Komatsu – then the Western Australian distributor for Komatsu – in 1986, initially as its metropolitan sales representative for the Perth metropolitan region.

Building on the back of this success, in 1995, Grant took on Komatsu's Western Region Major Accounts role, one he has held ever since. In May of that year, he also joined the Institute of Quarrying — which in October 2015 honoured him with a National Industry Award in recognition of his contributions to the industry.

Grant originally opted to start working for Komatsu because he could see it offered a quality product.

While the industry and the heavy equipment business has had its ups and downs over the past 29 years, he says that Komatsu has been a major focus of his life over that period.

"I'd have to say that Komatsu has more than rewarded me for my efforts, and it's been a fantastic journey together.

"Really, I wouldn't change a thing; our current management team under Sean Taylor is doing a great job, and they certainly have my support and everyone that I work with," says Grant. ■



Grant Menhennett (left) with Clayton Hill receiving the National Industry Award, 2015

# Over a quarter of century with Komatsu

Colin Chamberlain, Komatsu Australia's Deputy General Manager – Customer Support Construction, joined Komatsu Australia Sydney in February 1988, as District Manager, Southern Region, working with then dealer Forcepower, covering Victoria, Tasmania and South Australia.

When I joined the company, it was a real boom period just before the "recession we had to have"; the Melbourne workshop was working day and night putting out a significant 21 excavators a month — and that included fitting the entire quick hitch and hammer piping, something that today is done ex-factory.

Working in Melbourne gave me the opportunity to begin developing our relationships and business growth with the major quarry companies – relationships which are still in place today, not only in Australia, but with several of the majors have extended globally.

The industry has come a long way since those days, an excellent example being our ability to use ICT (information communications technology) generated data, which combined with our CMS allows us to carry out more



detailed analysis – a huge advantage in managing machine components and extending their life.

Throughout my working life, my philosophy has been to understand the customer's voice, what they are saying to us and what they mean.

I love what I do at Komatsu Australia, the opportunity to work together with my colleagues in helping our customers achieve their business objectives, reach our combined business needs, and grow our relationships are activities I thoroughly enjoy, and will keep doing as long as I'm able.

### Bruce Auld, from diesel fitter to a national business role

Bruce Auld, Komatsu Australia's National Business Development Manager, Product Management/ Components, has worked for the company since September 1988, when, a diesel fitter by trade, he literally walked in off the street into then Victorian dealer Forcepower's Campbellfield premises looking for a job.

The service manager asked me when I could start, and I went into a service vehicle, looking after machines all over the state; that was one of the best jobs I ever had.

After 12 months in that role, I was put into my first leadership/management role, as Melbourne Field Service Supervisor in what was one of the largest field service operations in the country.

In 1993, I took on the job of Melbourne Service Manager, which I held until 1998, when I applied for the role of service manager at Sherwood in Brisbane.

In 2006, I started in management roles in our Reman operation, three years ago taking on the role of National Product Manager for Reman, as well as for KMG and KAC parts.



Today, we are now seeing Komatsu Australia's ADS (Apprentice Development Scheme) generation coming through, and I think we are really going to see some positive changes from that.

From a service operations point of view, it's one of the best things we have ever done.

We are turning out highly skilled young people, and I'd like to give credit to the vision of people such as Gavin Manning, Paul Richardson, Jim Playsted, Ian MacCowan who had the foresight to develop our next generation of service people and our young managers of the future.

# Matt Buttigieg, servicing our customers for many years

Matt Buttigieg, Komatsu Australia's National Warranty Manager, has been with the company since 1990, when he started with then-NSW dealer ANI Komatsu as a first-year apprentice. Since then, he has taken on increasingly senior service, technical, supervisory and management roles, culminating in his current position.

After completing my apprenticeship, I spent a number of years in our Fairfield workshop operations, specialising in component rebuilds, before being promoted to workshop leading hand in 1999 and workshop supervisor in 2002.

In 2003, I took on the role of NSW Field Service Supervisor, then from 2005 to 2011 I was Service Manager at Fairfield. I've been in my current role since 2011.

Throughout my time at the company, Komatsu has remained focused on customers, using the latest tools, systems and technology to help achieve this. Our new OneView parts and service system, which is integrated with our KOMTRAX and other technology solutions, is now on track to become the industry's leading support tool.

On our people side, I've been happy and delighted with the way in which Komatsu has grown its Apprentice Development System.



Having come up through the company as an apprentice myself, I can see the absolute benefits we will get from the training and effort being invested in our young people today to ensure our future.

I have always enjoyed working at Komatsu Australia; it's an excellent place to work, with opportunities for promotion and job transfers available for all individuals who are up for the challenges.





### Amber Rickard, a successful career for two decades

Amber Rickard, Komatsu Australia's National Business Manager – Construction, has been with the company since she started as a trainee engineer with NS Komatsu in September 1996. Since then, she has seen major technological developments occur in the industry – and played a key role in the successful introduction of Komatsu's Hybrid excavator range.

When I started with the company, it was the first time Komatsu had offered traineeships to undergraduate engineers in Australia.

This program enabled trainees to work in various departments of the company in six-month blocks, giving me a wide range of experience in many aspects of the business.

When I completed my trainee engineer program in 2001, I took on the role of Mechanical Engineer, then in 2005 was appointed Technical Support Systems Manager, where I worked until taking my current role in 2011.

During my time at Komatsu, there have been major technological developments which the company has embraced, incorporating many new technologies into our product offerings, and enhancing the way we service and support our customers.

These have included ICT systems such as KOMTRAX, along with ground breaking technological advances in

our machinery (such as our autonomous trucks and hybrid excavators).

I started as National Business Manager – Construction shortly after the release of the Komatsu 20 tonne hybrid excavator in Australia in 2011.

This was an exciting time, as we were offering a new and innovative product that was the first of its kind and unique in the Australian market.

Komatsu's hybrid excavator was well received here, leading to the development of the 35 tonne HB335LC-1, which had its global launch in Australia in 2013.

Almost 20 years ago, Komatsu gave me an incredible opportunity with my traineeship.

I was supported throughout my studies and gained invaluable experience that provided me with a good balance of practical and theory.

My mentors have always encouraged me to take initiative, identify areas for improvement and empowered me to make a difference.

I cannot think of a better environment for a young person coming into the industry.



# Drew Farrell, a future face of Komatsu

Drew Farrell, a fourth-year apprentice with Komatsu Australia, has seen nothing but positives from his involvement with the company – going back to his time at Hunter River High School when he did work experience with Komatsu through the Beacon Foundation.

His experience with Komatsu Australia is an example of how the company's structure, employee development processes and overall approach to nurturing its people throughout their careers pay off for individuals and the company as a whole.

Through his participation in Komatsu's Apprentice Development System (ADS), Drew is not only close to becoming a qualified skilled heavy equipment technician, he's also gained some important life skills.

