



SUMMER 2020
PLUS.

William Adams 

WELCOME

WE ARE EXCITED TO WELCOME YOU TO OUR SUMMER EDITION OF PLUS AND WE ARE EQUALLY AS ENTHUSED AND INVIGORATED TO ENTER OUR SUMMER MONTHS AFTER HAVING RECENTLY LAUNCHED OUR NEW WILLIAM ADAMS STRATEGIC PLAN.

Our aspirational goals are to be bold, visionary and a world leading Caterpillar dealership, underpinned by our Values of Teamwork, Commitment, Integrity, Sustainability and Excellence.

Our new strategic pillars of Safety, People, Customers, Innovation and Profitability will ultimately deliver on our short to long term goals of being a Caterpillar dealer known for diversified, innovative solutions for our customers and a preferred employer for our most valued asset – our People.

As we enter the midway point of the 2020 financial year we are continuing to see a broad demand within the market place for both equipment and services.

This continues to excite and motivate us as this is a true reflection that our customers remain active and profitable. We also understand that our industry is not immune to the peak and trough cycles previously witnessed, however we remain positive on the back of the current levels of state and federal infrastructure projects planned, approved or underway across both Victoria and Tasmania. In fact the Victorian state budget for 2019-2020 has been boosted with an additional \$28.9 billion of infrastructure projects taking the total spend on planned, approved and current projects to \$107.3 billion, whilst Tasmania also has a very healthy 10 year infrastructure pipeline of \$15.2 billion.

As our dealership continues to evolve we are extremely pleased to welcome on board our newly appointed General Manager of Product Support Services, Mark Sweeney. This position will expedite our ability and proven appetite to provide greater levels of efficiency within our operational services space which include parts distribution modelling and future strategic planning within our Customer Solutions Group with a specific focus on the growing demand for integrated technology solutions.

The latter half of 2019 has also seen some of our long term, valued and highly respected team members hang up the boots and rejoice in the world of retirement. With this we say a goodbye and a very happy retirement from both William Adams and our customers to Tasmanian based John Moelder, Stuart MacDonald, Bill Vagg and Neil Chenhall.

As we say goodbye to our long term employees we welcome the new with our commitment in delivering career opportunities to our future generations of trades’ people with our 2020 apprentice intake seeing 18 positions offered across both Victoria and Tasmania. With a healthy applicant level of over 500, our recruitment team got to work in completing screen testing, aptitude testing, group activities, mechanical testing and face to face interviews and finally appointing the successful candidates and welcoming them into their respective William Adams’ branches.



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NEXT GEN CAT

7-10 TONNE EXCAVATORS

Hot on the heels of Cat's release of five new Next Generation Mini Excavator models in the 1 to 2-tonne class comes four new Next Generation models in the 7 to 10 tonne range.

Designed with customer experience at its core, Cat has spent six years working with customers around the world to develop its new Next Generation Mini platform and have done so by going right back to the drawing board. The result of which are four new models designed from the ground-up which provide significant performance improvements combined with lower fuel consumption, lower maintenance costs and a bunch of new features that give operators control like never before.

Next Generation 8 tonner

The new 308 CR (Compact Radius) Next Generation Excavator replaces the 308E2CR, and is complemented by the 309 CR high flow model.

Both models come with swing boom, rubber or steel tracks with optional rubber inserts as well as optional factory installed boom and stick lowering check valves.

In addition Cat are introducing to Australia a 307.5 and 310 standard radius excavator with fixed boom which would be considered digging and lifting powerhouses for their size.

Here's a rundown on all the features that come with these new models:

Stick Steer and Cruise control

All models come with Caterpillar's new Stick Steer and Cruise control function. At the press of a button on the left joystick the machine switches off the traditional travel levers and activates travel through the left joystick. Stick Steer allows operators to quickly and efficiently doze, backblade, cleanup or travel by moving the lever in the intended direction of travel.

Cruise control, as the name suggests is just like automotive applications where, when activated, the machine continues travelling at the operators chosen speed and direction until deactivated by a simple movement of the travel lever or joystick.

Switching back to digging mode is a simple push of the same button.

Adjustable hydraulic response

Up until now the only way to fine-tune performance needs out of an excavator of this size was to adjust engine RPM. More engine revs gives more power and faster cycle times. Lower revs reduces speed and gives more control. Cat has introduced a second level setting that allows operators to set machine functions to a desired level of response.

Want fast cycle times? Set the boom and stick on aggressive mode and the machine gives you maximum hydraulic flow for the power available which is great for bulking out, trenching or truck loading.

Have an inexperienced operator or need to lift delicate objects? Then set fine mode and it slows everything down so you can complete finer tasks without compromising on power.

Next Generation full colour LCD Monitor

Cat's Next Generation monitor covers a variety of functions all in the one screen. As well as analogue gauges for fuel and temperature the monitor serves as the control centre for most requirements including:

- AM/FM Radio
- Bluetooth smart phone connection to play music, make or receive calls
- Pattern changer
- 1 way / 2 way auxiliary control
- Auxiliary flow and pressure settings
- Heater, A/C and fan controls
- Security passcode settings

Keyless start and passcode security

All Next Gen machines come with two integrated Bluetooth keys that signal its proximity to the machine, thereby allowing the machine to start - the key itself is no longer needed. In its place is a push-to-start button which is used together with a passcode entered into the monitor. Up to 50 codes can be programmed into each machine so operators, site foremen, service mechanics or owners can have their own code.

Exceptional Lifting Capacity

The 308 CR Next Generation Mini Excavator brings with it an impressive increase of 65% in lift over the front and 40% over the side, compared with the previous model. This combines with a 25% improvement in swing torque to ensure the 308 CR continues to perform whether digging on slopes or lifting and placing heavy objects.

New 309CR High Flow

In addition to the 308CR, is the 309CR high flow. As the name suggests, is a little heavier and provides dedicated hydraulic power to the auxiliary circuit to allow use of power hungry attachments such as mulchers, mowers or augers while also allowing the machine to simultaneously travel, or multi-function.



This is made possible by including a dedicated hydraulic pump to the auxiliary lines that separates it from other machine functions like travel, swing or boom and stick functions. Technically this isn't high flow as maximum flow and pressure to the auxiliary lines doesn't change. What does change is no loss of hydraulic power to the attachment when using other machine functions. Without the dedicated pump this drop-off in hydraulic power is dramatic with up to 80-90% of hydraulic power lost when using other functions. The 309CR with its dedicated auxiliary pump significantly reduces this drop-off which keeps the attachment running at full power.

In addition to all of this the new 308CR and other models offer up to 10% lower ownership costs through lower fuel consumption, lower repair costs and extended service intervals. It also provides 20% performance improvements through enhanced lifting capacity, enhanced swing power and enhanced travel and multifunction that allows operators to do more than ever before.

To learn more contact your nearest William Adams' branch or sales rep to arrange a demo.

DIGGA TAKE DELIVERY OF ONE OF AUSTRALIA'S FIRST NEXT GENERATION CAT 308'S...

Digga Excavations & Demolitions Pty Ltd are based in Moriac, south west of Geelong, and PLUS had the opportunity to spend some time quizzing Director, Mark Fowkes and plant operator, James Martin, on their first impressions of their new Cat 308.

Mark told us that Digga had been in operation since 2000, having purchased their first excavator and started doing some work for a local demolition contractor. Fast forward to 2019, and the business now run a large fleet of plant and equipment. Digga's first experience with Caterpillar was in their early days, just three or four years in.

"Now we've got seven or eight Cat machines, two 12 tonners, a 25 tonner, two of the large track skid steers, a 5 tonner and we've just recently taken delivery of the new 308", said Mark.

"When we went looking for a new 8 tonner for a specific job we'd won, we needed to run a concrete saw; looking at the Cat we found that it had a lot to offer option-wise, and the variable speed we could dial in allowed us to slow the saw down..... and then dial it right up within seconds and it's going at full speed. It was quite an attractive option so we ended up with the Cat!"

"We did look at other machines but we thought that the 308 had so much to offer. Fuel economy was good and then all the creature comforts that our operator really liked. That's why we decided to go that way".

"After speaking with James after he'd used it for the first month, he was really impressed with it compared to our 12 tonners..... he said it's every bit as good, it's quicker and he reckons it's got just as much power".

"James has reported that even compared with our 312's (a B model and a C model), the 308 had great lifting capacity, was really smooth, and this helped when he was doing intricate work on demolition jobs. Its ability to multi-function was quite good, as it allows us to track, slew and dig all-in-one, but still with plenty of power".

"We do a fair bit of walking with our machines, so our boys love the cruise control, it's awesome. One of Cat's sales points on the 308 was that it would offer 20% better performance and we'd have to agree with that".

"With any new machine you get some issues and questions, but with William Adams I've noticed that they're responsive when returning my calls and I get any follow-up that I've

needed. Service over many years has been second-to-none, and the parts guys are great - you ring up and they're always very helpful.

Operator James Martin is proud to operate his new machine. "We've just taken delivery of the Cat 308, and it's got a lot of new features", James told our PLUS reporter. The stick steer is similar to a skid steer pattern, so it makes it nice and easy to use".

"The 308 also has a keyless start with a simple code - you can use up to 50 different operator codes which makes it easy instead of having to leave the keys on the machine all the time".

"I'm really impressed with the 308. The power, the reach and the stability, nothing comes close to it. And, the air-conditioned cab and heated seat means it's more comfortable throughout the day".



"I'm really impressed with the 308. The power, the reach and the stability, nothing comes close to it. And, the air-conditioned cab and heated seat means it's more comfortable throughout the day".

CAT 249D CONSIDERED BEST OPTION

Keith Haysmith from Sand 'n Soil in Bairnsdale recently set about updating his aging Cat 216B Skid Steer Loader. Being an ex-William Adams mechanic from many years back the decision to stick with Cat was relatively easy.

With local service and parts support covered, the toughest decision was which model to select. Keith settled on the Cat 249D Compact Track Loader which features a fully sealed cabin, High Flow hydraulics, LCD display, ride control and reverse camera as standard.

The new 249D is pictured here landscaping Keith's new house that sits on the beautiful Gippsland Lakes in East Gippsland.



CATERPILLAR SANFORD, NORTH CAROLINA FACILITY CELEBRATES 20 YEARS OF GROWTH AND GLOBAL SUCCESS

Caterpillar's Building Construction Products Division facility in Sanford, North Carolina, recently celebrated 20 years in operation. Sanford remains the world-wide source plant for Caterpillar's range of Skid Steer Loaders, Multi-Terrain Loaders and Compact Track Loaders.

With a growing workforce of more than 1,300 employees, Caterpillar Sanford recently produced and shipped the 300,000th machine – and the number continues to grow. The Sanford campus now encompasses 62,000 square metres across four separate buildings.

The products made in Sanford are used in a variety of applications including landscaping, general construction, land clearing, road construction, utilities and demolition. The type of work in the factory includes track and robotic welding, computer-controlled machining, state of the art powder top coat paint system, modular sub assembly, on-site product design, development and performance testing and pre-delivery inspection.

Where It All Began: The A-Series Skid Steer

The facility opened for its first full year of production in 1999 with the first A-Series skid steer loader. The facility launched the B series in 2004, the C series in 2007 and is now producing the D series of Caterpillar machines.

To celebrate the 20th anniversary milestone, leaders, employees and their families gathered to tell stories, share memories, and reflect on two decades of progress and growth.



NO FRILLS, NO FUSS, JUST BREAK WITH CAT® HAMMERS!

The latest additions to the Cat® hammer lineup provide new levels of technology and performance, but, as Cat Work Tools consultant Jason Zhang explained, are designed with a “no frills and no fuss” approach.

