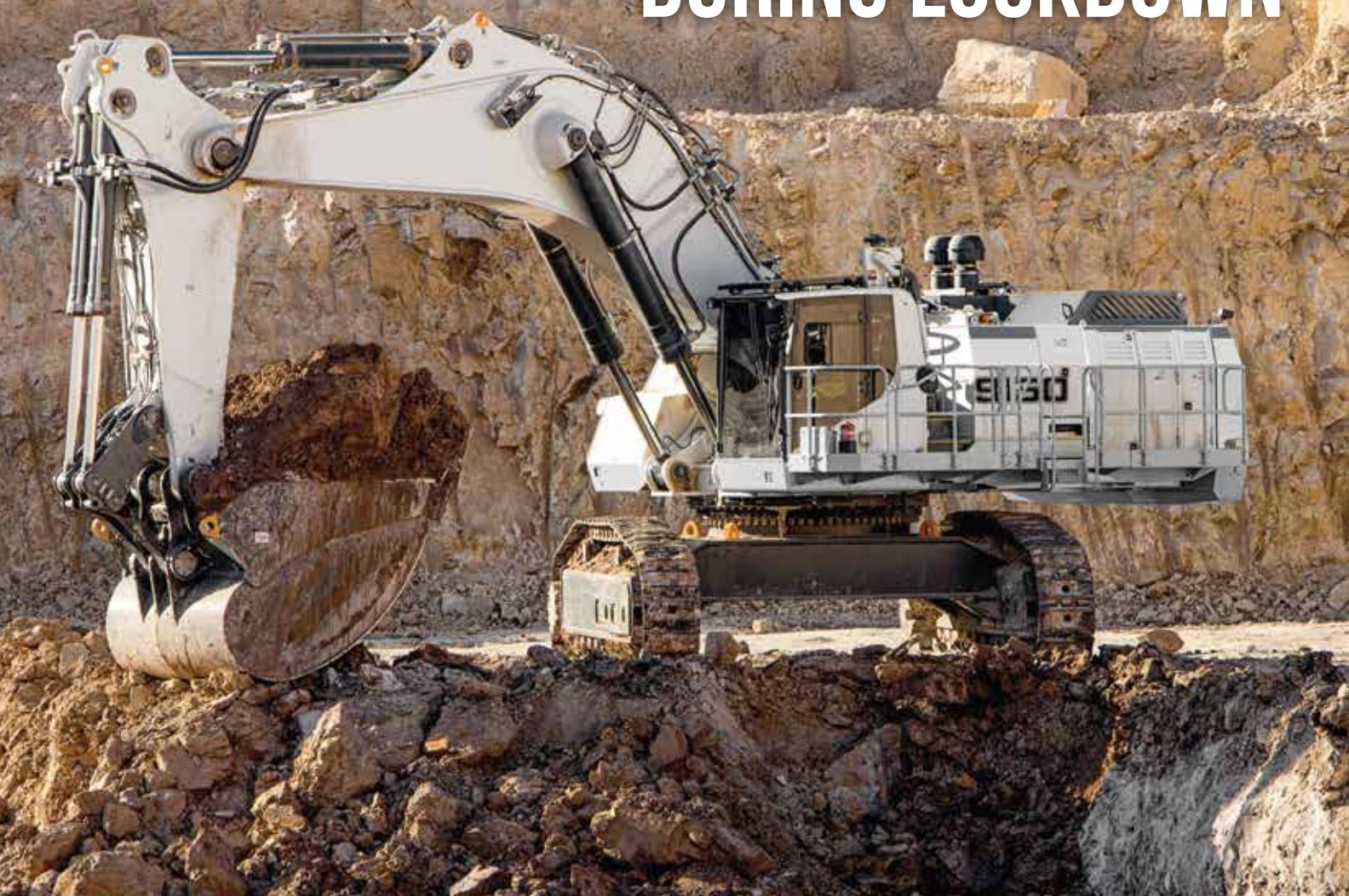


# LIEBHERR-AFRICA'S SAFETY FIRST APPROACH DURING LOCKDOWN



**COMPACT LOADERS:** Skid steer or compact wheel loader – which application for which solution?

**REPAIR AND MAINTENANCE:** Driving high availability with Scania R&M contracts

**TELEMATICS:** New vehicle management solutions from Ctrack

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Capital Equipment News is published monthly by Crown Publications

**Editor:**  
Munesu Shoko  
capnews@crown.co.za

**Features writer:**  
Mark Botha  
markb@crown.co.za

**Advertising manager:**  
Elmarie Stonell  
elmaries@crown.co.za

**Design:**  
Ano Shumba

**Publisher:**  
Karen Grant

**Deputy publisher:**  
Wilhelm du Plessis

**Circulation:**  
Karen Smith

PO Box 140  
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# THE PATH TO THE NEXT NORMAL POST COVID-19

**W**e would all agree that the coronavirus (COVID-19) pandemic is not only a health crisis of enormous proportion, but also an imminent rearranging of the global economic order. As I am writing this, I am wondering how we will all begin navigating to what's next.

Some 11 years ago, amid the last global financial crisis, a former managing partner at McKinsey, Ian Davis, wrote: "For some organisations, near-term survival is the only agenda item. Others are peering through the fog of uncertainty, thinking about how to position themselves once the crisis has passed and things return to normal. The question is, 'What will normal look like?' While no one can say how long the crisis will last, what we find on the other side will not look like the normal of recent years."

Written over a decade ago, these words ring true today but if anything, belittle the reality the world is currently facing. It is even more distinct that the 'next normal' will be defined by a fundamental shift.

In this unprecedented new reality, analysts believe we will witness a dramatic restructuring of the economic order in which businesses have traditionally operated. And in the near future, we will see the beginning of discussion and debate about what the next normal could entail and how sharply its contours will diverge from those that traditionally shaped the business environment.

A McKinsey Global Institute analysis outlines the five fundamentals that will define the path from the crisis of today to the next normal that will emerge after the battle against coronavirus has been won, and these are Resolve, Resilience, Return, Reimagination, and Reform.

Of interest to me is the Reimagination part of the path to the next normal. McKinsey believes that a shock of this scale will create a spasmodic shift in the

preferences and expectations of consumers. These shifts and their impact on how we live, how we work, and how we use technology will emerge more clearly over the coming weeks and months.

Institutions that reinvent themselves to make the most of better insight and foresight, as preferences evolve, will disproportionately succeed. Clearly, the online world of contactless commerce could be bolstered in ways that reshape consumer behaviour forever. But other effects could prove even more significant as the pursuit of efficiency gives way to the requirement of resilience.

The crisis will reveal not just vulnerabilities but opportunities to improve the performance of businesses. Businesses will need to reconsider which costs are truly fixed versus variable, as defining what is ultimately required versus nice to have will be crucial.

Without a doubt, this year will test not only the leadership acumen of senior management within businesses, but also the ability of organisations to operate through uncertainty, with the need to balance empathy with business continuity and the ability to rethink what "performance" means in the post-coronavirus world.

This year is likely to be a year of two halves: the first half will be spent dealing with safety, containment, continuity, survival and contingency planning. And rightfully so, dealing with the crisis and its ramifications is job one for every organisation right now.

When this pandemic is defeated – not sure when – opportunity might overflow as the world tries to gain lost ground. The capital equipment market may also likely benefit from rebounding construction and mining markets. However, organisations that can keep their crucial skills during the first half of 2020 will be well positioned to take advantage of the pent-up demand in these sectors in the second half of the year. 🌟



Munesu Shoko – Editor



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# SCANIA

Several mining activities were identified as essential to the South African economy during the unprecedented lockdown period and Liebherr is supporting its customers in the sector.



## LIEBHERR-AFRICA'S SAFETY FIRST APPROACH DURING LOCKDOWN

**With its highly-skilled support teams on the frontline to support essential service customers during the South African lockdown period, Liebherr-Africa is adopting an array of preventative measures to protect the health, safety and well-being of employees, writes *Munesu Shoko*.**

**L**ife as we know it has come to a standstill – but for essential service workers, it is business as usual during very unusual circumstances. With Liebherr-Africa supplying a wide range of equipment and services to various industries classified as essential service providers during the lockdown period, the company is making the necessary provisions to ensure that all its customers requiring routine and emergency support will be able to operate optimally.

Dieter Schmid, MD of Liebherr-Africa, tells *Capital Equipment News* that some of the industries the company is supporting after during the lockdown include

wind and coal power, mining, port operations and the medical / laboratory industries. The company has, therefore, been granted essential service permits by several of its key customers in the mining, earthmoving and maritime divisions and is supplying products and services within these areas.

Tom Münch, Director Mining, says several mining activities are identified as essential to the South African economy during the unprecedented lockdown period. “Coal mines providing thermal coal to the national power utility, Eskom, are of utmost importance,” he adds. “If the coal mines are not operating, the lights will go off



Liebherr is supporting several customers in the coal mining region of Mpumalanga.

in South Africa. Therefore, the services provided by Liebherr to this essential sector are crucial and we will do everything to support our clients during the Covid-19 pandemic.”

Apart from coal mines, mainly located in the Mpumalanga area, several other mining activities deemed to be of greater significance to the economy are regarded as essential service providers. Münch advises that Liebherr-Africa, has therefore, applied for a number of permits, mainly related to field service, parts, remanufacturing of components workshop activities and the required administrative staff.

“The impact of Covid-19 on the global supply chain has resulted in some interesting challenges for the company to meet all our customers’ requirements. However, due to our well-managed stockholding in South Africa, we are able to overcome the majority of these logistical challenges,” says Schmid.

### Safety measures

From when the first Covid-19 cases were

## QUICK TAKE

Liebherr-Africa supplies a wide range of equipment and services to various industries classified as essential service providers during the lockdown period, including mining, power and port operations



Liebherr-Africa makes the necessary provisions to ensure that all its customers requiring routine and emergency support will be able to operate optimally during the lockdown



Since February, the company has implemented measures to ensure maximum safety for all its employees and to prevent the spread of Covid-19



The measures implemented to protect and educate staff range from educational talks, making sanitiser available, introducing social distancing at the workplace, to providing additional PPE and removing biometric time and attendance systems



recorded in South Africa, the core of Liebherr-Africa’s priorities has always been the health and safety of its employees, while ensuring the continuation of operations to fulfil the company’s commitments to its customers. “Since February, we have implemented measures to ensure maximum safety for all our employees and to prevent the spread of Covid-19,” explains Schmid.

The measures implemented to protect and educate staff range from educational talks, making sanitiser available, introducing social distancing at the workplace, providing additional PPE (personal protective clothing); to removing biometric time and attendance systems, limiting the number of people in meetings, as well as the suspension of breathalyser tests. In addition, daily temperature measuring of all employees and visitors on company sites has been implemented.

As it became clear that the virus was spreading in the Far East and Europe and subsequently to South Africa, Schmid says Liebherr-Africa also curtailed all business



Since the first Covid-19 cases were recorded in South Africa, at the core of Liebherr-Africa's priorities has always been the health and safety of its employees.



Apart from coal mines, Liebherr-Africa is also supporting several other mining activities classified as essential services during the lockdown.



