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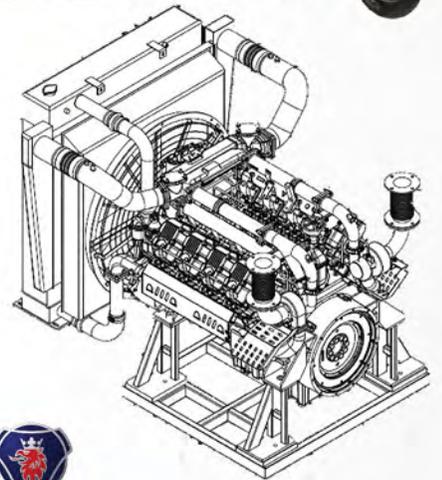
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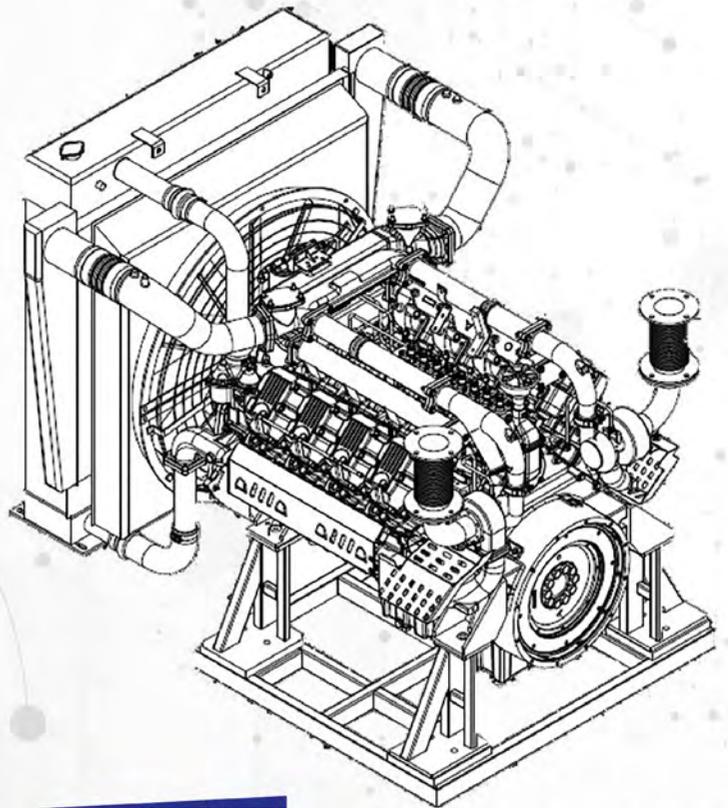
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EVOLUTION OF THE SIMPLE TOOL

In what has been another difficult year, the construction and mining equipment market continued to lose traction. Latest COMNESA figures show that equipment sales in Q3 followed the downward trend experienced in the first two quarters of the year, marking a third consecutive negative quarter.

Overall, the market decreased by 9,7% year-on-year, with construction equipment sales going down 11% and mining equipment sales contracting by 3,6%. Quarter-on-quarter, sales of new equipment went down by 6,42% in Q3 2019 when compared with the same period in 2018. Figures show that 1 357 machines were sold during Q3, 93 units less than the 1 450 recorded during the same period last year.

In a recent interview with an executive from one of the leading premium OEMs, he noted that with the market struggling, local customers are more open-minded about trying new products and more cost-effective solutions. This trend is expected to gain momentum as the market remains under pressure and customers have to deal with the ongoing uncertainty.

The trend is not unique to the local market; there is definitely a big global shift towards low-spec, low-priced construction equipment, better known as value brands. In fact, available industry statistics show that value brands currently contribute about 80% of global construction machine sales. However, this is more prevalent in developing markets. To give a context, Chinese brands now have a 60% share of the African wheel loader market, while 80% of the same market segment in Russia belongs to value brands at large.

Fleet owners are opting for less expensive, non-premium machines capable of undertaking less rugged jobs, which don't necessarily need premium machines. There is definitely a big demand for

service-type machines.

Chinese OEMs are largely the custodians of this market tier, as the days when their offerings were viewed with disdain are long gone. They have achieved this feat by improving the quality of their offerings. They have also stuck to their strategy of offering low-cost models with simple functionalities.

In fact, this is the new product development strategy in the manufacturing environment, aimed at meeting the growing global appetite for a simple tool. To survive internationally, OEMs are strategically examining customer needs and values in all their served market segments. Increasing complexity and costs of new products place an increased importance on balancing upfront costs of equipment and productivity.

Premium OEMs have long noted this trend. Consequently, they have aligned themselves with low-cost brands in their stables to make the most of this growing market segment. For example, Volvo CE acquired SDLG some years ago, while Caterpillar bought SEM. The trend has even expanded into the crushing and screening market where Metso recently exercised its call option to acquire the remaining 25% of shares of Shaorui Heavy Industries Ltd, a Chinese manufacturer of crushing and screening equipment targeted for mid-tier markets.

This is a clear indication of the evolution of the simple tool. Innovation is traditionally defined by sophisticated technologies, but in these challenging economic conditions, it shouldn't always be the case. Some of the best ideas, especially in today's designs of yellow metal equipment, are very simple, based on a clear understanding of customers' needs – finding balance between simplicity, productivity and price.



Munesu Shoko – Editor



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Caterpillar's in-depth condition monitoring uses all the information available to identify the needs of the asset and allows for a planned response to the needs at hand.

ENHANCING ASSET OPTIMISATION

Condition monitoring plays a critical role in asset optimisation and improvement of productivity. In fact, it has been proven time and again that there is a direct correlation between an excellent condition-based maintenance programme and asset availability, writes *Munesu Shoko*.

Condition monitoring has gained prominence over the years, as equipment owners prioritise asset utilisation and productivity. The ultimate goal of condition monitoring is to schedule maintenance based on condition rather than historical data, to avoid failures and to increase plant availability through optimal use of resources and equipment.

Caterpillar defines condition monitoring as "the pro-active process of evaluating equipment and application data inputs in order to provide maintenance, component replacement, application and repair recommendations that help customers lower owning and operating costs, improve availability and reduce warranty costs".

"An asset can tell a story through its information," says Mark Kelly, condition monitoring advisor at Caterpillar. "The information may come from several sources,



John Evans of WearCheck diagnosing a used oil sample.

including machine electronic data, fluid sample analysis, inspections, site conditions and repair history. The information gathered may be very limited, such as fault notifications or it may be very extensive data, such as second-by-second data from Caterpillar's Vital Information Management System. The story the information tells is contingent on the sources and the underlying details in the data."

Kelly adds that in-depth condition monitoring uses all the information available to identify the needs of the asset and allows for a planned response to those needs. This, ultimately, supports fleet owners by reducing unplanned downtime, lowering parts and labour costs and increasing asset availability.

Philip Schutte, reliability solutions manager at WearCheck Africa, says one

QUICK TAKE

One of the primary goals in a condition monitoring programme is to identify mechanical, electrical or flow-related defects in their incipient stage, and then to monitor the severity of the malfunction, allowing remedial action to be scheduled on the affected component



Over the past two years, WearCheck has seen an approximate 10% increase in the number of used oil samples that it processes annually. In 2017, the figure was around 700 000, and in 2019, it has risen to around 800 000

10% INCREASE IN THE NUMBER OF USED OIL SAMPLES



As the need for condition monitoring services increases, the need for improved efficiencies and artificial intelligence is also increasing

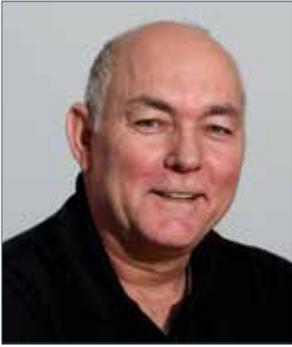


Digitisation of assets and processes paired with real time data acquisition, advanced data analytics and machine deep-learning has shifted the focus to early detection of failure modes and incipient stage defects



of the primary goals in a condition monitoring programme is to identify early mechanical, electrical or flow-related defects in their incipient stage, and then to monitor the severity of the malfunction, allowing remedial action to be scheduled on the affected component.

"This minimises the possibility of unplanned or catastrophic failures, which may lead to a severely negative effect on productivity (and on repair costs)," says Schutte. "The availability of machinery and components and remaining life is exponentially increased when a good condition monitoring programme is in place."



“The advent of faster and more freely-available networks and enhanced access to virtual servers and unlimited cloud space, has made it possible to monitor all assets with integrated sensors which can communicate wirelessly to open source acquisition units and databases.”

Philip Schutte, reliability solutions manager at WearCheck Africa



“Initially, analytic models were used to interpret large volumes of data to provide consolidated information for condition monitoring. Artificial intelligence is now used to identify failure modes occurring on an asset. The use of artificial intelligence, along with other application enhancements, allows the deep subject matter experts to focus their attention on unidentified failure modes.”

Mark Kelly, condition monitoring advisor at Caterpillar

TALKING POINTS

Growing uptake

Available industry figures show that the global usage of predictive maintenance has risen from 47% to 51% in the past five years. What is the trend locally? WearCheck Africa has seen more and more companies, both in South Africa and other African countries, changing from historical maintenance practices to more modern philosophies such as pro-active and prescriptive maintenance.

“At WearCheck, over the past two years we have noted an approximate 10% increase in the number of used oil samples that we process annually. In 2017, the figure was around 700 000, and in 2019, the figure has risen to around 800 000,” he says.

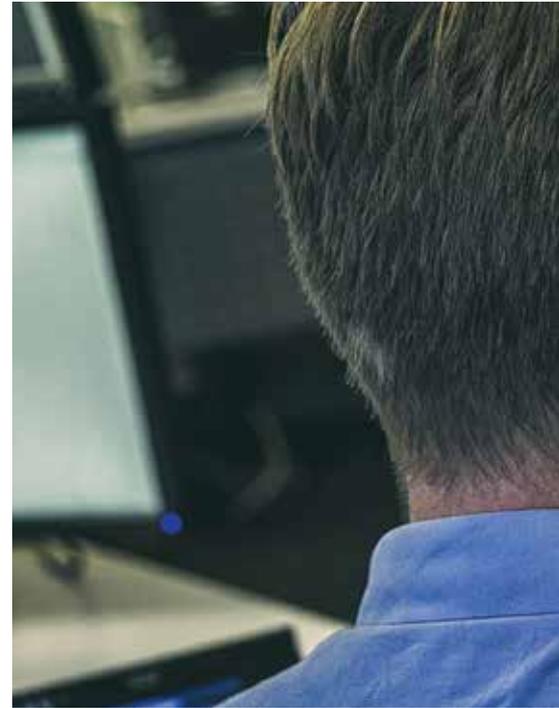
“Furthermore, we are drawing customers from a wider variety of industries. The sectors which we currently serve include mining, electrical, aviation, earthmoving, transport, marine, industrial and construction,” adds Schutte.

Towards smart asset management

Schutte says condition monitoring is all about the health of machines, and the state in which the machines are operating. “An area where noticeable changes have occurred recently is online monitoring, even though it is not entirely a new concept – it originated as far back as the 1980s and even earlier. Online systems were initially used as protection systems in the early days but have now evolved into diagnostic systems as well,” he says.

Schutte adds that protection systems were mainly made up of a singular data point system, meaning the machine would trip on a single valve or specific parameter, for example, temperature. Having the ability to trend and diagnose changes in a machine’s condition is very helpful, because the actual cause of why the machine tripped can be determined from the available data.