These include going from being a shy kid with "bad anxiety" (as he puts it) who struggled to speak in front of workmates, to giving a speech attended by the Australian Governor General Sir Peter Cosgrove on June 1, on behalf of the Beacon Foundation.

Drew's determination to work on Komatsu heavy mining equipment grew directly from his initial work experience with the company back in 2011 while a student at Hunter River High School, in Raymond Terrace, north of Newcastle.

"I did work experience at Komatsu through a Beacon program; I was always interested in being a mechanic, but was originally pursuing a career in on-highway trucks," says Drew.

"But after my Komatsu work experience, I knew I wanted to work on heavy machinery.

"This was mainly due to the size of the machinery, but also, especially with the field service side, being able to travel, do different jobs each day, not being in a workshop and always having the truck come to you – that really appealed to me," he says.

Drew is full of praise for Komatsu's ADS program and the skills and values it teaches the company's apprentices.

"A lot of the elements in the ADS are things a company doesn't have to put their apprentices through, but Komatsu really does care about its employees.

"And that's a big reason why I want to make a career at Komatsu," he says.  $\blacksquare$ 



Bruce Leer operating the Komatsu D60A-6 dozer

# 1965 Sydney: Bruce Leer purchases first Komatsu dozer in Australia

We became the first owner of a Komatsu dozer in Australia, when we bought a D60A-3 in about 1965.

We have a letter from Wabco, written by Peter White, who was the boss there at the time, congratulating us on buying this first Komatsu dozer in the country.

We went for the Komatsu after having a terrible experience with another brand of machine. We had an order in for a replacement machine of the same brand, but my father didn't want to wait, so when we were offered a D60A-3, we became the first buyer.

We had that machine for a number of years, before trading it back to Wabco for a newer D60-6.

As it turned out, not only were we the first D60-1 buyer in Australia, we were also the first D60-6 dozer buyer – and that was a fantastic machine – and also the first buyer of the D55 track loader.

At one time, we had the biggest fleet of Komatsu machines in the Sydney metropolitan area: two D60 and two D85 dozers, and three D55 track loaders.

We also did a bit of work to help out Wabco. In the late 1960s, we demonstrated a D60A-3 and a D80-1 on the Westmead Hospital building site at Parramatta.

Some years later, we also demonstrated the first D155-1 dozer in Australia, at Centennial Park.

Another time, in the early 1970s, two of us drove two 40 tonne dump trucks all the way down the highway from Sydney to Melbourne!

The family company still owns Komatsu equipment today. In the late 1990s, we bought a PC120, which I have to say was the worst excavator we'd ever had, and gave us nothing but trouble.



Bruce Leer, and son Gavin

However, we traded it in on a PC150-5 in about 2001, and which we still have.

It's the best excavator we've ever owned; so far we have notched up 10,500 hours on it, and all it's had done is a new water pump and a replacement top dipper arm seal. Apart from that, we've done nothing to it. It's a fantastic machine.

Our family company has been going for 70 years this year.

My father Alfred started the company in 1945, and I came in when I left school, when it was called AE & BA Leer, and my son Gavin has since taken over – and it's now trading as B & G Leer.

We celebrated our 50th anniversary in 1995, so this year we'll have done 70 years in business. ■





# 1966 Hobart: Charlie Long takes two A60A's Dozers

Philip Long still owns a Komatsu D60A dozer purchased by his father, Charlie Long in 1966.

My father, Charlie Long of CA Long Pty Ltd, bought two of the first Komatsu dozers sold in Tasmania from AMS Machinery, of Patrick Street, Hobart in 1966.

We still own one of these, and it is believed to be the oldest Komatsu dozer still working. It's up on our farm at Buckland on the East Coast, and it's been there since it left the Komatsu workshop in Hobart in 2002 – and it's still going strong.

My father, who passed away in 1993, did a lot of earthmoving and excavation work in Hobart and Southern Tasmania, including working for the Hydro and selling sand to the old orange Readymix, and to Pioneer when they first came to Tasmania.

The two D60As, one fitted with rippers, started their working lives on the Strathgordon Road for the Gordon Dam, and in Strathgordon Village for the worker's village. Japanese machines were so rare then, the workers called her "Tokyo Rose"!

They eventually came back to Hobart, and did lots of demolition and excavation work around the city, including the Wrest Point Casino, reclamation work at Selfs Point for the oil terminals, and foundations and earthworks for a lot of Hobart's high-rise buildings.

In fact, you could say that these two Komatsu dozers did the earthworks for a lot of modern Hobart!

My father sold one of the D60A's in the 1970s, but we hung on to the other one. Both machines were factory fitted by Komatsu with NH220 Japanese Cummins motors and to the best of my knowledge, it's never been touched at all.

In fact, we've never had any real trouble with that machine.

She was overhauled in 1984, including new chains, steering clutches, idlers and track rollers, and repairing general wear and tear parts.

Komatsu had her back in about 2002, and told me they believed at that stage she was the oldest working Komatsu in Australia. I now use her on our property of 40-odd acres at Buckland, doing a bit of dozing and land-clearing.

Last year, I had the blade lift rods and the seals replaced.

She's a beautiful old dozer, just ticks away nicely. Quite a lot of the parts are not available any more, but I source second hand or after market parts that will work.

You know, when these Komatsu dozers first came out, people were one-eyed about two American brands; this machine was "Japanese junk". Well, Komatsu has well and truly proved itself now. ■





Ivan Casson next to a HB335LC-1 Hybrid excavator at Fairfield, Sydney

# 1968 Sydney: Ivan Casson purchased the first D120 Dozer

I was working for Lucas and Tait, part of the Degotardis, for 19 years until 1977. We bought our first Komatsu, a D120, through Wabco, the Komatsu distributor at the time, around 1968. I have to say it wasn't a great machine, but Komatsu sent out its engineers to look at it, and they really learnt from that experience.

In 1970, I had the privilege of visiting Komatsu factories – including the town of Komatsu – as part of a tour to Conexpo 1970, with about 17 owners. That was a real experience and an eye-opener for me.



Ivan Casson in the 1970s with a Komatsu D155 dozer

We ended up trading in the D120, and we bought a D150. That really was a great machine; we never had any sign of trouble with it.

It was a D8-sized machine, it had hydraulic rippers, and everything was right about it.

We got to about 13,000 hours with it before we sold it. We'd use it for all sorts of work: ripping rock, out west chaining down for log clearing in tandem with another dozer, land clearing, road building, you name it.

During the 1970s, we also had two D85s and a D65; one of these was a swamp dozer we used to build the canals at Sussex Inlet on the South Coast. Now that was a wonderful machine.

In 1977, Lucas and Tait announced they were selling the business, and so I bought out their earthmoving equipment and set up my own business, Casson Equipment; this included the D155, and I kept this until I retired in 1990.