During the lockdown, Liebherr's normal safety procedures for field service and workshop activities are in place in order to achieve zero-harm operations.

travel and limited visitors on site. Meetings are now conducted via Skype or telephonically. When government announced the lockdown, Liebherr-Africa implemented mobile working from home where possible, which is a fairly new concept for the manufacturing industry in South Africa.

During the lockdown, Münch says normal safety procedures for field service and workshop activities are still in place in order to achieve zero-harm operations. "Covid-19 represents a previously unknown challenge. Since early February 2020, Liebherr has implemented additional measures and harsh procedures to protect our own staff as well as others surrounding us, including our clients and service providers. I must say that we have been successful as none of our staff has tested positive thus far," he says.

**On the ground**

Mostly service-related staff are on the frontline of Liebherr-Africa's customer-facing team during the lockdown. Tendayi Kudumba, GM Earthmoving (EMT), says technicians in the workshops are working on critical machines, for example, the PR776 dozer which is urgently required for deployment at a coal operation.

Mike Spies, EMT Workshop Manager, who has been leading this service team, emphasises that, as always, proper job planning and identification of possible safety risks prior to performing tasks is a key parameter in ensuring safe execution of jobs.

In light of the Covid-19 threat, Spies says the team working in the workshop was briefed on the high risks of the virus. "We are each issued with masks,



"We believe that companies that are able to weather the storm creatively, possibly by reinventing portions of their business model, will emerge stronger and more effective."

Dieter Schmid, MD of Liebherr-Africa

TALKING POINT

gloves and hand sanitiser that is consistently applied during the execution of our duties. Physical distancing is also maintained where possible," he says.

Arnold Burger, National Service Manager Mobile Cranes, agrees that it is of critical importance that the team working during the lockdown use the correct PPE at all times and follow the company's Covid-19 guidelines. "In the face of this pandemic, our technicians are out there servicing our customers, and we are very proud of them," he adds.

Kobus Coetzee is one field service technician on the frontline, attending to breakdowns on plants and mines. "Maintaining social distancing where possible and the frequent use of hand sanitiser is critical. In areas where there is a large number of people, we put on masks and gloves to minimise the risk of contamination," he says.

The field service technician, Willem Oosthuizen has been working at Sasol, another essential service provider where he supports several large Liebherr cranes. "First of all, we need to ensure that we are using correct PPE as supplied by Liebherr-Africa. We also have to adhere to the health guidelines as set out by the World Health Organisation," he declares.

Wayne Schoultz, the EMT Field Service Manager, states that Liebherr-Africa has ensured that each technician on standby has the required permits issued by government. "We have also been supplied with a safety kit that comprises masks, gloves and a hand sanitiser. In addition, our company WhatsApp group continuously posts procedures on how to prevent infection and safe work procedures during this time," he adds.

### Impact on business

Commenting on the impact of the 21-day lockdown to the business, Schmid states that, as expected from the onset, this has resulted in big challenges for the company. The collection of accounts receivable is a case in point, which has impacted the company's cash flow.

"Apart from technicians supporting essential service customers, the majority of our employees whose duties are performed on site have been forced to stay at home during the time of the scheduled lockdown. Only a limited number of admin personnel are working from home, where possible," he says.

"We have been carefully monitoring the impact of Covid-19 on the economy, an indication of which is reflected in the increasing depreciation of the South African rand, coupled with the downgrading of the country to junk status. However, the full extent of the impact of the pandemic and the subsequent lockdown on Liebherr-Africa will only become clear in the coming months. The situation in general is extremely fluid and our company will have to become both innovative and flexible. We expect that many companies may be forced into survival mode," he adds.

One of the Liebherr Group's core values is "Independence", and Schmid expects that this will assist Liebherr-Africa to bridge the gap created during such an uncertain and turbulent time. Strong leadership and effective decision-making will also be essential in steering the company forward into the future, he declares. "We believe that companies that are able to weather the storm creatively, possibly by reinventing portions of their business model, will emerge stronger and more effective," adds Schmid.

"We do, however, have a major concern that should the full lockdown be extended for a significant period, our company's liquidity may be at risk and we would then need to take some serious remedial measures to survive. We feel a strong obligation to our employees and will do everything in our power to ensure business continuity and jobs are retained," concludes Schmid. 🌐

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# PROTECTING AGGREGATES AND MINING BUSINESSES DURING COVID-19 OUTBREAK

Aggregates and mining companies are looking at ways to protect their businesses during the Covid-19 pandemic. Glen Webster, sales manager of Loadtech, says a range of new workflows enabled by technology can help aggregates producers and mining companies protect their businesses during the continuing Covid-19 pandemic.

**A**ggregates and mining companies and contractors are facing unprecedented challenges, as is every other industry to a greater or lesser degree. But how do we deal with adversity and find workable solutions that will dictate a positive outcome in the future?

Whereas we may have looked to the flexibility of our teams to help us through, we now have a range of new workflows enabled by technology to help us cope. Now is a great time to learn more about the options available and talk with technology partners about your unique challenges, your goals and how technology can work for you.

Managers can help restore calm, mitigate

spread and equip staff with tools to look after themselves and others. After any immediate isolation or quarantine strategies, how can smart aggregates operations protect staff and customers, and reduce costs from their operations to weather the pandemic?

## Take a breath

Every day, the news media confronts us with updates of the spread. It can seem overwhelming for managers and teams alike. Take a breath, pause and think through your response. As more time passes, we understand the situation better, and a better understanding leads to more predictable outcomes.

Wait to make decisions on reducing

your workforce. It was tough to find skilled operators before, and you often can't just hire someone with no experience, especially if you expect a rebound. Before taking drastic measures of reducing staff, consider how to cut costs caused by waste and improve efficiency.

## Take preventive measures

Embed good hygiene practices into your toolbox talks and walk-around inspections. The toolbox talk is a good time to discuss health and safety with your crew, including reminder advice to practice good hygiene, including frequent handwashing, covering your mouth with an arm during coughs and avoiding touching your face.

Regular maintenance of the machine is well understood, so leverage the walk-around inspection as a time to also disinfect the cab, especially when multiple operators share a machine.

## Listen to fears and concerns

There is plenty of misinformation and confusion around the pandemic, so listen carefully to concerns to help identify staff anxiety. Laying out a strategy for how your team will respond to the pandemic is a good start, but proving to your team



"By playing a long game, managers can endure the short-term and be ready for what 2021 will bring. Producers that are sufficiently prepared can prosper even during difficult economic times."

Glen Webster, sales manager of Loadtech



Whereas companies may have traditionally looked to the flexibility of their teams to help them through, there are now a range of new workflows enabled by technology to help them cope.

you are supporting them with new tools is even better.

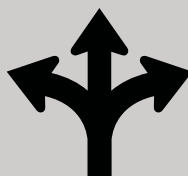
**Be flexible**

Emergency protocols within affected communities, such as government-mandated containment areas and mandatory sheltering in place, can trigger a variety of challenges. When public transportation shuts down or schools close, many employees find it difficult or impossible to show up for work.

An employer who can maintain a flexible approach to production is more likely to retain staff. Consider how production targets are more important than hours at work. Can your operation use technology tools to allow operators to move between machines and still be productive?

Using third party on-board scales on an aggregates and mining business's loaders, excavators, haul trucks and conveyors that collects productivity data that can be easily shared with teams for better decision-making can be beneficial.

Even your customers may ask for more flexibility in materials delivery. This may mean increasing your stockpiles to be ready for changes in demand. Make sure you equip your sales team with an accurate understanding of your product on the ground



**QUICK TAKE**

Now is a great time for aggregates producers and mining companies to learn more about the options available and talk with technology partners about their unique challenges, their goals and how technology can work for them

There is plenty of misinformation and confusion around the COVID-19 pandemic, so managers should listen carefully to concerns to help identify staff anxiety

Before COVID-19, it was standard practice to use a paper workflow with load tickets for truck drivers. With social distancing and the risk of injury to truck drivers who leave their cab around heavy equipment, this may no longer be acceptable. The answer is paperless, contactless Trimble eTickets

It seems likely that the construction sector will contract in the near-term, so aggregates producers should look for process improvement opportunities to reduce costs



Many operators will be isolated by the cab, and beyond regular cleaning of surfaces, technology can help to isolate them further.

By replacing the physical handover of a loading ticket, it reduces the need for proximity or any objects that may have the virus.



with real-time stockpile management.

Measurement tools like LOADRITE loader scales and belt scales, for example, give you real time information about the amount of materials going into or taken out of the stockpile, and loader scales can also help ensure that every truck is loaded correctly

**Isolation at site**

While construction is still permitted in most European countries, some companies and sites are relying on smaller crews, which can help workers to keep a safe distance from each other.

For sites where operators are working but exercising safe social distancing, technology can reduce the need for customer truck drivers to engage directly with loader operators, as job information can be transmitted directly from the scale house to the loader operator's in-cab screen.

**Reduce paper handling**

Many operators will be isolated by the cab, and beyond regular cleaning of surfaces, technology can help to isolate them further. Electronic ticketing technology, for example, can email the loading ticket to the truck driver's mobile phone or the office, just as a paper ticket does. By replacing the physical handover of a loading ticket, it reduces the

need for proximity or any objects that may have the virus.

New load/haul monitoring systems have also replaced haul truck tally sheets. In fact, some newer systems require no haul truck operator interaction to track cycles, with remote reporting for anyone off-site.

**Trimble eTickets**

Before COVID-19, it was standard practice to use a paper workflow with load tickets for truck drivers. With social distancing and the risk of injury to truck drivers who leave their cab around heavy equipment, this may no longer be acceptable. The answer is paperless, contactless Trimble eTickets.

Even if your operation has been designated as an essential supplier, consider eTickets as a way to protect your team, your customers, yourself and your family.

An eTicket is a paperless email of a load ticket or load summary. The load ticket details one specific truck load. The load summary totals all the loads in the last 24 hours to midday. To enable Trimble eTickets, you will need the following. Your local LOADRITE dealer can arrange the sourcing, installation and set-up for you: LOADRITE L3180 SmartScale; an industrial-grade 4G LTE router; and Internet connection.

Limit person-to-person interactions and paper handling with digital eTickets to replace paper tickets. An eTicket-enabled worksite helps support a safer environment for visiting truck drivers as there is one less reason to exit the truck cab and potentially put themselves in an unsafe area.

**Keeping the skeleton crew on site safe**

Loading trucks, feeding hoppers, moving stockpiles and the coordination and supervision of these tasks need to be done on site. Some technology solutions not only monitor production, but also track staff and machine movement. Through mobile smart devices, the on-site team leader can tell the team is working and safe.

**Working from home? Stay in touch**

Many employers have asked staff who are able to work from home to stay away for a few weeks, but that doesn't mean that they can't keep track of that shift's production. The new Trimble Insight, for example, is a real-time, mobile-friendly dashboard of each machine as it feeds the processing plant, during crushing, and as material is loaded onto customer trucks. The dashboard keeps track of start time, delays and each machine's productivity.

**Reduce waste**

It seems likely that the construction sector will contract in the near-term, so look for process improvement opportunities to reduce costs. Are there any pinch points or delays that can be solved?