The new, no frills GC Series hammers offer a straightforward design to meet the needs of everyday users by doing away with features that generally add to purchase and operating costs. “These are economically priced hammers, built with Cat quality – but without the frills,” Mr Zhang said.

“The no frills design means the GC-Series is easy to operate, simple to maintain, reliable and durable. Operators can simply get the job done – there’s no need to spend time on complicated settings or adjustments, meaning productivity on the job site is sure to improve,” he said.

Hydraulic hammers are one of the most versatile work tools available and able to extend the usefulness of skid steer loaders, backhoe loaders and excavators of all sizes in applications from civil construction, road building, earthmoving, quarrying and mining.

The seven new models added to the Cat range include the H110GC, H115GC and the new GC Silenced Series H110GCs, H115GCs, H120GCs, H130GCs and H140GCs model.

The five GC silenced hammers, further expands the Cat hammer portfolio by offering additional benefits to customers looking for life cycle value on excavators in the 11- 40 tonne range.

“The introduction of these hammer models expands the portfolio and supports our strategy of offering customers options at differing value points,” Mr Zhang said.

The Cat hammer portfolio now includes:

- E Series Performance Hammers
- GC Silenced Value Hammers
- GC Value Hammers

The new GC Silenced Series hammers complement the current E Series Life Cycle Performance and the GC Value hammers, Mr Zhang explained.

“These three tiers will allow Cat dealers to identify critical customer and job requirements and provide a Cat hammer solution that is ideally suited.

Matched with all common carriers, the range is ideally suited to Cat machines as a total solution providing seamless hydraulic connectivity and maximum performance.

“Operators can take advantage of simplified design features including adjustment of the hammer power via a manual control adjustment on the side of the power cell,” Mr Zhang explained.

“The operator can select between high blow frequency and maximum power to get the performance you need to suit your application,” he said. “The long stroke which has less piston frequency but more impact power and productivity is best for tougher applications, while the short stroke which has increased piston frequency but with less impact power is best for lighter applications.

“All in all, the new Cat hammer line up offers a model ideally suited to every need while maintaining Cat levels of performance that customers and operators expect,” Mr Zhang said.



IT'S ALL ABOUT THE ATTITUDE....

I GREW UP ON A DAIRY FARM IN CAMPERDOWN, WHERE MY LOVE OF MACHINES STARTED. FROM TRACTORS TO HEADERS (COMBINE HARVESTERS) TO TRUCKS.

I moved to Melbourne when I was 15 and started a carpentry apprenticeship. As soon as I was qualified, I started my own carpentry business employing people. I wanted to expand my skills learned on the farm to do more than just carpentry. I decided to buy a bobcat and small excavator to do the footings and site cuts on the jobs I was on. I ran that company for many years until I eventually had enough of framing houses and wanted a change.

In 2012 I went to the Kew Cottages development as a defect carpenter. While being on such a huge site I was able to watch other guys working away in their machines and it made me realise I wanted to get myself into a machine on a more permanent basis. I purchased a 12-tonne excavator so that I could focus more on earthworks.

Walker Corporation was the developer running the entire project. They saw the value in me knowing both construction and earthworks and knew I was a good fit for them as a site supervisor for both the construction and civil works including the roads and infrastructure. I was able to use my skill to build all the parklands and haul roads for the site which I loved doing.

One Friday in May 2013 I parked up my machines and went home for the day not knowing that would be my last day on that site doing what I loved.

I went to the motocross track the next day as I did most weekends. I had a bad crash over a jump. I broke my neck in two places and broke my back in five. I also collapsed both lungs, broke most of my ribs and suffered internal bleeding. My injuries were so severe my wife was told that there is a chance I might not make it through the surgery. Thankfully I pulled through. I was instantly paralysed from the moment I hit the ground.

I am now a high-level paraplegic which means I have no movement from my chest down. I spent the first 10 days in ICU. After two more weeks in hospital I was ready to focus on my long road ahead at a spinal rehab centre which happened to be across the road from the site I was running.

I could see the progress moving forward from my bed, which was very hard. I have always done such physical work that I wondered from a very early stage in my rehab journey how I was going to continue to provide for my family. My wife was three months pregnant at the time with our second son and our first-born son turned 2 while I was in rehab.

I was able to leave the rehab centre before the birth of our little boy. I worked really hard as I didn't want to miss his birth.

My first time out on my own in public in my wheelchair as a paraplegic came within a week or two of being home and it was to enrol at University. I was scared at the unknown but more determined than ever to do what it takes to rebuild our life. I enrolled myself for the Advanced Diploma of Architecture and Building Design course which would take 2 years to complete. I figured while I may not be able to physically build them anymore, I certainly knew how they were put together which can be very advantageous in the design process. At the same time as attending uni I worked part time with an architect to gain more knowledge and experience. During this time I challenged myself further and set another goal of becoming a Registered Builder which I successfully completed in 2016 and also became a Registered Architectural Draftsman at the same time.

My wife and I re-established our company **Jewel Developments**. We opened an office and consulting space in Melbourne a year and a half ago and haven't looked back. Here we design and build custom homes for people.

Over the last 6 years of being confined to a wheelchair there were many times I had thought of the possibility of getting myself back in machines but have always been too busy to entertain that thought for long. With all my major goals ticked off and having our business thrive it was time to be more hands on and tackle this dream. I wanted to get back into machines and do our own earthworks again.

I've always loved CAT products so for me it was an easy choice in which machines I was going to buy.

During my time at Kew I was able to use a CAT D9 Dozer and a 15 Tonne CAT excavator. After all the different machines I have operated, these felt great from the second I sat in them. The hydraulics really stood out to me on the excavator and the power it had over previous machines I had operated.

I went down to William Adams in Clayton and met with Anthony Gagliardi. I imagine it's not every day you get a guy in a wheelchair wheel in and ask to buy two new machines with the intention of operating them himself. Anthony treated me with nothing but the highest respect and my injury never came into question. I bought a new CAT249D and a 305.5 from him and I couldn't be happier with my machines and the customer service provided.

Since getting my new machines I also got my Demolition licence. These machines combined with that license now allow me to have full control of my sites. And more importantly, I get to operate them myself and get back to something I love that I was never sure I'd be able to do again.

I would encourage anyone who may be in a position similar to myself who dreams of going back to their career or passion to give it a try no matter how hard or impossible it may seem.

PLUS would like to thank Michael and Sienna for their business, and for authoring their story for PLUS. Very early in our relationship with Jewel Developments, we realised there was an amazing story to be told, and we feel privileged to share Michael and Sienna's journey with PLUS readers.

TWO LOADERS - COMBINED 100,000 HOURS SERVICE

MAWSONS HAVE TWO LOADERS IN THEIR FLEET WHICH HAVE BOTH JUST CLOCKED UP 50,000 HOURS SERVICE EACH; A CAT 980C AT YABBA AND A CAT 966D AT COONANGA SAND PIT.



The 1989 Cat 966 was purchased brand new to work on the face at the Lake Boga Quarry. The loader was ordered through William Adams' Swan Hill sales representative, Don Stemmer. When the loader arrived Sid Brown from William Adams commissioned it and made any necessary modifications to suit the face loading application.

John (Moonie) Taylor was the face loader operator at the time and saw the machine as state of the art with production cycles improving considerably. The 966D replaced a GM Powered Clark Michigan 125B. John said the new loader had good digging power with good fuel economy delivered from the 3306 Cat engine. In 1992 the 966D loader worked on the Torrumbarry Weir project. It was one of two Mawson loaders that worked around the clock operated by John Taylor, Joe and Mick McArdle, Wayne Van Every and Ossie Costello.

The 966D did around 12,500 hours work at the quarry face with John in control. It stayed in the Lake Boga pit for a few years after that taking primary crushed material from the J-Track mobile primary crusher to the feed bin which delivered rock to the secondary plant. Around 1998 the loader came out of the pit to go on to sales with John Taylor at the wheel again. It stayed on sales for a number of years at Lake Boga until it was transferred to the north east. Around 2006-2007 the loader was parked up at Glenrowan Quarries in poor condition.

The decision was made by the general manager at the time, Geoff Wakeman, to take the loader to Lake Cooper Quarries and get mechanic Des Grogan to refurbish the machine,

including a fresh coat of paint and new tyres. It ran at Lake Cooper for a number of years helping with pre-coating, wet-mixing and sales loading.

The loader was then taken to Coonanga sand plant on loan around nine years ago with the promise it would be shortly returned! That is yet to happen! The 966 has worked well and now has over 50,000 hours on it. It has been considered a good work horse by all that have operated and maintained it over the many years.

Cat 980C Loader

A new 980C loader was delivered to Lake Cooper in 1990. Joe McArdle operated it at the face for several years. This was the first new 980 loader that Mawsons had at the face for several years. The new 980C replaced an old 980C which had been purchased second hand from Praznovsky Carriers in Melbourne.

The 980C was sent to Yabba from Lake Cooper when Mawsons bought their first 980G loader, only the second 980G to be sold in Victoria (the first was bought by Stawell Gold Mine).

The 980C was operated at Yabba by Brian Costigan (Cos) for many years. This loader is still at Yabba, and is now used as a back-up loader, but in its day it could easily put out 2,000 tonnes of quarry products.

Thanks to E.B. Mawson for allowing us to reprint this article in PLUS.



Col Smith Earthmoving from Fish Creek in South Gippsland recently took delivery of a new Cat 320 NextGen hydraulic excavator, which replaced an ageing Cat 319DL which has performed faultlessly for many years. The new 320 will be used around South Gippsland on dairy farm upgrades and varying civil projects.

Col and Sue have been long time customers with William Adams and their continued support is very much appreciated.



Starting to teach 'em early about the benefits of the elevated sprocket!

WORTH THE WAIT

Southern Tasmania's professionals when it comes to moving significant volumes of bank material, Hall Earthmoving, owned by Mick Hall and son Chris, agreed to purchase a new Cat 330 Next Generation Hydraulic Excavator in November 2018. It was to replace their aging Cat 329DL which had accumulated 12,000 trouble - free hours since it was purchased new from William Adams in 2010.

The industry's acceptance of Caterpillar's Next Gen models had outstripped expectations, resulting in a lead time longer than Mick and Chris had in mind, nevertheless in June, the plan unfolded with the arrival of the new 330 at Berriedale Branch ready for the build-up process to commence.

The 330 Next Gen configuration was carefully agreed by Chris Hall with William Adams' Hobart Sales Representative, Bill Vagg during the ordering process.

Both Mick and Chris were adamant that the configuration suited their needs in terms of addressing design, durability and performance, and the ability to order the 330 with so many options included "ex factory" was seen as a significant benefit for Hall Earthmoving.



The new Cat 330 is pictured, with the following options, all included from the Cat manufacturing facility in Japan:

- Full length track roller guards
- Cabin top guard
- Cabin front guard
- Upper car body bump coamings
- Hydraulic pin grabber Quick Hitch
- CAT pin grabber bucket (with pins recessed into the torque tube, minimising stick force loss when utilised with the hydraulic hitch)
- CAT double linkage thumb capable of following a wide range of bucket rotation
- CAT hydraulic lines and fittings

Other CAT equipment owned by the Hall family include Tandem powered Scraper, Track Type Tractors, Articulated Dump Trucks, Hydraulic Excavators, Vibratory Rollers and Motor Graders.



LAUNCESTON CITY COUNCIL, NEW 950M

The City of Launceston in Northern Tasmania decided that it required a new Wheel Loader for its purpose built Food Organics Garden Organics (FOGO) composting facility at the Launceston Waste Centre. The current Wheel Loader doing the job was too small and unable to comfortably keep up with the required FOGO production. The anticipated future volume of FOGO would require a high production machine to keep up with the Council's and the community's growing needs.