I did a lot of civil construction in the Western Suburbs and Blue Mountains.

We did all the roads in Werrington, we built Long Street, Smithfield – including chasing cattle off the farm that used to be there! – as well as subdivisions in Wollongong and the Blue Mountains.

Lots of people went broke in the Blue Mountains in the 1970s and early 1980s due to the contract conditions, but I weathered the storm and worked there for many years until I retired.

The service we got from Komatsu was always good. We never had any problems with that; they'd send out a service man to fix anything we thought wasn't right.



Tom Jung Quarries using Komatsu machines

# 1969 Sawtel NSW: Kevin Smith buys D85A-12 Dozer

Tom Jung Quarries, Sawtell, NSW: Kevin Smith purchased Komatsu D85A-12 in 1969; under son Ray, the company still operates Komatsu equipment – including an HB205-1 Hybrid – today.

That D85A was the first Komatsu dozer my father Kevin purchased, after running another brand of dozer for a number of years.

Dad decided to branch out and give it a go, based on the fact that Peter White from [then dealer] Wabco offered him a machine to evaluate.

As a result of that, he bought the machine and had it for about five years, carrying out logging and clearing work on the North Coast.

After Kevin sold his D85, he operated other brands for about 10 years, before returning to Komatsu equipment in the mid-1980s, with the purchase of a PC300-3 excavator for his mining-related work.

A short time later, he moved into quarrying after purchasing the quarry Tommy Jung over a handshake and a beer at the Sawtell RSL.

Those were the good old days of business; they were having a beer together, and dad bought a quarry!

Tommy was looking to retire as he had seven daughters, none of whom wanted to become quarry operators, so he sold the business to us.

And we're very proud that the quarry is still family operated today – and we've kept the Tom Jung name. Tommy felt dad was a good choice.

With the quarry purchase, we also took over a couple of 20 tonne Komatsu PC200-1 excavators and a WA300-1.

In the early 1990s, we traded our original PC200-1's for new PC200-6 and PC300-3 excavators.

Today our operation has an output of up to 499,000 tonnes a year of its argillites parent rock (an ancient mudstone/seabed rock), making roadbase and aggregate for asphalt, concrete, roadbuilding and general construction materials servicing the Coffs Harbour and NSW North Coast region.

Our clients range from backyard handymen through to multinational customers; our motto is "from 1 tonne to 1 million tonnes – everyone's a customer!"

We continue to operate Komatsu equipment today, with three Komatsu loaders and three excavators loading material into the crushing, screening and washing plants, as well as from stockpiles into road haulage.

Our mobile plant consists of three WA470 machines, two PC300's and a 20 tonne HB205-1 hybrid.

That Hybrid purchase is our most recent, and we were one of the first buyers in the country. And any future purchases will be 30 tonne Hybrids.

I love the one we have, just on the fuel savings alone – we're saving 50% on fuel with it. We've had others here on trial, but the Komatsu one is the best out there.

For what we do, we've gone from the low 20 litres an hour, to 9-10 litres an hour. We're just feeding a crusher, which is ideal for a Hybrid, and exactly what it's designed to do.

# 1978 South Kolan QLD: Ray Heale

Since tugging his mum's sleeve and pointing out a tin crawler tractor in a Bundaberg toy shop window at age 11, Ray Heale has been enamoured with heavy machinery.

The South Kolan resident has owned and operated R.R & D.J Heale Land Clearing and Earthmoving since February 1964. With 55 years of industry experience, and 50 with his own skin in the game, Ray has operated used Komatsu equipment for the past 37 years.

President of the Bundaberg Yesteryear Machinery Society for nine years, Ray has always made a point of operating his machines himself: both for his own peace of mind and because he loves getting behind the wheel and driving heavy machinery, no matter what kind.

At 74 years of age, Ray's passion for all things mechanical has not dulled.

After initially struggling with machine reliability and consistency, Ray purchased his first used Komatsu machines in 1978 and says he has been a Komatsu man since.

"I was always in trouble financially with other gear – they kept me broke – but since I discovered Komatsu I've always done well," says Ray.

"I started with two second-hand D155's and I've had about eight of those over the years. I've presently got three. I've also had about eight D65's and I've still got one, and I had one D85 that I sold. I also still have a PC200 and a PC300 excavator."

The reliability and quality of his gear has allowed Ray to build a business on the back of the knowledge that he can always complete a hard day's work.

"With a Komatsu you can go to work, and say you're going to do a day's work. With other machines I have had you could not guarantee you would get a day's work out of them."

"I've always purchased used Komatsu equipment, but anything I have bought has been from Komatsu itself. I could go to the Brisbane office back in the 1980s and it was just like walking into my own office," Ray says.

Over the years R.R & D.J Heale Land Clearing and Earthmoving has been relied on for jobs great and small around the Bundaberg region.

"I've pulled thousands upon thousands of scrub and forest country acres over 50 years, and I've always driven machines myself.

"I haven't just employed blokes to drive and sit back and watch them bend them up. I'm always at the coalface." he says.

"I'm 74 now and I still enjoy driving the machines. I can efficiently drive any of the gear and when it comes to Komatsu I'm pretty well qualified."

It hasn't all been sunshine. Suffering financially early in the



Bundaberg News Mail printed February 2015

piece in 1966, Ray considered packing it in and going to work at the City Council. A piece of advice from his mother kept him on the path that he wanted, turning a passion into a career.

"Mum used to say that you wouldn't be putting the effort into it if you didn't believe in it."

Bundaberg and its surrounds offer up the tough conditions and high temperatures expected of regional Queensland. Despite the heat, Ray's gear has always remained cool under pressure.

"I've never had any heat problems with the transmissions and motors. Other machines were sweating all day – we always needed to keep pulling them up and letting them cool down – but I've never had that trouble with Komatsu."

Ray has sold on much of his Komatsu equipment to his son and to friends around the area, and enjoys seeing them still getting use out of even the oldest machines. As for his own machines, Ray doesn't mind telling it how he sees it.

"There are a lot of blokes that I have convinced to try Komatsu. Once you get them into a Komatsu there's no way they want that other bloody junk."

With reliability on his side, Ray has worked hard over five decades and done well, owning a beautiful patch of country just outside Bundaberg.

"With just a pair of hands and a will to work I have done alright for myself. A square mile of country and about 400 acres of cane."

Of course, Ray keeps plenty of vintage machinery on hand.

"I have heaps of machinery around here — crawler tractors, wheel tractors, jump tractors — and all kinds of Komatsu equipment. I have all kinds of tractors and trucks, and even a grader in the shed too."

# 1970's Gladstone: Cyril Golding takes 26 Komatsu Scrapers

Golding, Gladstone, Queensland: Golding has been a pioneering user of Komatsu equipment, purchasing the first of what ultimately became a fleet of 26 Komatsu scrapers in the late 1970s. Sid Ryton-Benson, Golding's Plant Technical Services Specialist, has been with the company since 1985, and played an integral role in servicing and maintaining its equipment fleet.

