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# ERODING BUSINESS CONFIDENCE



Munesu Shoko - Editor



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oming from a difficult economic year in 2016, there was strong sentiment. especially at the start of this year, that we had reached the bottom of the downward economic cycle, and things would only get better from there. According to available industry figures, the South African construction and mining equipment sector lost a whopping 30% of its value in 2016 compared with 2015, while the commercial vehicles sector declined -11,4% versus the previous year. The decline was attributed to a slow economy, a lack of business confidence and struggling commodity prices.

But, in the last quarter of 2016, it became quite evident that there was a slight upswing in commodity prices and the general sentiment was a bit more positive. Business confidence was a lot higher among fleet owners and the supply chain in the first two months of 2017 than it was in 2016. Fixed investment was expected to grow to around 2,2%, up from -2,5% in 2016, a good indicator that companies would invest in new capital assets such as construction equipment and trucks. Economists also projected a 1,5% GDP growth in 2017, up from 0,4% in 2016, which would further improve growth prospects for the local industry at large.

This would be further buoyed by seemingly improving growth prospects premised on easing drought conditions in South Africa. The rand also strengthened, taking advantage of struggling major currencies, to help ease inflationary

pressures. A stronger rand also translates into better spending power for local fleet owners, while the reduction in fuel prices is another key benefit.

On the back of these factors, both fleet owners and the related supply chains were confident that 2017 would be a year of redemption. But, considering South Africa's recent credit downgrade to junk status, what are the implications for local contractors and the related supply chains?

A ratings downgrade will lead to lower access to credit and, potentially, an interest rate increase, which would affect many contractors, especially start-up entities, because they would be paying more to borrow money for their equipment needs. Higher interest rates also increase the cost of financing equipment.

Additionally, the rand could decrease further in value, causing a rise in the price of imported goods. While this is bad news for the whole economy, it is more so for local capital equipment owners. Bearing in mind that most of the capital goods available for the local market are imported, purchase prices will definitely increase, eroding the possible gains of the improving commodity prices.

Due to the latest developments, it is worrying that the industry will endure yet another tough year, grinding down the general confidence many businesses had for the year ahead. The ongoing political tensions, the incessant risk of further credit rating downgrades and a possible increase in taxes, which will definitely erode spending power for fleet owners, will have a negative impact on both fleet owners and capital equipment suppliers.



# Mobilgrease XHP 322 MINE helps extend re-greasing intervals and increase productivity



Energy lives here

#### Earth moving equipment | Construction site | Egypt

#### Situation

An Egyptian construction company was using a competitive grease in all of its earth moving equipment. But, after monitoring the equipment's high grease consumption and frequent downtime, the company approached ExxonMobil engineers for an alternative grease recommendation capable of extending regreasing intervals and improving overall equipment performance.

#### Recommendation

use Mobilgrease XHP 322 MINE <sup>™</sup> in the pins and sleeves of its earthmoving equipment.

Mobilgrease XHP 322 MINE is specifically designed for the lubrication of off-highway, heavy-duty equipment and is formulated to provide excellent equipment protection even under severe operating

ExxonMobil engineers recommended the company

#### Benefit

Mobilgrease XHP 322 MINE has helped this construction company extend re-greasing intervals, reduce labor costs, and increase productivity to deliver a company-estimated annual savings of US \$151,000.

#### Impact

Since making the switch to Mobilgrease XHP 322 MINE , the company reports that it has extended re-greasing intervals from 18 hours to 50 hours, reducing overall grease consumption and associated labor costs. In addition, the company has observed an increase in productivity of 1.7 percent and expects a 50 percent increase in the service life of the equipment's pins.

1.70/ Increase in productivity

Industrial Lubricants

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This Proof of Performance is based on the experience of a single customer. Actual results can vary depending upon the type of equipment used and its maintenance, operating conditions and environment, and any prior lubricant used.

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POP 2009-606



In line with its philosophy of introducing technologically-advanced equipment locally from leading international manufacturers, Goscor Access Rental has launched Africa's largest scissor lift, said to come with the highest working height and biggest deck versus any comparable machine currently available on the continent.



fficially launched at Goscor Access Rental's Montague Gardens facility in Cape Town on March 31, the HL-275 D27 mega scissor lift from Holland Lift of The Netherlands has a 6,15 x 2,5 m deck measuring 8,25 x 2,5 m when fully extended. This is said to be the biggest machine in this range of equipment in Africa. The Holland Lift is also capable of lifting 1 000 kg up to its full working height of 27,5 m, according to Nici Verster, general manager at Goscor Access Rental.

IDS, a local one-stop solution provider for affordable commercial and cold storage design, manufacture and installation, is the first customers in South Africa to take delivery of the new machine.

Verster explains that the Holland Lift unit first fell on Goscor Access Rental's radar when the local access rental company paid a visit to bauma Munich 2013 in Germany, the premier construction equipment exhibition in the world. Goscor Access Rental immediately put plans in motion to introduce what Verster terms the "Rolls Royce" of scissor lifts locally.

"The South African market will definitely benefit from the application of this machine, especially when you consider major projects underway, such as Eskom's Kusile and Medupi power stations," says Verster. Ideal applications range from cladding to plastering, as well as general electrical and construction work.

Verster tells Capital Equipment News that Goscor Access Rental is introducing the new machine to cater for the latest

#### **Key specs**

Model	Holland Lift HL-275D27
Working height	27,5 m
Lift capacity	1 000 kg
Operating weight	21 910 kg
Platform dimensions	6,15 x 2,5 m
Transport depth	6,57 m
Transport height	3,13 m
Transport width	2,65 m

trend in the warehousing and distribution sector where larger facilities are increasingly calling for ever-bigger access equipment to maximise productivity and efficiency. "All the technology we source is not only the best in the world from a features, quality, and durability point of view, but is also aimed at ensuring our customers benefit from the lowest total cost of ownership at the end of the day," adds Verster.

#### **Kev benefits**

The arrival of the Holland lift HL-275 D27 will allow local contractors across a number of sectors to access new scissor lift heights. According to Verster, the HL-275, with its working height of 27,5 m, is now the largest diesel operated scissor lift available in sub-Saharan Africa. While the biggest in the world offers a working height of about 36 m, the next biggest offering available for the local market is only 24,5 m of working height.