“Originally, the cost of installation and equipment for protection systems was expensive, and they were therefore used only for critical and mandatory machines, for example, turbo machines. The advent of faster and more freely-available networks and enhanced access to virtual servers and unlimited cloud space, has made it possible to monitor all assets with integrated sensors which can communicate wirelessly to open source acquisition units and databases,” says Schutte.

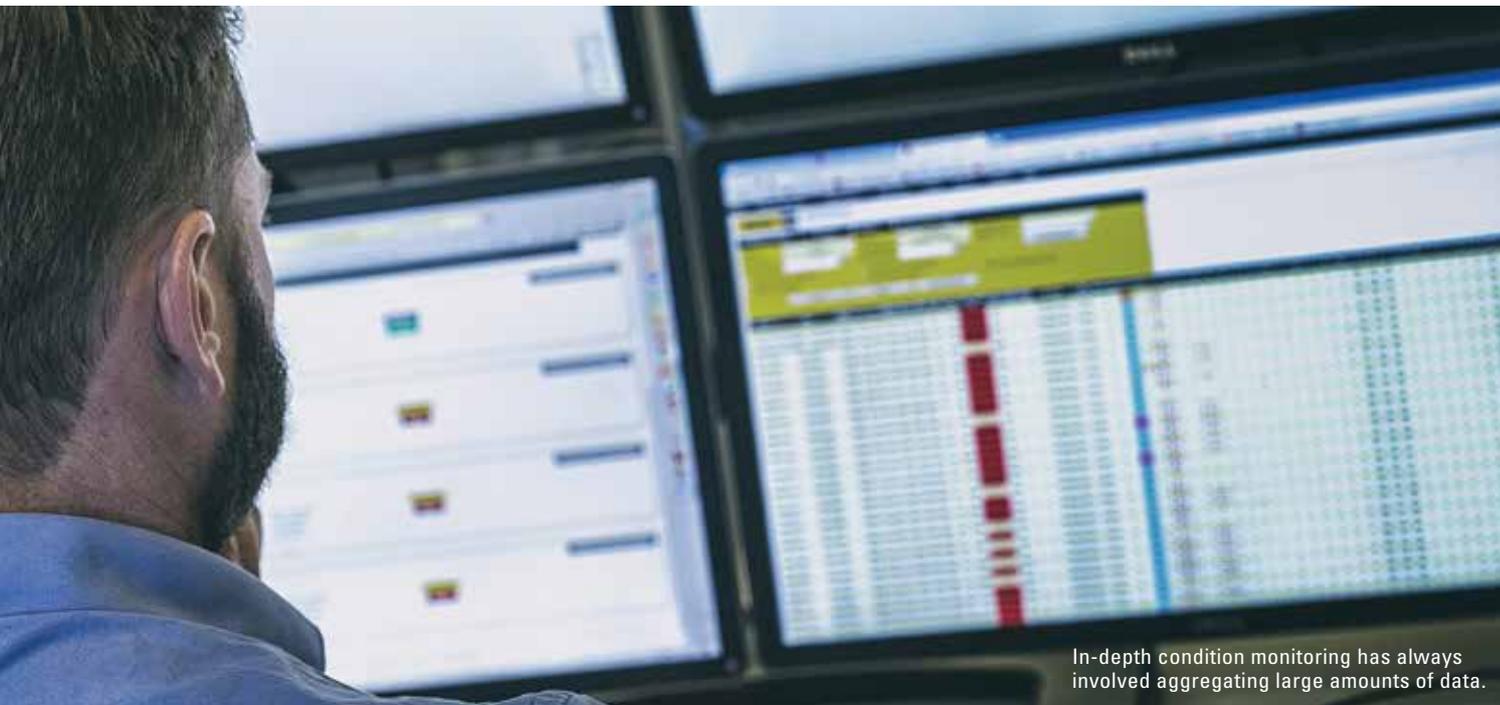


WearCheck has embraced these developments in line with the company’s ongoing pursuit of technological advancement. Furthermore, the company compiles ongoing databases of test results from customers who are reputable OEMs – information which can help the company offer complete monitoring solutions on both oil and vibration to all its customers.

In 2012, WearCheck expanded its services to include vibration analysis, thermography, motor circuit analysis, ultrasound, balancing and alignment. This enabled the company to add further value to the information supplied to different sectors and industries. Smart Asset Management (SAM) relies on technology-driven processes to improve the capturing and processing of information. Asset-owning organisations rely on WearCheck’s ability to capture and process information on the actual condition of assets in real time to justify future strategies and enhance overall performance.

Kelly says smart assets can communicate large amounts of valuable data. When the asset is connected and communicating with a condition monitoring application, the data enables smarter, timely decisions.

“In-depth condition monitoring has always involved aggregating large amounts of data, correlating and interpreting the data, and then providing a recommendation to support the customer’s asset,” says Kelly. “Supporting the customer and providing them with the solutions meeting their specific needs is the target. It is important to understand



In-depth condition monitoring has always involved aggregating large amounts of data.

the needs of the customer and develop the personal relationship in order to meet their expectation and help manage the asset.”

AI in condition monitoring

Artificial Intelligence (AI) has gained considerable momentum within the machine condition monitoring market. Schutte says Industrial 4.0 and the Industrial Internet of Things (IIOT) have ushered in a new approach to how companies monitor machine health.

“The evolution of AI and the IIOT reinforces WearCheck’s place at the forefront of condition monitoring for the simple reason that our core business centres around information management. With over 40 years of historical data, AI is nothing new to WearCheck. Our diagnostic capability is built on Big Data – by comparing various test results with each other to determine the condition of assets and the environment in which they operate, we could actually say that WearCheck is already a digital twin of all our clients. We could even break this down to component level, and geographical area,” says Schutte.

Using only periodic analytical data for a single month has given WearCheck the insight and knowledge of when and how a machine will fail. WearCheck already benefits from AI because 100% of its analytical data from oil testing and vibration is currently diagnosed by highly-trained individuals. “Using quantum computing and real-time data will help make our recommendations, which are based on complex algorithms, even more

accurate. This translates into cost-savings for our customers through the prevention of unnecessary downtime,” says Schutte.

Is AI a threat to WearCheck? “Definitely not. Machine learning is based on historical data, and comparison of one machine to another, and it is accepted that the accuracy of computing is based on volume, density and the type of data received from sensors or historians, and then compared to previous or available data,” says Schutte.

He adds that AI doesn’t have the capacity to improve or to predict future events that haven’t happened yet, and this is where WearCheck’s highly-skilled human diagnostic techniques play a leading role in remote monitoring. “Human intelligence, coupled with many years of experience and assisted by machine-generated data, allow us to accurately predict future maintenance events. Improvement in the health condition of the asset needs to be confirmed by condition monitoring to validate the success of the corrective action carried out,” says Schutte.

“Digitisation of assets and processes paired with real time data acquisition, advanced data analytics and machine deep-learning has shifted the focus to early detection of failure modes and incipient stage defects. WearCheck uses the advancements in technology to develop and enhance our own analytical abilities, which we plan to use in the development of future AI condition monitoring ecosystems that will simultaneously be able to identify and minimise risks to assets in real time,”

adds Schutte.

Kelly is of the view that in the past, condition monitoring has been dependant on deep subject matter experts to correlate and interpret the data from an asset. “The subject matter expert, also known as a condition monitoring advisor, is limited in the number of assets that can be monitored. As the need for condition monitoring services increases the need for improved efficiencies and artificial intelligence is also increasing,” reasons Kelly.

“Initially, analytic models were used to interpret large volumes of data to provide consolidated information for condition monitoring. Artificial intelligence is now used to identify failure modes occurring on an asset. The use of artificial intelligence, along with other application enhancements allows the deep subject matter experts to focus their attention on unidentified failure modes,” adds Kelly.

Market segmentation

The condition monitoring equipment market is segmented by product type, for example, vibration monitoring equipment and lubricating oil analysis equipment. Alongside the traditional fluid analysis services, WearCheck customers also have access to reliability solutions (RS) services, transformer chemistry services (TCS) and Advanced Field Services (AFS). All these techniques are gaining prominence in the local market.

The RS team provides a wide range of services and products, some of which include advanced vibration analysis, thermography for mechanical and



WearCheck's ADU5 distillation unit operated by senior lab technician, Lizzy Chabangu.

electrical applications, ultrasound, motor circuit analysis, balancing and alignment. The RS team offers consultations on instrumentation for the implementation of real-time condition monitoring systems as well as certified training in all condition monitoring technologies.

The TCS team specialises in the monitoring of transformer oil to reduce the risk of unexpected downtime in transformers. AFS services include non-destructive testing (NDT), technical compliance (TC) and rope condition assessment (RCA).

Non-destructive testing

This includes a variety of testing techniques through which the properties and condition of a component or system are evaluated without causing any permanent damage to it – critical

component assessments, machine condition assessments and inspection of ancillary equipment, including main vent fans, compressors, mills, pumps and conveyors.

The NDT team delivers quality assurance and quality control of new and refurbished components. These NDT tests are conducted: eddy-current-, magnetic-particle-, liquid penetrant-, radiographic-, ultrasonic- and visual testing.

NDT methods are gaining popularity because they do not permanently alter the test object undergoing inspection, making NDT a valuable tool that can save both money and time in condition monitoring and inspections.

Technical Compliance

The technical compliance division provides expert guidance to assist companies to

comply with regulatory requirements, and how to rectify violations or problems highlighted during audits. Compliance promotes operational and technical excellence through risk identification and corrective action implementation.

“Our specialist compliance techniques assist many industries, among them geological, metallurgical, accounting and laboratory reviews; international and Group Technical Standards compliance; manufacturing certified reference material; density determination techniques and quality management systems,” says Schutte.

“The TC team provides specialist audits on hoisting systems, shaft decelerometer testing, winder level and dynamic break testing, as well as vertical shaft guide alignment. Auditing services encompass AerView, AerView II, Locked Bell, ventilation fan electrical audits and machinery compliance audits,” he adds.

Rope Condition Assessment

WearCheck’s rope testing division uses specialist equipment to inspect the integrity of steel rope cables, as per OEM or international standards, and is manned by seven highly-qualified inspectors. “There are only 12 people in South Africa who are qualified to conduct these tests,” says Schutte.

Rope condition assessment is stipulated in the SANS 10293:1996 Code of Practice for Steel Wire Ropes, with which all team members comply. All are certified to South African Qualification and Certification Committee (SAQCC) level II.

Non-destructive rope inspections are designed to improve safety in systems where steel wire ropes play a critical role in daily operations. Examples of ropes installed on safety-critical equipment include mine winders, chairlifts, incline winders, shaft rope guides, elevators, flare/slack stay ropes, as well as stacker/reclaimers and belt wagons.

Where ropes are a safety-critical part of a system, regular RCA is a legal requirement. It is also a useful risk mitigation tool. Some of our more well-known RCA customers include Cape Town’s Table Mountain aerial cableway and Namdeb – a shallow-water inshore diamond mine in Namibia.

“Rope manufacturers rely on RCA as a means of ensuring compliance with quality specs during the quality assessment (QA) process in the production of new ropes,” concludes Schutte. 🌐

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Pilot Crushtec International has been on the forefront of the modular plant revolution since 2007.



MAXIMISING PRODUCTIVITY AT LOWER COSTS

At a time when aggregate producers seek some insulation against the cold whims of the construction market, Pilot Crushtec International's standardised modular solutions offer several benefits, including lower capital and operational costs compared with bespoke plants, quick lead times and flexibility to operational changes, writes *Munesu Shoko*.