Founded by the legendary Cyril Golding in 1942, Golding became Queensland's largest privately owned infrastructure, mining and earthmoving contractor, working on many of the state's iconic infrastructure and resources projects.

Cyril literally started this company with the purchase of a pushbike to let him get to work faster, growing the company to the largest owner of Komatsu equipment in the country.

His success was based around the strong relationships he formed with everyone he met, and the bond he developed with his staff; Cyril always made a point of remembering key personal details about people, and talking to staff about how they were going.

Golding's relationship with Komatsu began in 1978 when, following some unresolved issues with another equipment dealer, Cyril began looking for an alternative supplier.

As a result of discussions with LeTourneau Westinghouse (Australia), the Komatsu dealer at the time, Cyril purchased three WS23S scrapers – which ultimately grew to a fleet of 26 of these machines.

This was a fortunate relationship for Komatsu, as Cyril Golding grew to become a major force in the Queensland earthmoving industry – continuing to purchase more and more Komatsu equipment to facilitate his company's growth.

From then on, he remained a great supporter of Komatsu and its people, and continued to purchase Komatsu equipment until his death — and the company remains a significant Komatsu owner today.

It was the innovation, reliability and product support from Komatsu that made Golding the success it still is today.

Those WS23S scrapers we bought in the late 1970s, through into the 1980s and beyond, pretty much made Golding the company we are.

Whenever one came out in Australia, Golding's would buy it – plus we would buy the ones off our competitors as they finished with them or could not maintain them.

This company was built on the back of our fleet of Komatsu scrapers. Literally.



Golding using Komatsu 730E dump trucks, Mackay QLD

We found uses for its Komatsu scrapers that they weren't really designed for; they were such a versatile machine for us.

We used them as dump trucks, loaded them with excavators, we even loaded rock into them, then jack-knifed and ejected it out!

We really did all sorts of things that they're not designed to do, but they did the job.

Today, Golding remains a significant owner of Komatsu equipment, due to the strong relationship between the two companies.

Definitely the big thing for Golding is the relationship we have with Komatsu; we have the best relationship with Komatsu that we do out of all of the OEM suppliers.

We can't say enough good things about the relationship between Golding and Komatsu. ■



Left to right: Colin Chamberlain, Tim Freestone, Robert Hazell & Geoffrey Hazell (Hazell Bros), Doug Fulton, Sean Taylor

# Launceston TAS: Hazell Bros buying Komatsu since the 1980's

Robert Hazell, Director, Hazell Brothers, Derwent Park, Tasmania: Established in 1944, and still family owned, the company has been buying Komatsu equipment since the 1980s.

Over the past 71 years, our family has built a multi-state business from the days when my father Donald bought his first truck at the age of 16, and a year later established Hazell Bros with his brother Rowley.

After starting earthmoving operations in the 1950s and a civil construction arm in the 1970s, then moving into quarrying and concrete operations, we have been involved in building some of Tasmania's and indeed Australia's most prominent projects.

We've been using Komatsu excavators and graders since the 1980s.

As a family company, trust and faith in the people you deal with goes a long way to making your life easier. That very much applies to our relationship with Komatsu, and it has always been that way.

There has been continuity with staff in sales, parts and in the workshops, and that's where we have built the relationships we enjoy today.

Our amount of Komatsu gear has consistently increased over the years. We started out purchasing our first equipment through Forcepower, and then through ANI Komatsu then NS Komatsu, all the way to an order with Komatsu Australia in October 2015 for two new hybrid excavators and other equipment.

Today our fleet includes 61 pieces of Komatsu equipment operating in tough environments around the country, with five new items being added in January 2016.

Komatsu machines have helped our business grow. In those early days with Komatsu the equipment was very reliable. It was good equipment that would run for 30,000 hours without giving you any trouble and we stuck with it because of that.

We remain with Komatsu for the reliability and for the connections and relationships that we have with staff locally and on the mainland.

Regardless of whether we are purchasing for Queensland, South Australia or Tasmania, we deal with the same people and that works well for us.

The Komatsu team works closely with us and our other suppliers to get the best package to suit our clients, and us.

There is no reason we wouldn't continue to grow our fleet of Komatsu machines into the future. ■



Handover of Komatsu machines to Hazell Bros



Komatsu's D60A-3 dozer with over 40,000 hours and still working

# 1995 Gloucester NSW: Mark Waters' Logging Dozer

Mark Waters, Gloucester, Mid North Coast of NSW: with father, owns 1960s-era D60A-3 bought used from original owner 20 years ago.

My father, Albert and I have had this machine for 20 years, since we bought it from Teddy Crawley, a Gloucester logging contractor who was retiring, and who'd bought it new.

It's a great old machine; it's so easy to keep going, and we can still buy parts for it, either from Komatsu or Cummins. It has an NH220 Cummins engine rated at 120 hp, and there's nothing we can't get for the engine, right here in Newcastle.

We have a small family business cutting rural fence posts and sawn timber around Gloucester.

The dozer goes like a charmer; the old man's been logging for 60-odd years, he loves it and you can't get him off it!

She will still walk out of the bush pulling 10 cu m of logs, with ease. The Komatsu winch on it is unstoppable.

She still operates three to four days a week, and runs on the smell of an oily rag.

When we bought her, she had 30,000 hours on the clock, but now the hour meter has gone. She would have to be well into 40,000 hours now.

The only thing we've ever done is put a water pump on the engine, plus we had a steering clutch come loose, and we have had to make a few track adjustments, but that's all in 20 years-not bad going.

She's such a great old machine, we will never get rid of her.





Komatsu's PC50MR-2 Mini excavators purchased by the ADF

# Komatsu and Australian Army forge long relationship

Komatsu has had a long-term relationship with Australia's armed forces since the mid-1980s, when – to the considerable surprise of many in the heavy equipment industry – it won a major contract to supply dozers and scrapers to the Australian Army.

The order consisted of 12 Komatsu WS16S single-engine open bowl scrapers and 20 Komatsu D155A-1 dozers in a variety of configurations: bull-blades with rippers, and angle-blades with recovery winches.

This business had been traditionally "owned" by another supplier, and when Komatsu was announced as the successful tenderer, barely five years since the formation of Komatsu Australia in this country, it marked a major advance for the company and a big step forward for its credibility as a major supplier.

"This was Komatsu's first business with Australia's armed forces, and it established a relationship that still exists today," says Craig "Shine" Summerfield, Komatsu Australia's National Customer Applications Manager, Construction.

Before joining Komatsu, Shine had a career with the Army's Royal Australian Engineers; many of those years included time at the School of Military Engineering at Moorebank, rising to the rank of Warrant officer Class Two.