Another key advantage is that the lift

can pick up a tonne of weight with its deck fully extended to 8,25 m long and 2,5 m width, offering plenty of platform capacity and work room. The next competitive scissor lift available in the market can only pick about 750 kg when its deck is extended fully to just over 7 m of length. "A key feature of the HL-275 D27 is that the machine can pick up 1 000 kg of weight to its maximum working height of 27,5 m, with or without outriggers," says Verster, adding that, with uptime in mind, the machine can also be driven at its full 27,5 m working height.

Meanwhile, the HL-275 D27 can also be used indoors due to its non-marking tyres. This is also a plus for contractors working on sensitive ground conditions. When working in difficult terrain, the four-wheel drive with oscillating axles means that the machine can negotiate difficult underfoot conditions. "Self-levelling outriggers and the 4x4 drive also allow the unit to operate on unlevel ground with improved traction and control," concludes Verster.



or any contract miner, equipment availability and reliability is the basis at which its success on a project is determined. Any minute lost through machine downtime is money down the drain. This is even more so for a 24-hour operation where every minute and second are so carefully balanced between working time and planned standing time, with any unplanned stoppage absolutely out of question.

Maintaining optimal mine site productivity ensures continuity in achieving targets of production and sustainability. To achieve this, the scope of work targets must always be met — hence reliable and consistent equipment is required. This is exactly what a fleet of LiuGong wheel loaders is offering to a contractor working

at a 24/7 coal mining operation in Mpumalanga, South Africa.

Balele Contractors, a contract miner that specialises in coal mining and processing, has deployed a fleet of nine LiuGong CLG856 wheel loader models on a round-the-clock operation at Elandsfontein Colliery. The fleet comprises both the older CLG856 and newer CLG856H models.

Balele Contractors trialled its first LiuGong loader back in 2009, and never looked back. To date, the mining contractor owns a strong 25-unit fleet of LiuGong front-end loaders, and counting. At the time of its first purchase, there was general sentiment in the local market that Chinesemade construction gear would not stand the tough African working conditions, yet alone a 24/7 mining application. But, eight

years down the line, Balele Contractors is proving this to be a baseless myth with an enlarged fleet of loaders that are proving their worth.

"We run a 24/7 operation, of which 22 of the 24 hours, the machines are physically working," says Edmund Johnstone, operations manager at Balele Contractors, who tells Capital Equipment News that the loaders have even surpassed the expectations of both the manufacturer and the equipment owner. Local dealer, Burgers Equipment & Spares, at some point brought over LiuGong engineers from China to witness the working environment in which these loaders are subjected to. "On one of the first visits by the engineers, they were surprised to see that these loaders were actually working in excess of 20 hours a



day in the hot and dusty conditions we operate in," says Johnstone.

#### Scope of works

While Balele Contractors' fleet of LiuGong loaders is allocated across a number of sites in the coal region of Mpumalanga, Capital Equipment News recently visited the contractor's Elandsfontein Colliery project where a total of nine loaders have been deployed for all things materials handling on site, all the way from feeding processing plants to building stockpiles and loading trucks.

On this particular site, Balele Contractors is the main contractor in charge of the whole project from open-pit mining to processing and selling the coal to end users. "This is a turnkey project with various downstream



A fleet of nine LiuGong wheel loaders supplied by Burgers Equipment & Spares is surpassing expectations on a 24/7 coal mining project.

projects running concurrently," says Johnstone. "We are responsible for open-cast mining of the coal and the processing thereof, at two different plants. We also have another project where we reprocess the discard material on the mine."

The contractor also brings in coal from three other different sources for processing before it is transported to distributors and end users. The main contractor has appointed two subcontractors working on site. Plantco is responsible for the handling of discard material being processed from old coal dumps, as well as mining in the pit. While Submerged Industrial is also responsible for running the opencast mining project in the main pit, it is also a key distributor of the processed coal, and also owns several trucks that are used to haul coal in and out of the site.

From the pit, product is hauled by dumpers to the loading bay. From there, it is Balele Contractors' sole responsibility to handle the product through the different processes until it goes out. "Although we are responsible for all site processes, our own machines are only involved on the crushing and loading area, more on the materials handling side of things. There are two processing plants on site, one owned by Balele Contractors and the other belongs to a subcontractor. This is complemented by a Powerscreen 1700 triple deck screen working at the dumps."

#### **Production figures**

The nine LiuGong loaders are responsible for all materials handling duties on site. Between the nine of them, they pick and dump the 6 000 to 8 000 t of product that is processed daily on site. Each loader's production figures are carefully planned, handling 2 000 t of material per hour, whether feeding plants or stockpiling.

Stockpiles on site are colossal, and it takes one loader at least four hours to clear a single heap of material. Distances between stockpiles and the processing plants are kept at a maximum of 70 m to reduce loader cycle times. When it comes to loading trucks, a single loader takes about three minutes to load a superlink truck, achieving 8-9 scoops depending on bucket size. As a special requirement, Balele Contractors' buckets are specified at 5 m³ sizes, rather than the standard 3 m³.

#### Fleet in detail

Of Balele Contractors' 25 LiuGong loaders, 16 are fully operational, while the other nine have been sent into semi-retirement, but are often called as backup machines when need arises. The retired machines are still in a perfect working condition, but the contractor has a stringent fleet replacement programme that sees machines being replenished at certain intervals. In the past, initial older models were pushed to about 10 000 to 12 000 hours before they could be replenished.

But, since the arrival of the newer CLG856 and CLG856H models, which have seen radical feature improvement in terms of both durability and efficiency, the new models are loading well into 20 000 hours, and counting. "This has been facilitated by the improved design on the new models. We are actually getting double the amount



Distances between stockpiles and the processing plants are kept at a maximum of 70 m to reduce loader cycle times.



The nine LiuGong loaders are responsible for all materials handling duties on site.

of hours than we used to get five years ago on the older models," says Johnstone.

However, Johnstone cautions that every good machine is as good as its service. A stringent service regime keeps these machines in greater working shape, always available when duty calls. But, a strict maintenance regime is only achievable when parts availability and dealer support are non-issues. This is where local dealer, Burgers Equipment & Spares has excelled, even going the extra mile to meet Balele Contractors' extensive support needs.