In May 2019 the City of Launceston called tenders for a New 18 to 20 tonne medium size Wheel Loader and after an extensive evaluation process the Council ordered and took delivery of a new Caterpillar Model 950M in July. The 950M is a state of the art medium sized high production Wheel Loader with an approximate operating weight of 19,200 kg's, and fitted with a Cat C7.1 diesel engine with a rated maximum power of 196 kW.

In addition to the standard high production features of the Cat 950M, this machine is configured for the FOGO

application with a special Cat 5.35 cubic metre Material Handling bucket (the standard 950M bucket size is 3.4 cubic metres) and a Cat Payload weighing system. The 950M is also included in William Adams all new 335 ADVANTAGE Fixed Price Servicing program.

The new loader handles FOGO and the end product compost in all stages of its processing. The FOGO composting process is undertaken with forced aeration technology to ensure the material is kept aerobic so that the microbes can convert the product into usable compost. Water is used in conjunction with the aeration process, to maintain an even temperature of the product.

The process follows strict quality standards (AS4454-2012) to ensure the compost product is free of weed, seeds and pathogens. This compost is used at Council maintained parks throughout the Launceston municipality.

To date the hard working and dedicated Council employees at the FOGO facility are delighted with the performance, operator comfort and serviceability of the new 950M. The size and the productivity of the machine have ensured that the Council will be able to handle and process ever increasing volumes of FOGO well into the foreseeable future.

Also, in the same vicinity as the FOGO facility the Council owns and operates a Cat 730C2 Articulated Dump Truck that is used in the construction of landfill cells.

William Adams congratulates the City of Launceston for their commitment to FOGO recycling and looks forward to continuing to support the Council's Caterpillar machines wherever they may be operating.



“IN THE BLOOD” — PENGELLY EARTHMOVING

At just 25 years of age, Jack Pengelly, third generation Cat owner has been operating all types of machinery since a very early age. He grew up working in the family earthmoving business, A & G Pengelly, where he learned to operate all types of machinery, including a Cat 130G Grader that was purchased from William Adams in the late '70s, and still operates today.

Jack always knew he would end up working in the earthmoving industry and couldn't wait until he was old enough to leave school and start work. "It's all I ever wanted to do. I remember having numerous days off school just so I could go to work with Dad (Gavan), Pop (Tom) and my Uncle (Alan). They taught me everything I know and would always say, do it once and do it right!"

Jack left school in Year 11 and first began working with a civil construction company, operating a range of earthmoving equipment. He mainly operated the grader and in 2016 decided to buy a pre-owned 140M with 5,500 hours and start Pengelly Earthmoving.

"I wanted to purchase my own grader and see how I would go working as an owner-operator." Jack worked on numerous infrastructure jobs around Melbourne and decided after two and a half years to purchase a new 140M. "I always knew I would buy my own one day. Cat have great machinery and are reliable."

Jack runs Trimble and specialises in GPS/UTS Final Trim Grading. He plans to continue working as an owner-operator and updating his Cat 140M Grader when required. "I love going to work and I want to continue learning and improving my skills. I don't see myself doing anything else."



During the height of the Great Depression Caterpillar continued developing cutting-edge new products. In July 1938, our road machinery division launched a new machine called the Caterpillar Diesel No. 12 Auto Patrol – part of the product line known today as motor graders. The Diesel No. 12 went on to be the most recognised, longest running machine on the Cat Motor Grader product line.

What Made It Special

In 1938 the Caterpillar Diesel No.12 was successfully demonstrated to an enthusiastic group of Cat dealers in Peoria, Illinois. Its design was unique and is the origin of the modern motor graders we see today. But in addition to being stylish, the No. 12 was also a heavy-duty, self-propelled road grader designed for efficient and economical road building and maintenance work.

THE CAT® NO. 12: THE ORIGINS OF THE MODERN MOTOR GRADER



The No. 12 had a range of useful blade positions, surpassing all competitors of its time. In addition to high and low bank-cutting positions, the blade could be turned completely around, facing backwards, which meant an operator could continue to do work while driving in reverse. This feature was valuable for subgrade work, shaping bad spots, working short stretches, or where turning was difficult.

With the blade now mounted in the centre position on the blade beams, the new Auto Patrol also permitted a correct ditching position on either side, with the toe of the 12-foot blade directly behind the front ditch wheel and ample clearance to prevent clogging.

Its six-cylinder Caterpillar diesel engine delivered 66 brake horsepower and was mounted over the driving axle to best utilise its weight in preventing wheel slippage. A gasoline starting engine ensured easy starting regardless of atmospheric temperatures.

The transmission offered six forward speeds and two in reverse. A low speed provided both maximum pull for the heaviest jobs and more precision for fine grading. Second speed permitted faster operation for most ditching and other heavy work. The higher gears provided an ample speed range for a mix of road work, snow removal and travel. The Caterpillar Diesel No. 12 Auto Patrol was even equipped with two-speed powered mechanical blade controls. A simple shift of a lever gave the operator faster control for the longer blade movements required by coarse work. For close finishing work, a slower control setup provided extreme accuracy in blade settings.

Relevant Today

The DNA of the Diesel No.12 is still on the product line today, where it is known as the Cat 12M series. With over 80 years of service, it is the longest-running production model in the grader product line.

AN INDUSTRY LEGEND – THE CAT 518 WHEEL SKIDDER A PERFORMANCE STUDY, FROM “THE WILLIAM ADAMS VAULT”



The Caterpillar 518 Wheel Skidder – A message from the Sales Manager, 1972

In May 1972 William Adams Tractors Pty. Limited introduced the new Caterpillar 518 Skidder to the Forestry Industry of Victoria at a series of demonstrations and trials in a wide range of different bush and conditions.

This report has been prepared for your information to help you to evaluate this new machine.

Wheel Skidders in the Bush

The Wheel Skidder has been called the most significant piece of equipment to be introduced to the logging industry since the advent of the chainsaw. It is now the key production unit on many top logging operations. When used correctly, under the right conditions it is a high production machine. However, when misapplied, the opposite can be just as true.

Locations

The machine was worked for periods of several days in each of the logging areas identified - 30 miles north-east of Licola; in the Brodrigg about 16 miles east of Orbost; in the Mt. Drummer logging area, Princes Highway 15 miles east of Cann River; in an A.P.M. coup in the Jeeralangs south of Traralgon; near Neerim East and in the bush area of the Otways. These were the sites of the main demonstrations but the machine was also operated for a short period at other locations.

Price

The list price of the Cat 518 Skidder equipped as described, is \$31,700.00

How does this compare with other skidders? We believe very favourably. Some of the features of the 518 Skidder praised by observers are compared with the two top-selling

skidders in recent years – features which help to provide power, braking performance, stability, low noise levels, comfort and ease of operation.

SUMMARY OF THE MAIN DEMONSTRATION

Moroke Logging Area – 10th May 1972

The machine worked for part of 3 consecutive days, with a demonstration on 10th May to a group of logging contractors. It was mostly operated by Mr B. Wheeler, in whose coup the demonstration was held.

The 518 performed well in a wide range of hard logging conditions to pulp wood. Grades of up to 20% (1 in 5) were experienced. The conditions were fair to damp but not wet. Log sizes were 1,200 super feet, which was considered ideal for the locality.

Observers noted quiet operation, rugged construction, stability and ease of operation; “it’s a great machine!”

Mt Drummer – 27th May

The demonstration was held in Mr K. Broome’s bush in conditions that were excellent for skidder operations; dry underfoot, with generous easy grades but some steep pinches. Timber was mostly messmate silvertop mill logs, ranging from 1,000 to 2,800 super feet per log. Grades approaching the landing ranged from 12% to 20% (1 in 5).

The ability of the skidder to load a truck was demonstrated by loading 7,350 super feet in a satisfactory time with use of additional skid logs for the top half of the load.

Again the ease and quietness of operation, ample power and rugged construction were praised by operators and visitors to the site.

A.P.M. bush, Jeeralang

The skidder was demonstrated in steep country in the pulp operation of Mr I. Crawford, and was operated by one of his staff. The timber was 35 year old regrowth mountain ash. Conditions were rough and the skid track surface very uneven though dry, grades averaging around 30%.

The skidder worked at two landings, and during the days of its operation, hauled an average estimated 1,500 to 2,000 super feet per load of up to 33% (1 in 3), resulting in a production to the landing of 40,000 super feet per day.

It’s stability in these conditions particularly impressed.

Neerim East – 28th June

The machine operated for two days during which a demonstration in the mixed gum bush of Mr W. Weir, skidding mill logs. In a continuous production sequence the 518 skidded approximately 8,000 to 9,000 super feet of timber in one hour, up grades ranging from 30 – 40% (1 in 3 to 1 in 2 ½) for 500 feet, plus a level haul of 300 feet.

In dry conditions this skidder “draw-barred” 800 super feet up a 35% slope. The skidder was able to turn on a 40% slope, demonstrating its stability capabilities.

COMMENTS ON PERFORMANCE

There was general agreement among observers that the Caterpillar 518 Skidder is a superior all round machine with high performance on both pulp wood and mill logs in a wide range of conditions.

Viewers commented very favourably on the machine’s power, efficiency, stability and rugged construction, low noise level and ease of operation.

IN TASMANIA TOO

At the same time, a 518 Wheel Skidder was under trial in Tasmania at several locations. Logs of 2,500 super feet handled very well in conditions varying from hard rocky terrain to soft, muddy underfoot conditions.

PROOF – IF PROOF IS NEEDED

Proof of the 518’s performance is in the fact that the machine which was demonstrated in Victoria has been purchased by the first man who saw it, Mr B. Wheeler of Heyfield.

In Tasmania the 518 was bought by Mr R.K. Richman, a renowned logging contractor based in Scottsdale, who already owned a non Cat skidder of another make. Mr Richman made the following comments after 250 operating hours with the new Cat 518:

- “a very stable machine”
- “ample power”
- “an operator’s dream”
- “by far the best skidder in its class”

He considers the 518 to be far superior to his existing machine.

PLUS would like to thank William Adams’ Traralgon Branch Manager, Adam Blackwood, for uncovering this piece of memorabilia, which we hope readers of PLUS will enjoy. We are confident those logging contractors from the 1970’s will particularly enjoy the read.



TRAINING MADE EASY



WILLIAM ADAMS' JOHN MERLO BRINGS OVER 25 YEARS OF EXPERIENCE

As part of mine expansion at Clermont Coal operations, located inland from Mackay in Central Queensland, the Mining team perform material strip of push back areas in preparation for the P&H 4100 rope shovel to perform overburden excavation.

The Rehabilitation team are responsible for carrying out numerous tasks on site beyond rehabilitation projects; their Supervisor, Rhys Evans is responsible for the execution of works using an internal team along with dry hired equipment.

This year Rhys and his team identified cost effective changes and trialled Caterpillar 657G Wheel Tractor Scrapers to carry out the stripping of the material in preparation for the shovel works.

The formation of this Rehabilitation team is fairly new and consists of some highly experienced and some not

so experienced in the operation of the Caterpillar 657G Wheel Tractor Scrapers. Rhys identified that there was an improvement opportunity so he contacted John Merlo, CDI from William Adams and enquired about what style of operator training they could offer to meet their requirements moving forward.

After some consultation it was decided that Caterpillar Level 2 - Equipment training would be the best solution. The training covered all aspects of the Caterpillar 657G Wheel Tractor Scraper operations, including all safety practices, machine application, and how to maximise productivity using correct operator techniques.

All operators involved in the training were impressed with John's training techniques and agreed that further follow up training in future would be advantageous to the team. William Adams would like to thank Clermont Coal Operations, along with Hastings Deering for the opportunity, and allowing us to complete Caterpillar Level 2 Operator Training for this large site.