According to Sebastian Spencer, Curator of the Australian Army Museum of Military Engineering at Holsworthy, south east of Sydney, the bulk of the Komatsu dozers and scrapers were deployed with the Army's 21st and 17th Construction Squadrons, carrying out Defence-related civil works around Australia.

A small number of these machines were also used for training purposes.

"While these machines would have gone offshore if required, they all essentially remained within Australia so far as we know," says Sebastian.

"They worked on major Defence civil construction projects, including RAAF Base Scherger on western Cape York, a major rehabilitation project on the Puckapunyal Range in Victoria, and Aboriginal Community Assistance Program (ACAP) projects in various remote locations."

The construction of RAAF Base Scherger by the 17th Construction Squadron, as the principal unit, along with other unit input, was the largest project undertaken by the Royal Australian Engineers at the time.

Komatsu has continued to supply heavy equipment to Australia's armed forces.

In the mid-to-late 1990s it supplied two BR350JG-1s used by various operational units for defence infrastructure projects around Australia.

Then in the mid 2000s, Komatsu supplied three PC130-7 excavators fitted with armoured cabs, two of which ended up seeing service in Afghanistan carrying out reconstruction and general civil engineering work.

"The armoured cab made them very tricky to operate, because you were so closed-in," says Shine.

"The School of Military Engineering here took one for training purposes, so the guys could be trained in the digger before they hit the deck in Afghanistan. They were very happy with these," he says.

A couple of years later, in 2008, Komatsu was successful in receiving an order for more than 20 PC50MR-2 short-tail excavators, each packaged up with a pallet-load of different attachments for maximum versatility, and painted in Australian Army camouflage colours.

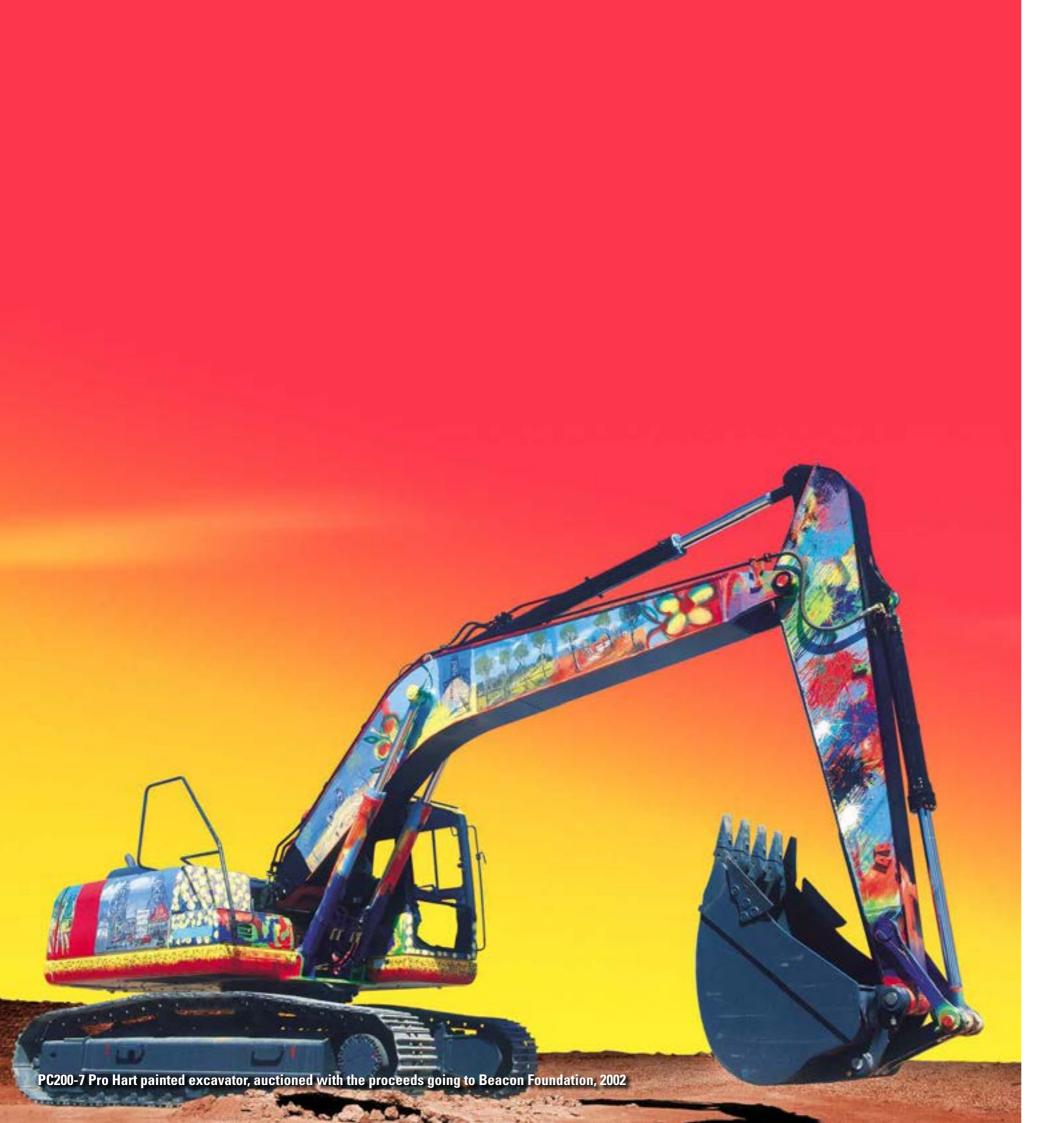
Each of the Army's Combat Engineers Regiments, located in Darwin, Brisbane and Townsville has two of these machines, while some were deployed at the School of Military Engineering in Sydney, plus a number by the 17th and 21st Construction Squadrons.

And since its initial engagement with Australia's armed forces in the mid-1980s with that first order of scrapers and dozers, Komatsu has provided a range of training and operator excellence support packages.

"When that first fleet of Komatsu equipment was delivered, Komatsu instigated the Trainee of Merit award, recognising the leading trainee each year from the School of Military Engineering's plant operator course," says Shine.

"Later that course became the Civil Construction Plant Course, and still to this day we are assisting with the Trainee of Merit award."

For many years after leaving the Army, Shine managed the Trainee of Merit award as part of his training and application engineering duties with Komatsu, with Aaron Marsh, Komatsu Australia's current National Operator Trainer Supervisor — Construction taking over responsibility since 2013.



# Section 5: Komatsu and the community



Beacon students at Welshpool branch with Komatsu's Apprentice Mentor - Jamie Whincup, 2014



Far left: Cameron Ballantine-Jones, Komatsu's General Manager NSW with Beacon students visiting the new Fairfield Branch, 2015 next to the D10S dozer refurbished to celebrate Komatsu's 50 years in Australia

# Komatsu focuses on young people and the community

Throughout its history in Australia, Komatsu and its predecessor organisations have always had a strong focus on corporate social responsibility, supporting many national and local community groups and charity organisations.