**Get more from your machine assets**

In 2019, the lead times for mobile machines extended out by months and forced operators to look at a mixed fleet with different makes and models. However, this can make it difficult to collect all your production data in a single place. Using third party onboard scales on your loaders, excavators, haul trucks and conveyors collects productivity data that can be easily shared with teams for better decision-making.

**Play a long game**

The European and United States economies may go into a recession, but generally construction activity lags the overall economy. This means that many contractors can expect more difficult circumstances next year.

By playing a long game, managers can endure the short-term and be ready for what 2021 will bring. Producers that are sufficiently prepared can prosper even during difficult economic times. 🍀



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Compact wheel loaders are normally used in larger areas where higher payloads and greater reach are required.



# SKID STEER OR COMPACT WHEEL LOADER – WHICH APPLICATION FOR WHICH SOLUTION?

**While the skid steer loader is preferred over the compact wheel loader in Africa, both have their advantages and disadvantages, be it in terms of agility, weight, cost, or a host of other properties.**

**This feature takes a closer look. By *Mark Botha***

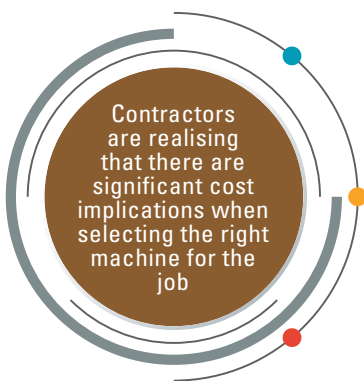
**W**hen comparing the compact wheel loader to its skid steer equivalent, the latter is generally seen as king in the African market: it can turn 360 degrees in its own length, making it suited for work in confined spaces. It also comes at a substantially smaller capital outlay than the compact wheel loader but is less economical in terms of tyre life and fuel usage, and its legendary manoeuvrability requires extra power.

The compact wheel loader, on the other hand, is suited to larger work areas but is not altogether averse to tight spaces. It requires less power to manoeuvre and is less fuel-intensive while its steerable wheels are less demanding on tyres. It also moves faster than its skid-steer cousin.

In the end, it seems the real difference lies with the application. **Capital Equipment News** turned to a few industry players for their take on the debate.



Compact wheel loaders are lighter and more economical.



Contractors are realising that there are significant cost implications when selecting the right machine for the job

Rainer Schmidt, product manager at Wacker Neuson, refers to the agility of the skid steer loader: "The main domain of the skid steer loader," he says, "is work in very confined spaces, where the machine must be able to turn on the spot."

"Wheel loaders are normally used in larger areas where higher payloads and greater reach are required."

**QUICK TAKE**

The compact loader requires less power to manoeuvre and is less fuel intensive, while its steerable wheels are less demanding on tyres



Compact wheel loaders are lighter and economical, but the downside is that their robustness is compromised



Compact loaders are vastly superior when the area allows for its turning circle and the hauling distance increases



The skid steer loader is still more popular in Africa despite its lower payload, shorter reach and much higher operating cost





“The traditional skid concept has been with us for decades and I cannot see it being replaced by articulated wheel loaders any time soon.”

Lofty van Wyk, director, Multione



“Contractors are realising that there are significant cost implications when selecting the machine for the job. More manufacturers are offering compact loaders these days.”

Eddie James, director, Sylco



With the longer boom of the wheel loader, the distance between the machine and the attachment is greater and the operator can see the attachment much better.

Eddie James, director of Sylco, agrees: “Manoeuvrability in tight spaces has always been the obvious and generally accepted reason for using a skid steer rather than a compact loader in certain site conditions,” he says.

“There are, however, a few other considerations, too. On skid steers, the operator’s view from the cab is more restricted than on a compact loader, but you have a much better view of the cutting edge or forks in a skid steer.”

He says the skid steer’s short wheel-base can be problematic when travelling uphill.

“This can leave you travelling on two wheels while carting material out of a hole, as the weight of the load will lift the back wheels when reversing, but its manoeuvrability makes up for this if the hauling distance is short, because the task can be performed much quicker.”

**More considerations**

Schmidt agrees that accessibility is an additional disadvantage of the skid steer loader: “To enter the machine, the operator has to climb over the boom or the connected attachment to gain access to the driver’s seat. Accessing the driver’s seat on a wheel loader is simpler as it can be done from either one or from both

sides of the machine.”

Skid steer loaders also have a disadvantage in terms of visibility in loading applications.

“The bucket or pallet fork is difficult to see when raised, as these attachments will be very close to the machine and up in the air. With the longer boom of the wheel loader, the distance between the machine and the attachment is greater and the operator can see the attachment much better.”

To James, the skid steer’s manoeuvrability comes at the cost of ripping up the surface, a “major consideration” prior to accepting the project.

“While skid steers perform best in tight spaces with short loading distances, compact loaders are vastly superior when the area allows for its turning circle and the hauling distance increases.”

Lofty van Wyk, director at MultiOne, sums it up: “The traditional skid concept has been with us for decades and I cannot see it being replaced by articulated wheel loaders any time soon,” he says.

“In fact, they both have a

very distinct and different application in the end-user market, but articulated wheel loaders are gaining in popularity for various reasons.” He says skid-steer loaders are more robust and built for heavy-duty applications.

“Compact wheel loaders are lighter and more economical, but the downside is that their robustness is compromised. It stands to reason that, if you want to transport the loader on a bakkie or a trailer, it must be lighter by a long margin than the skid loader.

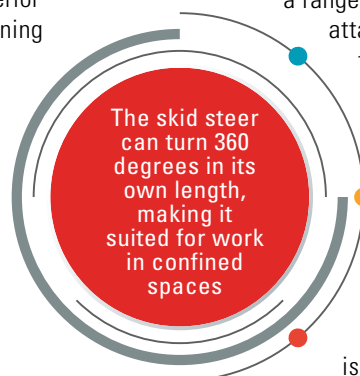
“So, for really tough construction applications, I would certainly recommend a well-known brand skid loader.”

Apart from in these applications, says Van Wyk, the skid steer cannot compete in terms of versatility through a range of interchangeable attachments; ease of transport; operation; cost of ownership;

tyre wear; fuel efficiency; manoeuvrability or loading capacity.

**African market**

The skid steer loader is still more popular in



A 'fast take-off' for articulated wheel loaders is expected in the next 10 years



Accessing the driver's seat on a wheel loader is simpler as it can be done from either one or from both sides of the machine.

Africa, says Schmidt. This is despite its lower payload, shorter reach and "much higher" operating cost when it comes to fuel consumption and tyre or track wear.

James points to a shift in the market: "Contractors are realising that there are significant cost implications when selecting the right machine for the job. More manufacturers are offering compact loaders these days, which makes them a viable option under the right site conditions."

MultiOne's Van Wyk agrees that the skid steer loader is still more popular in Africa, but mainly due to "traditionalism" which, he says, "is deeper seeded in Africa than on any other continent".

"Product awareness," he says, "is instrumental in building brands and sustained growth. It is challenging to introduce the 'new' articulated concept to African countries as advertising media are often inappropriate or non-existent."

He expects a "fast take-off" for articulated wheel loaders in the next 10 years, though, due to digital advertising.

"The sooner articulated loaders are marketed in Africa, the sooner the concept will be adopted and take off. My estimate is that, combined, the compact articulated loaders in the African market cannot exceed a footprint of more than say 20%, compared to the market share held by skid steer manufacturers.

"Another very important factor to consider is that skid loaders are manufactured by far more companies and brands than articulated wheel loaders," he says. 🌐

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The Avant 800 series is the largest model range in the Avant line of compact articulated loaders.

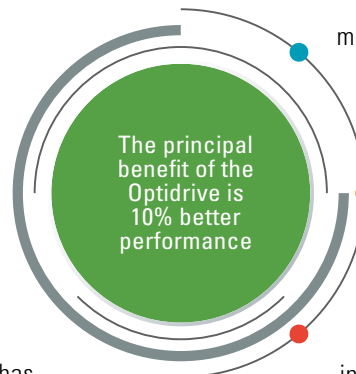


# PUSHING THE LIMITS

**The new Avant 800 Series – the largest and most powerful loader series from Finnish manufacturer Avant Tecno which was recently launched locally by sole distributor AVANT SA – pushes the limits of compact loader performance with its greater lift capacities and heights, as well as ground-breaking technologies, the Optidrive transmission and Smooth Drive dampening system, writes *Munesu Shoko*.**

**T**he Avant 800 series – the largest model range in the Avant line of compact loaders – made its global debut at bauma Munich in April last year. A few months later, the new range arrived in southern Africa through AVANT MPM Distributors (AVANT SA).

Since the local launch in mid-2019, Wally Loftie-Eaton, MD of AVANT SA, tells *Capital Equipment News* that the interest has been beyond expectations. The company has already sold some 15 machines since then, with six




more units on order. Loftie-Eaton says the population could have been more, but local sales are being limited by the restricted factory orders due to the high global demand for the 800 series.

The Avant 800 series has found early favour in the agricultural sector, mainly for loading fruit bins in




The Avant 800 series is ideally suited for agriculture and construction applications.

QUICK TAKE



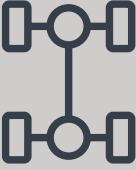
Following its global launch at auma Munich in April last year, the Avant 800 series – the largest model range in the Avant line of compact loaders – was launched locally by AVANT SA by mid-2019

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AVANT SA has already sold some 15 machines since then, with six more units on order

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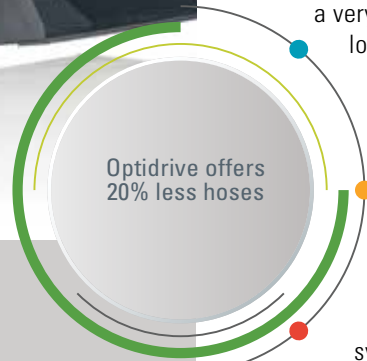


A key talking point on the 800 series is the Optidrive transmission, which comprises a variable displacement hydraulic pump, four hydraulic drive motors and some valves which are connected together with hydraulic hoses and fittings

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Another feature of note on the 800 series is the Smooth Drive – a shock absorber system for the boom



hydraulic hoses and fittings.

“This system – where the drive power is conveyed from the engine (electric motor on Avant e-series) to the wheels using hydraulic oil – is often referred to as a drive circuit. Instead of mechanical axles, Avant uses a design where there are four separate hydraulic drive motors, one on each wheel of the loader,” explains Loftie-Eaton.

The Optidrive system is said to have proven to be effective, offering lots of pushing power and yet enabling a very compact design to the loader, while maintaining an extremely low centre of gravity, which is an important part of the stability of Avant loaders.

Through further research & development, Avant has now improved the system significantly. When hydraulic oil flows at high flow rate in the drive circuit – in hydraulic hoses, fittings, motors and valves – the resistance in these components heats up the hydraulic oil. The more there are hoses and fittings, the quicker the oil heats up, which means that all that unnecessary heat generated in the system uses a part of the engine output in vain. This also results in higher fuel consumption, and less engine power is available for the actual job.