"Burgers is very much on top of its game. We have never had issues regarding spares availability for the eight years we have dealt with them," says Johnstone. "They actually go out of their way to meet our service needs. For example, one of the ladies who works at Burgers stays near the Witbank area and on numerous occasions when we have to place an urgent part order, we can order in the afternoon and by close of business we have our part delivered."

Burgers is responsible for all service and warranty issues for the first 2 000 hours. After that, Balele Contractors' in-house maintenance team keeps the fleet running. Strict service intervals are maintained at every 250 hours, while a major service is done every 1 000 hours. Routine daily checks ensure that there are no alarms that might trigger bigger mechanical issues.

#### **Keeping faith**

When Capital Equipment News visited the site, two new LiuGong CLG856H loaders were due for delivery from Burgers, while four more units were due to arrive in in the country in April. Continued investment into LiuGong loaders is paying off big time for the contractor. "The two main reasons for sticking to this range of equipment is reliability and service, not just service from the machines, but from the local distributor as well," says Johnstone. "The aftersales service we receive from Burgers is impeccable, we can't ask for anything more."

One of the key factors when making buying decisions as far as mining equipment is concerned is fuel efficiency, and the LiuGong machines are not disappointing in this respect. The LiuGong CLG856 models are said to range between 14-16  $\ell$  per hour, while the newer CLG856H models are consuming between nine and 12  $\ell$  per hour. According to Johnstone, these consumption figures are about two-thirds of the comparable offerings from some premium brands.

Gone are the days when equipment designs were based on a one-size-fits-all approach. Today's equipment designs are based on customisation, understanding what each customer's operational needs are. This is what exactly LiuGong and Burgers have done for Balele Contractors. LiuGong engineers have paid frequent visits to Balele's sites over the years, and Johnstone says the contractor's feedback in terms of machine designs has since been incorporated into the newer models. "Even when we buy machines, they already know our own specifications in terms of tyre and bucket sizes. Our machines are delivered exactly according to our specifications," says Johnstone, who concludes that, before anyone discards Chinese equipment, they should do their own homework in terms of both the quality of gear and local service support. •

# A new venture. A new vision for materials handling and agriculture



On 1 March 2017, Barloworld and German trading group BayWa AG joined forces in southern Africa to create a whole new value proposition in materials handling and agriculture. On the materials handling side, BHBW builds on Barloworld's track record as a leading supplier of equipment and solutions to the market to grow its footprint and services. In agriculture, BHBW combines Barloworld's expertise and BayWa's capabilities as one of the leading agricultural traders worldwide, the world's largest distributor of AGCO products and a leader in Digital Farming in Germany, to help farmers take food production to the next level.

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# BEATING SPACE CONSTRAINTS

A new Kubota 8 t compact excavator from local supplier Smith

Power Equipment is available for South African contractors looking
to keep a lid on operational costs and get the better of spaceconstrained working environments, writes *Munesu Shoko*.

mith Power Equipment (SPE), the authorised distributor of the Kubota range of compact excavators in South Africa, has expanded its mini excavator range available for the local market with the launch of the new 8 t KX080-3 Super Series. The new model joins two smaller models — the 3 t U30 and the 5 t U50 — which made their debut locally back in 2014.

The new KX080-3 comes at a time when the general sentiment across the local construction industry is that the compact excavator is the next big thing. While the market is still small in South Africa, predicted by Tom Bloom, SPE's general manager for Construction Equipment, to be around 160 units per year, the compact excavator is fast growing as a tool of preference on South African sites. Bloom predicts this market to increase year-on-year by 20% moving forward.

The first big driver of compact gear is urbanisation. As towns continue to grow, space is at a premium at many construction sites, hence the need for a smaller machine that can get the better of space constraints. The second driver is the change in application. Away from mining and infrastructure where you need bigsized excavators, there are more jobs in

applications such as landscaping, sewage, trenching and cabling. These applications are continuously growing and compact equipment becomes a big need. While South Africa has gone down the compact route further than most of its African peers, Bloom is of the view that is still lags behind the rest of the major users of compact excavators globally.

However, he is upbeat about the prospects of growth for the smaller tool, and through education, he believes that local contractors are slowly, but surely grasping the potential benefits of the compact excavator. "Unfortunately, the 'bigger is always better' mentality still rules in South Africa. But, in challenging economic conditions, cost saving is very important. A compact excavator's major benefits over most conventional solutions include fuel economy, lower capital outlay, ease of transportation compared with bigger options, as well as versatility," reasons Bloom. "We also see a lot of urban construction going on locally, and often in confined working environments, and this is where the compact excavator excels."

#### **Key features**

A key feature of the KX080-3S is its

compact size that allows it to work in very tight spaces, but offering high power performance to execute a range of jobs that normally call for larger conventional machines. The machine comes with Kubota's pioneering 360 mm tight tail swing, and thanks to the contoured, tight tail design, the KX080-3S is said to be more stable and can work in areas where space is at a premium than conventional

"With its compact size, the machine can still achieve a high level of industrial performance on space-constrained construction sites, making it a unique proposition for local contractors seeking substantial power on space-restrained urban sites," says Bloom.

tail swing excavators.

Its compact size also makes it easier to transport between sites. With its 2 200 mm





width, the Kubota KX080-3S is said to be a lot narrower than competitive machines in the same size class.

Idling time is one of the biggest wastes of fuel when it comes to construction equipment. Operators rev machines when they shouldn't and let them idle when they could be shut off. With Kubota's Auto Idling System, this is now a nonissue. When control levers are in neutral for more than four seconds, the engine automatically switches to idling mode. When the operator moves any control lever, engine rpm automatically returns. While this feature translates into reduced noise and emissions, especially in sensitive urban sites, a fuel saving of up to 10% is achievable, according to Bloom.

Versatility is another key benefit of this machine. While a range of attachments

that can be fitted on this machine is very wide, it also comes with a high-capacity dozer blade, which removes the need for separate machines for a range of applications such as site preparation, digging and finish work.

With uptime in mind, the KX080-3S comes with a standard electric refuelling pump that includes a hose long enough to refuel from a fuel tank. Add to that is the fact that this feature can fill the machine's tank in about three minutes at the push of a button. When the tank fills to capacity, an auto-stop feature ends fuelling to eliminate any potential wastage through spillage.