Maximising productivity and reducing both the capital cost and cost per tonne can help quarries survive the typical boom and bust cycles associated with the construction sector. As an industry whose fate is tied to the cyclical nature

of the construction market, quarry owners often feel the pinch of sustained dips in the market, and only feel the relief when prospects pick up again. Although quarrying companies can't entirely disentangle themselves from this cycle of boom and bust, increasing productivity and seeking ways to reduce their costs can provide



some shield against the downward cycles of the market.

The choice of equipment solutions plays a significant role in surviving the tide of an incessantly slow market. Buying decisions should consider the capital and operational costs, as well the ability to increase uptime and productivity, key parameters that make the difference between stagnation and profitability. Modular crushing and screening solutions tick all the right boxes as far as these parameters are concerned.

Modular solutions are not new to the quarrying sector. For decades, these ancillary solutions have been used from time to time, but in recent years they have become a staple for operations and contractors seeking long-term crushing and screening gains. One of the names that quickly comes to mind in the African

QUICK TAKE

Pilot Crushtec International has been at the forefront of the modular revolution since 2007



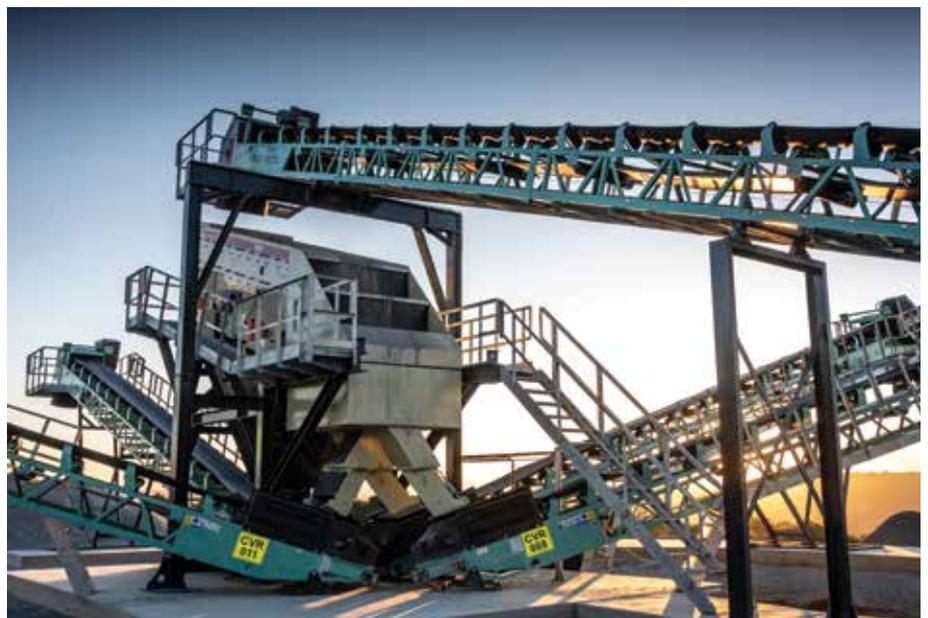
The company can design and implement solutions that can process anything from 10 to 500 tonnes an hour – and should requirements change over time, additional units can be slotted in to increase production



From an operational cost point of view, modular solutions work out less expensive than their tracked counterparts because they don't rely on diesel power



All Metso components in the Pilot modular solutions are covered with a record-breaking 5-year/10 000-hour warranty, the first of its nature in the industry



Metso's crushers and screens are now at the heart of Pilot Crushtec's modular offering.

marketplace as far as modular solutions are concerned is Pilot Crushtec International. The company has been at the forefront of the modular revolution since 2007.

Francois Marais, director – sales & marketing at Pilot Crushtec International, tells **Capital Equipment News** that the company has popularised the modular solution since then. "We saw an opportunity to help clients who previously spent a lot of time, money and resources on designs and engineering of bespoke plants, when in fact they could benefit from standardised solutions that are much easier to turn around, easier to maintain and don't require as much planning," says Marais.

"We started by designing some standard modules which included all the crushing stages – primary, secondary and tertiary – encompassing jaw crushers, cone crushers, vertical shaft impactors (VSIs), horizontal shaft impactors (HSIs), feeders and hoppers, a



“These modular plants are extremely scalable and, as such, can cater to a wide variety of companies, irrespective of size or application. We can design and implement solutions that can process anything from 10 to 500 tonnes an hour – and should requirements change over time, additional units can be slotted in to increase production.”

Francois Marais, director – sales & marketing at Pilot Crushtec International



The modular plants are extremely scalable and, as such, can cater to a wide variety of companies, irrespective of size or application.

whole range of standardised equipment that could be interchangeable in a plant set up and could literally be configured like a Mechano set,” says Marais.

Enter Metso

Following its appointment as the sole distributor of the Metso aggregates range in southern Africa in 2016, Pilot Crushtec has since taken the modular concept to a whole new level, seamlessly integrating of the company’s industry know-how, innovation and manufacturing capabilities with Metso’s globally renowned product.

Metso’s crushers and screens are now at the heart of Pilot Crushtec’s modular offering. “Now that we have Metso in our stable, we are now able offer the best crushing and screening products in a standardised, modular solution that is easy to configure, very flexible in terms of layout and setup, and very fast to turn around for customers,” says Marais.

Marais says when the concept started, it appealed more to the larger companies within the quarrying space, but over the past few years, smaller entrepreneurs and medium-sized companies are also leading the uptake. The modular solution in this case makes perfect sense for those enterprises starting off small, with an eye to growing their business and creating sustainability within a challenging global economy.

“These modular plants are extremely scalable and, as such, can cater to a wide variety of companies, irrespective of size or application. We can design and implement solutions that can process anything from 10 to 500 tonnes an hour – and should requirements change over time, additional units can be slotted in to increase production.”

However, Marais indicates that major focus has been on the 300-500 tonnes an hour capacity class. “Looking at what the Metso product can offer, we can now go up to 1 000 t an hour if need be. These solutions can work across applications, but we have predominantly worked with aggregates producers over the years,” he says.

Should requirements change at any point within the design process, customers are able to tweak their plants, so they have exactly the right layout, equipment and capacity to get the job done at all times.



Process flow

Speaking about the process flow, Marais explains that the design team would sit down with a customer and establish client needs first. Pilot Crushtec International uses two sets of software to accurately establish the ideal modular solution to meet the required production capacities.

“We will sit with the client to establish what material they are crushing, expected tonnages, output in terms of products to be generated by the plant, among other considerations. Firstly we work out the process flow using Metso’s process simulation software called Bruno. We then move to a solution called Visio, where we have 3D modelling for every single modular component,” says Marais.

“Once we know how many crushing stages are required and what the products and tonnages are, we then do the layout of the plant using 3D modelling software. We can also use the geography of the site to model the correct layout. With those two sets of software, we have an idea of how we can design the required solution,” adds Marais.

Key benefits

The modular solution offers an array of benefits to the customer. Firstly, from a design perspective, customers can select the components they need to suit their



specific application. These units are then interlinked with conveyors and a solution is tailored to their specific needs and site specifications. Once the design is defined, all the modules and individual components are sent to site, lifted into place and bolted together.

Marais says modular systems are readily available modules that can quickly be on site and operational within a day or two. To give an idea, in one of its recent installations, Pilot Crushtec delivered a solution in five months, from point of order in February 2018 to the point of installation and commissioning in July 2018. "The five-month timeline included ordering, design and manufacturing, sourcing of all the crushing components, transportation to site, installation and commissioning, which in this environment is unheard of," says Marais.

Traditionally, bespoke plants have lead teams of at least two years and more. "Just the design and engineering of traditional bespoke plants takes 12 months, while costing customers a fortune. With this solution, the lead times are very short, and customers also save on not having to do any civils on site," he says.

Speaking of costs, modular plants generally have a lower capital cost compared with their bespoke, static counterparts. From an operational cost

point of view, these solutions also work out cheaper than their tracked counterparts because they don't rely on diesel power. "They are far cheaper to operate and can still be quite easily relocated," says Marais.

The modular solution is also a cost-effective option as far as maintenance costs are concerned. Marais says generally there is more work to be done in a large bespoke plant in terms of maintenance. He reasons that with bespoke plants, getting replacement parts takes a bit longer, whereas in a standardised solution, parts are off-the-shelf in most instances. "With these solutions, our objective is the same as our customers' – to maximise their uptime. Breakdowns and downtime related to maintenance are big enemies of production, and ultimately, profitability."

Additionally, should requirements change at any point within the design process, customers are able to tweak the requirements, so they have exactly the right layout, equipment and capacity to get the job done at all times. "You get to choose what you need, when you need it, and can add modules as and when required," he says.

Covered for the long haul

On top of these cost and operational

benefits, all Metso components in the Pilot modular solutions are covered with an industry-first 5-year/10 000-hour warranty. Effective 1 January this year, Pilot Crushtec has standardised the extended warranty across the whole Metso product range it supplies.

Marais says Pilot Crushtec is the only Metso dealer across the world to offer the 5-year/10 000-hour warranty. The groundbreaking initiative is a true indicator of Metso's confidence in its product. It is also a sign of service commitment from Pilot Crushtec International as the exclusive distributor of Metso's aggregates products and services, including static, tracked and wheeled crushers, scalpers and screens in southern Africa.

As part of the Metso Life Cycle Services for Aggregates, Metso's Equipment Protection Services (EPS) was offered as an optional extra. The comprehensive plan includes extended warranties and scheduled inspections with Metso-certified technicians. EPS is built on three core elements: extended warranty to 5 years or 10 000 hours; scheduled inspections with Metso-trained and certified technicians, coupled with OEM parts recommendations; and maintenance planning and reporting for mobile equipment through Metso Metrics Services.

Southern African customers will now enjoy the 5-year or 10 000-hour warranty as standard. This gives equipment owners the much-needed confidence in their cost structure by anticipating and minimising unexpected equipment failures. Along with extended warranties that cover repairs or replacements on key parts that need to be replaced, the plan includes comprehensive inspections and other services to keep Metso equipment running smoothly at all stages of operation.

The Metso extended warranty covers the whole machine, excluding wear parts, for the first 4 000 hours, which is double the industry-wide warranty. From 4 000 to 10 000 hours, which is when fatigue starts setting in, Metso covers all the critical components.

"It made sense for us to package it as a standard offering. It's a massive leap and draws a line in the sand for our competitors. We believe in our quality and know that if customers prescribe to OEM servicing levels, their equipment will last longer and perform better. The extended warranty also assures our customers that the OEM and the supplier are ready to deliver on their promise," concludes Marais. 🌐

Ensuring vehicles provide value to clients is essential to TruckStore, as most of its customers are small business owners.



MAKING THE RIGHT USED TRUCK PURCHASE

Purchasing a used truck can be a daunting task. With so many things to consider, such as vehicle history, quality and operating status, parts replacement and upgrades, among others, it becomes vital to do proper due diligence, which can be a major undertaking in the quest to select the right vehicle for the job at hand, from a reputable seller, writes *Munesu Shoko*.

When it comes to buying a used truck, there is a lot to consider in order to make the right purchasing decision. One will likely need to spend several hours researching what's available, comparing prices and features, and determining which truck will meet their specific needs, as well as considering the reputability of the dealer.

To further narrow down the search, one will also need to factor in the inevitable costs that come with purchasing a used vehicle so you can budget accordingly and receive the most value. Because the task may seem overwhelming, this article seeks to put together some important tips to consider when buying a used truck.