In the new system, the amount of hydraulic hoses and fittings has been radically reduced and optimised – which is where the name Optidrive is derived from.

### Key benefits

There are several benefits end-users can derive from the Optidrive system. The principal gains include 10% better performance; 60% less hydraulic connections; 20% less hoses; parking brake in rear wheels; less heat build-up; less engine vibrations; and better servicing, among others.

“When it comes to performance, Optidrive reduces the power loss in the system by up to 1,5 kW, which is roughly 10% of the total power used in the drive circuit. This means lower fuel consumption, less heat in the hydraulic system and more power for the actual job,” explains Loftie-Eaton.

All of the four hydraulic drive motors in the drive circuit use flushing oil to cool the motors down when the loader is working, resulting in less

orchards. The construction sector is also showing great interest, but sales have been curtailed by the suppressed nature of the construction industry in South Africa at the moment.

The Avant 800 series punches above its minimum 2 500 kg weight with a 1 900 kg lift capacity and 3,5 m lift height, while its dimensions – 1,5 m width; 3,4 m length; 2,2 m height – and articulated design make it a go-anywhere and powerful compact loader.

“The power to weight ratio and lifting capacity of the 800 Series is unique in the articulated loader market. Despite this, the machine can still be transported

legally with a light commercial vehicle and trailer, which makes its transportation economic,” says Loftie-Eaton.

A key talking point is the Optidrive transmission, which weighs in with an array of operational benefits for end-users. Avant Tecno is said to be the first manufacturer to design and utilise such a system in a compact loader.

### Optidrive – how it works

Loftie-Eaton explains that the drive system in Avant loaders comprises a variable displacement hydraulic pump, four hydraulic drive motors and some valves which are connected together with



The model has a 3,5 m lift height.

the loader. Rear weights, load on the boom, uphill and downhill, have therefore a smaller effect on the loader's rear wheels and thus the loader stays more securely in place when the parking brake is engaged.

The Optidrive also has an effect on the weight and balance of the engine and pump assembly on the loader. The altered weight distribution also leads to developing new engine mounts (vibration dampers) that are optimised to the new load and balance of the assembly.

With reliability in mind, the Optidrive has the new Parker EO3 fitting system in all of the high pressure hoses and fittings. The new system has a dial on the fitting, which shows clearly the required torque to which the fitting shall be tightened. Less fittings and less hoses equal to less possibility of a hydraulic leak.

Meanwhile, less hydraulic connections, the new fitting system and more space to work with in the engine bay and front hydraulic motors area all provide a better servicing experience. The Optidrive has a centralised valve system, which collects all drive circuit valving into one valve block located in the front frame of the machine.

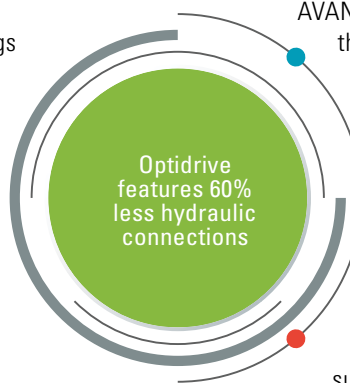
**Smooth Drive system**

Another feature of note on the 800 series is the Smooth Drive – a shock absorber system for the boom. It comprises an accumulator which absorbs and eliminates boom movements and makes driving considerably smoother and more stable when driving at high speed with a heavy load.

Driver comfort is much better with this option, especially when working all day in rough terrain. The system also limits the amount of bounce to the load being transported. For instance, when transporting fruit bins the damage to fruit while driving over rough terrain is minimised.

**Support matters**

AVANT SA has been importing the Avant range of compact articulated loaders since 2006. The company enjoyed early success with a significant number of sales into the mining industry where the machines quickly became popular among mining engineers, mainly due to their durability and the local distributor's parts and service support capabilities.



“When it comes to performance, Optidrive reduces the power loss in the system by up to 1,5 kW, which is roughly 10 % of the total power used in the drive circuit. This means lower fuel consumption, less heat in the hydraulic system and more power for the actual job.”

Wally Loftie-Eaton, MD of AVANT SA



TALKING POINT

heat build-up. When travelling longer distances at high travel speed, the cooling is also essential. On Optidrive the amount of flushing oil in the drive motors is five times more compared with the old system, providing far better cooling of the drive circuit.

Depending on the Avant model, the Optidrive eliminates at least three hoses from the system without losing any of the features on the loader. This is achieved through an intelligent new design with the valves (drive release valve, parking brake valve, and dual speed valve) mounted together on one hydraulic block.

The amount of fittings is radically

reduced. The Optidrive features approximately 30 fittings less (-60%) compared with the old drive circuit. There are also far less 90-degree angle fittings and T-junction fittings that are less optimal for hydraulic flow.

In order to get the best possible grip on all load and terrain situations, the parking brake on the Optidrive is situated in the rear wheels of



The Avant 800 series punches above its minimum 2 500 kg weight with a 1 900 kg lift capacity.

Loftie-Eaton says at the time the concept of the multi-tasking compact articulated loader with a wide attachment range was still foreign to the local market. With an array of advantages over the conventional skid-steer loader, the solution enjoyed a quick uptake.

"The versatility of the Avant concept made it unique at the time. Avant is still the largest manufacturer of the compact loader in the world and with Scandinavian build quality, it was a very easy decision for us to start importing the equipment into South Africa," explains Loftie-Eaton.

Commenting on the uptake of the compact articulated loader solution in South Africa, he says the first five years were difficult, but during the last three years, there has been increased interest in this type of loaders and the market has enjoyed some growth during that period. This has also coincided with the arrival of other competitive brands in the local market.

A key pillar of the Avant brand's growth over the years has been AVANT SA's support capabilities. "We pride ourselves in offering a good quality machine, supported by the highest levels of aftersales support. Some of our units have already done in excess of 10 000 hours and counting, working without any problems," says Loftie-Eaton.

The company also recently started offering a 2-year factory warranty, which is testimony to the confidence it has in its product. "We also offer our customers full-maintenance lease packages, service plans and rent-to-own finance options in-house," he adds.

With branches in the Western Cape, Gauteng and Durban in South Africa, as well as in Windhoek, Namibia, AVANT SA offers has a strong support base for its growing population of machines. 🌐

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Buyers have been looking to the pre-owned market when replenishing heavy plant and construction machinery ever since the global economic downturn of 2008.

It is paramount to buy from a reputable dealer where you can verify machine details

# TIPS FOR BUYING SECOND-HAND EQUIPMENT

**The current economic downturn is affecting crucial growth and the capital equipment market is feeling the pinch. We turned to two players in the used yellow metal equipment space for their views on this and other factors, including practical tips for when buying used equipment and potential deal killers to look out for. By Mark Botha.**

**B**en Buys, Babcock operations director – equipment, says that, although the downturn in the local construction industry is affecting the used plant market negatively, certain sections within it are affected worse than others.

“Activity in the used equipment market in general remains subdued,” he says. “Civils projects are becoming scarce now and that impacts the smaller used machine sector in particular.”

By contrast, the international used plant market is growing, says Jonnie Keys, global operations manager of UK-based online plant auctioneer Euro Auctions. He says capital equipment is seen as a commodity and

that the “global stock” of these machines is traded around the world.

However, these times of plunging oil prices and global health threats are an ill omen to mining, construction and industry everywhere yet, to Keys, there is a silver lining:

“Buyers have been looking to the pre-owned market when replenishing stock of heavy plant and construction machinery ever since the global economic downturn of 2008, when many OEMs stopped manufacturing new machines.”

He says when times improved, OEMs were unable to meet demand, prompting contactors, civils companies and hire specialists to turn to the used equipment market.

“The same holds true today. With Covid-19 affecting



It is paramount to buy from a reputable dealer where you can verify machine details.

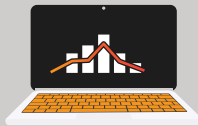
the global economy, the used plant market could well boom in the next 12 months. In the UK, JCB has already stopped production at all its manufacturing plants as a result of the unprecedented reduction in global demand caused by the pandemic." The OEM's facility near Shanghai China, also ceased production in February this year.

**Reputable dealer**

The used yellow metal equipment market was for long deemed to be lacking



Civils projects are becoming scarce and that impacts the used machine sector in particular



Buyers have been looking to the pre-owned market when replenishing heavy plant and construction machinery ever since the global economic downturn of 2008



With Covid-19 affecting the global economy, the used plant market could well boom in the next 12 months



The used yellow metal equipment market was for long deemed to be lacking reputable suppliers, but that is changing with the entry of trusted new-equipment dealers into this space

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Auctions are no longer seen as places to dump the rubbish.



“Buying from a reputable dealer also gives the end-user some recourse when purchasing, particularly where the used machine is of the dealer’s own brand.”

Ben Buys, operations director – equipment, Babcock



“Auctions are no longer seen as places to dump the rubbish. Many rental companies send entire fleets of good, well maintained, two to three-year-old machines to auction.”

Jonnie Keys, global operations manager, Euro Auctions

reputable suppliers, but that is changing with the entry of trusted new-equipment dealers into this space, a development which both Keys and Buys welcome.

“It is paramount to buy from a reputable dealer where you can verify machine details,” says Buys. “In some cases, a good dealer will offer warranties on components.

“Buying from a reputable dealer also gives the end-user some recourse when purchasing, particularly where the used machine is of the dealer’s own brand.”

Keys says that, while unregistered machines are on offer at auction, good machines with low operating hours abound. “Auctions are no longer seen as places to dump the rubbish. Many rental companies send entire fleets of good, well-maintained, two to three-year-old machines to auction,” he says.

**Deal killers**

When asked what to be on the lookout for in terms of “deal killers”, observable signs that the equipment on offer should be avoided, Buys lists, first and foremost, “machines

where the operating hours cannot be verified”.

“Other deal killers,” he says “include instances where the previous owner can’t be reached or where the equipment’s documents can’t be produced. Some vehicles on sale in this market are so old that parts are no longer readily available.”

Keys warns against equipment showing visible signs such as leaking fluid and smoking exhausts. He advises checks on the controls, rams, slew rings on diggers- and tyres.

“The hours for a five-year-old machine may not seem excessive if it has had one or two owners in its life. However, if the excavator is three years old, but an ex-rental machine, it could have had many different users in its life.”

He advises potential buyers to check the condition of the tracks in tracked machines. “Look at the obvious things first, like track pads: do they have any depth? Are they all there and straight? Check the sprockets, idlers and rollers for wear, and look for collapsed bearings on the rollers. Examine the track chains with the engine off and check the pins for wear – are they round or not? Look at how far out the idler on the machine is; this is a sign of pin and bush wear.”

He also suggests examining the condition of the tyres and paying attention to tread depth. “Look out for tyre cuts and check both the inner and outer walls for signs of damage.”

**Tips for buying used**

Buys recommends that buyers inspect the vehicle in the presence of the seller. “Also, record all purchasing conditions on the offer to purchase document,” he says. “This protects both parties.”

Keys offers a list of seven tips to consider, ranging from proper pre-purchase research and budgeting, to the general condition of the machine and checking for damage; the condition of the VIN plate and service history, as well as to look out for equipment used previously by contractors.