A new Cat 988K recently delivered to Conundrum Holdings.....packed full of ex-factory features like Object Detection, Cat Payload (CPM), Axle Oil Coolers, Powered Cabin Filter and Cat's latest Advansys GET.

The new 988K has been well received on site at Northern Quarries.

Thank you Ron and team for your support!



CAT RENTAL CONTRIBUTING TO VICTORIA'S MAJOR INFRASTRUCTURE PROJECTS

The Cat Rental Store continues to support the Victorian infrastructure space and our customers working within it.

Evolution within our industry has provided opportunities for equipment specification improvements; as new technology enters the market the requirements have evolved to be more specific for individual tasks, such as a need for greater efficiency and improved safety features.

Continual investment into the Cat Rental fleet has ensured that the right equipment is ready and available to meet the customer needs, be it the renewal of our Ejector Truck Fleet for those jobs where height clearance is an issue, the addition of the Next Generation of excavators where a slew restriction package is required or simply the renewal of the fleet meaning our customers will be hiring some of the safest and most efficient equipment in the dry hire space.

The Cat Rental Store have you covered whatever your need.



ENVIROPACIFIC CHOOSE CAT RENTAL

ENVIROPACIFIC



Enviropacific is an industry leader in engineered specialist solutions, used for the prevention and remediation of solid and liquid contamination, and for the design, construction, maintenance and decommissioning of fuel delivery systems. They deliver some of the most complex environmental projects and manage fuel installations across Australia. They challenge conventional thinking and leverage best practice in applied science, engineering and project management to deliver sustainable value-for-money solutions.

William Adams and Cat Rental have a long-standing relationship and were again asked to assist the Enviropacific team with another one of their site remediation projects in Yarraville Victoria. Enviropacific utilised Cat Rental equipment coupled with their extensive range of proprietary equipment, to successfully treat contaminated materials.

It was a truly great solution derived to prevent environmental contamination.

Working with the Enviropacific Site Team, Cat Rental supplied a comprehensive range of machines, from the 259 Compact Track Loader, through to the new Cat NextGen hydraulic excavators, small site dumpers & our larger yet versatile 730C articulated dump trucks.

A near new Cat D8T Track Type Tractor, a GPS – equipped 12M Motor Grader and a range of compaction equipment were utilised to help complete the project.

Cat Rental would like to thank Enviropacific for allowing us to partner with them to deliver their latest urban-renewal project and we look forward to working together again in the future.

CAT® TRUCKS: MEETING THE DEMAND UNDERGROUND

The underground mining industry continues to grow as more mines reach below the surface to meet the demand for ore. Reserves at shallow depths are being exhausted and miners are chasing the higher grade ore that exists deep underground.

According to Jim Callahan, General Manager of the Caterpillar hard rock vehicles organisation, the proportion of ore extracted from underground has grown from just 18% to well over 30% today.

In response, Caterpillar is building on 25 years of underground mining experience to invest heavily in its hard rock vehicle product line, including a full fleet of underground trucks.

The product line consists of five trucks with payloads ranging from 22 tonnes to 60 tonnes.

The backbone of each truck is a durable structure and box-section construction designed to deliver up to 50,000 hours of machine life. Like most Cat® machines, underground trucks are built to be rebuilt for multiple lives. The trucks are available with dump or ejector bodies.

A fully integrated Cat powertrain delivers the greatest efficiency and performance with the convenience of a single supplier. Maximised power and torque ensure no performance trade-off for higher speeds on steep grades. Hitch oscillation delivers stability and dependable power to the ground.

Reducing emissions is a key focus of the hard rock vehicle organisation. Callahan says Caterpillar is attacking the issue from a few different angles, including multiple engine options. Cat trucks are available in Tier 3 and Ventilation Reduction configurations, as well as with a VR+ retrofit filtration option. The ability to retrofit engines to meet EU Stage V regulations is coming soon. In addition, an optional factory-fit diesel particulate filter further reduces emissions.

Safety also remains an important focus, he says. In addition to built-in features like rollover protection, Cat underground trucks can be equipped with a variety of technologies such as onboard cameras for increased visibility, an operator presence system, and optional Cat MineStar™ Detect offerings. Detect uses a revolutionary communications and tracking network to prevent incidents and track people and machines — wherever they are underground — in real time.

MMG FLEET REPLACEMENT AT ROSEBERY MINE



Left: William Adams' Mining Manager, John Moelder, (right) at the delivery of a new AD60 alongside Paul Soden, MMG Mining Superintendent.



Right: The happy team at MMG take delivery of one of seven new Cat AD60's.

The underground mining operations at Rosebery on the West Coast of Tasmania have been a long time loyal customer of William Adams. Over the last thirty to forty years there have been a number of companies who have owned this mine - E.Z.Company, Pasminco, Oz Minerals, and more recently, MMG.

Back in the early 1980's William Adams was involved with the mine installing DJB 330 articulated trucks underground, as well as Elphinstone R1500 underground loaders. Back in those early days the new mobile equipment had to be provided in a dismantled state, transported from the surface into the mine on rail carts for almost 1,000 metres, then placed in a "cage" and dropped down the mine shaft to the lower working

levels. From here, we then had to assemble the machines and deliver them to the operations crew ready for work. In recent years the mine had purchased Caterpillar underground trucks as well as underground loaders. The fleet consisted of trucks with 30,000 – 40,000 hours, and LHD loaders with 30,000 hours worked. These machines were productive and reliable, but due to their age and the underground environment they were beginning to demand higher maintenance and as a result, increasing operating costs. The decision was made to look into a replacement fleet.

During 2017 William Adams engaged with the MMG operations group in Rosebery as well as their purchasing group in Melbourne. Later that year we were pleased to receive the MMG Capital Equipment Agreement for the fleet replacement which was scheduled to take place during 2018, 2019 and into early 2020. The fleet consisted of 3 x AD60

Dump Trucks, 4 x AD60 Ejector Trucks, 1 x AD45B Ejector Truck and 4 x R2900G LHD's fitted with Caterpillar "Command for Underground" guidance systems, as well as the mine site infrastructure to enable the "Command" system to be functional within the mine at Rosebery.

As PLUS went to print, we have delivered all the new fleet apart from 1 x AD45B Ejector Truck and 1 x R2900G LHD, which are set for delivery in January 2020.

One of the reasons for MMG deciding to purchase Caterpillar equipment was their intimate knowledge of Cat based on their existing and previous fleets. MMG maintenance crews were also very familiar with the Caterpillar powertrain components, their underground operators were very comfortable with Cat equipment, and from an inventory perspective, spare parts held on site were compatible with the new units.

William Adams are based locally in Burnie and able to support the new underground fleet with servicemen, spare parts and exchange components as well as technical support and operator training and an extensive fabrication capacity all within a two hour drive from the mine.

Keeping the mining fleet at work is of utmost importance and MMG were seeking the best option available to their mine to help them make this happen.



TAFE GIPPSLAND PARTNER WITH WILLIAM ADAMS CAT

Back in mid-2018 TAFE Gippsland’s “Forestec Campus” set about researching options to update their 1997, 18,000 hour Cat 325B processor, and following an exhaustive tender process William Adams were awarded the contract to supply a new excavator training processor.

A Cat 330FL excavator, fitted with a DJM Fabrications guarding package, Re-con fire suppression system and Waratah 624C head was delivered to a Bruthen logging coupe in East Gippsland, in April 2019. What makes this excavator unique is that it has a purpose built training cabin, which allows a Forestec instructor to sit safely behind a student whilst instructing in machine and processing head operation.

The Waratah head has full TimberRite Optimised computer and was supplied with two sets of drive wheels which allows for use in both hardwood and softwood applications. A Waratah factory simulator was also supplied which allows for student training within a class room environment.

Included with the machine package was a 5 year/8000hr “Premier” (front to back) machine warranty and a 5 Year on-site service agreement. The fire suppression system and Waratah head are also supported by the 5 year warranty/ service package.

As part of the evaluation process TAFE Gippsland recognised the importance of having local parts and service support. William Adams has two resident field service mechanics based in Bairnsdale, and the Traralgon branch is located just a couple of hours away if required.

Another feature that was weighted heavily in the tender evaluation process was that the 330FL uses a Cat C7.1 Tier 4 final engine ensuring low emissions. All Cat F series excavators benefit from an improved engine strategy that exploits power dense electronic engines with torque maps in the lower RPM range, that when combined with larger displacement hydraulic pumps delivers outstanding fuel efficiency. In the case of the 330FL, engine revs have been reduced to 1750 RPM which lowers fuel consumption and noise levels. Trainers have noticed how quiet it is inside the cabin, which aids in communication with students.

With a couple of hundred hours clocked up, average fuel consumption is sitting at a very impressive 18 litres per hour. When running forestry processing heads hydraulic oil temperature is always critical. The 330FL boasts a massive cooling package (rated to 52 degrees C ambient) ensuring

longevity for hydraulic components such as hoses and seals and means additional hydraulic coolers, which add cost and complexity, are not required.

TAFE Gippsland’s Forestec campus, which is based near Lakes Entrance, currently operate five machines, a Cat 525C Log Skidder, the new Cat 330FL Processor, and a Cat 930 Wheel Loader, along with a Feller Buncher and a landing machine fitted with fixed log grab.

The timber training unit operate in a working coupe supplied by Vic Forests and provide sawlogs, pulp and firewood products to a variety of customers throughout Gippsland. Courses currently being offered include Chainsaw Cross cut, tree felling, log grading, forest machine operation, FOL, Conservation/ Land Management and 4x4 driving.

PLUS wishes to extend a big thankyou to Kevin Nunn, Bruce Macpherson and the TAFE Gippsland crew for investing in Cat and supporting local businesses such as William Adams.



DALE ELPHINSTONE... FOR THOSE WHO DIDN'T KNOW...



Dale enjoying sharing his award with family, pictured...

Back: Adam Elphinstone, with his wife Megan (left), and Kelly Elphinstone with her husband Kent (right).

Front: Dale's brother Graeme Elphinstone (left), and his wife Sylvia, with Dale and Cheryl (right).

Elphinstone's first fully designed and manufactured underground mining product was a 13 tonne articulated dump truck, which was sold to Agnew Mining in 1983.

Three years later, in 1986, the first Elphinstone designed and manufactured underground load haul dump (LHD), the R1500, was sold. One short year thereafter, in 1987, the Company exported its first machine overseas to the Henderson molybdenum mine in Clear Creek County, Colorado.

DALE HAS NEVER BEEN AFRAID OF A CHALLENGE. IN FACT, HE OFTEN TELLS PEOPLE "WE DID IT BECAUSE WE DIDN'T KNOW WE COULDN'T".

SINCE MODIFYING CAT SURFACE MINING EQUIPMENT TO SUIT UNDERGROUND APPLICATIONS OUT OF HIS FATHER'S SHED ON THEIR MOOREVILLE ROAD PROPERTY IN BURNIE IN 1975, THE ELPHINSTONE NAME HAS BEEN SYNONYMOUS WITH UNDERGROUND MINING.

The Caterpillar OEM continued to develop and refine their underground mining equipment range, which led to their specialisation in LHDs and articulated dump and ejector trucks. All products were built around Cat components and sold via Cat Dealers globally.

Between the years of 1975 and 1995, Elphinstone had delivered underground mining machines to over 50 locations around Australia and more than 35 global export sites across 5 continents.

Elphinstone's success quickly drew the greater attention of Caterpillar and the two parties established a 50/50 joint venture in 1995, creating the business known as Caterpillar Elphinstone Pty Ltd. Five years later, Caterpillar exercised their option to purchase the remaining 50% of the business, and in 2000 eventually replaced the Elphinstone name with the world-famous Caterpillar trademark.

Not that Caterpillar has ever been far removed from the Elphinstone story.