As far as the checklist is concerned, it is important to know your trucking requirements, know your budget or price range in line with the contract needs, investigate the potential suppliers and assess the truck's history and its current condition. With a simple and straightforward checklist, you will definitely find a right used truck that suits your needs.

Buy from a reputable supplier

According to Ruben Dempers, manager of UD Trucks Southern Africa's recently established Used Trucks division, it's important to buy from a reputable supplier like an original equipment manufacturer (OEM), which is always customer satisfaction driven. He reasons that some non-OEM truck suppliers seem to be in it just for the sale, and therefore recommends buying from a trusted OEM used truck dealer, as one is ensured of ongoing support from a business that is completely customer satisfaction driven and has customer needs at heart.



A truck with high mileage doesn't necessarily remove it from the running. If the truck has been consistently well looked after, it may still have a lot of life left in it.

Annelie van Rooyen, manager at Daimler Trucks and Buses Southern Africa's used truck division, TruckStore, says ensuring that vehicles provide value to the clients is essential to TruckStore, as most of its customers are small businesses owners.

"In the used-vehicle market, we don't deal with many owners of large fleets. For the small-fleet operators, it is a more personal purchase. It is, therefore, important to make sure customers get the right advice and buy the right vehicle that will put them in a better position than they were in before. Yes, it is a truck, but it is also someone's livelihood," says Van Rooyen.

Know the truck's history

An important factor to consider before plunging into the looks and condition of the truck is its background. Does it have maintenance and oil change records? Maintenance history is principal, and knowing the state of affairs as far as this is concerned can actually save you valuable time in the search process and a lot of money down the line.

Having a better idea of the overall maintenance history of the truck can help the buyer prepare for what's to come should they make the decision to purchase the unit. If services were not done consistently in line with OEM specifications, it could be alarm enough that there may be engine and other major problems in the future. As part of the



"We always make sure that the vehicle is mechanically sound. The mechanics of the vehicles are prioritised as reliability is at the heart of the TruckStore and Daimler philosophy. Once all the refurbishments have been completed, the vehicle is re-evaluated."

Annelie van Rooyen, manager at TruckStore



"If it's too good to be true, yes it is too good to be true. If the mileage doesn't correlate with the year model and the application, then you must know that something is not right with the truck."

Ruben Dempers, manager of UD Trucks Southern Africa Used Trucks division

TALKING POINTS

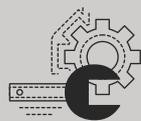
maintenance history, one should also have a grasp of what has already been replaced in recent times and what would require replacement in the near future.

However, Van Rooyen says service records are not always available, therefore, at TruckStore they rely on qualified staff to conduct a thorough technical inspection before used trucks are sold – another reason why it's so important to deal with a reputable supplier.

"We divide our stock into three

categories, which indicates the level of testing and refurbishments undertaken on the vehicle. Trucks in the bronze category, for example, receive only a technical inspection and basic cleaning. In the silver category, the vehicles undergo refurbishment and are less than six years old," she says.

"In the gold category, all the vehicles receive a technical inspection with repairs, services and refurbishments carried out. These vehicles are less than four years old and come with a



An important factor to consider before delving into the looks and condition of the truck is its background, especially maintenance and oil change records



As part of the history check, one should also establish if the truck has been involved in accidents before. If so, it's always important to understand what type of accidents the truck has been involved in and which parts were replaced as a result of the damage



It is of critical significance to pay particular attention to the engine and transmission – two key components of the truck



The truck's mileage can also be a good indicator of the overall quality of the vehicle

QUICK TAKE



In the used truck market, it's important to make sure customers get the right advice and buy the right vehicle that will put them in a better position than they were in before.



UD Trucks Southern Africa established its Used Trucks division in March this year.

manufacturer warranty," adds Van Rooyen.

As part of the history, one should also establish if the truck has been involved in accidents before. If so, it's always important to understand what type of accidents has the truck been involved in and which parts were replaced as a result of the damage.

"Accident damage might affect the condition and safety of the vehicle, therefore, transparency is key to us. Each vehicle comes with a declaration from the previous owner confirming the status of the vehicle with regards to previous accident damage. Furthermore, when inspecting a vehicle we look out for signs of accident damage, such as cab lines not straight, paintwork showing signs of overspray, among others," explains Van Rooyen.

Engine and transmission

It is of critical significance to pay particular attention to the engine and

transmission, key components of the truck. According to Dempers, used truck buyers should avoid the "Christmas tree syndrome". "Don't be fooled by the nice, polished cosmetics and all the useless detail they might put on the truck to deceive you with the looks. Firstly, you must look at the service history. If the truck has a service history, one should check if it was done by an OEM dealer," says Dempers.

After the service history check, Dempers says it is important to pay attention to the engine and the drivetrain to make sure that these crucial and costly components are healthy. "Look at the suspension of the vehicle and check for worn out bushes. Also check for possible thick paint spray that may be used to seal oil leaks on the truck. Some use this thick paint to seal the differential and oil leaks on the sump, for example," he says, adding that it's only when the truck has been run that the paint can come off for potential buyers to see the true state of affairs.

Van Rooyen adds that assessing the mechanical operation of the truck is also important. "We always make sure that the vehicle is mechanically sound. The mechanics of the vehicles are prioritised as reliability is at the heart of the TruckStore and Daimler philosophy. Once all the refurbishments have been completed, the vehicle is re-evaluated," she says.

The mileage

The truck's mileage can also be a good indicator of the overall quality of the vehicle. When looking at mileage, one would want to consider their own use for the truck. If you are planning to run the vehicle in a long haul application, for

example, it may make more sense to opt for a truck with lower mileage. However, a truck with high mileage doesn't necessarily remove it from the running. If the truck has been consistently well looked after, it may still have a lot of life left in it.

"Different customers have different requirements. Vehicles with higher mileage will be more affordable. If it falls within a customer's transport requirement, it will be more cost effective. It is, however, important to ensure that, when you buy a higher mileage vehicle, that the condition is good to avoid unwanted breakdowns," says Van Rooyen.

Dempers agrees, saying that mileage may not necessarily be a key consideration in buying a truck. He reasons that one may find a truck with 800 000 km on the clock, but still running perfectly fine than a truck with lesser mileage. He is of the view that it all boils down to the state of the vehicle itself – the engine and other major components in particular, and the previous service history.

"It's all about the history of the vehicle. If it was a vehicle that was running in a mining operation, for example, at 400 000 km it could be finished. If it is a vehicle that was running in a long haul application with tautliners, for example, it can have 800 000 km on the clock but can still give the next owner a good 400 000 km more. Obviously the maintenance will be much higher than on a new truck," says Dempers.

However, Dempers also advises that one should also check if there was any work done with the power takeoff (PTO). If there was a PTO on the vehicle, the hour rating on the vehicle could be much higher than the mileage on the vehicle. "Remember if a vehicle is stationary and working with a crane all day, the engine is running but the vehicle is not accumulating any mileage. In that case, services should be done on an hourly basis. Then if the previous customer didn't service it on an hourly rating and did it on kilometres, then they would probably have missed some services," says Dempers.

In conclusion, Dempers says the most important tip of all is that when something sounds too good to be true, like the mileage seemingly too low for the truck's age, then it may be an indicator that one needs to walk away. "If it's too good to be true, yes it is too good to be true! If the mileage doesn't correlate with the year model and the application, then you must know that something is not right," concludes Dempers. 🌐

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BRIDGESTONE



Barloworld Power has expanded the range of Cat generators it manufactures locally.

EXPANDING LOCAL ASSEMBLY

Having commenced local assembly of Caterpillar generators in 2015, initially assembling the Cati6 and 400 series only, Barloworld Power has expanded the range of models assembled locally to include all Cat gensets within its product suite, from 13 kVA up to 1 500 kVA, writes *Munesu Shoko*.

On the back of South Africa's unstable grid, which has resulted in regular load shedding in recent months, business is turning to alternative energy sources to safeguard productivity and profitability. With that in mind, Barloworld Power, the energy and transport division of Barloworld Equipment, has just expanded the range of Caterpillar gensets assembled locally at its Boksburg facility. The initiative gives southern African customers access to a premium Caterpillar product at a competitive price point.

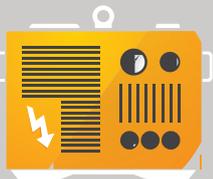
Prior to 2015, all Cat gensets sold in southern Africa were imported from either the United States or China. In 2015, a decision was taken to assemble some of the models locally – the Cati6 and 400 series. As an extension of this initiative, Barloworld Power will now locally assemble all Cat gensets available within its product suite.

"Previously, we assembled some limited models. With the new venture, we are now doing models from a 13 kVA unit ideal for household usage to a large 1 500 kVA genset suited for industrial applications," says Louis Botha of Barloworld Power. "We have already started, but it will take a year before all the models are introduced in South Africa."

Eric Hermann, product manager – Electric Power Retail at Caterpillar, says the project is a result of great cooperation between Caterpillar and Barloworld. "Barloworld Power initiated the project, and several leaders from both companies worked closely for the successful implementation of this venture," says Hermann.



Barloworld Power now assembles models from 13 kVA to 1 500 kVA.



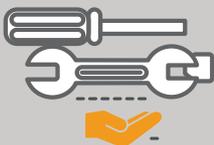
Barloworld Power, the energy and transport division of Barloworld Equipment, has expanded the range of Caterpillar gensets assembled locally at its Boksburg facility



Barloworld Power will now locally assemble all Cat gensets available within its product suite – from a 13 kVA unit ideal for household usage to a large 1 500 kVA genset suited for industrial applications



Local assembly allows Barloworld Power to offer premium Cat gensets at a far more competitive price, without compromising quality



There is also a duty benefit attached to local assembly, with import duties on fully built-up units at 20%, compared with 0% for locally assembled units. This translates into lower prices for customers

Why local assembly?

Botha says Cat generators are premium, high-quality offerings that come at a premium price. Barloworld Power has since worked closely with its principal, Caterpillar, to find ways to make Cat gensets more price competitive in a market that is so price sensitive. “We came up with a solution to assemble locally,” says Botha. “As a result we are able to offer the product at a far more competitive price, without compromising the quality,” he says.

Botha says local assembly reduces logistics costs involved in the process of importing fully built units. He says, previously all components were either shipped to Northern Ireland or China from the various sources for assembly, before the complete units were shipped to our local market. Now all the parts and components are shipped directly from the source to South Africa for local assembly, cutting the logistics costs previously incurred by sending components to Ireland or China.

Botha also notes that there is a duty benefit attached to local assembly, with import duties on fully built-up imports at 20%, compared with 0% for locally assembled units. This translates into lower prices for customers. The expansion of local assembly activities also triggers

TAKE

QUICK



“Previously, we assembled some limited models. With the new venture, we are now doing models from a 13 kVA unit ideal for household usage to a large 1 500 kVA genset suited for industrial applications.”

Louis Botha of Barloworld Power



“The project is a result of great cooperation between Caterpillar and Barloworld. Barloworld Power initiated the project, and several leaders from both sides worked closely for the successful implementation of this venture.”

Eric Hermann, product manager – Electric Power Retail at Caterpillar

TALKING POINTS



Barloworld Power offers design, testing, installation and on-site commissioning as well as support and maintenance.

more local jobs, which is good news for the country’s economy.