Buying from a reputable supplier like Babcock gives used equipment owners peace of mind.

“Do your research before you visit the dealer or auction,” he says. “Decide what you are looking for and list your specific requirements to ensure that you purchase the right piece of machinery.”

He notes the importance of determining your budget beforehand and to establish what the bank or financier is prepared to advance for the purchase. He also recommends checking for overspray and painted-over decals that may indicate a cover-up problem.

“Look for fresh oil seeps and paint that looks new because it was covered by built-up grease. Also look for new gasket edges and shiny metal where parts join. You will need to know what caused the part to fail.”

He also advises buyers to check the engine for water stains, the engine block for evidence

of oil leaks and the dipstick, for heavy dirt deposits indicating that the equipment could have been standing idle over time.

“Thicker oils are sometimes used to reduce leakage. Check the owner’s manual for the proper oil grade. Also check the floor and under the seats for signs of rust.”

The VIN plate, too, should be checked: assess its condition and its current position – is its position consistent with other models in the same class? Is it fixed with new rivets that don’t match? Has a serial number been ground off and that area repainted?

Keys says contractors sometimes buy less-expensive agricultural equipment for use in more demanding industrial applications.

“Watch out for points of excess wear and oversized or heavy-duty tyres not typical of the equipment. Look for hammer marks, kinks in hoses and part misalignment, which means the wrong parts were used or care during assembly was ignored.”

His last recommendation is to establish the machine’s history. Should this not be available, determine who the previous owner was. “A couple of phone calls should provide some answers. If the machine appears to be an ‘ex-hire’ item, it is best to steer clear.”

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Scania Southern Africa has been offering R&M contracts since 2002

Premier Logistics Solutions has 129 Scania trucks in its fleet.

## DRIVING HIGH AVAILABILITY WITH SCANIA R&M CONTRACTS

**Due to the uptime-driven nature of its business, Premier Logistics Solutions does not leave anything to chance when it comes to the health of its truck fleet. Taking a Scania R&M contract with every truck purchase for the past eight years has ensured 99% average truck availability, writes *Munesu Shoko*.**

**S**outh African-based Premier Logistics Solutions runs a fleet of about 240 trucks across its four business divisions. Some eight years ago, the company bought its first two Scania trucks and never looked back. Since then, the family-owned logistics company has purchased some 167 Scania trucks, of which 129 are currently active.

"We started off with Scania some eight years ago with the purchase of two trucks. We scaled up in 2015 when we started replacing our Freightliner and International units we had in our fleet. Our first major Scania fleet was in 2015 when we bought 15 vehicles at one go. The following year we bought 10 more trucks and never looked back," says Jimmy Auby, MD of Premier Logistics Solutions.



All of Premier Logistics' Scania trucks are on R&M contracts

## QUICK TAKE

+ FLEET OF ABOUT 240 TRUCKS



South African-based Premier Logistics Solutions runs a fleet of about 240 trucks across its four business divisions

All of Premier Logistics Solutions' 129 Scania trucks have an existing repair and maintenance contract, which runs until the replacement cycle of 3 years/600 000 km intervals



Premier Logistics' average Scania truck availability is at 99%, which bodes well for its uptime-driven business



Scania's R&M contracts are recognised by all of its wholly-owned dealerships and independent workshops across southern Africa. This means one account for the customer, managed centrally, allowing flexibility if operations or routes change



All of Premier Logistics Solutions' 129 Scania trucks have an existing repair and maintenance (R&M) contract, which runs until the replacement cycle of 3 years/600 000 km. Auby is of the view that R&M contracts are enjoying huge market penetration these days, mainly because transport operators are realising that in-house workshops are an overhead that they can do without, especially given that many are ill-equipped to handle the complexity of modern trucks, particularly their electronic systems.

### Company's strategy

Auby tells **Capital Equipment News** that taking an R&M contract with every truck purchase has always been part of the company's model. He reiterates that "servicing vehicles is not our core business; logistics is".

"Part of our business strategy is to have all our vehicles on R&M contracts. When the vehicles are due for service, we send them in and they get serviced. In case of a breakdown, Scania's branch network is a phone call away and they sort out any

problems quite quickly to get our mission-critical assets back on the road with minimum downtime," says Auby.

Explaining some of the reasons for this approach, Auby says previously the company had its own workshop for in-house servicing and "had double the amount of staff and double the amount of issues". He says the beauty of Scania R&M contracts is that they give the fleet owner a known, monthly cost that is fixed (more or less) for the contract period, based on kilometres travelled.



“Taking an R&M contract with every truck purchase has always been part of our business model as we believe that servicing vehicles is not our core business; logistics is.”

Jimmy Auby, MD of Premier Logistics Solutions



“Our Fleet Care option includes one dedicated person monitoring the customer’s vehicles, including fault codes, driver evaluation and scoring and a host of other areas, freeing up time and resources for fleet owners to focus on their core business.”

Russel Pinard, contracted services manager at Scania



Due to proper servicing of trucks through the Scania R&M agreements, Premier Logistics reports a 99% average truck availability.

TALKING POINTS

Auby is of the view that maintenance contracts are all about removal of risk, such as doing away with parts stockholding, which in many instances poses a major risk of stock theft. In the case of basic inspection, there is very little risk because preventative maintenance costs – service times, labour rates and consumables – are all known. Therefore, it’s relatively easy to evaluate these contracts, comparing them with the labour rates and consumable prices fleet owners would otherwise pay.

“We find the R&M route sensible for us,” he says. “It’s also better for us when doing our costings – we have an exact budgeted figure for our repair and maintenance. It’s based on kilometres and we can budget for it,” says Auby.

Another major advantage of the Scania R&M contracts, according to Auby, is productivity. “Our vehicles are serviced by experts,” he says “and the scheduled downtime related to maintenance is kept to a minimum. Because our vehicles are serviced according to OEM specifications all the time, we don’t have any trucks standing in the yard due to breakdowns, thus increasing uptime and truck availability. Our average Scania truck availability stands at an average 99%, which bodes well for our uptime-driven business.”

**Scania R&M contracts**

Scania Southern Africa has been offering R&M contracts since 2002. Having started with about 100 contracts in South Africa, the company later rolled out the service to other major markets in southern Africa, including Botswana (2010), Namibia (2011) and Mozambique (2015).

Russel Pinard, contracted services manager at Scania, says the company has seen exponential growth of its R&M contract offering since inception as it has become a norm for customers to buy new vehicles with R&M contracts. The portfolio of Scania’s active agreements is now over 7 300 compared with 1 800 in 2009 and 4 800 at the end of 2014.

Scania has, over the years, enjoyed huge market penetration for its R&M contracts. “In 2019, more than 77% of new vehicles in South Africa were sold with a maintenance or R&M contract, and 74% for the southern African region,” says Pinard. “A record 44% of buses sold in South Africa in 2019 were sold with a maintenance plan.”

“More and more customers are realising the benefits of these agreements, allowing them to focus on their core business, while leaving the maintenance part to professionals,” adds Pinard.

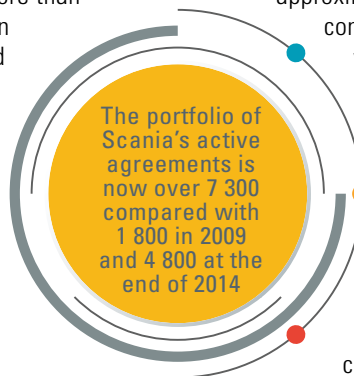
Scania offers three main R&M contracts. However, each of the three can be customised to suit exact customer needs.

The Maintenance Contract, also known as Service Only contract, can carry on for an unlimited amount of time and kilometres. Meanwhile, the R&M Lite includes servicing and driveline cover of up to six years or 1,2-million km.

The R&M Standard contract, of which Premier Logistics is on, includes servicing, driveline cover and fair wear and tear on all the main systems. The R&M Standard contracts – which account for approximately 86% of all of Scania’s contracts – include up to six

years or 1-million km cover as standard. Longer terms can be negotiated based on operational requirements.

Other products and services include centralised bookings where Scania plans and books service events for its customers at no additional cost. “Our Fleet Care option





Premier Logistics employs a 3-year/600 000 km replacement cycle for its Scania trucks.

includes one dedicated person monitoring the customer's vehicles, including fault codes, driver evaluation and scoring and a host of other areas, freeing up time and resources for fleet owners to focus on their core business."

#### Key advantages

Pinard says there are various reasons why truck owners should purchase vehicles with R&M contracts. R&M contracts, he says, allow fleet owners to budget more effectively over the life of the vehicle, by allowing them to know what their maintenance cost will be for the next few

years upfront.

"It also decreases the amount of administration and personnel required from the customer's perspective," says Pinard. "Contracts are invoiced monthly rather than having to provide purchase orders or make payments every time a vehicle visits the workshop." This, he says, also allows "us to decrease the amount of time spent in the workshop and getting the vehicle back on the road as soon as possible".

Pinard says around 90% of Scania's R&M contracts are invoiced according to actual kilometres travelled, and this

has been an option since 2015. Using the Scania Fleet Management System (FMS) or information supplied by the customer, the company can ensure that the customer's costs are always in line with their revenue, even during seasonal peaks and fluctuations caused by volatile market conditions.

With Scania's R&M contracts, the OEM takes on all the risk in the case of a costly repair, leaving the customer free of any surprises that may affect their cash flow negatively.

Additionally, Scania's R&M contracts are recognised by all of its wholly-owned dealerships and independent workshops across southern Africa. This means one account for the customer, managed centrally, allowing flexibility if operations or routes change.

The flexibility of the Scania R&M contracts is another major benefit for fleet operators. Scania is able to create unique packages for its customers, starting with a base R&M agreement and adding on specific inclusions based on the end user's needs, including services like wheel alignment, trailer maintenance and hydraulic systems, among others.

Pinard says vehicles that have been on R&M contracts generally have a higher resale value when it's trade-in time.

For peace of mind, each customer with a Scania R&M contract has a dedicated customer care representative who can handle and expedite all types of queries, ranging from sales to aftersales, and even accounts. "This allows the customer to have one point of contact and a speedy resolution always," concludes Pinard. 🌐



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Kim Coetzee, GM of Rand-Air.



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# NEW RAND-AIR GM SET TO TAKE COMPANY TO NEW HEIGHTS

**Kim Coetzee, previously sales manager at Rand-Air, took up the reigns as GM on 1 January this year, following the retirement of Louwrens Erasmus in 2019.**

**C**oetzee says having been with the company for nearly 25 years has prepared her for this role: "It gave me a thorough, practical understanding of the industry, and Rand-Air's role within it. I look forward to putting this knowledge to use, and to taking the company to new heights."

Her career with Rand-Air started as sales consultant in Cape Town, a position she admits she initially found challenging, having been previously employed in the car rental industry. She was, however, exposed to personal development and training focused on transferable skills in aspects such as emotional intelligence, situational leadership and assertiveness.

"Not many companies provided this for their employees back then," she says. "It appealed to me and paved the way for my next role as a sales representative

when I relocated to Johannesburg. In 2000, I applied for the position of industrial plant rental manager."