Dale Elphinstone's relationship with Caterpillar began in 1966 at the age of 15 as an apprentice with William Adams. Following his trade qualification came employment as a Field Service Mechanic across Tasmanian and King Island mine sites, and for a period of two years, with Canadian Cat Dealer, Finning.

Some 20 years after commencing his apprenticeship with the Cat Dealer, Dale's progressive thinking and entrepreneurialism enabled him to realise his life-long dream of becoming a Cat Dealer Principal - cemented with his 1987 purchase of William Adams.

The Elphinstone Group today is made up of nine businesses in which the Group holds a controlling or substantial interest. The Group employs over 2,000 people and has combined annual revenues exceeding one billion Australian dollars. The companies that are part of The Elphinstone Group include William Adams (Cat), PhuThai (Cat), Energy Power Systems (Cat), United Forklift and Access Solutions (Cat Lift Trucks), Sitech, UPG (Ultimate Positioning Group), Elphinstone, Engenco & Gekko.

Elphinstone Pty Ltd

Elphinstone Pty Ltd is a leading manufacturer of quality products for the global underground, surface mining and rail maintenance industries including: underground support vehicles; extended distance, off-highway haulage trucks; and technologically advanced road-rail excavators and rail maintenance equipment. The Elphinstone® range of underground support vehicles includes: concrete agitators, explosives handling equipment, scalers, rock breakers, personnel carriers, delivery trucks and other specialised support equipment.

The Haulmax® 3900 series truck is purpose built for extended distance, off highway, surface mining applications and is available in three separate configurations including: ore haulage, service or water cart applications. It can also be configured as a 160 tonne low-bed float.

The Railmax RMT15F Road-Rail Vehicle is based on the Cat 315F hydraulic excavator and is fitted with a certified Railmax® rail guidance system to meet industry demands for safety, compliance and innovation.

Elphinstone Pty Ltd's Sustainable Energy and Engineering Solutions division (formerly Southern Prospect Pty Ltd) offers niche manufacturing and engineering support based on extensive experience in the sustainable energy and resource sector. Products and services include diesel and gas generator packages; remote area power supply systems; stand alone, off grid, hybrid power supply units for both stationary and transportable applications; acoustic enclosures, fuel supply and control systems; electrical harness design and manufacture; and all associated design documentation. Elphinstone is an established Caterpillar OEM with over 40 years' experience.

**A WELL
DESERVED
AWARD ...**



It gives us great pleasure to advise that on Monday 10 June 2019, Executive Chairman Dale Elphinstone was named in the Queen's Birthday Honours. Dale was appointed an Officer (AO) of the Order of Australia (General Division) by the Governor-General, in his capacity as Chancellor of the Order of Australia.

The Australian system of Honours and awards was established in 1975, when the Queen approved the institution of the Order of Australia: 'an Australian Society of Honour for according recognition to Australian citizens and other persons for achievement or meritorious service'.

Australian Honours system appointments to the Order of Australia confer the highest recognition for outstanding achievement and service. The Officer of the Order of Australia is awarded for distinguished service of a high degree to Australia or humanity at large.

Dale said he was both humbled and very honoured to receive this award, and said it "recognises the efforts and dedication of our people in the many communities in which we operate and wished to pass on a special thank you, for each and everyone's contribution".

We are delighted, and extremely proud to congratulate Dale on this well-deserved award.

INTRODUCING OUR 2019 MASTERS & FAREWELL TO OUR FOUR RETIREES

WILLIAM ADAMS IS VERY PLEASED TO ANNOUNCE THAT MICK HARDY AND MICHAEL JONES HAVE BEEN RECOGNISED AS THE EQUIPMENT SALES AND PRODUCT SUPPORT MASTERS FOR 2019 AND IN A NIGHT OF RECOGNITION AND REWARD, WE RECOGNISED THE LONG TERM SERVICE OF OUR FOUR RETIREES FROM OUR TASMANIAN SALES TEAM. BILL VAGG, (26 YEARS) NEIL CHENHALL, (30 YEARS) JOHN MOELDER (40 YEARS) AND STUART MACDONALD (42 YEARS), ELECTED TO RETIRE BETWEEN JULY AND DECEMBER, 2019.

It was former Managing Director of William Adams, and current Elphinstone Director, Warren Young and General Manager of Sales, Ryan O’Doherty who took to the stage to provide a farewell full of stories and great memories from customers, friends and co-workers to our Tasmanian retirees.

It’s well known that Bill, Neil, John and Stuart have all had a major impact on the success of William Adams throughout Tasmania over the last 40 plus years and we would like to congratulate them on their fantastic careers and wish them all the best in their retirement.

The 2019 Equipment Masters Award had been a race to the finish line with several strong contenders making it an extremely close decision, but it was Mick Hardy who came through as the winner of this year’s Masters Award. This is the third time Mick has received the award with earlier recognition coming in 2003 and 2017.



John Moelder (left) & Stuart MacDonal were in attendance to accept their gifts and farewell the team.

Mick has strung together many years of successful selling and customer service throughout Tasmania’s West and North West Coast. Enjoying a sensational year, Mick delivered 27 new Cat machines and 32 used machines, exceeding his budget by over 200% with a grand total of \$17m in new and used equipment sales.

Congratulations Mick on your third Masters Award.

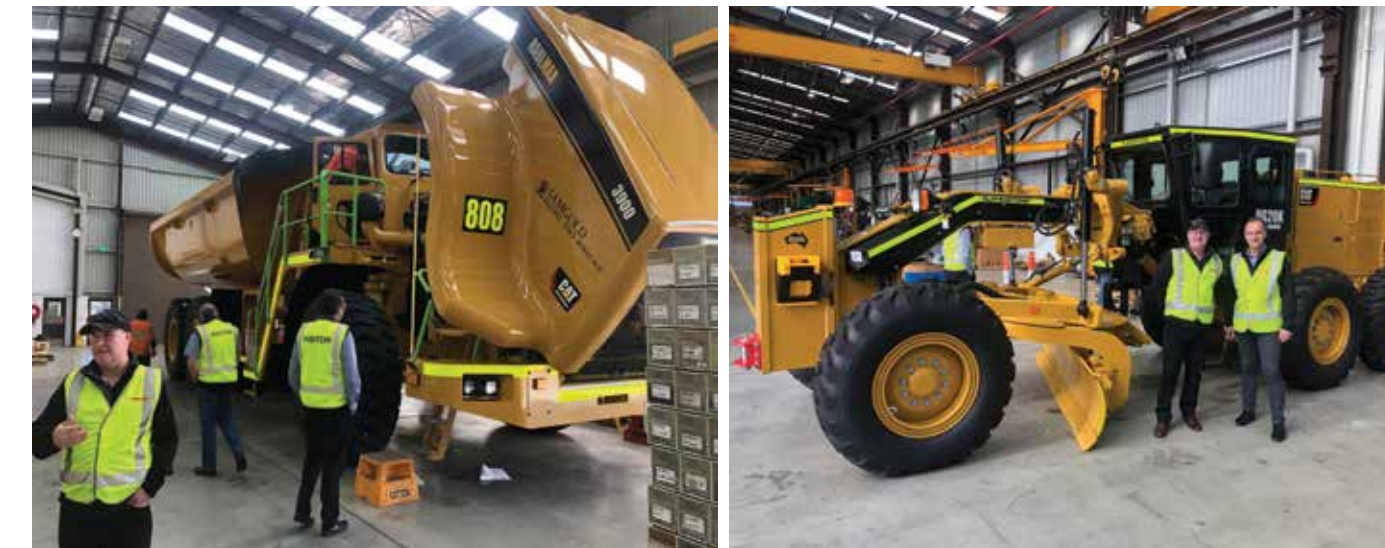
This year’s Product Support Masters Award winner, Wodonga - based Michael Jones has been described as a man who is always wearing a smile, presenting honestly and with the utmost integrity to his assigned customers by going the extra mile to ensure their success. In only his second full year in the role, Michael exceeded his Product Support budget by \$1.6M for a total of \$9.8M in sales.

Congratulations Michael on your first Masters Award.



2019 Masters Mick Hardy and Michael Jones with Adam Elphinstone & Dale Elphinstone.

The 2019 Masters Awards dinner rounded out what was an amazing few days in Tasmania for our Product Support, Equipment Sales and Rental sales teams who were given the opportunity to tour the Elphinstone facilities at Wynyard, Wivenhoe and South Burnie, and meet up with our staff at the William Adams Burnie Branch.





A NEW CAT BRAND EXPERIENCE

Caterpillar branding refreshed by new tagline and new trade dress.

Lets Do the Work.™

Caterpillar has always celebrated the people who do what it takes to move our world forward, and it is now focusing – with renewed enthusiasm - on the down-to-earth human qualities of the brand.

That’s why the new Cat Tagline was brought to existence. It says “Let’s Do the Work.™” for many reasons, and the main recipients of this message are all Cat customers and every Cat employee around the globe. “Let’s Do The Work” is more than a mantra, as the company’s final mission is to bring together its customers and Caterpillar with one goal: a better world.

Caterpillar is known worldwide for its ability to building the best products and services. Now there’s a further emphasis on doing so for those who roll up their sleeves and do the work.

Trade Dress

Caterpillar has also announced that its products will now sport a new trademark logo designed to reflect the premium quality of Cat equipment.

The company said in a statement that all Cat machines, engines, generator sets and work tools will soon showcase the new-look logo that is currently replacing its ‘Power Edge’ trade dress – the Cat trademark on a black background accented with a diagonal red bar. The new logo is called “Cat Modern Hex”, designed by the Caterpillar Industrial Design Group.

According to the statement, the Cat Modern Hex design combines the traditional Cat trademark and product model names with a bold, three-dimensional red hexagon and grille pattern.

The red colour is a throwback to the graphics used on the company’s very first crawler tractors in 1925. Ed Stembridge, Cat’s product identity manager, said: “Our goal was to create something with a premium look and feel. When you combine the Modern Hex design with our distinctive Cat product designs, it visually reminds customers they are buying and using the best products on the market.”

The Modern Hex design will be visible on newly-manufactured Cat products throughout 2019.

M.D. BACK ON THE SPANNERS

WILLIAM ADAMS’ MANAGING DIRECTOR, EDDY KONTELJ MAY WELL BE A QUALIFIED DIESEL TECHNICIAN, BUT IT’S OVER TWENTY YEARS SINCE EDDY TURNED A SPANNER IN ONE OF OUR WORKSHOPS. THAT WAS UNTIL AUGUST THIS YEAR, WHEN EDDY SPENT “A DAY IN THE LIFE” IN OUR CLAYTON NEW EQUIPMENT BUILD-UP SHOP.

Eddy, along with the entire Senior Management team have signed on to spend several days a year, working alongside our teams, whether it be in workshop or field service environments, in a parts warehouse or riding with our sales team. These pre-arranged “Day in the Life” sessions are aimed to give senior managers a better insight into the challenges facing our people on a daily basis.

Eddy had this to say about his day in the overalls....“You likely do not realise just how much I enjoyed working with our team. Everybody was extremely supportive and helpful, and whilst it was only a day, it gave me a better appreciation for the work, the mateship and challenges that you all experience on a daily basis”.

“During the day I spent most of my time keeping Kym Rogers company and he was excellent and very patient answering all my inquisitive questioning”. “I would like to thank Kym Rogers, Daniel Sharpe and Ali Monzavi for guiding me through the day and making sure I was always safe. Daniel really impressed me toward the end of the day”.



“When some of the team left after finishing their shift, Daniel came straight over to me, he introduced himself and said “I will just be working in the loader cab across the other bay, if you need anything just ask and I will be happy to help you”. This was extremely nice of him and demonstrated courtesy, Being the Customer Needs, and leadership. However, when I learnt that Daniel is a 1st Year Apprentice, I was blown away”, Eddy told PLUS.