The machine also comes with a third-line hydraulic return function. "When working with one-way hydraulic attachments, such as a breaker or brush cutter, the standard third-line hydraulic system allows oil to

flow directly back to the tank without running through the control valves. This translates into reduced oil contamination, less back pressure and increased oil flow efficiency," says Bloom.

With serviceability in mind, the KX080-3S's triple opening bonnet with access panels that can open at once, allows for easy inspection and viewing of all the crucial service components, ranging from hydraulic components, oil filter to battery, under the same hood.

#### Competitive edge

A key competitive edge for SPE with its range of compact excavators is the fact that Kubota is the sole manufacturer of the whole machine, including all key components such as the engine and hydraulics. This is considering that most

Versatility is a key benefit of this machine, as it can be fitted with a wide range of attachments.



The KX080-3S joins the Kubota U30 and U50 models launched locally in 2014.



of the competition's machines are actually powered by Kubota engines. "The fact that the machine is completely manufactured by Kubota allows us to be a one-stop shop for all the parts and service of the machine," reasons Bloom.

For Bloom, another key competitive edge is that the local Kubota distributor is equipped with a product that has maintained a market leading position globally for the past 15 years. Bear in mind that Kubota has 30% market share in Japan, 25% in Europe and 25% in a global compact excavator market that reached 120 000 units back in 2014 and is predicted to reach 200 000 units this year.

With its footprint of about 80 subdealers countrywide, as well as dealers in Namibia, Botswana and Zimbabwe, SPE is well represented in all the major economic hubs of South Africa and neighbouring countries. To date, it has close to a 100 Kubota compact excavators already operating in the field. Bloom highlights that the company has seen increased growth since launching the first units in the local market in 2014. The supplier managed to double its sales in 2015, and even achieved significant sales growth in 2016 despite the challenging economic conditions on the back of a droughthit agricultural sector, a construction

industry that didn't see the best of times and a mining sector in dire straits due to lower commodity prices.

"Our growth is driven by the fact that we are specialised. We differentiate ourselves from the rest of the competition in the sense that we are purely focused on the mini excavator," says Bloom. "Our aftersales service to our customers, backed by a wide dealer network, is another key success factor."

#### Ridding competition

Speaking of potential growth, Bloom argues that while the compact excavator's abilities have previously been undermined in the local market, it is gaining its ground. He believes that mid-sized units such as the 8-tonne are taking trenching work away from the tried-and-tested TLB, and believes that it is a matter of time before the compact excavator becomes the prime tool of choice, considering the comparative production speeds and the overall value proposition.

"The TLB has been around for a long time, but it is a market in decline globally, while the mini excavator is gaining traction. The compact excavator is a lot quicker in different applications than the TLB. Running costs are also lower on the mini excavator compared with the TLB, especially with less wear items on the

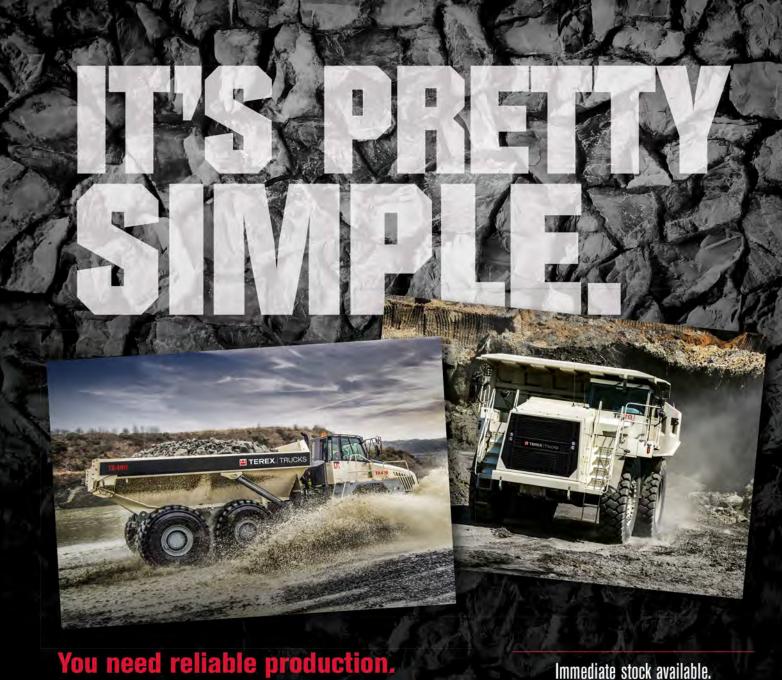


Tom Bloom, SPE's general manager for Construction Equipment, predicts the South African compact excavator market to be around 160 units per year.

compact excavator," argues Bloom. He also reasons that the mini excavator can be attached with a wide range of attachments than the TLB, while the dig out forces on mini excavators is often greater, translating into increased productivity.

In terms of uptake, leading sectors are pretty evenly divided between the construction and agriculture industries. Applications are probably in thirds, split between maintenance, site work and a very consistent call for demolition.

"We see the 8 t excavator benefitting certain agricultural applications where smaller machines are a little bit light. It is also a great tool for the forestry industry because of the attachments that can be fitted to the machine. It will also be ideal for mining, especially where a hydraulic hammer can break material into smaller sizes before crushing," says Bloom. With its compact size, it will also be a benefit in demolition applications, especially inside buildings.



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# BRIDGING THE GAP

he discontinuation of UD
Trucks' Condor in South
Africa in 2015, after having
served the local market with
ultimate dependability for
many years, left a product
gap in the heavy commercial vehicle (HCV)
segment for both UD loyalists and UD
Trucks Southern Africa. The product void
in the HCV segment, which Rory Schulz,
marketing director of UD Trucks Southern
Africa, terms the "bread and butter" of the
industry, also negatively impacted on UD
Trucks Southern Africa's total unit sales in
2016.

Despite a -10,1% decline in 2016, the HCV segment still contributed the most sales with a total of 12 853 sold in South

UD Trucks' Croner, an all-new heavy commercial vehicle, has rolled off the production line to bridge the product gap created by the discontinuation of the Condor. *Munesu Shoko* attended the global launch in Thailand and filed this report.

Africa. UD's current offering in this market segment will be phased out in June this year, ahead of the local official launch of the Croner. Armed with a new product, UD Trucks Southern Africa expects to significantly increase its traction in the HCV category this year. The company sold a total of 1 118 HCV units last year, representing an 8,9% share of this market segment.