Industrial plant rental manager

The core focus of the business at that time was short to mid-term rentals, which typically comprised emergency or planned maintenance rentals, mostly to the construction, mining and manufacturing industries. Industrial plant rental





"We're seeing a higher demand for power solutions, especially in mining and industry."

appealed to customers who approached the company to outsource their air or power supply needs.

Coetzee says the eight years in this position was an "education": "I learned much during that time. Although I didn't manage many staff members, I learnt to work through people." That stood her in good stead as her next position at the company, that of sales manager, required her to manage a large, diverse team of people.

"When I started at Rand-Air, my career goal was to become sales manager. When this was realised after 15 years, I worked very closely with the GM and, again, there was so much to learn."

In terms of driving growth as GM, Coetzee says Rand-Air has an established customer base, and that the company works towards providing "new solutions for different applications".

"We constantly explore new technologies and introduce products that can be successful in our market. In this industry, you can have multiple products serving your customer base, so we stay abreast in terms of technological development."

She says customers' needs and technology change constantly, which means the company "aims at a moving target", making it imperative to be open to new ways of doing business.

### Women in industry

As the GM of Rand-Air, Coetzee is one of a select few women with high-level positions in the South African corporate rental industry. However, she says being a woman in this environment didn't make the journey any more difficult.

"I believe one of the challenges many women face is that of being self-limiting: your own insecurities and fears hold you back. I believe we must focus on supporting women to ensure better growth trajectories in their careers. Women should never limit themselves because of insecurities: take a chance and believe in yourself!"

She cites recent research showing that, when companies ask employees to rate themselves subjectively, women generally rate themselves lower "because they are so much harder on themselves; whereas men tend to promote themselves strongly," she says. "Women are always looking to see where and how they can improve."

"Training and development is important



Kim Coetzee, previously sales manager at Rand-Air, took up the reigns as GM on 1 January this year



Coetzee has been with the company for about 25 years, which has given her a thorough, practical understanding of the industry, and Rand-Air's role within it



As the GM of Rand-Air, Coetzee is one of a select few women with high-level positions in the South African rental industry



Rand-Air has partnered with several agencies in neighbouring countries to support customer demand for rental equipment

QUICK TAKE



The TwinPower containerised generator from Rand-Air.

in building people’s confidence. This year, Rand-Air is focusing a lot more on coaching for development, so that we can uplift our staff, and see where we’re missing opportunities due to lack of information, technical skills and other factors.”

She says her predecessor, Louwrens Erasmus, was a leader who challenged her, and an excellent mentor. It was his philosophy to create an environment where people grow and develop.

“Louwrens created a culture of learning, where you always wanted to improve on yesterday.”

She says that, among other things, this approach inspired her to complete her masters’ degree while also working full-time.

**Industrial rental model**

In terms of Rand Air’s core business, she says the company provides emergency rental solutions for planned shut-downs – short-term rental contracts, usually over six months or less.

“Our long-term rental offering involves a consultative process; it is not a quick-fix solution. This is where the client decides whether to buy a machine outright or to opt for a long-term rental solution. This is not a financial lease but an operational lease over a three to five-year period.”

Rand-Air evaluates the site conditions, discusses the customer’s needs and conducts testing before the time to assess the actual requirements.

“So, we look at all the variables in a purchase situation. Whether the requirement is for an air or power solution, we look at the options to optimise the solution. We install the machine at the customer’s plant, and we take care of the maintenance.”

“It is a cost saver to the client, because they don’t necessarily have the resources to maintain the machines themselves. There is also no capital outlay.”

The company guarantees uptime, even in the event of a technical problem with the machine.

“The solution ensures that the client has either air or power on site at all times. We structure the pricing around the hours the machines work.”

She says the customer continues to focus on their core business “while our core business is supplying air and power. We have a service level agreement to ensure uptime so, should there be an issue with one of our machines, we will have a serviceman on site within a pre-determined time.” Rand-Air provides a back-up machine until the problem is solved.

“They might have a financial model where they want to own assets, but

more and more companies don’t want the hassle and the capital outlay. There are many hidden costs associated with maintenance. For instance, what is the contingency plan in the event of a breakdown? What are the costs associated with emergency rentals, and are the spares available for immediate repairs to an aged asset?”

Rand-Air offers solutions which include specialised oil-injected, oil-free, diesel and electric compressors, as well as a generator fleet. Coetzee says the company offers TUV-certified oil-free air solutions which are critical in applications such as in the food manufacturing sector, where the compressed air comes into contact with the processes, and where no oil carry-over should occur.

“We’re seeing a higher demand for power solutions, especially in mining and industry,” she says.

The plant is sourced from Atlas Copco Group, Rand-Air’s holding company, and includes a fleet of air, power, pump and lighting solutions.

The key industries served by the company are petrochemical, manufacturing and mining but Coetzee says the market is “very diversified” and even includes the entertainment and film industries.

When the company started out 47 years ago, it catered predominantly to the construction industry, supplying small compressors, and only included generators in its offering in the late 1990s.

**Market shifts**

Coetzee says Rand-Air serves a diverse customer base, but that markets change over time.

“These shifts in the market are based on external factors we can’t control. These factors include the way clients spend and determine their requirements.”

In terms of national footprint, the company has offices in the three major hubs of Cape Town, Durban and Gauteng, in addition to branches and satellite offices at Saldanha Bay, Richards Bay and Sasolburg. Its head office is in Jet Park, Ekurhuleni.

Rand-Air also supports all across-border rentals out of South Africa. It has partnered with agencies in neighbouring countries to support customer demand for rental equipment.

**Atlas Copco**

Rand-Air was acquired by Atlas Copco in 1999, and is part of the Atlas Copco Specialty Rental division, Power Technique. It has, however, retained the well-branded trading name.

“We experienced substantial growth following the acquisition,” says Coetzee. “This was because being an Atlas Copco company allowed us access to different skills and technologies on a global level, as opposed to being localised nationally.”

And Rand-Air’s future under Coetzee’s leadership?

“My predecessor left a very solid company,” she says. “We’re not changing that structure and way of doing things; we’re building on it.” 🌟

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Ctrack has launched its Ctrack Fuel Solution to cater for medium and heavy commercial vehicles.



## NEW VEHICLE MANAGEMENT SOLUTIONS FROM CTRACK

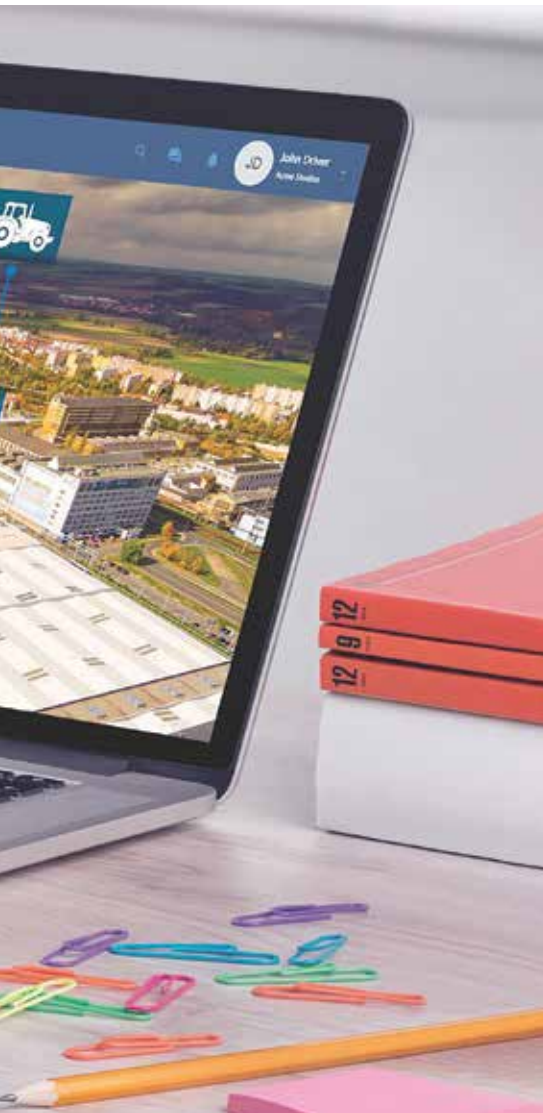
**Ctrack has brought to market a new fuel management solution with real-time activity triggers, as well as an on-the-road (OTR) driver terminal solution that facilitates onboard navigation and communication. It also added a 3-channel dashcam to its Iris video monitoring solution for rental, light delivery and heavy commercial vehicle and bus fleet operators. By Mark Botha.**

**W**hile fuel monitoring systems for heavy commercial vehicles have been available for some time, light delivery vehicles and passenger cars have provided limited access to similar information. This led Ctrack to introduce the new NX35-C Beijer fuel management solution in cooperation with European company Beijer, which has access to an extensive database of vehicle manufacturers and models.

According to Eugene van Niekerk, GM product solutions

at Ctrack, Beijer provides the company with product ID (PID) codes for the CAN data on these vehicles. These datasets include information on aspects such as engine load, cruise control and indicator use. Data pertaining to fuel consumption is extracted to offer information on both fuel consumption and fuel level on cars and LDVs.

"We have found that while we are able to obtain CAN bus information on certain vehicle models in Europe and the UK via the Beijer database, the same vehicle model in South Africa does not provide the same information



"Fuel prices are constantly on the rise and, nowadays, fuel savings can make up the bulk of the profit in the transport industry."

Eugene van Niekerk, Ctrack GM product solutions

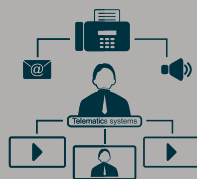
TALKING POINTS

**QUICK TAKE**

"Ctrack has introduced its Ctrack Fuel Solution for heavy and medium commercial vehicles.



Fuel constitutes between 40 and 60% of most transport companies' total operating cost, and statistics show that 97% of telematics users cite tracking and fuel monitoring as the top reasons for using telematics in their vehicles



Ctrack has found that while it is able to obtain CAN bus information on certain vehicle models in Europe and the UK via the Beijer database, the same vehicle model in South Africa does not provide the same information as its European counterparts



In municipal fleets, transportation can account for up to 20% of total expenses. The figure is around 30% for the construction industry and up to 40% for mining and heavy commerce



as its European counterparts. We have no control over the information made available by the vehicle OEMs" he says.

Heavy commercial vehicle OEMs make available CAN Bus J1939 data in compliance with international standards. This enables third parties such as Ctrack to access and extract the information.

The company launched the Ctrack Fuel Solution to cater for medium and heavy commercial vehicles that does not offer CAN bus data.

The four types of fuel monitoring sensors in use today are fuel flow meters; CAN bus, float systems and capacitive fuel sensors. Ctrack regards the latter as the most reliable means to monitor fuel usage in long-haul fleets.

"We obtain our data on cars and vans through Beijer, but we introduced the Ctrack Fuel Solution for heavy and medium commercial vehicles. It is aimed at non-CAN bus vehicles and those models that don't feature the J1939 protocol."