CATERPILLAR SOLUTIONS TRANSFORMING CUSTOMERS' JOB SITES

WE'RE CONTINUOUSLY IMPROVING OUR OFFERINGS TO HELP OUR CUSTOMERS SUCCEED. CHECK OUT WAYS OUR INNOVATIONS HELP OUR CUSTOMERS ...

... Run an effective job site with automation and autonomy

Our customers need the best solutions for running an effective job site, with improved operator productivity, lower operating costs and autonomous solutions for greater efficiency. That's why we focus on developing technologies in the areas of automation, remote control and autonomy, which provide a range of features from operator Assist to full autonomous operation.

... Improve your operations with connected assets and analytics

By using advanced analytics and big data, we help our customers manage and monitor their assets, whether you own one Cat® product or a fleet of hundreds. These technologies focus on telematics to digitally connect and monitor assets, alert owners to predictive maintenance opportunities to improve uptime, enhance operator guidance and awareness, and more – helping operations of all sizes and types work more efficiently, profitably and safely.

... Make a vessel (or entire fleet) sail smoothly with Cat® Asset Intelligence (AI)

Monitoring engine performance is critical in the marine industry. Cat® Asset Intelligence (AI) makes this easier with advanced predictive analytics and expert advisory services across vessels or entire fleets. Unlike technologies that only monitor individual equipment performance, or focus only on specific operational parameters, Cat AI provides monitoring and reliability-centered, advanced analytics for any critical system on the vessel and for Cat or competitive equipment. The technology allows customers to make condition-based maintenance decisions and operational refinements.

... Be more efficient on quarry sites using Cat® Payload

Cat® Payload on Wheel Loaders allows customers to improve the efficiency of quarry sites by bringing onboard weighing systems to the cab to improve operator accuracy and speed by reducing error and rework. And we continue to bring new products to market across mining applications, including additions to our truck lineup that can provide the ideal loading and haulage system for every surface application.

For more information on any of these solutions, call your nearest William Adams representative, or our Customer Solutions Group at Clayton, on (03) 95660666.



GET CONNECTED, AND STAY CONNECTED



Aaron Gardiner, alongside his company's new 320 Next Gen excavator.

During 2018, William Adams partnered with Caterpillar to promote the benefits of a new telematics connection under the Cat "Get Connected Stay Connected" program.

The offer included supported dealer installation of Cat Product Link® hardware and a complimentary Cat® daily subscription. Once the device was installed and activated, customers were able to choose from various subscriptions available to allow them to access, analyse and use that data to boost productivity, lower costs, simplify maintenance and improve safety and security. Options range from simple hours and location monitoring to full fleet management.

Aaron Gardiner from Thomastown based Civilworx Construction was one of our customers who took advantage of this connectivity offer. Civilworx have now all fourteen assets connected with a combination of Cat Daily and VisionLink subscription.

This is what Aaron had to say about Cat Connect when PLUS caught up with him recently.

"To be included in the GCSC program was of great benefit to CivilworX. Our main motivation was to be able to monitor our machines as effectively as possible. We are very satisfied with the Program. We track our Machines using My.Cat.com, and VisionLink. This enables us to monitor all machines with respect to fuel consumption and all service and maintenance issues.

It allows us to keep track of our machines' efficiency and productivity, and we are better able to anticipate problems and manage schedules more efficiently.

Machine downtime is improved, due to "real" time monitoring of all our Cat Fleet" Aaron said.

You don't have to be a technology expert to get started with Cat Connect. Simply determine what's causing your operation the most pain. From there, we'll work with you to identify—and implement—the technology or service that can help you alleviate that pain, fast.

Cat Connect is scalable, so you can start with just what you need and add on when it makes sense for your operation. We can help you:

- Decide what technologies and services you really need
- Get your assets connected
- Train your people to get the best return on your investment
- Manage the data from your assets
- Achieve measurable, sustainable results

Where does My.Cat.com fit into all of this?

Using a computer or tablet, customers can access asset data from all their connected equipment, including location, health, maintenance, performance, and more.

- Connect with William Adams
- Track hours, location, fuel use, health and utilisation
- Track idle time versus operating time
- Receive health and maintenance alerts
- Manage planned maintenance
- Access Operation & Maintenance manuals, warranties, Work Orders, Service history and Service Letters.
- Request Parts or Service

Talk to your nearest William Adams' PSSR, or call our Customer Solutions Group to find out more.

BLUE CIVIL INVESTING IN SMART TECHNOLOGY



In January 2018 Birregurra (located east of Colac in south west Victoria) based company Blue Civil & Construction Pty Ltd, started off earthmoving with a Cat 259D Compact Track Loader and a 305E2 Hydraulic Excavator. It wasn't long before Director Brendt Langdon added a new Cat 320 Next Gen Excavator, equipped with 3D to the fleet.

Complete with a Tilt Hitch and Diggalline Auger system capable of drilling 7.5m bore piers, the 320 was sent straight to work digging basements before putting the Payload and GPS systems to the test on the Winchelsea to Colac, Princes Highway duplication.

Using the Advanced Productivity software Brendt was able to produce detailed reports per truck, per day for the 200,000 tonne of Type A material that the 320 loaded on that job. Monitoring payload is a game changer for invoicing as well as ensuring that trucks aren't under or overloaded going down the highway.

The Cat Grade Control GPS system with "Assist" function makes Blue Civil more efficient for all earthworks applications and the 360 degree bird's eye camera and E-Fence technology make the machine safer to work around.

The most recent addition is a brand new Cat 308 Next Gen Excavator with stick steer and cruise control technology. Combined with the Cat tilt hitch and hydraulic sensitivity control the new machine is compact and capable.

From inner city basement digs to regional and agricultural earthworks, Blue Civil & Construction has a balanced fleet to cater for all domestic or commercial construction as well as major project work. Being an advocate for the Caterpillar brand, Brendt has built the business around technology and reliability.

William Adams is extremely grateful for Blue Civil & Construction's business to date and we look forward to continuing our partnership for many years to come.

PLANNING A VISIT TO THE USA IN 2020?

HAVE YOU THOUGHT ABOUT CONEXPO, OR MINEXPO?



Have you thought about travel overseas next year? Have you considered attending Conexpo-Con/Agg in Las Vegas in March?

The Americas' Largest Construction Trade Show CONEXPO-CON/AGG is the largest trade show for the construction industry in the Americas and you need to be in Las Vegas to experience it. The show is once every 3 years, so mark your calendars now for March 10-14, 2020! The show includes:

- 232,000+ square meters of exhibit space
- 2,800 exhibitors
- 150+ education sessions
- 150 countries represented
- Asphalt, aggregates, concrete, earthmoving, lifting, mining, utilities and more

Caterpillar will be prominent again at this most talked about industry exposition. William Adams will be there, and will be offering to assist those planning to travel to ensure you maximise your attendance at Conexpo, and perhaps consider optional program extensions.

Countdown to MINExpo September 28 – 30, 2020

Caterpillar is counting down the days to MINExpo 2020. It's an opportunity to celebrate the mining industry while sharing the many ways we can help you mine more safely and sustainably, productively and profitably. The show floor will be filled with new innovations, new Cat® machines and new ideas. No matter how the industry evolves, you'll find that Caterpillar is there to help you navigate the changes.

MINExpo 2020 is under one year away. Sponsored by the National Mining Association, MINExpo International™ is the world's largest mining event, taking over the Las Vegas Convention Centre in Nevada, USA, every four years. Nearly 2,000 exhibitors will be sharing the latest equipment, innovations, services and technologies with an estimated 44,000 visitors. Caterpillar Inc., one of the show's largest exhibitors, is counting down the days until this celebration of the mining industry begins.

If you need further details in relation to Conexpo, or Minexpo, contact Bruce Edwards at bruceedwards@wadams.com.au



GREAT SERVICE RELIABILITY LESS DOWNTIME

William Adams is proud to introduce 

As part of  we're giving you:

- fixed price servicing for 3 years/3,500 hours to help you reduce costs
- 3 year Power Train, Hydraulics, and Technology warranty
- the option to upgrade to a Premier Equipment Protection Plan, which includes an uptime commitment that if we can't repair your equipment within 48 hours, we'll provide an account credit to help you get back to work sooner.


When does  become effective?

From the date of delivery of all eligible new Cat machines.




FIXED PRICE SERVICE COSTS		
Machine type	Model	Price per service (ex GST) Includes travel
Excavator	311 - 323	\$1,200
Wheeled Excavator	M316 - M318	
Track Loader	963	
Excavator	325 - 336	\$1,500
Dozer	D7E	
Wheel Loader	950 - 962	
Articulated Truck	730	\$1,800
Soil Compactor	815 & 825	
Excavator	349 - 374	
Grader	120, 12, 140 & 160	
Landfill Compactor	826	
Articulated Truck	745	\$2,100
Landfill Compactor	836	
Dozer	D6 & D8	
Grader	14	
Scraper	623	
Wheel Loader	966 - 988	

These scenarios have been developed to help explain the benefits of

John is the owner of a Cat 323 Excavator and he selects William Adams to service the machine. John doesn't have a  agreement. Instead, he simply calls William Adams Field Service when a service is due and arranges for it to be completed at his site.

Over 3,500 hours, John spends \$12,632 + GST or \$3.61/hr on preventative maintenance.

John's neighbour, Pete, also owns a Cat 323 Excavator, and his machine is covered by . When Pete has his 323 serviced, it costs him \$1,200 + GST regardless of the type of service. Over 3,500 hours, Pete spends \$8,400 + GST or \$2.40/hr on preventative maintenance, which saves him \$4,232 compared to John.

SERVICE COSTS – COMPARISON TABLE			
Machine	Without 335 Advantage	With 335 Advantage (parts and service including travel)	Saving
323 Excavator	\$12,632	\$8,400	\$4,232
966 Wheel Loader	\$21,782	\$14,700	\$7,082
12 Motor Grader	\$19,394	\$12,600	\$6,794

Request a brochure, or our FAQ (Frequently Asked Questions) document, or talk to your nearest William Adams' Sales rep or PSSR to learn more... 335 Advantage has the industry talking.

Notes:

All prices are ex GST. Calculations based on 7 services over the first 3,500 machine hours. The comparison assumes the same fixed price travel charge of \$275 is applied. This equates to a travel trip of 50km out and 50km back. Pricing current at the time PLUS went to print.

NORTHERN QUARRIES ENJOY 335 ADVANTAGE

As one of the first to invest in 335 Advantage, Wayne Deken has been impressed with his first service under the program and describes Conundrum Holdings investment into 335 Advantage as a 'no-brainer'.

Conundrum Holdings are a family owned and operated quarrying business spanning four generations. As a long-time William Adams customer, the team have quarries located in Epping, Stawell and McKenzie Creek supplying materials for many local councils and projects state-wide.

In May 2019, Northern Quarries manager Wayne Deken took delivery of a new Caterpillar 988K

Wheel Loader to Northern Quarries in Epping. After previously not knowing a lot about the 335 Advantage Program, Wayne soon realised that investing in 335 Advantage was an easy decision as it provided fixed price servicing with guaranteed savings.

Pictured, Wayne's new 988K recently experienced its first 500 hour on-site field service under 335 Advantage. Wayne and the team at Northern Quarries couldn't be happier with the results from their first service and we look forward to continuing to provide them with the best onsite field servicing with 335 Advantage.



CAT MACHINES AS TOUGH AS THE COUNTRY

Hidden away on the Darling River approximately 200 kilometres north of Mildura in the state's north west, lies a parcel of country consisting of four properties spanning almost a quarter of a million acres. Owned and operated by Steve Smith, his wife Sharon and their family, their history in the area can be traced back to the late 1800's.