In 2002, Komatsu Australia made a corporate decision to focus its primary Corporate Social Responsibility (CSR) efforts through the Beacon Foundation – which for nearly 25 years has been working with Australian schools and businesses to divert young people away from welfare-based options and into meaningful work, training and educational opportunities.

For the past 15 years, Komatsu Australia has been an important supporter of Beacon and what the organisation is aiming to achieve, says Scott Harris, Beacon's general manager.

"Since its involvment with Beacon, Komatsu Australia has not only provided us with significant financial support to run our programs across Australia, but has also really got its 'hands dirty' in talking to young people about the challenges and opportunities open to them," he says.

"Many Komatsu employees have taken the time to visit Beacon schools and share their stories, while also letting students come into the company's workshops on tours and for work experience."

Komatsu staff have also attended – often in their own time – Charter Signing Events, career expos, conducted site tours, speed careering and participated in teacher Professional Development (PD) workshops run by Beacon.

Scott says one of Beacons' proudest achievements working together with Komatsu is that several teenagers from Beacon schools are now Komatsu employees, in both apprenticeships and traineeships – the ultimate successful outcome for these programs.

One of these is Drew Farrell, whose experience with Beacon and now a fully qualified Komatsu apprentice, is outlined in this special 50 years publication.

"On the occasion of Komatsu's 50th anniversary in Australia, I would like to take the opportunity to thank all the people at the company who have given so much time and effort over the years to making this partnership work, and giving something back to our young people," says Scott.

"And this journey still continues – remember, there are still tens of thousands of young Australians who are not in full-time work, education or training.

"Together we can all keep making a difference," he says.

### Komatsu provides major support for cystic fibrosis research

As an additional part of its Corporate Social Responsibility commitments, Komatsu Australia has recently donated \$10,000 towards research and support program for cystic fibrosis, supporting Sydney-based Matthias Fuchs, who some years ago initiated the Qantas Flying Marathon for Kids with Cystic Fibrosis.

Matthias' 13-year-old daughter Kristen has cystic fibrosis (CF), and for many years he has been actively raising funds to help find better treatments and a cure for this terrible disease.

On November 25, 2015, Komatsu Australia's Managing Director and CEO Sean Taylor officially handed over a cheque for \$10,000 to Dr Peter Cooper, Department Head of the Cystic Fibrosis Unit at Westmead Children's Hospital.

Research into treating and preventing CF is critical in this battle, and Dr Cooper explained to Sean how ongoing research can be optimised by employing specialists to undertake specific research in order to develop improvements in CF care — and a hope for a cure.

The clinic's sole focus is to continually pursue and explore ways to fight what is such a devastating disease for kids and their families.



Dr Peter Cooper & Sean Taylor visiting the Cystic Fibrosis ward



From left: Matthias Fuchs, Dr Peter Cooper and Sean Taylor at the official \$10,000 handover to Westmead Hospital, NSW in 2015

#### What is CF?

Cystic Fibrosis is the most common life threatening recessive gene condition. It attacks the lungs and digestive system with repeated infections leading to lung damage and eventually respiratory failure.

The pancreas is also impaired, which leads to poor nutrient absorption and restricted growth.

When a newborn baby is diagnosed with CF in NSW (through a simple heel prick test) they are referred to the CF centre where a multi-disciplinary team helps to provide the best possible care for the child and family.

Children with CF need lifelong constant care and treatment beginning in infancy, and tragically many die in early adulthood. One in 25 people carry a gene that can cause CF and one child is born every four days with the disease.



Left to right: Libby Baker (Wife), Geoff Baker - MACA Operations Director, Grant Menhennett - Komatsu Business Development Manager, Emma Adams, Bryce Munro, Brett Baker

# Komatsu makes major contributions to Perth cancer fundraiser

Komatsu Australia's Western Australian branch, spearheaded by Grant Menhennett, its Western Region Business Development Manager, Major Accounts — Construction & Quarry, has raised significant sums of money for Perth's Ride to Conquer Cancer in recent years.

In 2015, the branch donated \$25,000, while Grant's fundraising efforts – from colleagues, customers, friends and family – totalled over \$60,000.

He raised \$43,000 in his own name – the largest fundraiser for this year's ride, which raised a total of \$4.5 million for cancer research and support programs at Perth's Harry Perkins Institute of Medical Research.

The Institute's annual Ride to Conquer Cancer is an annual two-day bike ride through Perth and surrounding regions, with each day's ride totalling just over 100 km.

Grant was introduced to the fundraising ride three or four years ago by MACA, one of his major accounts, through director Geoff Baker – who has been a driving force for the company's involvement.

"I've ridden in the ride for the past two years; you really do have to be a part of it and put in the effort on behalf of everyone who's donated to you," says Grant. "Our CEO and President Sean Taylor has always been a strong supporter of the Ride, and this year our recently appointed Western Region General Manager Glenn Swift has really picked up the ball and run with it," he said.

Komatsu Western Region people who participated in the 2015 Ride, in addition to Grant, were Richard Edmiston, Glenn Swift, Simon Darnell, Ben French, Scott Newman, Duncan Faint, Assha Corry, Anthony Crofts and Ted Santos.

"It was great to see the very strong community support for the Ride this year, considering these are very tough times for Perth," said Grant.

Funds raised in the 2015 Ride are already being put to good use at the Harry Perkins Institute, including new methods to tackle pancreatic cancer, devising a new way to target liver cancer using nanoparticles, developing a tiny RNA, called a microRNA, to treat liver, head and neck cancer, developing a new way to treat triple negative breast cancer and treating advanced melanoma with small RNAs.



2016 Red Bull Racing Holden VF Commodore



Kevin Waldock's #28 Komatsu Falcon, 1993

### 50 years of Komatsu in Australian motorsport

The rigours of motorsport reflect the foundations of the Komatsu brand. Constant improvement and refined performance under pressure are a part of Komatsu's DNA and the characteristics of successful motorsport campaigns.

In motorsport precision and efficiency are absolutes. Successes are earned with constant analysis, incremental improvement and with grit.

Over its 50-year local history, Komatsu has held an affinity with the leading edge of motorsport.

Whether Formula One, V8 Supercars, drift, drag, off-road or motocross, Komatsu's support and involvement with motorsport tends beyond liveries and racing suit embroidery.

Through the 1980s and '90s Komatsu supplied parts to both Williams and Lotus F1 teams.

Co-founder of the Williams F1 team, Patrick Head, recalled the quality of Komatsu parts and service.

"Komatsu engineers were responsible for gear profiles once we'd given them all the installation detail," Patrick said.

"It was a very good relationship for Williams, Komatsu made an extremely good quality spiral bevel gear primary drive."

Domestically, Komatsu has long been a partner to teams in what is today the V8 Supercar championship.