Fuel constitutes between 40 and 60% of most transport companies' total operating cost, and statistics show that 97% of telematics users cite tracking and fuel



In municipal fleets, transportation can account for up to 20% of total expenses.

monitoring as the top reasons for using telematics in their vehicles.

In municipal fleets, transportation can account for up to 20% of total expenses. This figure is around 30% for the construction industry and up to 40% for mining and heavy commerce.

"Fuel prices are constantly on the rise and, nowadays, fuel savings can make up the bulk of the profit in these industries."

Van Niekerk says the transport industry finds itself in a situation where prices are coming down, while the cost of running a fleet is on the rise.

"Truck load revenues are shrinking too, so it is imperative that we control the usage of this resource."

Ctrack selected the capacitive sensor monitoring method involving the installation of a separate sensor in the tank. Specialised installation data is fed from this probe to the cloud-based environment for real-time data on fuel levels and usage.

A digital dashboard provides an overview of fuel consumption and of the number and percentages of fuel increases and decreases in each vehicle. The dashboard displays an overview of the percentage decreases, total number of increases and the average volume of increases and decreases.

"Once the fuel probe is fitted," says Van Niekerk, "the tank is calibrated by means of a 'SANS beaker', a measurement provided by the SABS. This is to establish the exact capacity by volume of the fuel tank. If this is done properly, fuel readings will be 98% accurate and variations in

fuel volume and level will register on the dashboard, in real time."

The dashboard also shows the locations, on a map, where these decreases and increases occur, as well as the volume of increase or decrease, and the date and time at which they occur. The operator can view these variations either by vehicle or by driver.

Fuel usage figures are also available according to vehicle make, allowing the operator to "compare the performance of their Hino to their Mercedes," says Van Niekerk. Also provided is the predicted range the vehicle can travel, based on the amount of fuel in its tank.

"The fleet operator now knows which of their vehicles must refuel at filling stations, and which have the range to return to the depot, where diesel and petrol are available at lower cost.

"But a variation of 5 l, for example, is minute and won't register as a percentage, even when using the standard, float-type measurement which doesn't present a one-to-one ratio. However, with sensor monitoring where you calibrate the tank, you can detect even the smallest variations, in real time."

### OTR fleet management

The On-the-Road (OTR) Driver terminal solution enables users of Ctrack's Online or Max software to set up virtual driver pin numbers, which are required to start the vehicle. The virtual PIN is configured on Ctrack software and identifies the driver to enable driving behavior tracking.



The solution employs a driving display based on the Garmin Fleet 790 hardware and Ctrack's proprietary fleet management software. It provides a means for the fleet operator to communicate with the driver.

The purpose-built IP67-rated device is a fleet telematics tablet with an embedded 4G modem and integrated dash cam. It features a multi-touch display and open-SIM cellular connectivity and runs on the Android operating system.

"Being Android-based, the system can be ported onto any hardware supporting this operating system," says Van Niekerk. "It also offers always-on internet connectivity, WiFi, Bluetooth and nearfield communication."

When used in combination with Ctrack's NX35 hardware and a voice-activated Ctrack SIM card, the device can facilitate two-way voice or text communication with the driver.

"The terminal allows the driver to make and receive phone calls from the vehicle," says Van Niekerk. "It is a mounted, fixed, hands-free device for safety reasons, and it features an auto-answer function."

Outgoing calls can be limited to predefined numbers to restrict unauthorised calling. Incoming calls, too, can be limited to pre-programmed numbers.

The OTR solution records driving events on the move by means of a one-way, forward-facing camera built into the hardware. In the event of a driving incident such as harsh braking, the system saves a minute's footage before, during and after the event to



Specialised installation data is fed from the probe to the cloud-based environment for real-time data on fuel levels and usage.

the device's onboard memory.

### Task manager

The OTR task manager function further enables the operator to allocate tasks

to their drivers on the road via the OTR navigation solution. Should the driver accept the task, they would be navigated along the most economical route to where the task must be completed. The task's progress can be monitored in real-time.

The driver's availability to accept tasks is preconfigured through the OTR system and can be changed by the driver to reflect statuses such as "Arrived at Site"; "Job Completed" or "Broken Down". En-route to the task location, the interface provides the driver with visual feedback on their driving in real time, to enable them to improve their driving.

Van Niekerk says the Android OS allows for the addition of functions such as custom forms, which include pre-vehicle inspection sheets, and the electronic Ctrack fuel fill-up form, where the driver captures the amount of fuel purchased, its rand-value and the odometer reading, among others.

"Available custom forms include pre-inspection sheets that allow drivers to record damage to vehicles. All this data can then be uploaded to the cloud-based system for further analysis by the fleet operator."

### Ctrack Iris

The customisable Ctrack Iris video monitoring and telematics solution offers the front and cab-facing, eight-channel Iris DVR video unit with infrared night vision and its own hard drive.

Users can now add to this solution a three-channel dash cam with artificial intelligence, offering an Advanced Driver Assist System (ADAS) and a fatigue monitoring camera.

"The 3-channel dashcam comes with standard dual-view, which is nothing new, but the forward-facing camera includes built-in ADAS," says Van Niekerk. This feature includes proximity detection which registers vehicles in front of the truck as green (safe), yellow (close) and red (too close and dangerous).

"The operator can add driver status and fatigue monitoring as a third channel on the dash cam," says Van Niekerk.

Ctrack MD Hein Jordt has stated that enhancing these product solutions emphasises Ctrack's drive to support customer efforts to stay abreast of challenges in their business operations, allowing them to act and ultimately to save on cost, and to protect their assets. 🌐



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## Bosch Rexroth SA appoints first distributor in Tanzania

Hytec Services Africa (HSA), a member of the Bosch Rexroth South Africa Group, has awarded distribution rights in the United Republic of Tanzania to Magare Company Limited. An electrical and mechanical engineering company with offices in Mwanza and Dar es Salaam, Magare's distribution rights are effective from 1 March 2020. The company, which supplies services to general industry and the mining sector, will distribute all Bosch Rexroth Group company products throughout Tanzania.

In selecting a distributor, numerous companies were evaluated against a set of pre-determined criteria to establish the best potential business partner. "Magare has a division specialising in mechanical and electrical component sales, and they service the same customer base as Hytec Services Africa," says Louis Potter, Africa development manager, HSA. "These factors, among

others, perfectly position the company to be a proud distributor for the full product range from the Bosch Rexroth South Africa Group of Companies."

Tanzania has a large mining industry with a broad array of needs, and HSA's goal is to provide specialist solutions to address these specific customer requirements. "Tanzania is a target country for Bosch Rexroth products," Potter says. "We have developed good relationships with the larger mining groups to the point that more attention closer to home became necessary. Magare is the perfect in-country partner for us to 'Move now, Drive tomorrow, Shape Africa'."

The company will perform a sales service with specialist support from South Africa. "We intend building on this relationship through knowledge transfer to ultimately include service and repair capabilities in the future," Potter says. 🌐



Mabula Magangila, MD of Magare Company Limited (left), receives the authorised distributor certification certificate from Louis Potter, Africa development manager, HSA.

## Caterpillar launches four new backhoe loader models

Caterpillar is launching four new backhoe loader models that build on the success of the Cat F2 Series backhoe loaders. The new line comprises the Cat 428, 432, 434 and 444 models, replacing the 428F2, 432F2, 434F2 and 444F2 machines respectively. The 422F2 will cease production. The 426F2 remains unchanged.

The new Cat backhoe loaders offer similar model platforms throughout the line to deliver component commonality and operating similarities throughout range. These machines will also display the new Cat trade dress and nomenclature, which removes model suffixes.

The trusted and reliable Cat 3054C and C4.4 engines remain on the new series. All models in the new backhoe loader line feature standard four-wheel drive with rear differential lock for improved traction in poor ground conditions.

A new four-speed powershift transmission is available as an option on the 428 and 434 and is as standard on the 432. The new powershift option enables easier on-the-go gear shifting for the operator. The 444 will continue to be fitted with a fully automatic transmission as standard.

The 432 and

444 models are equipped standard with low-effort electro-hydraulic (EH) loader and pilot backhoe controls. To meet customer preference, standard mechanical backhoe controls on the 428 and 434 models can be optionally upgraded to pilot controls.

New optional performance boom cylinders are available on the 428 and the 434, offering up to 25 percent more boom lift capability to enhance operating performance. Performance boom cylinders are standard on the 432 and 444 models.

To increase machine utilization, the new Cat backhoe loader line can be equipped from the factory or as a field installed kit with optional Integrated Tool (IT) carrier loader couplers for fast work-tool changes. These new backhoe loaders are compatible with F2 series attachments, eliminating the need to purchase new attachments, lowering operating costs. 🌐



Available from May 2020, the new 428, 432, 434 and 444 will set the new standard in backhoe loader comfort and performance.

## High-speed driveline for Volvo L45H and L50H loaders

Offering speeds of up to 50 km per hour where conditions allow, a new high-speed driveline option for Volvo's popular utility wheel loaders means productivity just got fast-tracked.

Ever feel like the pace of life is getting faster? Well that's certainly the case with Volvo's L45H and L50H wheel loaders. A new high-speed driveline option is now offered for these popular machines, which sees top speed more than doubled – from 20 km/h to 50 km/h compared with the standard driveline.

Why would a faster driveline be needed? Well, these machines often find themselves travelling long distances between jobsites, where the normal transmission is slow and the alternative of transporting them by truck gets expensive. Some applications – like load and carry – could also benefit from having a higher operating speed. Cycle times can be significantly cut, thereby boosting productivity.

With three driveline speeds now available (there is also an intermediate driveline that boosts speeds up to 30 km/h), customers can choose the option that best suits their needs and applications. The high-speed machine doesn't only travel fast though – thanks to a drive mode selector the operator can adjust driveline behaviour to match the work being undertaken.

## World premiere for Wirtgen large milling machines at ConExpo

With more than 30 exhibits, including 10 world and North American premieres, as well as an interactive technology exhibition, the Wirtgen Group's booth became a magnet for visitors at Conexpo-Con/Agg 2020. They were especially interested in the new large milling machines from Wirtgen.

The high-performance W 220 Fi and W 250 Fi models, the flagships of the new generation of machines, particularly impressed the industry audience during their world premiere. Like all of the large milling machines in the new F series, they set standards when it comes to milling performance and machine efficiency, primarily thanks to the innovative Mill Assist machine control system.

This is because Mill Assist helps the milling machine operator optimise machine performance and significantly reduce diesel, water, and pick consumption as well as carbon and noise emissions. Practical experience shows that users already use Mill Assist more than 90% of the time their machine is in operation, significantly cutting costs as a result.

The North American premieres of Vögele's WITOS Paving Docu, Hamm's HP 180i tyred roller and Kleemann's MOBICAT MC 120 Zi PRO jaw crusher also underscored the group's position as the innovation driver and technology leader in the road construction sector. The Wirtgen Group Technology Centre, where visitors could learn about the specialised product brands' application technologies in more detail, was also popular.