Earlier this year, Gert Swanepoel, newly-appointed MD of UD Trucks Southern Africa,

was upbeat about 2017, especially on the product front, with several new launches expected to arrive to close product gaps in some of the lucrative market segments such as the HCV.

The wait is nearly over. Having been unveiled globally at a glamorous international launch event in Thailand in March this year, the new UD Croner — named after God of time in Greek mythology — is expected to hit the South African shores



UD Trucks' executives (from left to right): Nobuhiko Kishi, Jacques Michel and Kamlarp Sirikittiwatn, during the official launch of the Croner.

in June this year. Production has already started in Thailand. As strong endurance is a key attribute of UD Trucks' offering, testing is particularly important. The Croner has already been exposed to durability testing conducted for an equivalent of 3 million km across different terrains in the world. A further 1,4 million km of field tests in actual customer operations was carried out across six countries and three continents over an 18-month period.

Croner is an all-new heavy duty truck which Nobuhiko Kishi, senior vice president, UD Brand and Product, UD Trucks Japan, says is a continuation of the company's rich Japanese legacy of building the "truck that the world needs today". It will specifically load into growth markets across Asia, Africa, Middle East and South America,

according to Jacques Michel, senior vice president of Group Trucks Asia.

"The emerging markets are key growth areas where UD Trucks intends to capture more growth. After launching the Quester for developing markets in 2015, we have now rolled the Croner off the production line to capture more market share in the heavy duty truck market, which is a very important segment of the truck market globally," says Michel. "We are excited about the launch of the Croner, which definitely comes with more standard features and benefits than its predecessor."

#### Truck in detail

With versatility in mind, the UD Croner comes in three gross vehicle weight (GVW) models — MKE, LKE and PKE — and their

three wheelbase variants can offer up to 21 different basic configurations to suit specific needs of various industries.

The Croner can be adapted for any heavy duty role with an array of wheelbase selections to deliver greater productivity. There are six basic wheelbase choices ranging from 3 450 mm to 5 500 mm available for 11 t, 12 t, 14 t, 15 t or 17 t GVW variants. Longer wheel base choices of 6 000 and 6 500 mm are also available for 15 t and 17 t GVW variants.

The MKE, with GVW ranging from 10,4 to 11 t, is a compact sized heavy duty truck optimised for urban usage, with better manoeuvrability in narrow roads and ideal for inner-city deliveries, according to Per Hanson, driver development manager at UD Trucks. It is powered by a GH5E



Croner comes in three GVW models – MKE, LKE and PKE – and their three wheelbase variants can offer up to 21 different basic configurations to suit specific needs of various industries, including construction



The LKE's gross vehicle weight ranges between 12 and 14 t.

engine which comes in two options of 180 hp/360 kW (Euro 3) and 210 hp/157 kW (Euro 3 & Euro 4). Customers can choose between a manual 6-speed and automatic 6-speed transmission.

The LKE — with GVW ranging between 12 and 14 t — is a multi-purpose model for in-city and city-to-city distribution. It is powered by the same engine as the MKE and comes with the same transmission options.

The PKE has a GVW range of 15-17 t to cater for heavy-duty applications such as construction. The powerful 6-cylinder GH8E engine complements the truck's long haul and heavier load capabilities. It comes in two options of 250 hp/186 kW (Euro 3 & Euro 4) and 280 hp/209 kW (Euro 3 & Euro 4), complemented by three transmission options of manual 6-speed, manual 9-speed and automatic 6-speed.

Kishi is of the view that automatic transmission is a game changer for the truck industry in the Asian and African regions as it helps lower cost and downtime, bearing in mind that the traditional manual transmission is more susceptible to wear-and-tear, especially to its clutch in the long run. "Croner's automatic transmission option can be crucial for markets such as South Africa where there is an acute driver

shortage due to strenuous demands placed on drivers, especially in long haul driving," says Kishi. "Croner can help customers attract drivers as this option provides ease of drive and reduces fatigue for both experienced and inexperienced drivers."

#### **Fuel saver**

The new Croner is said to raise the bar high when it comes to fuel efficiency, and is up to 5% more fuel efficient than its predecessor, the Condor. Key to improved fuel efficiency is the new GH E engine series with common rail fuel injection technology. The regulation of fuel quantity and injection timing are electronically controlled via the Engine Control module.

With a maximum torque range of up to 1 050 Nm, the engines offer high torque over a wide speed range, translating into a broad economy band. The GH E engines are also able to operate efficiently without excessive revving outside the economy band, generating sufficient pulling power with less fuel consumption, which also translates into less component wear.

"A new aerodynamic cab design for all the Croner models, together with an optional air deflector for the PKE model, reduce coefficient of drag (CD) by 5% and improve fuel efficiency at highway speeds," says Chris Yap, product manager, Vehicle Sales & Marketing at UD Trucks Japan. In the interior, the vehicle allows for a variety of fuel efficiency control features. The cruise control, for example, reduces driver workload on longer journeys and helps reduce fuel consumption by maintaining a constant speed.

All Croner models also come equipped with an on-board fuel coach. "It's clearly displayed at the centre of the instrument cluster to guide drivers to use optimal revs or reduce unnecessary acceleration in real time," says Shigeni Doi, product management and development at UD Trucks Japan.

Like the Quester, the Croner also comes with UD Telematics Services as standard. Customers can make use of this service to obtain fuel reports, which can encourage better driving behaviour and protection of fuel assets. "Fuel Utilisation Reports help customers understand how the truck and driver are performing, while Fuel Advisory Service helps customers improve driver behaviour and fuel loss alerts to prevent theft or misuse," says Doi. In the event that UD Telematics are unavailable, a cableconnected follow-up tool serves as backup to provide analysis and optimisation of driver and vehicle performance. •



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# DOLDRUMS

Last year the South African commercial vehicle market was in the doldrums, recording the lowest total sales in five years. The light commercial vehicle segment was the hardest hit, losing almost a fifth of its value compared with 2015. While OEMs expect some kind of a growth this year, the general sentiment is that the market is not out of the woods yet, writes *Munesu Shoko*.

he South African commercial vehicle market ended 2016 on 28 144 units, the lowest total in five years. This was a-11% decline on 2015 and a second successive year of negative growth. "This was the lowest local sales total for commercial vehicles in five years. The decline can be attributed to a slow economy, a lack of business confidence and struggling commodity prices," says Rory Schulz, marketing director, UD Trucks Southern Africa.