In 1995, owner-driver Kevin Waldock drove the Komatsu yellow liveried #28 Falcon with top 10 results at Bathurst and Sandown in the Australian Touring Car Championship.

The relationship with Kevin spawned Australia's first trackside hospitality area, using his Komatsu transporter, with similar areas rapidly becoming prominent in race paddocks around the country.

"It was a great experience, a great era," recalls Kevin.

Like the F1 teams, Kevin leveraged Komatsu's technology leadership, briefing Komatsu Engineering to develop a next generation bias adjustment solution for the Falcon race car.

"I went to Komatsu and said I wanted a digital pot, an activated solenoid for the adjustment. I wanted a button that I could hit once or twice and put a percentage bias to the front or back, not using a screw or lever like the Dukes of Hazzard. They delivered and it worked perfectly."

It was a small upgrade, but one that stood out.

"Barry Sheene came over to the car one day and I showed him Komatsu's brake bias adjuster. He asked if anyone else did this. I told him no one, and that Komatsu made it for us. He was amazed. We were way ahead of the pack. Everybody knew who the Komatsu team was."



From left: Jamie Whincup and Shane Van Gisbergen, 2016

Through 1997 Komatsu in partnership with Pirtek backed 1980 F1 World Champion Alan Jones. Behind the wheel of the #9 Komatsu EL Falcon of the Australian Touring Car Championship Alan produced promising results.

Komatsu's commitment to V8 Supercars continues today with what has been the most successful team of the past 10 years.

A premier partner of the dominant Triple Eight Engineering team from 2008 (evolving to Red Bull Racing in 2013), Komatsu has been involved through six drivers' championships.

At the conclusion of the 2015 season, Red Bull Racing is again Team Champions. RBR's drivers, 2014 champ Jamie Whincup and teammate Craig Lowndes were placed second and third in the drivers' championship.

Komatsu marketing manager Wafaa Ghali says motorsport truly reflects the brand's values.

"Komatsu is committed to motorsport because it is analogous with the DNA of our business; leading technology, outstanding quality and reliability.

"In addition to our V8 Supercars efforts, Komatsu has supported drivers in the Australian Manufacturers Championship and the Dunlop Development Series, we have supplied skidsteers to motocross riders, supported drifters and helped our staff to go off-road and drag racing," she says.

"With 50 years of supporting Australian motorsport now behind us, we look forward to another 50 years at the forefront of competition."



Section 6: Beyond the 50 years



# Komatsu technology – innovating now and into the future

Technology and innovation is built into Komatsu's DNA – a philosophy that has accelerated rapidly in the past decade. Whether it's ICT-based machine management, autonomous mining trucks, fuel-efficient Hybrid excavators or "intelligent" dozers rewriting the rules of site earthworks, Komatsu has been at the forefront of innovation.

And the innovation is set to continue, with Komatsu Japan announcing a "SMARTCONSTRUCTION" concept that has the potential to completely change the way construction sites are managed and operated.

Let's have a quick look at Komatsu's current industry-leading technologies, before we outline some future possibilities.

#### **ICT-based machine management**

Information Communications Technology (ICT) is changing the way Komatsu interacts with its customers, harnessing the power of its KOMTRAX/KOMTRAX Plus remote monitoring systems, along with other analytical and communications tools, to help increase machine safety, productivity, uptime and availability – and reduce customers' costs per tonne.

Within Komatsu Australia's Fairfield, Sydney headquarters, its iNSITE Fleet Management Centre pulls in data from a wide range of sources, including its various telemetry, machine health and service monitoring systems, and presents them in one place.

That data, combined with Komatsu's analytical and predictive capabilities based on millions of machine hour data, allows it to work with customers to help ensure machines are working at their optimal best.

#### **Autonomous mining trucks**

Komatsu's research and development into autonomous (driverless) mining trucks goes back to the late 1980s, and has kept it at the forefront of this technology.

Now proven technology, a massive fleet of FrontRunner™ 930E autonomous trucks is hauling iron ore and overburden for Rio Tinto's mining operations in Western Australia's Pilbara region.

Controlled from a central facility in Perth, several hundred kilometres from the mine sites, these trucks have moved millions of tonnes of material, while delivering higher levels of availability and reliability than conventional manned trucks.

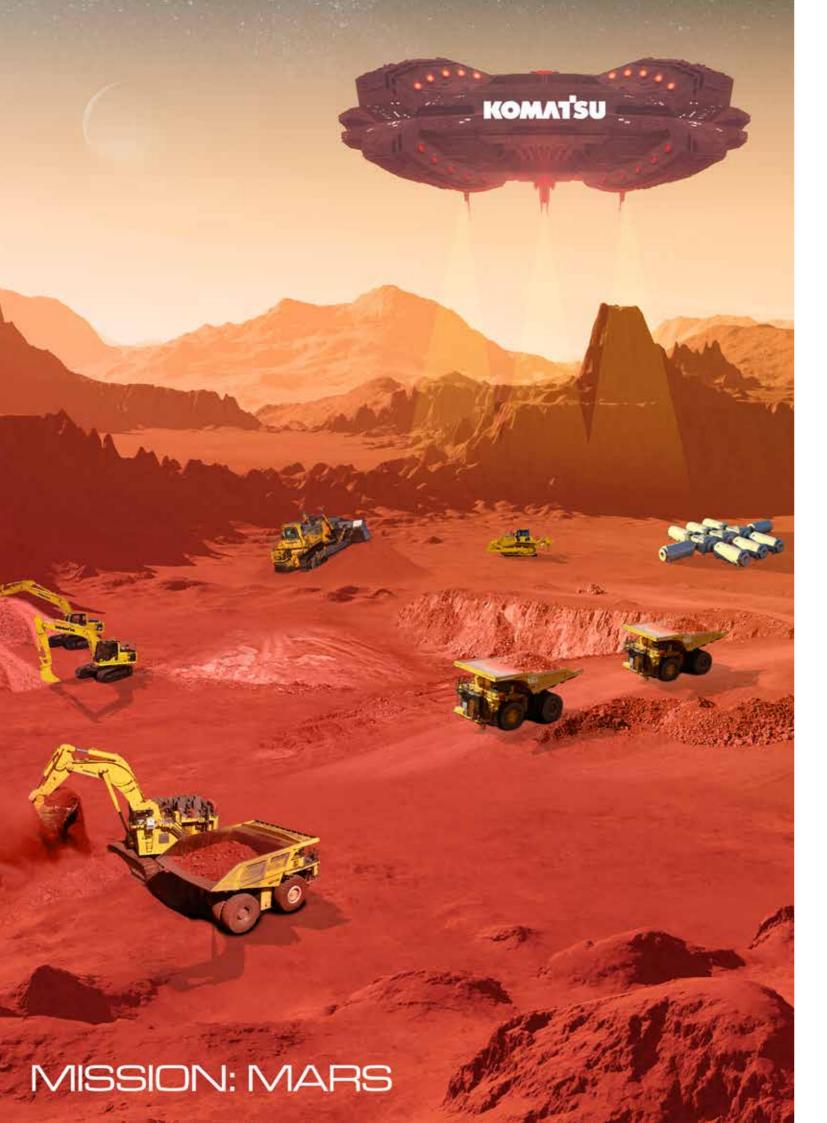
#### Hybrid excavators

Komatsu leads the industry in development of Hybrid excavators, and in 2010 released its 20 tonne class HB205 and HB215 Hybrids – launched in Australia in May 2011.