To emphasise that it is a part of John Deere and



Visitors at ConExpo were especially interested in the new large milling machines from Wirtgen.

highlight the synergies across the entire product range, at its trade show booth the Wirtgen Group exhibited a John Deere 824L wheel loader together with the MOBISCREEN MS 952 EVO mobile screening plant from Kleemann. At John Deere's booth, trade show visitors could see a Kleemann MOBICONE MCO 11 PRO cone crusher in combination with a 300G LC excavator from John Deere. 🌐



Believed to be a unique feature on this type of machine, operators can choose between Work, Transport, Comfort or Eco modes. No matter what the application – materials handling with forks, truck loading, road sweeping or general load & carry tasks – there is a work mode suited to the activity, boosting productivity and operability, as well as reducing costs.

In addition to the multi-mode drive feature, a tractive power selector gives operators a choice of five settings that adjust the tractive force to suit ground conditions. What this means in practice is less wheel spin, as well as reduced tire wear and fuel consumption. An optional speed limiter controls maximum speed without losing tractive force.

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## New Cat MD6380 rotary blasthole drill

Designed for large blasthole production drilling, Caterpillar's latest ultra-class drill, the MD6380, provides the optimal mix of on-board air, feed force, rotary torque and machine mobility. With a hole diameter range of 251 to 381 mm, single-pass hole depth of 19,8 m and multi-pass hole depth of 39,5 m, the new drill is designed for large-scale mining.

The MD6380 powertrain is designed to manage loads generated by the compressor and hydraulics, delivering superior fuel economy. The MD6380 compressor is configured with electronic regulation and variable volume air control, allowing the driller to match compressor output to drill tool and application needs perfectly. It also lowers stand-by pressures while the machine is in idle, further improving fuel efficiency.

The MD6380 is capable of pull-down force of 49 895 kg and rotation torque of as much as 20 880 Nm. The Cat 3512C diesel engine produces 960 kW and delivers emissions performance equivalent to US EPA Tier 2 and EU Stage II. The powertrain offers extended durability and high availability to help boost usage and lower costs.

The MD6380 is controlled through Cat

electronics. Integrated machine protective features and interlocks help keep operators safe and the machine up and running by preventing potential failures or misuse. With Cat Electronic Technician, troubleshooting is quick and easy. Drill electronics also provide a common platform for the integration of automation solutions.

The MD6380 features a spacious cab offering operator comfort and machine control. Intuitive multifunction joystick controls and touchscreens promote efficient operation. Display screens are adjustable to suit the driller's reach and line of sight. The driller can easily tram from a seated position. With a full-length driller window, large pane glass around the cab and four standard high-definition cameras, operators have excellent views of key areas.

The machine also features Drill Assist, which delivers automated functions including auto level, auto retract jacks, auto raise and lower mast, as well as auto drill. The drill depth monitoring system helps to reduce both over and under-drilling.

The MD6380 incorporates Cat Terrain for drilling. The proven MineStar technology provides precise hole location, production



The MD6380 is capable of pull-down force of 49 895 kg and rotation torque of as much as 20 880 Nm.

reporting and strata reporting. Terrain connects seamlessly to Cat Command, offering a path to remote operation and autonomous drilling. 🌐

## Metric Automotive supporting essential service providers during lockdown

Metric Automotive Engineering is committed to supporting customers who are providing essential services during the current lockdown restrictions imposed as a result of COVID-19, while still meeting the required safety regulations.

The company, a leading large diesel engine component remanufacturer, has been granted Essential Services status and is fully operational with a reduced staff complement.

Operations director, Andrew Yorke says companies that have been declared as an essential service need to know that their own support services are fully operational and ready to ensure that they stay on track. This includes all those in transport logistics from vehicles moving essential items such as foodstuffs and medical equipment through to the mining and power generation companies.

"For our current customer base as well as any prospective customers we continue to offer access to quality diesel and gas engine component remanufacturing. All work is done to OEM specifications and ISO quality standards and there is no doubt our customers can continue to rely on us for all their engine component remanufacturing requirements," Yorke says.



Metric Automotive Engineering is committed to supporting customers who are providing essential services during the current lockdown restrictions.

"The safety of both our people and customers is our first priority, and we have implemented additional safety measures aligned with the government regulations and guidelines to protect and keep the team safe and healthy," Yorke says. "Visiting customers are requested to respect and adhere to our safety procedures, which can be found on our website."

"As the situation changes on a daily basis, it is imperative that we each do as much as we can to ensure that critical elements of the economy continue to move, while keeping as many people safe. The team at Metric Automotive Engineering fully supports the lockdown restrictions that the government has put in place, and we understand the critical role that we play in keeping the engine running," Yorke concludes. 🌐

## Volvo Trucks continues support of essential fleets during lockdown

Volvo Trucks Southern Africa is supporting transport companies who are delivering essential services during the COVID-19 lockdown period in South Africa.

"We are indeed living in extraordinary times and I want to assure customers that Volvo Trucks, together with our nationwide network, is doing everything we can to continue servicing essential transport fleets during this difficult time," says Marcus Hörberg, vice president of Volvo Group Southern Africa.

"To ensure that fleet owners can continue their vital work, our teams are working tirelessly monitoring parts, workshop and Volvo Action Service readiness around the clock. Our breakdown service team have implemented strict safety measures so that our technicians can work in shifts and are on standby to keep trucks on the road. Rest assured that we are focusing every

effort to secure uptime for our customers' businesses in this critical time."

Through Volvo Action Service, transport operators have access to a 24/7 assistance service, and can be reached by contacting 0860 112 212 from anywhere in SA. The team is working remotely but is able to arrange support for customers when they need it, such as technicians during breakdowns and product engineers if further assistance is required.

As per government's guidelines, the company's Parts Distribution Centre is closed, but is available if emergency parts are required. Hörberg says that some of the company's suppliers are on complete lockdown, which affects services such as wheel alignment, radiator cleaning and engineering of cylinder heads, among others.

"We are, however, committed to do our



Marcus Hörberg, vice president of Volvo Group Southern Africa.

utmost to keep the wheels of the transport industry turning to deliver essential goods and services to communities across South Africa," says Hörberg. "The Volvo Trucks team is working around the clock to ensure that we support the government's efforts to combat the spread of COVID-19." 🌍

## Engen invests in new transport fleet

Engen has taken another step towards reducing its carbon footprint and meeting the needs of its current and future customers by adding 17 new Euro 5 vehicles to its bulk transport fleet.

The 17 technologically-advanced Volvo vehicles, as well as 14 new semi-trailers vehicles, were officially handed over at the company's Johannesburg Terminal at Langlaagte on 3 March 2020.

Engen is passionate about the safety of its bulk truck operators and other road users, which is why continual investment is made in its road transport fleet, says Adnan Adams, GM: Supply Chain.

"While the new vehicles enable us to deliver superior customer service to our retail and commercial network, and by extension to keep South African motorists and industry moving, it is exciting to see our business evolving and meeting the environmental challenges we are faced with," says Adams.

The new vehicles will play a part in ensuring Engen maintains a responsible Health, Safety and Environmental (HSE) presence as they come fitted with advanced engine technology which helps reduce emissions.

Sharveen Maharaj, Engen's head: Logistics and Distribution, says ensuring the safety of the company's drivers and reducing road related incidents is top of mind and a key focus. "Advanced technology such as road sign recognition software is able to detect overtaking restrictions, road type and speed limits," says Maharaj.

"Distractions are therefore minimised with easily-viewable information displays, which increases the driver's ability to perform efficiently, safely and comfortably."

Engen currently operates 35 vehicles that meet Euro 5 standards, all with reduced emissions technology. The 17 new Volvo vehicles offer I-shift automated mechanical 12-speed gearboxes, an electronic fail safe overfill system, and product retainer sensors, as well as brake interlocks to prevent the vehicle from driving away whilst still attached to loading hoses.

"We continuously assess new technology to improve agility, reduce costs and respond to environmental changes in our supply chain. These new vehicles will ensure that we deliver safely, on time and in full and will thus ensure that our customers receive the best possible service, with our increased fleet utilisation, and faster loading and offloading times," adds Maharaj. 🌍

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# AUTONOMOUS TECHNOLOGY CAN MITIGATE THE BUSINESS IMPACT OF COVID-19

**The coronavirus has exposed the soft underbelly of critical infrastructure and industrial sites worldwide – workforce availability. As more and more companies implement business continuity plans to deal with the outbreak, fewer and fewer employees are able to fully function, writes Ariel Avitan, co-founder & chief commercial officer at Percepto.**

**W**hen facilities don't know who can and will show up for work, both planning and operations are seriously impeded. In Western Australia, for example, the coronavirus is potentially affecting some 60 000 fly-in, fly-out (FIFO) workers at remote mine sites and onshore and offshore oil and gas plants.

And this challenge is compounded by a flagging demand for commodities – oil, natural gas, ore, and other resources – as global industries and economies slow down or even grind to a halt. Given the ongoing price war between Saudi Arabia and Russia and the resulting price drops – the oil industry is particularly hard-hit, with companies bracing for lower revenues, diminished investment, and even large-scale layoffs.

Thus, even as companies are unable to produce at full capacity, they are also unable to sell at full capacity – leading many to take a much closer look at current and future operational expenses and efficiency.

This is leading many companies to rethink the role that autonomous technology – and specifically autonomous drones – can and should be playing in their operations.

## Autonomous drones

Large industrial sites are high-value assets that require constant maintenance and monitoring – independent of both production volumes and market conditions. Even when production is slowed or stopped, and when maintenance personnel are unable to function or even show up at work – critical components still need to be closely monitored, security perimeters need to be maintained, and scheduled maintenance needs to be conducted. The alternative to such monitoring and maintenance can be not only costly but also deadly.

Autonomous drones are an essential part of the contingency plans that support business continuity. Drones are always available, even if operators are under quarantine, and can help alleviate the



Ariel Avitan, co-founder & chief commercial officer at Percepto

challenges associated with volatile market trends and workforce availability.

Multi-mission autonomous drones can conduct security, safety and inspection missions – and be quickly and flexibly re-tasked to meet changing operational demands. This makes them a force multiplier – since a single person operating autonomous drones can replace multiple security, safety and inspection employees.

Moreover, autonomous drones can be controlled remotely, from anywhere in the world. This means that – as long as companies have suitable regulatory permits – employees can work from home, yet operate autonomous drones as if they were on site.

Finally, even when a near-pandemic is not sweeping the globe – multi-mission, on-site autonomous drones have been proven to increase efficiency and reduce operational costs. By delivering consistent visual asset monitoring, autonomous drones provide true data-driven maintenance, which according to

one study can result in up to 45% less downtime and up to 60% greater output or production.

Without costly human pilots, autonomous drones provide a massive boost to existing efforts to improve preventative maintenance and reduce unexpected downtime – which can dramatically affect the bottom line in the best of times and help organizations better deal with the loss of revenues in the worst.

## The bottom line

Although coronavirus will not, thankfully, be the new normal – it should be a business continuity wake up call. To adapt to the fluctuations of a truly global marketplace, companies need to prepare for all contingencies – including those where human employees cannot fulfil their roles on-site. Investment in autonomous technology today can help critical infrastructure and industrial companies smooth operational and financial bumps in the road both today and in the future. 🌐

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