Sitting ready for the next day's work two grand old Cat machines are ready to fire up and continue their duties as they have done regularly for many decades; an old Cat 950 73J Wheel Loader and Cat 12 94C Motor Grader still start on cue as if they have never missed a beat, ready to continue what they do best.

To say they breed things tough out this way is an understatement. Steve's handshake is as hard and tough as the land he has been born and raised on all his life and his two Cat machines he operates regularly are clearly bred the same. To see these two machines still doing a fair days work in an environment that would test anything after so many years is a tribute to the product.

Life has been tough for the lower Darling region in the past few years, with the river all but dry now heading into another long hot summer with no outlook of rain in sight. One thing we can be guaranteed of is both Steve, Sharon and their Cat machines will still be standing when the river runs again....



UNASSUMING WELSH QUARRY SITE'S VITAL WARTIME ROLE



"Hide them in caves and cellars but not one picture shall leave this island."

Quarries have been repurposed for the most unusual of assignments, but few in history can match the importance of Manod Quarry in north Wales.

The slate quarry, in Blaenau Ffestiniog, Gwynedd, became the top secret hiding place for the British National Gallery's most precious art collection during the Second World War, providing an indestructible tomb as a Nazi invasion seemed imminent.

According to a recent BBC News article, 2000 works by artists such as Leonardo da Vinci, Rembrandt, Van Dyck, Turner and Constable had been stored in various Welsh locations since the beginning of the war, but none had proven their worth as a long-term safe haven.

Shipment to Canada was mooted but in 1940 British Prime Minister Winston Churchill famously demanded of the nation's art treasures:

"Hide them in caves and cellars but not one picture shall leave this island."

Manod Mountain had been a working quarry for more than a century. The quarry was unassuming and remote, and hundreds of metres of slate fortified the subterranean space bored out from years of excavation.

To accommodate the paintings, 5000 tonnes of material was shifted and explosives were used to clear the entrance. Suzanne Bosman, the National Gallery's senior picture researcher and author of *The National Gallery in Wartime*, told the BBC that before the paintings' arrival, six air-tight

climate-controlled brick huts were built inside the mountain.

The largest paintings were packed in specially designed "elephant cases" and transported by road, while the smaller paintings were transported in Post Office vans and Cadbury delivery trucks to avoid detection.

The government retained its lease on Manod until the 1950s, and it was expected to perform the same role if a third world war eventuated.

Reprinted courtesy of Quarry, the official journal of The Institute of Quarrying Australia.



ALL WEATHER SERVICING

Burnie based Lube Truck Operator, Dirk Schumann was grateful to be in the latest Isuzu 4 x 4 Lube Truck when called on to carry out a 500 hour service on Perotti Bros' new Cat 330 Next Gen excavator, working just shy of Cradle Mountain in north western Tasmania's highlands.

Recent heavy snow made for a great photo for PLUS, but not ideal working conditions for Dirk !!

The 330 Next Gen, and the new Isuzu 4 x 4 weren't fazed by the extreme conditions. The new lube truck, designed and built for William Adams by Shermac Industries from Western Australia, was one of four delivered recently to Burnie, Traralgon and Melbourne Metro Field Service operations.

In addition, new Service Trailers (pictured) are designed to increase coverage in our regional areas to supplement our current fleet of lube trucks which will result in decreasing customer downtime. The new trailers were recently introduced into our Wodonga, Swan Hill, Horsham, Mildura and Launceston branches.

The Service Trailers provide an effective and efficient solution for on-site servicing, ensuring clean fluids are dispensed direct to the machine, maximising our contamination control measures.



NEW CAT D7R FOR AUSTRALIAN ANTARCTIC DIVISION



A spring dusting of snow on Mt Wellington (background) may be assisting the new D7R in getting acclimatised!

The Australian Antarctic Division has just taken delivery of a new Cat D7R LGP Track Type Tractor. This represents their third D7R LGP and will join two others working on the Wilkins runway in Antarctica.

from October to February. The Wilkins runway is located around 80 kilometres from Casey base and will enable RAAF C17 and A319 aircraft to deliver supplies and expeditioners to and from Hobart.

The machines are predominately used for moving snow away from the runway and preparation of the surface prior to, and during the summer season, which runs

This machine is currently located in our Hobart branch awaiting transportation to Antarctica in coming months.

CAT® EQUIPMENT “DELIVERS THE GOODS WHEN LIFE AND LIMB DEPEND ON IT”

Operation Deep Freeze was the codename for a series of U.S. missions to Antarctica beginning in 1955. The initial reason behind the mission was a scientific collaboration between 40 nations to carry out studies of the earth’s environment.

The Deep Freeze missions set up the American research stations in Antarctica and kept the stations supplied. Caterpillar provided track-type tractors and diesel electric sets specially built to survive constant temperatures of 65 degrees below zero for use 24 hours a day. In fact, Cat® track-type tractors were the first tractors in Antarctica.

Caterpillar engineers specifically developed Low-Ground-Pressure (LGP) tractors for use on the ice. These machines constructed roads and bases, hauled supplies, maintained airstrips and trails, dozed snow and carried snow to melting units in order to produce drinking water. In 1958, they helped the U.S. Navy complete the first permanent airstrip on Antarctica. Electric sets provided all of the power for heat and lights, communication systems, kitchens, radar and ground control approach systems and the snow melting system for drinking water.

Glen Sankey, a Caterpillar service representative at the time, said in a 1957 issue of News & Views that “There are many other stories I could tell just as proudly about Cat equipment in service. But suffice it here to say our machines are respected because they deliver the goods when life and limb depend on it.”

“Nearly 150 Caterpillar machines and engines were in use at the various bases on Antarctica by 1960. A number of these track-type tractors were recently retired and in operation for nearly 60 years. Cat products are still supporting the stations today.

CAPTAINS ANNOUNCED FOR AUSTRALIA’S NEW ANTARCTIC RESEARCH VESSEL



Render of Australia’s new icebreaker, Nuyina © Damen

Captain Scott Laughlin and Captain Paul Clarke will lead the alternating crews operating Australia’s new icebreaker, the RSV Nuyina.

Replacing the Aurora Australis, the RSV Nuyina will be faster, larger, stronger and offer increased endurance. The vessel will supply Antarctic research stations with cargo, equipment and personnel, and as a research ship, she will also have extensive laboratory facilities on board. The 160-metre long, 24,000-ton vessel is expected to accommodate 34 crew and up to 116 scientific personnel, and has the ability to embark up to four helicopters, two landing craft and a dedicated science tender.

The icebreaker was designed by KNUD E. HANSEN and is being constructed at the Damen shipyard in Galati, Romania and is expected to be commissioned in 2020. Serco Australia is managing the ship design and build process, and will then operate and maintain the icebreaker from its home port of Hobart, Tasmania.

Laughlin has completed more than 50 voyages to Antarctica. As Captain of Australia’s current icebreaker, Aurora Australis, for over 10 years, he is familiar with the cold and challenging conditions of the Southern Ocean. From Tasmania, Laughlin has lived and worked in Hobart his whole life and is an alumnus from the University of Tasmania’s Australian Maritime College.

“The Southern Ocean is a captivating place to work,” he said. “There is nothing more satisfying than successfully transiting through the roaring 40’s, howling 50’s and screaming 60’s, sighting the sea ice edge before crossing hundreds of kilometres through the ice to conduct science operations or to resupply one of the Australian Antarctic stations.”

Clarke also has extensive experience in the Antarctic, having spent 11 years working for the British Antarctic Survey and

“This is an amazing opportunity with Serco and the Australian Antarctic Program to deliver world class support for their polar and science operations,” he said.

undertaking more than 20 voyages to Antarctica. He was born and raised in the Falkland Islands and began working for the British Antarctic Survey as a deck hand in 1994. He has always aspired to become the Master of an Antarctic research vessel.

“I very much enjoy the type of ice navigation challenges, research and survey work that will be undertaken on the Nuyina. It’s a career goal, this type of job. There are not very many of these vessels worldwide, there’s only one in Australia,” he said.

*CREDITS
PLUS wishes to thank the Australian Antarctic Division of the Department of the Environment (Commonwealth), for allowing us to publish this article and the image of Nuyina. <http://www.antarctica.gov.au/news/2019/captains-announced-for-rsv-nuyina>*



SBI ADDS LANDFILL OPERATIONS TO THEIR BUSINESS

SBI Quarries are a well established quarry operation in Melbourne's south eastern suburbs. SBI Cranbourne Quarries is a family-owned and operated company that has been mining quarry products to supply the construction industry for three generations.

From a small soil screening operation that started in the early 1970s, SBI has grown to become one of the major independent drill and blast quarry operators in the South East.

Recent projects SBI has supplied to include the Wonthaggi Desalination Plant, Peninsula Link, Bass Highway, Westernport Highway and many other ongoing civil works projects.

Paul and Simon Williamson are well known in the industry for good service and quality products. They are also visionaries and as the quarry began getting closer to its boundaries they identified a need for a commercial landfill site.

So, the process commenced, and obtaining landfill approval is no overnight job!

The SBI landfill proposed to rehabilitate the void created by the quarry at the Ballarto Road site. It will be filled in approximately eight years with solid inert waste. The landfill is required to service the local inert waste market, with waste material generated largely from the construction industry. While Victoria recycles approximately two thirds of all waste there still remains a residual component that must be placed in landfill.

Works commenced modifying the quarry to suit a landfill operation, including the construction of drainage systems, clay liners and leachate ponds. After years of development, and working closely with the various authorities, the last job was to decide upon the purchase of a Landfill Compactor to ensure that SBI could maximise the site's landfill space. A new Caterpillar 826K fitted with Plus compaction feet and a straight blade was recently delivered, and will be the main production machine on site.

The 826 was first introduced in 1978, and has been the industry leader now for over forty years. The 826K continues the legacy of reliability, performance, safety and operator comfort. Cat Landfill Compactors are known for their durability, with structures purpose built from the ground up for the toughest landfill environments. The K Series now weighs in at around 41,000 kgs and is fitted with a Cat C15 ACERT Tier 4 Final engine rated at 324kW.

Current William Adams' personnel date back to first dealing with SBI founder, Bill Stevenson back in the late 1970's, and it is with much pleasure and pride that we have witnessed the tenure, growth and now diversification under the leadership of Managing Director, Paul, and his brother Simon.

FEATURES, PRODUCTIVITY AND FUEL EFFICIENCY!

The three key factors influencing Sam McKellar from Aus Decom during their recent Cat 980M purchase.....features, productivity and fuel efficiency.

With factory standard features such as the Variable Pitch Fan, Object Detection and Cat Payload Management (CPM), the 980M Aggregate Handler also provides awesome

productivity and combined with unrivalled fuel efficiency offered by the M Series Wheel Loaders, helped make Sam's decision a little easier.

With William Adams' 335 Advantage "Uptime Commitment" program, Aus Decom had little hesitation in choosing another Cat.



One of four new Cat 335FL Short Boom excavators working under Melbourne CBD, purchased by CYP Design & Construction for Melbourne's Metro Tunnel Project.



A big thankyou to Brenton and Claire from BJ's Earthmoving, based in Leongatha, South Gippsland. BJ's recently added to their Cat fleet - pictured is their new Cat 302.7DCR mini excavator, which came equipped with Cat B4 hammer and A7B Auger drive



HEADHUNTERS INSTALL ROTTLER BORING MACHINE

Headhunters are excited to announce the expansion of our machining capabilities with the addition of a new Rottler EM105H CNC Boring Machine.



Head Hunters



The massive EM105H is designed for machining large engines used in the earthmoving, mining, oil and gas, power generation and marine work boat industries up to the size of V20 engine blocks such as the CAT3520 and C175 v20, MTU 4000 V20, Cummins QSK78, Waukesha 9390, and others of this capacity.