Botha is optimistic that the project will drive Barloworld Power’s market share in the genset segment. “In the last couple of years, demand for gensets has gone down due to the tough economic conditions in South Africa and neighbouring countries. Previously, our Cat gensets were not price competitive, and we had a small market share as a result. We are hopeful that the market will rebound in the short term. Better market conditions, complemented by our competitive pricing, will result in increased market share for us,” says Botha.

Largest range

Caterpillar is said to be the world’s largest manufacturer of gensets, offering the largest range of specifications available, all the way from 30 kVA to 4 000 kVA in the diesel range. For prime, continuous or standby power service, Cat commercial and industrial diesel gensets deliver reliable, clean, economical power – even in the most demanding conditions.

Each one is designed, engineered and manufactured for optimal performance. All major components are tested individually; and once the generator set is assembled, the complete unit is tested at and above 100% of rated load for operation and safety.

Barloworld Power also offers design, testing, installation and on-site commissioning as well as support and maintenance. One of its professional engineers does a technical assessment prior to a genset installation. The assessment considers the correct sizing of the required generator by logging of the load trend over time, the most suitable installation position and the installation layout. The data collected supports a recommendation on the size of genset required for the application at hand, complete with report and quotation.

Key installations

Testimony to its capabilities, Barloworld Power has already completed some massive power generation installations across southern Africa. In an ongoing project, the company is busy installing a 21 MW diesel and Heavy Fuel Oil (HFO) prime power plant for a Namibian gold mine. A 7 MW solar PV with intelligent microgrid controller has been added. When the sun is shining, the gensets are switched off. The project is said to have lowered energy costs for the mine with about three years of payback.

Elsewhere, Barloworld Power has completed a ground breaking biogas plant in South Africa. Situated in Bronkhorstspuit, near Pretoria, the project is said to be the first of its kind in South Africa, and the biggest of its nature in Africa. Power output is 4,6 MWe from four Cat CG170-12 biogas gensets. It will soon be extended with three more generators. Feedstock is cow dung and food production waste. The plant started production in 2015, and provides power to BMW Pretoria.

In another milestone project, Barloworld Power installed a natural gas plant with tri-generation at Standard Bank Rosebank. The gas genset, the G3516 model producing 1 MW of power, is for continuous operation and supplies 20% of the building’s power demand, providing electricity, hot water and cooling requirements.

At Letseng Diamonds in Lesotho, Barloworld Power supplied and installed five 1 000 kVA containerised gensets for the mine’s 5 MW plant. Letseng is the world’s highest diamond operation at an elevation of more than 3 200 m, with severe cold conditions. The project scope included civil, electrical and mechanical design. 🌐

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Scania South Africa has officially opened a new branch in Klerksdorp.



NEW SCANIA DEALERSHIP FOR A MAJOR TRANSPORT HUB

Scania South Africa's newly-opened, fully-fledged dealership in Klerksdorp, North West province, is strategically located to service an area deemed to be the next major transport hub in South Africa, writes Munesu Shoko.

A new, fully-fledged dealership in Klerksdorp enables Scania South Africa to better service its customers operating in the North Western town. Klerksdorp is growing to be a major transport hub in South Africa. Officially opened on 21 November this year, the dealership is an upgrade of a previous Scania service centre which was shared with Scania's long-time customer, River North Carriers, owned by Flip De Bruyn.

Morne Botha, GM Central and Free State Region at Scania South Africa, tells **Capital Equipment News** that the decision to open a new branch was necessitated by the fact that the company had outgrown the previous facility.

Whereas the old facility was just a service centre, the new branch provides full Scania services, including sales and service. While the new branch is located at River North Carriers' property, it is a fully-fledged Scania dealership, managed by Scania South Africa and operating like any other Scania dealership in the world.

Hennie Gouws, area manager – Network Development, the project is a perfect synergy, enabling Scania to provide quality aftersales service in a world-class facility to a growing and strategically important group of Scania customers based in the North West Province.

"The facility was designed and specified according to Scania Real Estate Standards and developed in partnership with River North



"Klerksdorp is fast growing as a transport hub in South Africa. Apart from mining and long haul customers, the branch is strategically located to service agricultural customers in the northern parts of Free State and North West, transporting their produce to market in Johannesburg, as well as major ports and borders for export."

Morne Botha, GM Central and Free State Region at Scania South Africa

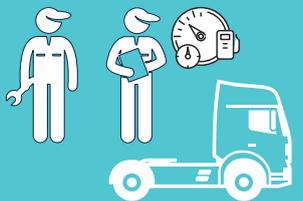
TALKING POINT



The new branch has six double-bay workshops.

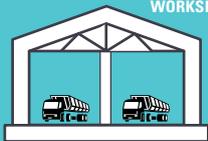


A new, fully-fledged dealership in Klerksdorp enables Scania South Africa to better service a growing transport hub in South Africa



Whereas the old facility was just a service centre, the new branch provides a full suite of Scania services, including sales and service

SIX DOUBLE-BAY WORKSHOPS



The new branch has six double-bay workshops with two service pits



The new Klerksdorp branch offers 24/7 breakdown service through Scania Assist

TAKE

QUICK

this, the branch is equipped with state-of-the-art workshop infrastructure and equipment that will allow for complete utilisation and functionality of Scania's connected service solutions along with an advanced electronic lubrication system," explains Botha.

The branch also has a fully-stocked parts facility restocked by the Johannesburg parts centre, which is just two hours away. "In case we don't have a certain part in stock at the branch, we are able to order and get the specific part from Johannesburg in less than 12 hours," adds Botha.

The new branch – which currently employs four people, with a possibility to grow the number to seven soon – offers 24/7 breakdown service through Scania Assist. "Scania Assistance is available 24/7/365 – with one call our customers are in touch with a professional service coordinator who knows their Scania – and speaks their language. So if the unexpected happens, there is always someone at the end of the line who can help," explains Botha.

"If an unplanned stop occurs, we are able to diagnose the vehicle and provide the driver with immediate instructions on how to proceed, either guiding them to the nearest workshop or instructing them to stay put and wait for Scania Assistance," adds Botha.

Why Klerksdorp?

The decision to invest in a fully-fledged dealership in Klerksdorp was necessitated by the city's growth in stature as a major transport hub in South Africa. Located two turns away from the busy N12 route,

Carriers," says Gouws. "More importantly, the facility, although based on River North Carriers' property, is staffed and managed by Scania and operates in exactly the same manner as any other Scania dealer in the world, where all customers are treated with the same level of high importance."

Key upgrades

Botha explains that the previous facility only had one double bay. "As a major upgrade, the new branch has six double-bay workshops with two service pits. "In addition to



While the new branch is located at River North Carriers' premises, it is a fully-fledged Scania dealership, managed by Scania South Africa and operating like any other Scania dealership in the world.



L-R: Christopher Magson; regional sales manager at Scania SA; Max Kruger; sales representative at Scania SA; Morne Botha, GM Central and Free State Region at Scania SA; Flip De Bruyn; owner River North Carriers (landlord); Gary Boucher; regional service manager at Scania SA; Deon Koegeleberg; foreman Scania Klerksdorp; and Leon Kriel, sales representative.

the branch is well-placed to service customers operating between Johannesburg and the Western Cape via Kimberley in the Northern Cape.

In fact, the North West Province has the advantage of being located at the heart of the subcontinent, with direct road links to all the neighbouring countries. The branch also services mining customers operating in the region. In terms of mineral production, the North West is the dominant province in South Africa.

"The new branch will service the whole of North West, and all the traffic operating between Johannesburg and Cape Town now has a strategic service point," says Botha. "Klerksdorp is fast growing as a transport hub. Apart from mining and long haul customers, the branch is also strategically located to service our agricultural customers in the northern parts of Free State and North West, transporting their produce to market in Johannesburg."

Grand plan

The establishment of the new branch is part of Scania South Africa's grand plan to further develop its service footprint to better service its customers throughout South Africa and the region at large. Speaking to **Capital Equipment News** earlier this year, Raimo Lehtiö, outgoing MD of Scania South Africa, mentioned that growing the company's service footprint has been one of the major focus areas in recent years. "It is during low growth times that we find it better to concentrate on building the service network so that when the growth starts, we are ready to cater for it," said Lehtiö.

For example, all Scania South Africa's biggest workshops are now open for longer hours per day, from 7:30 am to 10:00 pm. The company also recently opened a new premises in Port Elizabeth, its own captive service point. "We have also engaged several partners who are busy occupying several service spots. We have this year inaugurated a new service centre in Musina on the border to Zimbabwe. The service centre is already operational and has seen exponential growth because of its strategic location. There are plenty Scania vehicles in the area waiting to cross the border and customers now utilise the downtime to service their



The branch is fully-stocked with parts to better service customers in the area.

vehicles," said Lehtiö.

To better service the growing pool of customers in its export markets, Scania South Africa is also opening new service centres across all the growth hotspots. For example, the company opened one in Walvis Bay in 2017, and has been ramping up in 2018 and this year as the harbour is now fully functional. Scania also opened a service centre in Mozambique in November 2018. The truck maker previously had a workshop in Beira only, which has been complemented by a new one in Maputo.

In partnership with its customer, Grindrod, Scania also opened another service centre in Nacala. The workshop is located at Grindrod's premises, but also services other customers. Tete is also seeing huge growth and is Scania's next target area to open a service point. Scania has also entered into a new partnership for a new service centre in the Copperbelt of Zambia, which opened sometime this year.

"As a market leader in the trucking industry, Scania South Africa remains committed to bettering its service infrastructure to support its customers throughout the region. Apart from a product that has proved itself in the market for years, for us customer service is the only way we keep differentiating ourselves from our competitors. Our workshop services ensure that our customers get the highest-quality advice, maintenance and parts when they need them," concludes Botha. 🌐

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SURVIVING THE TIDE OF A DOWNWARD CYCLE

The International Monetary Fund recently revised South Africa’s growth forecast for 2019 from 1,2% predicted in April to a paltry 0,7%. The story is the same in southern Africa, where GDP growth has been sluggish, falling from 4% in 2010 to about 1,2% in 2018, with projected growth of around 2,2% in 2019. How did the capital equipment fare in these tough economic conditions this year? By *Munesu Shoko*.

Southern Africa contributes about 25,6% to the continent’s gross domestic product (GDP), second after West Africa’s 26,3%, according to the African Development Bank. Despite the region’s economic size, GDP growth has been sluggish in recent years. Causing the low growth are the major headwinds of high inflation, rising government debt and low commodity prices.

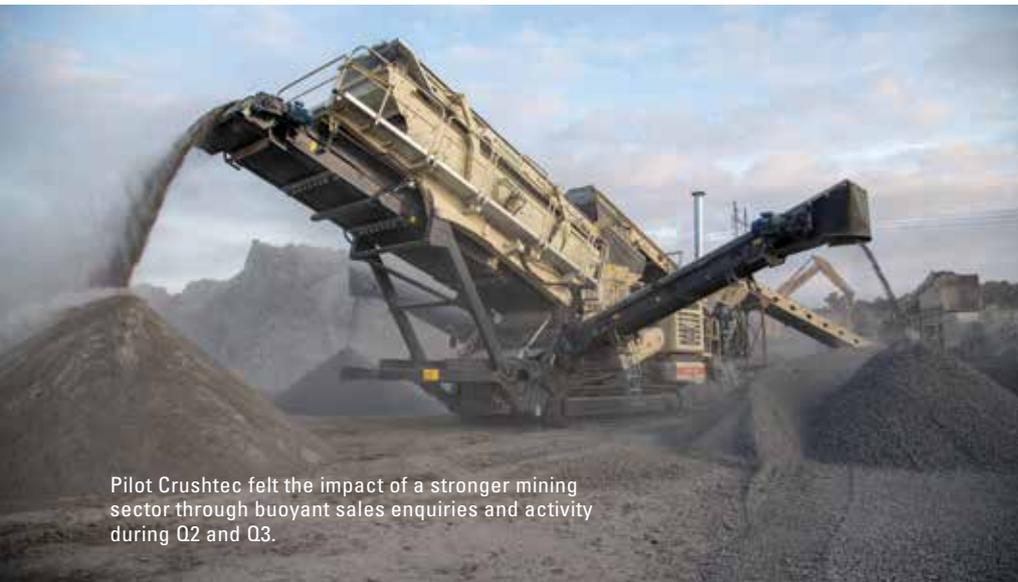
South Africa contributes about 68% to the region’s GDP but grew at less than 1% in 2018. The country is by far the largest capital equipment market, not only in southern Africa, but in Africa at large. The low economic growth has had a severe impact on the capital equipment market, with the construction equipment sector being the hardest hit amid low infrastructure development activity. However, the commercial vehicle market seems to be resilient in the face of tough economic conditions.