Domestic sales were down -11,3% and exports were 1,9% in the red. Only the BUS segment registered growth at 8,2%, with the light commercial vehicle (LCV) segment preforming worst with a -18% decline.

Hino topped the LCV market with 2 231 out of the 8 645 total unit sales recorded during the year, representing a 25,8% share of the market. While Isuzu sold the most units during the December period with a total of 245 units, the Japanese OEM finished behind Hino overall with a total of 2 131 units for the year, representing a 24.7% share of the LCV market.

Daimler Trucks & Buses Southern Africa was the next big seller in the LCV segment with its Mercedes-Benz range recording a total of 1 164 units for the year, just ahead of its FUSO range which sold a total of 873 units. Between its two brands — Mercedes-Benz and FUSO — Daimler Trucks & Buses Southern Africa had a strong 23,6% share of the market.

"We found that the LCV segment was hit harder in the first half of 2016, thereafter it gradually increased until November when it started going down again as the festive season was approaching." It was a difficult year for other OEMs such as Hyundai Automotive SA and JMC, who recorded a total of 204 and 108 units, respectively.

"We found that the LCV segment was hit harder in the first half of 2016, thereafter it gradually increased until November when it started going down again as the festive season was approaching," says Nicolene Breitenbach, national marketing manager at Jiangling Motors South Africa (JMC).

According to Wade Griffin, director for commercial vehicles at Hyundai Automotive SA, the segment was hit the hardest last year as a large portion of vehicles in this segment are sold to small and medium enterprises (SMEs). "This group of customers was hit very hard by the slow economy, thus postponing any thoughts of growing their fleets or even replacing them," says Griffin. He adds that these vehicles are paid for in foreign currency, and with the South African Rand being so volatile last year, it was



Market Share - Light Duty

MAKE		2016 Dec			2016		
	UNITS	MS %	POS	UNITS	MS %	POS	
HINO	148	20.8%	2	2231	25.8%	1	
ISUZU	245	34.4%	1	2131	24.7%	2	
MERCEDES	85	11.9%	3	1164	13.5%	3	
FUS0	63	8.8%	5	873	10.1%	4	
VOLKSWAGEN	77	10.8%	4	797	9.2%	5	
IVECO	54	7.6%	6	600	6.9%	6	
TATA	11	1.5%	7	306	3.5%	7	
HYUNDAI	8	1.1%	9	204	2.4%	8	
FORD	11	1.5%	7	123	1.4%	9	
JMC	5	0.7%	10	108	1.2%	10	
PEUGEOT	5	0.7%	10	77	0.9%	11	
FIAT	1	0.1%	12	28	0.3%	12	
CITROEN		0.0%	13	3	0.0%	13	
UD TRUCKS	0	0.0%	13	0	0.0%	14	

difficult for manufacturers to even price the vehicles correctly. The depreciating Rand also translated into higher prices for SMEs who were already in dire straits due to tough economic conditions.

#### 2017 outlook

The South African market is expected to remain flat in 2017, achieving a minimal growth of 3% at most, to around 28 998 unit sales. With fixed investment expected to grow to around 2,2%, up from -2,5% in 2016, Schulz believes this is a good indicator that companies will invest in new capital assets such as trucks.

Schulz also believes the projected 1,5% GDP growth in 2017, up from 0,4% in 2016,

will further improve growth prospects for the local truck industry. This will be further buoyed by seemingly improving growth prospects premised on easing drought conditions in South Africa. "We also see an improvement in commodity prices and this will definitely help push up truck sales this year," says Schulz.

However, he reasons that ongoing political tensions, the incessant risk of further credit rating downgrades and an increase in taxes, which will definitely erode spending power for fleet owners, will likely have a negative impact on the performance of the South African commercial vehicle market this year.

Griffin is of the view that the market will

- 8 645 TOTAL
   UNIT SALES
- -18% DECLINE VERSUS 2015

remain flat this year, with slight growth if there is stability in the exchange rate of the Rand versus the major currencies. "It is my opinion that it will still be a challenging year. We see the market as being flat, with no major increase," says Griffin.

However, he adds that there is some general positivity that the market will slightly rebound this year. Hyundai Automotive SA, armed with a number of key service initiatives — such as the 1 year / 60 000 km service plan; 3 year / unlimited mileage warranty; and 3 year / 200 000 km roadside assistance — expects to significantly improve its sales volumes this year. This will be further buoyed by what Griffin refers to as "exciting future prospects on our doorstep", in terms of new product offerings.

#### Slow start

Breitenbach notes that 2017 has started somewhat slowly. "We think it could be due to the lack of confidence in economic growth among our customers," she says. However, she is also of the view that there will be a slight to moderate increase in LCV sales throughout the year, and she hopes for a steady upswing after September.

JMC's LCV range starts from bakkies to 3 t commercial trucks, with variants of van bodies, dropsides and tippers. The JMC Carrying SWB Lux — said to be the only truck in its class offering 1,6 t payload — is the company's jewel in the crown in the LCV range. "For a limited time, we are including a R5 000 fuel voucher with the purchase of every model," says Breitenbach.

Ideal for builders, general construction contractors, plumbers, gas suppliers and painting contractors, the JMC range comes with a 5 year / 120 000 km standard warranty. "We have recently upgraded our warranty on the complete Carrying range to include free top up warranty. This, supported by a 3 year / 90 000 km service plan and 24 hour Roadside Assist, is surely a winning combination," concludes Breitenbach.



That Africa is a big used equipment marketplace is irrefutable, but what is worrying is that it doesn't have the greatest of reputations, and is often referred to as the 'graveyard of used equipment'. Despite the economic advantages of buying used, some fear the money-saving option's risks may far outweigh the rewards. But, with a little extra effort on a buyer's part, the most common used-equipment buying pitfalls can be avoided, writes *Munesu Shoko*.

quipment can be one of the largest investments mining and construction companies make on their operations. With today's tighter budgets, mostly companies with little or no capital outlay resort to used gear for their heavy equipment needs. On the back of challenging economic conditions in many African countries at this stage, many resort to used equipment as the immediate cost effective option. In South Africa, for example, the growing population of smaller construction contractors also translates into a big uptake of used equipment for a simple reason that these upcoming contractors lack the financial muscle to invest in new gear to service their few and far between contracts.