The EM105H employs an entire array of features which help maximise the productivity capabilities of the machines. Quick tooling changeover maximises the versatility and flexibility of the machine, allowing boring and surfacing in one setup. The machines work like advanced CNC machining centres but Rottler's conversational programming technology makes them very easy to operate.

The EM105H machine has the capability of Boring, Surfacing, Line Boring, and Universal Machining. Travelling column and spindle movements are operated by precision ball screws and AC servo motors in both X & Y Axis. Automatic cycle software and production tooling allows for complete block banks to be machined without operator attendance, once the job is set up and the "cycle start" button is pressed - the operator is free to "walk away" and do other work while the EM105H completes a block bank or main line bore unattended!

Commissioned in our Head Hunters facility in Dandenong in November, this machine, valued at over \$750,000 offers turn around times and accuracy to help get you moving faster.

Contact Brett Addison and his team at Headhunters, 2-4 Fowler Road in Dandenong or call on (03) 9767 3600 to learn more.



PRODUCT SUPPORT SALES REPS

Your William Adams Product Support Sales Representative (PSSR) is a valuable resource to make your equipment run optimally and as profitably as possible.

Take advantage of your Product Support Representative, whether it be focused on a specific task such as measuring undercarriage or helping to select the most appropriate replacement parts for a machine. Or, it can expand to taking on the role of a virtual fleet co-manager, advising you in matters of machine performance enhancement. You choose. But before you do, read on.

You have many other jobs to do, and you or your people cannot always be on top of the latest advances in maintenance technology. Some examples are:
Rebuilds: Including component, bucket, hydraulic pump and engine rebuilds. This is an outstanding and proven method for getting a second life from your equipment, and your Product Support Sales Rep can explain to you how to take advantage of it.

Machine Evaluations: A very cost-effective tool that can help you be prepared, and save you time and money.
Parts options: When it's time to order parts, trust your PSSR to guide you across the many available options, choosing the one that makes the most sense based on your equipment's condition and age, your applications and your goals.

For example, they can tell you how sometimes, as an alternative to getting new parts, it may be a good idea to get remanufactured parts from your dealer; they are backed by an as-new guarantee and they often cost up to 60% less than new parts. They can recommend Yellowmark parts as a value-priced alternative for those times when you need a reliable part rather than a premium part or they can even suggest used parts. And of course, they'll make sure that you know that the dealer can get parts for any machine in your fleet, no matter what model or year.

The undercarriage is the greatest area of ongoing cost during the life of an excavator or track-type tractor, and undercarriage management is complicated and can result in costly mistakes. A typical error is to overspend by replacing the entire undercarriage instead of focusing on the worn parts such as the rollers. A good parts and service sales rep can perform the measurements and communicate with his shop, right then and there, getting you an estimate to do the job, or a quote to get you the right parts if you are going to do it in-house.

Through training and experience, our Product Support Representatives understand all facets of equipment wear. Often they can spot a simple problem and offer recommendations that allow you the option of REPAIR BEFORE FAILURE that could save substantial dollars.

OUR NEWEST CAT TRAINED TECHNICIANS



From left to right - Kingfred, Kunda, (Sarah – William Adams Talent Acquisition Manager), Sarah, Hope, Lucky and Kizito.

We are thrilled to welcome six new CAT trained Diesel Technicians from Zimbabwe and Zambia to the William Adams' family.

As a result of healthy demand and strong industry growth, pleasingly we find ourselves in a buoyant market, however, with this has come some labour challenges.

With so many major projects going on in both Victoria and Tasmania, we have found ourselves in a very competitive labour market. In order to continue to offer our customers great service we have had to consider other opportunities outside the standard talent pooling process to

bridge the gap. One of those alternatives was engaging with a reliable third party (Bluetongue) to help us attract CAT trained Technicians from other parts of the world. The transition of our newest international employees has proven to be very successful with our wider employee group positively embracing the initiative and encouraged by the diversity. We understand this is a great opportunity for both William Adams and the employees themselves. We feel very fortunate having these six qualified Technicians join us and we are certainly encouraged by the value they will bring to our customers and some of our more inexperienced employees.

THE FUTURE? - BATTERY ELECTRIC VEHICLES

ANDREW FREEMAN IS OUR WILLIAM ADAMS' VICTORIAN METRO OPERATIONS MANAGER, AND HE IS CURRENTLY ENROLLED IN PHD STUDIES AT CENTRAL QUEENSLAND UNIVERSITY, AUSTRALIA (CQU) ON A FULL RTP OFFSET SCHOLARSHIP.

THE SCHOLARSHIP IS PROVIDED WITH THE SUPPORT OF THE AUSTRALIAN GOVERNMENT RESEARCH TRAINING PROGRAM (RTP) AND CQU. RESEARCH SUPERVISORS AT CQU ARE DR SUBHASH SHARMA AND PROFESSOR MOHAMMAD G. RASUL.

The PhD research aim and objective will be to develop a maintenance framework in line with the maintenance practices that will be required for the future of battery-operated electric vehicles. An article "A Review of Automotive Maintenance Strategies for Electric Vehicle Fleets" has been submitted to the Elsevier "Transportation Research Part D: Transport and Environment" journal publishing house but has not yet been accepted.

The past fifteen years have seen the rapid development of battery-operated electric vehicles from the conventional internal combustion (IC) engine, from automotive manufacturers globally, and some relative newcomers to the industry; as an example, the Tesla Motor Company. A considerable amount of literature has been published on asset maintenance management strategies, frameworks, and practices for conventional IC engine vehicles over the past 100 years. However, a major need has been identified in the future asset maintenance practices for the battery-operated electric vehicles.

Battery operated electric vehicles enjoy inherently lower frictional losses and resultant less wear in moving parts, and as a result, will require less maintenance and smaller parts inventories. What is not yet clear is the impact the battery-operated electric vehicle will have on the overall asset management of large fleets, and the future automotive industry as a whole.

The adoption rate of electric fleets is increasing worldwide at a rapid rate; however, there is limited evidence of research in this area.

JP Morgan states that recent evidence suggests automotive manufacturers globally are developing an increasing number of greener design options.

A recent study undertaken by the 'Australian electric vehicle market' shows that the cost of the lithium-ion battery continues to reduce. The study also predicts that battery-operated electric vehicle sales will outstrip the conventional IC engine within the next decade. In Australia in 2016, battery-operated electric vehicles represented just 0.07% of the market share of new vehicles sold. Forecasters suggest that the battery-operated electric vehicle market in Australia will continue to grow.

More industries are moving towards the EV alternative and looking at ways to change the design from IC engines to battery-operated electric vehicles. Some mining and construction manufacturers are entering the market place with some prototypes. PON Equipment, the CAT dealer in Norway, has developed a CAT 323 F-Z excavator with the support of Caterpillar, and is currently trailing the machine in an operational environment.

The CAT 323F-Z was introduced to the market at bauma, in Munich, in April 2019. The unit looks very similar to the internal combustion-engined model from a distance with one very noticeable difference - there is no exhaust pipe. The 25-

ton excavator code name Z-line has zero-emission to power the hydraulic system. This is achieved with a Li-ion battery pack. The specifications are still not fully released, but it is believed to have 5 – 7 hours of battery power available during full operation mode and has fast charging capability.

Caterpillar has been developing and testing underground models, recently revealing the first R1700 Load Haul Dump (LHD). The new model designs have seen improvements in digging performance, fuel savings and of course emission levels, so critical in underground mining applications. While Caterpillar and other manufacturers are developing battery-powered LHD's and trucks for underground, our Elphinstone Group have commenced a project to add a battery-electric vehicle option to our Elphinstone WR810 and WR820 platforms which are used as the carrier for numerous underground support vehicles such as scissor lifts, concrete agitators, service vehicles, delivery trucks, water cannons and other configurations.

The distinct advantage of a battery electric vehicle underground is the substantial reduction in heat and diesel particulate emissions. A tethered electric vehicle underground emits almost the same radiated heat as a diesel-powered vehicle. A battery-electric vehicle however, only emits approx. 10% of the heat of either of the previous options and is considerably less expensive to operate. This allows the mine to substantially reduce their ventilation requirements and infrastructure, while keeping the underground air/environment fresher and cooler. The economic benefits for an underground mine are significant.

There are two methods of battery recharging being used on underground vehicles today. One is a battery change-out system that requires the battery to be changed every 3-8 hours depending on the application, machine duty cycle and size of the battery. The Caterpillar approach, however, is a fast charge arrangement where a battery will last for 4 hours in full production and have a recharge time of approximately 15 minutes.

With our support vehicles, we would expect a longer battery life due to the very different duty cycles/applications. For example, many of these vehicles remain stationary while putting up vent bags, fans or while working at a tunnel face. As such, "opportunity charging" is something we can take advantage of and possibly not even need to have a major recharge or perhaps just at the end of a 12-hour work cycle.

This area is developing very rapidly, being led by underground mines in Canada who plan to be 100% battery-electric by 2024 and is now starting to spread through other parts of the world. The level of global investment in battery development is significant, for both underground and surface applications resulting in better batteries and less cost per KW of storage. Our Elphinstone Group intends to be a significant player in this sector as we proceed.

The battery-operated electric vehicle will disrupt automotive supply chains as we know them today. The service centre of tomorrow to maintain the battery-operated vehicle will change, and the skills required to maintain these physical assets will change.

Future study and research will be required to understand better the impact electric vehicles will have on the following areas:

- What skill will be needed in the future to maintain and repair battery operated electric vehicles, and can governments re-skill the current workforce?
- With fewer moving parts required in the electric vehicle design and less requirement for supply chains to manufacture and deliver conventional

internal combustion engine vehicle parts, there may be some significant job losses in the automotive manufacturing industry. What strategies can be formulated to reduce the economic impact on countries and cities around the world, relying on automotive manufacturing jobs?

- Asset and maintenance philosophy, approach, and frameworks will need to be reviewed to be better aligned with the change in the automotive design and maintenance requirements of the electric vehicle.

We are proud to have Andrew furthering his education, and contributing to research in a field which will clearly have impacts for Caterpillar, Cat dealers, our customers, and the broader community.



Andrew Freeman - Victorian Metro Operations Manager



BATTERY ELECTRIC VEHICLES

THE ALTERNATE VIEW (AUTOMOTIVE)

Report finds that electric cars must clock up a lot of kays before they're cleaner than petrol cars.....

Electrification specialist AVL says that battery-electric vehicles have to travel at least 128,000km before their tailpipe-free emissions break even with new petrol cars.

Executive vice president for AVL, Uwe Grebe, said the company had finished a comprehensive study looking at the complete process of building and driving electric and petrol vehicles, measuring environmental impact and emissions throughout the process. It included factors such as mining for metals and oil, and shipping for both lithium and fossil fuels.

"We did a comprehensive study on the battery electric vehicle and on conventional vehicles, looking at the greenhouse gas emissions all the way from extracting raw materials, building the vehicle and using it," Uwe said.

The impact on the environment when constructing a battery of 60kWh capacity is equal to the greenhouse gases emitted constructing the whole car in the US, the report found.

"What you see is the battery has a significant impact on greenhouse gas emissions. It is so energy-intense, from getting the raw material but even more from producing the battery cells. So roughly speaking, the production of a 60kWh battery accounts for as much CO2 as the rest of the vehicle. And with the battery pack it is determining when we have to break even to a conventional petrol car.

How Australia stacks up

AVL's investigation suggests that a fully electric vehicle must travel at least 128,000km before the environmental benefits of an EV are cleaner than a new, small-capacity petrol-engined vehicle. With Australia's current EV hurdles, including long charging times and sporadic charging infrastructure, most electric vehicle owners here are limited to driving only short distances. If choosing a car with the environment in mind, it might be better buying a traditional petrol vehicle, says AVL.