State of affairs

Bell Equipment’s observation was that at half year the market was down 12-13% compared with the same period in 2018. However, Duncan Mashika, MD Bell Equipment Sales Africa (BESA), says by the end of the third quarter, market contraction had slowed to around 10-11%.

Ross Collard, newly-appointed MD of HPE Africa, notes that between January and October 2019, the total market for tracked and mini excavators went down 13% and 21%, respectively, compared with the same period in 2018. “The total market for wheel loaders was down 3% during the first 10 months of the year, compared with the same period last year,” notes Collard.

Francois Marais, sales & marketing director at Pilot Crushtec International, says economic activity throughout South Africa has been turbulent throughout the course of the year, with only 1,3% GDP growth reported for Q2. However, he notes that the



Pilot Crushtec felt the impact of a stronger mining sector through buoyant sales enquiries and activity during Q2 and Q3.

According to the latest combined year-to-date results released by the National Association of Automobile Manufacturers of South Africa (Naamsa), Associated Motor Holdings (AMH) and Amalgamated Automobile Distributors (AAD), a total of 23 190 new trucks and buses had been sold by October 2019.

Compared to the 10-month sales statistics of 2018, sales in the Medium Commercial Vehicle (MCV) increased by a significant 12% to 7 270 units. Heavy Commercial Vehicle (HCV) sales dropped by 7,7% during the same timeframe to 4 190 units. Extra Heavy Commercial (EHCV) sales continued to climb, with 11 039 recorded during the period – a 4,6% increase over 2018 statistics. Bus sales remained in the negative, with only 691 units sold by October this year, a significant 23% decline.

Key trends

Marais notes that many traditional, large construction companies have had a challenging year as the number of infrastructure projects and road works remained subdued throughout Q1, Q2 and Q3. “We believe that this has forced many of our clients to look at extending the lifecycles of their existing equipment, consider pre-owned products and downscaling their fleets as opposed to replacing. Consequently, there has been a greater focus on our aftermarket activities and servicing capabilities,” says Marais.

Mashika notes that there has been a growing bias towards non-premium or mid-tier products. “With the market being under pressure our customers are becoming more open-minded about trying new products and more cost-effective solutions. We expect to see that trend gaining momentum as the market remains under pressure and customers have to deal with the ongoing uncertainty,” says Mashika, adding that many fleet owners are in survival mode and are forced to make tough decisions that work for now.

Swanepoel has noted a new buying pattern in the commercial vehicle market during the past few months. “With the MCV market continuing its double-digit growth and HCVs on the other hand declining by around 7%, it is a clear indication to us that customers are buying down into the smaller, and less expensive, vehicle segments. This is largely due to the prevailing challenging economic conditions in the country,” says Swanepoel.

Meanwhile, the EHCV segment’s growth continues on the back of the bulk movement of goods and commodities. “Perhaps there is an underlying sense of resilience, which would be the positive takeaway from this,

CONSTRUCTION AND MINING EQUIPMENT MARKET DOWN



According to CONMESA figures, at half year the construction and mining equipment market was down 12-13% compared with the same period in 2018

MINI EXCAVATOR SALES DOWN 21%



Between January and October 2019, the total market for tracked and mini excavators went down 13% and 21%, respectively



3% DOWN
JANUARY – OCTOBER 2019

Total wheel loader sales recorded between January and October 2019 were 3% down compared with the same period in 2018

3,1% YEAR-ON-YEAR GROWTH



Although South Africa’s struggling economy is continuing to have an impact on the local commercial vehicle industry, the sector showed a 3,1% year-on-year growth in new unit sales at the end of October

QUICK TAKE

QUICK TAKE

mining sector showed a sharp improvement, with a 14% contribution to the GDP, amid rebounding commodity prices.

“We felt the impact of a stronger mining sector through buoyant sales enquiries and activity in Q2 and Q3. This was largely driven by improving global demand for commodities and ore products. However, the domestic market for aggregates on the other hand has been increasingly under pressure. Many of our aggregate clients report declining demand for their product, mainly due to low construction activity,” says Marais.

On a positive note, Gert Swanepoel, MD of UD Trucks Southern Africa, says although South Africa’s struggling economy is continuing to have an impact on the local commercial vehicle industry, the sector showed a 3,1% year-on-year growth in new unit sales at the end of October.



“There has been a growing bias towards non-premium or mid-tier products. With the market being under pressure customers are becoming more open-minded about trying new products and more cost-effective solutions. We expect the trend to gain momentum as the market remains under pressure and customers continue to seek ways to survive amid ongoing uncertainty.”

Duncan Mashika, MD Bell Equipment Sales Africa



“We have introduced many initiatives which add tremendous value to our clients, such as an industry-first, 5-year/ 10 000-hour warranty, as well as remote monitoring systems to optimise plant operations, regular visits to site to optimise processes and an all-new modular range of products to make plant design, installation and commissioning easier and quicker than it’s ever been before.”

Francois Marais, sales & marketing director at Pilot Crushtec International



“Many fleet operators are struggling to obtain finance for yellow metal equipment due to the decline in industries such as mining and construction. Many large companies (previously seen as part of the Big Five) are facing serious financial difficulties, in some cases closing down completely.”

Ross Collard, MD of HPE Africa



“With the MCV market continuing its double-digit growth and HCVs on the other hand declining by around 7%, it is a clear indication to us that customers are buying down into the smaller, and less expensive, vehicle segments. This is largely due to the prevailing challenging economic conditions in the country.”

Gert Swanepoel, MD of UD Trucks Southern Africa

TALKING POINTS

or we should be on our toes and ensure that we prepare for some tougher trading months ahead,” cautions Swanepoel.

Showing resilience

Despite the tough trading conditions, capital equipment suppliers remained resilient in the face of a tough trading environment. Collard says HPE Africa has maintained a positive financial performance despite difficult economic conditions. In fact, the company managed to move its head office to a larger and better equipped facility in Spartan,

Gauteng this year.

Mashika reports that Bell Equipment had some market share gains in the first half of the year. This was due to some of the relatively newer products in its offering that are still penetrating the market.

“We found the third quarter more challenging due to the growing requirement for financing needed by the market. Even though there are many opportunities available, financial institutions are not bullish about this industry. Consequently, OEMs and dealers have to play both dealer and banker,” says Mashika.

Marais says Pilot Crushtec managed to perform at a similar level in 2019 as it did in 2018, with slight levels of growth – mainly attributed to its cross-border sales into Africa. He notes that the domestic market has been challenging, forcing the business to be dynamic in its approach in order to sustain similar levels of activity experienced in previous years.

“We have introduced many initiatives which add tremendous value to our clients, such as our industry first, 5-year/ 10 000-hour warranty, as well as remote monitoring systems for equipment in order to optimise plant operations, regular visits to site to optimise processes and an all-new modular range of products to make plant design, installation and commissioning easier and quicker than it’s ever been before,” says Marais.

Key talking points

There have been some key talking points during 2019. Marais says a huge area of focus for Pilot Crushtec during the year has been the development of its offering for the market and being dynamic in its approach to business practices. “Our focus has always been our clients’ operations and this continued to drive our internal discussions on how to grow our business. We focused a lot on assisting our client base with running their plants as efficiently as possible – whether that was through correct liner utilisation, optimising on materials handling solutions or plant improvements,” says Marais.

According to Collard, many fleet operators are struggling to obtain finance for yellow metal equipment due to the decline in industries such as mining and construction. “Many large companies (previously seen as part of the Big Five) are facing serious financial difficulties, in some cases closing down completely,” says Collard.

“The ‘Mafia’, which is more prevalent in the Cape and KZN regions, has placed many smaller plant hire and contracting companies in bad situations by burning their equipment and hijacking their sites,”



HPE Africa has maintained a positive financial performance despite difficult market conditions.



EHCV sales continued to climb during the 10-month period to October, with 11 039 recorded during the period – a 4,6% increase over 2018 statistics.

adds Collard. “Government spend has been halted, almost completely, in most regions, leaving very few development opportunities for our plant hire and contracting customers.”

Mashika says the key talking points for Bell Equipment included funding solutions, engaging with emerging contractors, managing the business structure to be in line with the prevailing market conditions, as well as ensuring that the company’s value proposition remains relevant.

Surviving the tide

In such tough economic conditions, what should businesses do to survive the tide of a downward cycle? Mashika says businesses need to find a good balance between being inward looking in terms

of managing the business structure on the one hand, and staying close to their customers on the other.

“Firstly, you have to listen and then understand so that your offering can be in line with what the customer needs. Businesses need to offer products that help customers improve their competitiveness and help them survive the tough market conditions. They must also make sure that the support and aftermarket offering are in place to suit the varying customer needs. In tough times, being cost-effective alone may not be enough. The aftermarket offering needs to help to reduce the level of uncertainty for customers and give them the peace of mind that the supplier’s support and offering are predictable and reliable so that they can count on those being stable

when working out their business plans,” says Mashika.

He adds that Bell Equipment is aware that it needs to stay relevant and continue to add value to its customer base. As a result, the company adapts accordingly to make sure that its offering continues to meet the needs of its customers in line with the difficult market conditions.

Marais is of the view that companies need to be dynamic in their approach and go the extra mile to assist clients to maximise their return on investments. This has been the cornerstone of Pilot Crushtec’s approach and a strategy the company has nurtured within its culture.

Collard says companies need to monitor their debtors closely to prevent/minimise bad debt. “We also have to attend to our clients by offering them great service and products to ‘win’ the limited work that is still available. We also have to offer our customers flexible payment options,” he says.

African plans

As South Africa continues on a downward trajectory, many companies are placing a big focus on the rest of Africa. Africa has always been a key focus area for Bell Equipment as some of its South African customers are also active in the region. “We need to ensure that our dealer support network is aligned with our Bell approach to customers so that the level of support they expect in South Africa is mirrored in whatever other country they choose to operate in,” says Mashika.

“In our experience there is a high appetite for used equipment in the rest of Africa so through our South African activities we are able to age enough equipment to satisfy the needs of our customers in Africa who enjoy a premium product and the support of a locally based OEM,” adds Mashika.

Marais says Africa plays a large role in Pilot Crushtec’s business and has been a growing portion of the company’s portfolio in recent years. “This is a focused department within our business and has always played a role in our operations. We do not see this as a new focal point within our business and we will continue with our African operations as we have done in the past,” says Marais.