While buying used equipment has its fair share of advantages, Africa's used heavy machinery hasn't always had a great reputation at large. Franco Invernizzi, senior director for Africa and Middle East at CASE Construction Equipment, says Africa is one of the markets with the biggest number of used machines globally. "When I say used I don't mean five to seven-year old machines. In Africa you can get a 20-year old excavator or even a 25-year old grader still working on site," says Invernizzi.

This view is shared by Colin McOwen, owner and director of CTC Plant Company, a leading South African earthmoving plant supplier which specialises in used gear, who says the hours of machines are a lot

higher than they used to be, which means that companies are extending the life of the machines.

Paul Williamson, sales director Africa at Iron Planet, a leading global online auctioneer of used equipment, is also of the view that, while the outlook of the African used equipment market is looking up, the continent's used heavy machinery hasn't always had a good reputation, widely renowned as being a "graveyard of used equipment". He says that African countries are often the last stop of machines beyond their cost effective lifecycles. "They would fail to be sold on because they were often in a poorly maintained condition," says Williamson.



#### State of market

That the African used equipment market is thriving is very apparent. Williamson says the demand for used heavy equipment in Africa has grown exponentially in recent years, and this is a demand which both second-hand dealers and global online auction companies have eagerly tapped into.

McOwen says there is a definite fair demand for good used machinery in the local industry. CTC Plant Company deals primarily in South Africa, but with about 25% of its business coming from markets beyond South African borders.

UAE-based Arabian Jerusalem Equipment Trading Company, a prominent dealer of used equipment, also reports that it has seen increased demand for its used excavators and backhoe loaders from African countries. "We have registered a 30% increase in net sales to the African continent," says Ehab Murad, MD of Arabian Jerusalem Equipment Trading Company.

While there is a fair share of reputable used equipment dealers in the local market, with CTC Plant Company, Dura Equipment Sales and BLC Plant, to mention a few, among the names that come to mind, online auction platforms are also changing the face of the local

used equipment market. "The outlook of the used heavy equipment market is looking up, thanks to the introduction of online auction platforms into the market," says Williamson. "African buyers would traditionally have travelled to purchase used equipment from locations such as Europe, Dubai and the Far East. Now, with online platforms such as IronPlanet and their detailed inspections, African buyers can buy with confidence, without needing to travel."

Dubai-based World Wide Auctioneers is another global auctioneer of used equipment riding the boom wave and is bagging orders from several African countries, recording as much as 20% increase in sales to Africa. "Many construction companies working in Africa have really opened the markets on the continent to us," says Keith Lupton, sales manager at World Wide Auctioneers, adding that the company is receiving a steady stream of orders from countries such as Zambia, Uganda, Tanzania and Kenya.

#### **Key benefits**

Buying used gear, especially for start-up companies, has its own benefits. "Initial purchase cost is a lot lower than that of new gear, but it must be coming from

a reputable dealer. This increases the earning capacity for the company," says McOwen.

McOwen says used equipment can also be beneficial in the sense that new equipment may not always be readily available in the local market and companies wishing to buy machinery, especially as a matter of urgency to fulfil urgent contract obligations, may be quoted long lead times.

"On the other hand, used equipment is available immediately and in variety to make a wise selection. Additionally, a knowledgeable and skilful dealer can often help locate equipment that is in close proximity to the user's site, helping sidestepping potential shipping costs," says McOwen.

#### **Avoiding pitfalls**

Despite the massive choice of used heavy equipment for sale, and the economic advantages of buying used, some business owners shy away from the so-called money-saving option. They fear the risk may outweigh the reward. But with a little extra effort on a buyer's part, the most common used equipment buying pitfalls can be avoided. How can users



of equipment take the risk out of buying used? If you are buying used equipment, what should you be looking for before purchasing a used machine? Do you know what signs may indicate you proceed with caution or what might be a red flag for the purchase?

Williamson says for the heavy used equipment market to truly flourish in emerging African countries, the buyer and seller relationship must be fine-tuned. which can be offered via global online auction platforms. "Each machine that is listed on IronPlanet is registered alongside a bank of images and videos, as well as detailed inspection reports which provide exact descriptions of the machine," says Williamson. "This way, both buyers and sellers have complete transparency of the transaction, increasing trust in their purchase. This is incredibly important for African countries where the level of trust is low and corruption is rife."

According to McOwen, the most important thing is securing the much needed backup from the supplier of used equipment, and also the fact that the history of the machine is securely backed up. In terms of what signs may indicate you proceed with the purchase or what might be a red flag for the purchase. McOwen says the unavailability of service history for the machine could indicate that the machine has been abused before. "Test and inspect the piece of equipment before you make up your mind to buy. You can employ the services of a qualified mechanic or experienced operator to conduct both physical and functional inspection on your behalf," says McOwen, who also advises buyers to be very wary of buying equipment online and argues that risks far outweigh upfront capital savings.

Suppliers of used gear also caution that the hours logged on a piece of machinery are not always a reliable indicator of the health



of the engine. Be sure to pay extra attention to several other details to help make a final decision and protect your equipment investment. For example, according to IronPlanet, potential buyers can look for leaks and damage when inspecting used machinery, but even if a piece of equipment looks good on the outside, it's harder to tell the condition under the hood.

That's where an oil analysis can be a valuable tool for the buyer. It is like a blood test for a machine's engine, transmission and hydraulic systems. The cost of an oil analysis kit is very minimal considering the valuable insights it can provide on a machine that likely costs millions of Rands.

#### Used vs refurbished

There is also a choice of either used or refurbished equipment. There is a very thin, but clear divide between refurbished and used equipment, meaning that they are not one and the same thing. Though both terms insinuate previous ownership, refurbished equipment, when done under OEM standards, complies with quality standards, often with the same warranty options as new gear. Though refurbished equipment is often backed by standards, different vendors use different processes, parts, levels of exactitude and quality-acceptance levels to refurbish the equipment they sell.

It is often the norm that when times are this tough, price is the prime determinant of what we buy, but when the equipment you are buying is business-critical, quality and authenticity should be your most important considerations. When buying refurbished equipment, it is of utmost significance to ascertain that the refurbished piece of equipment has a warranty and maintenance programme. This way, should it fail, it will be under the same level of protection as new equipment, says Lupton.