Within a very short period, these machines proved themselves to owners — delivering fuel savings of up to 40% compared with conventional Komatsu excavators — while maintaining the reliability and production standards which owners had come to expect from Komatsu.

Two years later, Komatsu launched its 35 tonne class HB335LC-1 – with Australia receiving the first machines in the world – which have continued to provide fuelsaving benefits to customers.

The heart of the Komatsu Hybrid system – an "Ultra-Capacitor" linked to the swing circuit – has shown itself to be safe and reliable across millions of hours of operations around the world.



# Komatsu technology – innovating now and into the future cont'd

#### **Intelligent machines**

Komatsu now has a wide range of "intelligent" machine control dozers and excavators working in the global construction industry.

The full range of dozer series from Komatsu, such as the D61EXi-23 "intelligent" dozer, incorporates the world's first fully automatic blade control system, allowing these machines to carry out both bulk and final trim dozing from start to finish — with final grade performance.

This allows them to significantly increase productivity and efficiency, while reducing the cost of each metre of material moved.

Representing the next generation in machine control, these machines deliver outstanding improvements in productivity compared with both standard dozers and those fitted with conventional machine control systems.

This technology is also scalable to other Komatsu machines, both smaller and larger.

#### Komatsu's "Smart" future

Drones, artificial intelligence, cloud-based project planning and management – those are just some of the elements of Komatsu's "SMARTCONSTRUCTION" concept.

Currently being implemented in Japan, SMARTCONSTRUCTION integrates a host of existing and emerging technologies – for example, bringing together its "intelligent" machine control offerings.

These include its intelligent dozer series, covering the D39EXi, D51EXi, D61EXi (introduced in Australia in November 2014), D65EXi, D85EXi, D155AXi, along with the PC210LCi, PC490LCi & PC360LCi intelligent excavator series, launched in North America and Europe in late 2012.

They are complemented by a host of ICT-based technologies and solutions to manage and implement construction projects.

Importantly, the SMARTCONSTRUCTION concept doesn't just stop once the project is completed; by storing all construction-related data (including precise locations of underground services), it allows ongoing maintenance of the infrastructure asset, as well as reconstruction work in the event of a natural disaster.

The six elements of SMARTCONSTRUCTION include:

**High-precision job site survey:** Production of precision 3D data through the use of unmanned aerial systems (UASs) or drones, 3D laser scanners, and stereo cameras installed in the construction equipment.

**3D** completion drawing: Conversion of 2D construction drawings into 3D schematics, providing a far more accurate understanding of the area, shape and volume of earth to be moved prior to construction.

**Research and analysis of site variables:** Research and analysis of variable construction factors, including soil type classifications and buried objects.

**Development of construction plans:** Construction plan simulation function outlines suggest different construction patterns for each section of the works, and when construction begins, real-time progress is updated on the simulation – allowing project managers to continually optimise their construction plans.

Advanced Al-driven construction: 3D drawing data produced in Step #2 are transmitted to "intelligent" Komatsu construction equipment, ensuring works are carried out to the highest tolerances, at optimum production rates.

**Post-project "as-built" construction data:** All construction information from a SMARTCONSTRUCTION project is retained for use in future maintenance of the infrastructure as it ages, as well as reconstruction work following a natural disaster.

Application of this technology, and the innovative thinking behind its implementation by Komatsu, is close to being realised in the very near future.

And when we look at the pace of ICT innovation, technological advances and global automation trends in recent years, the paces of change is only going to accelerate.

It's probably a safe bet to say that future developments from Komatsu are likely amaze our customers buying today's products even more than our current offerings are to those who bought those first 12 dozers in 1965! ■

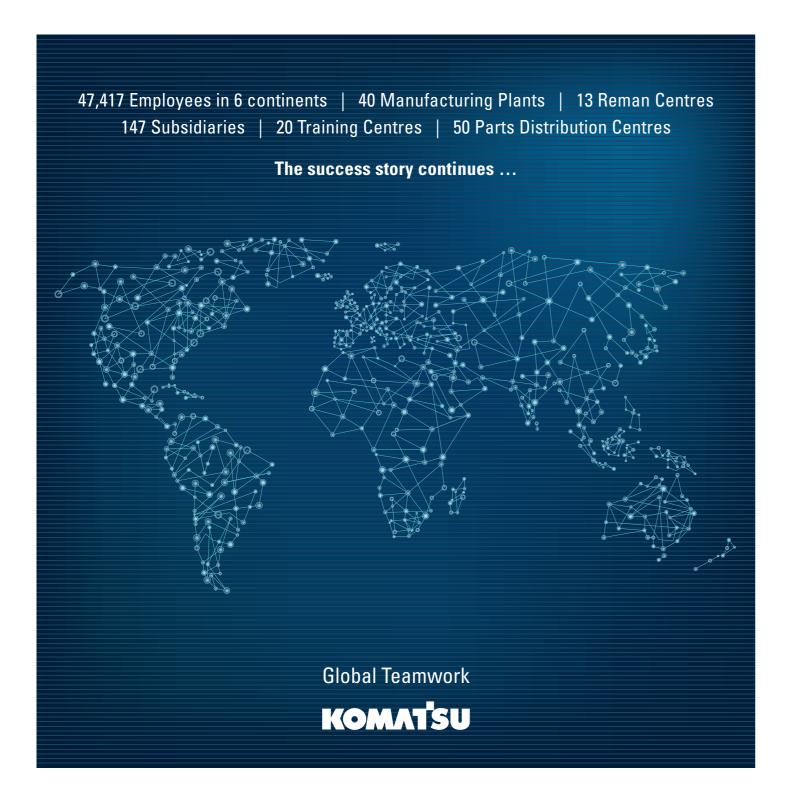
# The next step: 100 years Global celebrations in 2021

In May 2021 Komatsu Ltd will be celebrating the next major milestone, when the company has its centennial anniversary.

Komatsu began operations on May 13, 1921, with the formation of Komatsu Manufacturing Co Ltd, its main business being mining equipment repair and a steel casting division.

Since then the organisation has become a truly global entity comprising of manufacturing, distribution, service and support facilities throughout the world — with machines operating in six continents.

2021 will see global celebrations of Komatsu's achievements and its contribution to communities and key industries throughout the world.





# KOMATSU

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