Under the leadership of new MD Ross Collard, HPE Africa continues to focus on servicing existing customers and finding new ones across areas of jurisdiction – South Africa, Namibia, Botswana and Lesotho. “Our aftermarket services – spare parts and technical services – remain a huge focus for us, as customers tend to repair or refurbish their equipment during these challenging times, instead of replacing,” concludes Collard. 🌐



TURNING A VISION INTO REALITY

As Industry 4.0 moves increasingly beyond buzzwords into reality, mining is leading the charge, with African and South African companies at the forefront of both the creation of transformative technologies and their implementation on the physical and digital rock face. By Doug Hanson, VP & GM, Digital Mine at Wabtec Corporation.

At Wabtec, for example, we work with a number of South African miners to develop strong base technologies, several of which are being employed at mining operations to enhance asset health, productivity and safety across Africa and globally.

Some of our advanced Operations Performance Management (OPM) tools, aimed at the optimisation of processes, originated in South Africa to help improve throughput and recovery at the mine site. In their evolved form, these solutions continue to be applied in major smelting and mining operators around the world.

Other core technologies that Wabtec Digital Mine brings to the table focus on creating blueprints and “digital twins” of key mobile and fixed assets. These solutions are being applied by miners in South Africa, where they’ve scaled from pilot tests to enterprise-based rollouts. A notable example is our Asset Performance Management (APM) solution for monitoring the condition of assets and optimising their maintenance and health, which is becoming increasingly crucial in an asset intensive industry like mining.

Most importantly, perhaps, South Africa is also at the leading edge of a global drive to make mining safer. And it’s starting to pay dividends, thanks to government regulation and a concerted effort by mining companies and original equipment manufacturers (OEMs). Together, they are driving development of technologies like the Collision Awareness System being pioneered by Wabtec, one that will ultimately be able to automatically take control from the operator when a vehicle is about to collide with another vehicle or person.

It should be clear from these examples that the industry is well along the road to the “Digital Mine.” But what exactly is a Digital Mine? At Wabtec we’ve identified three key elements that make up the mine of the future.

Sensors

Innovative and broadly applied fibre optic sensors and sensing technologies serve as the foundation for Digital Mine. These sensors are embedded in and around core assets, mobile equipment and even on people to monitor their condition and movement, allowing the mining company to do a better job of coordinating work and ensuring it’s being done safely and efficiently.

Some of our ecosystem partners are creating machine vision sensing technologies that provide very detailed data into the process. One, based in the Western Cape, is developing a continuous belt integrity laser-scanning solution that can determine particle size going into a concentrator, a factor that is important in the beneficiation of metal coming out of any mining process.

Data and algorithms

More sensors mean more data and lots of it; far too much, in fact, for people to make

sense of in its raw, unfiltered form. It isn’t called “Big Data” for nothing. This tsunami of bits and bytes requires capacious, robust storage and algorithms to convert it into a format that’s easily actionable.

But once the numbers have been crunched by software, like our optimisation and predictive analysis algorithms, they become incredibly powerful. The software highlights anomalies or trends that are of concern and need to be addressed by mining operators.

It’s insights into those trends that allow a mining organization, for example, to decide whether to adopt a comprehensive preventative maintenance approach or to be more surgical and precise about what gets maintained and when, a more ‘just in time’ approach, allowing the company to stretch the performance of - or in mining parlance ‘sweat’ – the asset.

Service delivery and monitoring

The third element of a Digital Mine is ongoing monitoring and service delivery. At Wabtec, we’ve learned that in order to make the transformation and transition, operators require support in multiple ways.

One of the ways we’ve been effective in this process is by running monitoring services, using sophisticated software to help predict anomalies with the mine site. When the software indicates anomalies, we work with the operator to drive the required action. You can see this approach at work in our industrial management services enabled by our collaboration with GE Digital.

Coming together

The successful implementation of all three of these elements at mines across Africa and around the world means we’re closer than ever to the ideal of a Digital Mine - one where decisions and changes in strategy are data-driven, made in real time, and extend to the most granular details, like the availability of a scoop, a shovel needing a replacement part or the detection of an oversized piece of ore travelling down a conveyor.

As more and more repetitive, potentially dangerous jobs are taken on by machines, new roles are emerging for mining operators. These emerging roles require both mental and physical dexterity, from the technicians developing and running the hardware and software key to the operation of the Digital Mine, to the person manipulating a drill rig from kilometres away – often using a piece of equipment that can look a lot like a video game controller. Perhaps parents should think twice before berating their teenagers for spending so much time playing video games! 🎮



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CONTROLLING THE USE OF CANNABIS IN THE WORKPLACE



Rhys Evans, MD of ALCO-Safe.

Since the legalisation of cannabis for private use in South Africa, many organisations have been struggling to come to grips with how to adjust their substance control policies. By Rhys Evans, MD of ALCO-Safe.

A zero-tolerance approach is no longer feasible, since cannabis can now legally be consumed outside of working hours. However, the Occupational Health and Safety (OHS) Act still states that no person under the influence of alcohol or drugs may be permitted in the workplace. In light of this, organisations need to adjust their policies as well as adopt the most appropriate testing solution to ensure the safety of their workforce at all times.

One of the challenges with the 'legalisation of cannabis' is a lack of understanding and education as to exactly what the law entails. There has been some confusion among workers that legalising marijuana means that they are now allowed to smoke it at work or before work. However, this is not the case. The situation is in fact similar to that of alcohol, in that it is not illegal to partake in the substance, however, it remains illegal to work under its influence as per the OHS Act which states that employers should not allow any person who is or who appears to be under the influence of intoxicating liquor or drugs to enter or remain at a workplace.

Enforcing the OHS

This leads to the second challenge, how to enforce the OHS Act effectively with the legalisation of cannabis. Organisations are no longer able to enforce a zero-tolerance approach to the use of cannabis yet must now control its use or influence within the workplace.

However, the metabolism of cannabis is a more complex matter than that of alcohol. It is also difficult to pinpoint exactly when the effects of cannabis dissipate, and at what point an individual can be considered to no longer be under its influence. Regular users will develop a certain tolerance to Tetrahydrocannabinol (THC), the active substance in cannabis, and the duration of its effects is also affected by the quantity smoked, the THC content of the drug and so on.

In general, the effects of cannabis consumption last for an average of three to six hours.

However, different testing methods will detect THC in the system for different periods of time. For example, a urine test can detect metabolised THC for several weeks or even months after the drug was used. However, the presence of the metabolised drug in the system does not indicate intoxication. Urine testing is therefore not a feasible option for detecting whether or not a user is under the influence of marijuana.

Saliva tests can however be utilised, as they produce a positive result if a test subject has utilised the drug within the past four to six hours depending on the cut off of the test and the quantity of cannabis that was used. As this is the generally accepted window for the influence of THC, it will enable a better idea of whether or not an individual is still affected. This will then enable those testing positive on a saliva test to have further testing, such as a blood test, to determine the level of THC in the body and the likelihood of the individual still being under its intoxicating effects.

Key challenges

Unlike alcohol testing, it is not possible to enforce compulsory testing for the use of cannabis, since the saliva swab takes an average of five minutes to produce a result. It is therefore necessary to conduct random testing as well as testing on suspicion and testing involved parties in the event of an accident or incident. This is in line with previous drug testing policies that may already be in place. Organisations can also specify pre-employment testing as a requirement.

As a zero-tolerance approach cannot be followed with regards to cannabis, organisations need to be very specific with their policies. The first step for any organisation is to educate its workforce on what exactly the new law means, and then to set acceptable limits and state these explicitly in their policies. It is essential to specify that employees may not enter the workplace while under the influence of marijuana, and that they may not partake of its use in the workplace or during their work hours. Random saliva testing will enable this to be effectively enforced. 🌿

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Doosan Infracore unveils new site solutions



Concept-X is a comprehensive control solution that can be used to survey worksite topography via 3D drone scanning.

On 20 November 2019, Doosan Infracore unveiled 'Concept-X' at its Proving Grounds in Boryeong City, Korea, with more than 200 people in attendance, including National Assemblymen, the Mayor of Boryeong City, business executives from Bosch, ASI, LG U+ and PoteNit related to the development of Concept-X, representatives of government agencies and scholars from various academic institutions.

Concept-X is a comprehensive control solution that can be used to survey worksite topography via 3D drone scanning, establish operational plans based on the topographical data and operate construction equipment such as excavators and wheel loaders without human intervention. In short, Concept-X realises the construction site of the future

by having all dangerous construction work performed solely by equipment, leaving human personnel free to concentrate on more sophisticated analysis and management tasks. Although certain individual unmanned technologies have already been introduced in the field of construction machinery, Doosan Infracore's introduction of unmanned automation technologies to the entire construction site operation process – ranging from surveying to the operations of construction equipment such as excavators and wheel loaders – is said to be a world first.

Concept-X comprises a wide range of cutting-edge Fourth Industrial Revolution technologies such as image recognition, cognitive/control technologies, autonomous driving technologies, 5G remote control, 3D drone surveys and accurate workload

estimation and assignment, together with failure prediction technologies.

The new technologies introduced during the DI demonstration included a technology designed to create three-dimensional worksite maps with drone-surveyed data; a technology enabling construction equipment such as excavators and wheel loaders to perform optimized unmanned operations according to any site situation; and a technology that makes real-time monitoring of work progress possible through the X-Centre's comprehensive control solution.

Doosan Infracore says that the solution will boost productivity and economic feasibility significantly by reducing the time and costs required for construction equipment operations, while introducing a revolutionary improvement to the issue of construction worksite safety. Doosan Infracore plans to commercialise Concept-X by 2025.

"Concept-X is not just an unmanned technology; rather, it integrates multiple state-of-the-art technologies that can respond immediately to all and any of the changes that may arise at construction sites simultaneously," declares Doosan Infracore President & CEO, Dongyoun Sohn. "It will become a human-centred technology that not only brings about remarkable improvements in economics and safety but also creates more jobs in high-tech industries." 🌐

SKF acquires industrial AI company

SKF has signed an agreement to acquire Presenso Ltd, a company that develops and deploys artificial intelligence (AI)-based predictive maintenance software. Presenso's AI capability enables production plants to find and act on anomalies that were previously difficult to detect, automatically and without the need to employ data scientists. Presenso's competence will be used to strengthen SKF's Rotating Equipment Performance offer.

"SKF is all about reliable rotation, technology leadership and solving real world challenges. Today, we are welcoming a team of world-class AI developers, with a production-ready analytics solution into SKF. Together we will change the way industry looks at reliability and make AI an integrated part of production," says Victoria Van Camp, CTO and President, Innovation and Business Development.

Presenso is based in Haifa, Israel. The acquisition is subject to certain regulatory approvals and is expected to be completed during Q4 2019. 🌐

Bobcat supplies 10 telehandlers to Goscor Access Solutions

In keeping with its philosophy of remaining up-to-date with the latest technology, and supplying its clients with the most advanced and cost-effective solutions, Goscor Access Solutions has acquired 10 T40180 telehandlers from Bobcat Equipment South Africa.

With both companies part of the Bud Group stable, it made sense for Goscor Access Solutions to exploit the synergies of the broader group and acquire its latest equipment internally, MD Andrew Kendrick comments.

The 10 Bobcat T41080 telehandlers have already been deployed across a range of projects in the mining and construction industries, according to Kendrick. "The latest acquisition forms part of our strategy to future-proof the business in order to ensure viable and sustainable growth going forward, as well as to ensure that our fleet remains as modern as possible."

With strategically-located offices and depots nationwide, coupled with a dedicated workforce, Goscor Access Solutions offers unparalleled service in access platform sales, rentals and technical support. Its diverse

fleet ensures absolute safety when working at height, from low-level personnel lifts for indoor work, right up to 57 m super booms and telehandlers for materials-handling.

Its latest-generation equipment is sourced from global leaders such as Genie, ATN, and Holland Lift. This means that Goscor Access Solutions boasts some of the most technologically-advanced machinery on the continent, with the highest diesel and electric scissor lifts, highest crawler boom lift, as well as its unique articulated booms with stabilisers.

Apart from minimal maintenance requirements, which translates into a reduced total cost of ownership, the Bobcat T40180 telehandler allows for self-levelling and side shift, and even both at the same time, without any loss of load capacity.

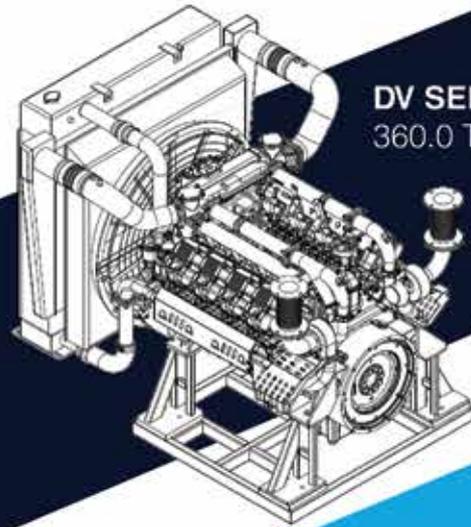
Excellent visibility makes light work of the following complex movements: Forwards to mount attachments or to pick up loads, upwards for positioning loads at maximum height, all-round manoeuvring, and backwards for safety. This means these telehandlers are extremely versatile and flexibility in a range of applications. 🌐

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Epiroc sets the standard of loader automation

Epiroc's Scooptram Automation Total is the highest level of loader automation, bringing new standards of productivity and safety to underground mining. Multi machine loader automation enabled by the Traffic Management System, sets the new standard in safety and productivity by creating a common information environment that controls multiple fleet of loaders.

The Traffic Management system is the core of Epiroc's Scooptram Automation Total package. This system operates the fleet and eliminates the risk of collisions in common drifts. The automation area is fully isolated with safety barriers that shuts off the system if personnel or unauthorised vehicles accidentally enter. It is possible to bring new vehicles into the area and add them to the Traffic Management System without stopping the production, using the check-in/check-out procedure.

"We are proud to release this new offering. This is a great step forward in our development of world leading automation and information management solutions. Scooptram Automation Total is really a game changer when it comes to increasing



From a safe distance in a comfortable operator station, an operator can easily control and monitor the vehicles progress throughout the mine.

safety for underground operators and at the same time levelling up the efficiency," says Vladimir Sysoev, global product manager Automation.

Epiroc's Scooptram Automation Total is a state-of-the-art technology that takes safety, productivity and cost effectiveness to another level and makes superior performance a reality. From a safe distance in a comfortable operator station, an operator

can easily control and monitor the vehicles progress throughout the mine.

Scooptram Automation Total is part of Epiroc's 6th Sense Transport offering. Epiroc's 6th Sense sets out to optimise customers' value chain by offering interoperability solutions that connect automation, system integration and information management to unlock the full potential of production gains at lower operating costs. 🌐

Realising process plant optimisation with FLSmidth's Smartcyclone



Operator can monitor real time trending of critical process parameters from a safe distance in a controlled environment.

Process plant optimisation techniques have become a necessity for mines looking to maximise their operating performance by keeping costs low, throughput high and downtime to a minimum. FLSmidth's automated SmartCyclone system is a solution that delivers in all three areas for cyclone circuits, a vital processing element in any plant.

FLSmidth's SmartCyclone is a monitoring and control solution for reducing cyclone-related process deviations. It also improves cyclone overflow particle size distribution, predicts and controls cyclone maintenance schedules, and optimises closed-circuit grinding processes.

This equates to monitoring the performance of individual cyclones within a circuit in real time, preventing unplanned breakdowns from occurring and monitoring wear rates while ensuring the cyclones are operating optimally at all times. This translates into higher efficiencies in the plant and ultimately, higher profitability.

The SmartCyclone closed circuit grinding optimisation system combines a variety of FLSmidth patented technologies which includes the FLSmidth Krebs SmartCyclone wear detection sensor technology as well as the Krebs' patented roping sensor technology with patent-pending wireless controller system. This technology immediately identifies if a cyclone is malfunctioning.

The closed circuit grinding optimisation system also incorporates FLSmidth's ECS/ProcessExpert® process control software with a new patent-pending SmartWear™ cyclone maintenance algorithm. One of the largest benefits associated with this software is the ability to develop a uniform operation strategy that outlines the best way to run the plant. Once this strategy has been established, the necessity to train new operators is reduced.

Reducing or eliminating manual operation, which decreases the potential for human error, is in fact one of the overarching benefits of SmartCyclone.

FLSmidth has more recently enhanced its Krebs SmartCyclone system with wireless technology that enhances installation simplicity by eliminating the need for individual nodes and the interconnecting cables between the sensors and nodes and associated controllers. 🌐

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Volvo Trucks launches sales of electric trucks for urban transport

Volvo Trucks has announced the start of sales of its Volvo FL and Volvo FE electric trucks in selected markets within Europe, meeting the increasing demand for sustainable transport solutions in city environments.

In the absence of exhaust emissions and with reduced noise levels from electric trucks offer huge potential in urban areas. First, the reduced noise levels make it possible to carry out deliveries and refuse collection in early mornings, late evenings or even at night, helping to improve transport logistics and reduce congestion during peak hours. Second, with better air quality and less noise, electric trucks create new opportunities for city planning and road infrastructure. An electric truck can, for example be used in indoor loading areas and environmental zones.

“Global urbanisation requires urban logistics and truck transport with zero emissions and less noise with increasing urgency. With the Volvo FL Electric and Volvo FE Electric we are able to meet both the strong environmental demands as well as the high commercial requirements of our customers,” says Jonas Odermalm, VP Product Line Electromobility.

One challenge is to maximise the payload at the same time as optimising the driving range. “Volvo Trucks’ solutions will be based on individual business needs that consider a number of parameters, such as driving cycles, load capacity and route analysis, to use the



In the absence of exhaust emissions and with reduced noise levels from electric trucks offer huge potential in urban areas.

battery capacity in the most efficient way possible,” continues Odermalm.

Volvo FL Electric and Volvo FE Electric were developed in close collaboration with selected customers operating in Gothenburg, Sweden. Feedback has been very positive, and the drivers involved in the collaboration are particularly impressed by the responsive driveline, seamless acceleration and how quiet the trucks are.

“While customer feedback has been positive,” explains Odermalm, “we do recognise that charging infrastructure is still under development in most cities and we are working alongside both public and private

partners to agree on a long-term strategy for the expansion of charging infrastructure. But it’s clear that the pace of development of charging infrastructure needs to increase.”

Addressing climate change will require the availability of several driveline technologies. “Electric vehicles, charged with electricity from renewable sources, are indeed a powerful step towards more sustainable city distribution. However, there will not be one singular energy source that addresses climate change and all other environmental issues. Different types of transport require different types of driveline solutions,” concludes Odermalm. 🌱

Heavy transport industry urged to drive used oil recycling

The South African trucking industry is estimated to generate in excess of seven million litres of used oil every year. This is a vast amount of harmful contaminant that could potentially make its way into our environment.

A long-distance truck can hold anywhere between 10 to 20 l of engine oil and, according to Road Traffic Management Corporation (RTMC)’s statistics, there are currently more than 370 000 registered heavy duty trucks on our roads. That is a conservative estimate of approximately four – up to nearly eight – million l of used oil being generated every year by the road freight industry alone. A significant volume considering that just one litre of used oil can contaminate 1-million l of water.

The ROSE Foundation (Recycling Oil Saves The Environment) says that with the industry being a significant source of used oil, it is imperative that operators within the sector remain aware of the harmful effects of this contaminant and ensure that it is properly stored and collected for recycling.

“Many people don’t know that used lubri-

cant oil is dangerous as it contains harmful toxins and cancer-causing agents. Dumped, it seeps into rivers and lakes, contaminating our water,” says Bubele Nyiba, CEO of the ROSE Foundation which has been championing the responsible collection and removal of used oil for proper recycling since 1994.

“The heavy transport industry is fairly compliant, especially the large businesses. The smaller independent operators still need more education and support to ensure that they comply with the Waste Act.”

Used oil must be drained into a clean container with a tight-fitting lid, such as a reusable combination drain pan/storage container. Use a specially designed plastic Sumpy or container to collect and store your used oil.

Ensure that used oil is stored in a clearly marked container with a secure lid to prevent leaking or water getting into the container. Empty oil containers and drums make effective makeshift storage vessels for used oil, however, NOT containers that previously held chemicals, such as cleaners, solvents, fuels, paint or bleach. Ensure that

used oil is not mixed with other fluids such as antifreeze, transmission fluid, petrol, diesel etc. as mixing them may make them non-recyclable as well as very hazardous and flammable. 🌱



Used oil must be drained into a clean container with a tight-fitting lid, such as a reusable combination drain pan/storage container.

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THREE EASY WAYS TO REDUCE EXCAVATOR TCO

The cost of owning an excavator includes so much more than the initial purchase price. Fuel consumption, maintenance and depreciation all play an important role. By understanding these factors and choosing a machine that is equipped to control them, owners will get more from their excavator for less.

1. Vary work modes and use the auto-idling feature

Fuel is often the biggest cost when operating a piece of construction equipment. In some markets it can be far greater than labour, maintenance and insurance. This makes lowering fuel consumption a quick win for dramatically reducing total cost of ownership.

When operating a Volvo excavator, for example, operators can choose from nine different settings within four work modes – Idle (I), Fine (F), General (G) and Heavy (H) – to allow them to match the power of the machine and, therefore, the fuel consumed according to the needs of the job.

Volvo excavators also include an auto-idling feature that allows the operator to set the machine to automatically switch to idle when the machine has been inactive for a certain amount of time. This can be anywhere between three and 20 seconds.

By taking advantage of both these features, operators can achieve industry-leading fuel efficiency – helping to protect both their profits and the environment.

2. Carefully manage idling time

Even from Volvo CE's internal studies it's not uncommon to see excavators running idle around 50% of the time – unnecessarily burning fuel, wearing components and adding hours on the clock.

By connecting machines with Volvo CE's telematics system CareTrack and requesting an Insight Report, owners can see just how much time their excavators are spending idle and take action to reduce this figure. A realistic goal would be around 25%.

Owners can target idling time through operator training or a discussion with Volvo CE about how to better match the number and capacity of machines on site to the required tonnes per hour or cost per tonnes.

By taking control of idling time, owners can reduce fuel costs (and environmental impact), maintenance costs and depreciation.

3. Adopt a proactive maintenance approach

Connecting machines can also reduce maintenance costs. Instead of waiting for an excavator to break down before carrying out maintenance and repairs, customers can – with the help of their dealer – proactively monitor the machine's health. This allows customers to spot any potential issues and remedy them before they even have the chance to turn into big and expensive problems.

Volvo CE's new Active Care service, offered through selected dealers, allows Volvo to proactively take on the burden of monitoring and reporting machine health, leaving machine owners more time to focus on their operations. The intelligent telematics service bundles together health monitoring, weekly reports, alerts and service scheduling. This all amounts to increased uptime and reduced cost for the customer. 🌟

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