The growing preference of purely used equipment with no form of refurbishment is also notable, and it is the African fleet operators particularly notorious of preferring this gear. Often used equipment is just bought with no available previous maintenance records or knowledge of previous concerns. "I believe when buying used equipment, it is noteworthy to look beyond the price tag. Nothing can be worse than buying a piece of equipment at a 'bargain' price only to have it fail shortly after it is deployed at a crucial jobsite where any form of downtime is out of question, especially considering that project timelines of today are unforgiving," says McOwen. "If you make a mistake on a small appliance, you will have a few regrets and move on. That same mistake on a big piece of construction equipment has far reaching implications that will cost you for the long haul." 😂

# KEEPING AN OPEN MIND ON COMPACT LOADING CHOICES

Choosing between a compact wheel loader and a skid steer, whether for outright purchasing or renting, calls for an open mind. For African equipment users, the choice principally has always been driven by a mindset that says "this is what we use here", and traditionally this has favoured the skid steer. But, what does a compact wheel loader have to offer? *Munesu Shoko* plods through the fundamentals.



hen it comes to compact loading, the skid steer has always been the preferred solution, not only in Africa, but on a global scale. Available statistics show that the world demand for skid steers reached about 60 500 units in 2011, compared with 19 500 for compact wheel loaders during the same period. These figures show that the skid steer, at the time, was preferred on a 3:1 ratio over the compact wheel loader.

While the skid steer is traditionally the most treasured compact loader, the compact wheel loader is challenging the status quo. Caterpillar is one of the OEMs offering a world class product line-up in both these product families, giving operators an unmatched range and choice to suit their individual needs.

According to Jas Kundra, wheel loader product & application specialist at Caterpillar, compact wheel loaders are fast becoming a popular choice for some skid steer applications. "Given the fact that compact wheel loaders now come with a skid steer coupler, high flow options and attachment controls, don't be surprised if you continue to see operators migrating across to an articulated loader as their machine of choice in order to get the job done."

Gehl is another OEM with a strong lineup of both skid steer loaders and compact wheel loaders. According to Gavin Leask, Gehl Product Manager at Manitou Southern Africa, the sentiment that compact wheel loaders are becoming more relevant in certain sectors such as landscaping has become more apparent since the company introduced its bigger AL750 articulated loader range in



the last quarter of 2016 in southern Africa. The arrival of the AL750 has increased Gehl's articulated range to four models available for the southern African market.

"We have noticed that there was a gap in our product range that we can now close with a more productive, versatile unit, as opposed to only having skid or track steer units. Obviously both units have their market, and there will always be a place for each within the industry, but the gap is certainly getting smaller in this department," says Leask.

#### **Application first**

Choosing between a skid steer loader and a compact wheel loader means prudently trudging through the details. If you are a steadfast skid-steer user, or a firm believer in the abilities of the compact wheel loader, who wants to approach an equipment purchase or rental thoughtfully, how do you even begin to evaluate the relative competencies of the two machine types?

"The choice shouldn't always be biased on what is favoured most, but what works better, easier and quicker in a particular application, offering cost effective and timely execution of the job at hand," says Lofty van Wyk, director of MultiOne South Africa, the exclusive southern African dealer for Italian articulated compact wheel loader maker, MultiOne.

According to Kundra, "task, tool and machine" are the three words that help define which machine is best suited for a given application. "When it comes to choosing between a compact wheel loader and a skid steer loader, one must simply ask 'what will I be doing with the machine and what am I

likely to be doing in the near future?', ultimately trying to clearly understand the task or application in its entirety." says Kundra.

"At this point variables such as doorway height and width restrictions, ground conditions, distances to cover and other obstacles need to be considered. If all you are doing is loading loose aggregate, for example, from a pile into a truck in an open space, then either machine will suffice. However, the moment the material is located in a narrow or tight space then you would favour a skid steer loader which has the unique characteristic of being able to turn on the spot. On the other hand, the moment you need to cover significant distance, reach further, or manage a larger payload, then a compact wheel loader will prove to be more productive," explains Kundra.

Van Wyk is of the view that the overlapping applications for the two solutions are very limited. Each solution is best suited to a different set of applications. "The compact loader comes in its own territory, not necessarily stepping on the toes of the skid steer," says Van Wyk.

He reasons that for construction loading, a skid steer loader will always thrive, but in all other special applications where "nimbleness" on the terrain is a premium factor, the compact wheel loader will prevail. Van Wyk agrees with Kundra that a skid steer boasts so much better penetration in loading and accessing tight spaces. "In rough terrain, where there is no need for nimbleness, the skid steer is king," he says.

But, the compact loader is a better choice in digging applications, and Van Wyk reasons that it is one of the reasons why sippliers have seen increased uptake in the local agricultural sector. He says in agriculture there is definitely a departure from skid steers because the articulated loader's telescopic boom offers better reach in materials handling. "There has been a significant shift towards compact loaders in materials and grain handling in farming, and it's opening up a segment of the market traditionally reserved for telehandlers and skid steers."

#### **Making choices**

Leask is also of the opinion that there will be a transition in the agricultural industry from the skid steer to the articulated loader, purely based on productivity and cost saving. "The wheel loader is going to outperform a skid steer in day-to-day operations on a farm and it will be more cost effective to run. Waste management is also a big industry that might see a move from the skid steer to the highly productive articulated loader. The construction industry will always have a need for both and so is mining," reasons Leask.

Leask also believes that some buying decisions are purely based on preference. "You may find a farmer purchasing a skid steer over a wheel loader purely based on preference rather than the application itself. Alternatively, a construction site may have both wheel loaders and skid steers, each performing different functions. The 'better solution' is determined by the specific application and is offset by the relevant advantages and disadvantages," says Leask.

Kundra argues that if one intends to cover a large area of ground, travelling over un-





even terrain where larger bucket capacities are required, then a compact wheel loader would be the ideal choice. "It has a wider wheel base resulting in a more stable and less bumpy ride," says Kundra.

Justin Nicoll, MD of Force 8 CC, the local distributor of the Atlas Weyhausen range of articulated wheel loaders, says there is no clear check list that lets you tick off relevant factors and come to an irrevocable decision about which machine – skid steer or compact wheel loader – will work best in your operation. The choice, essentially, seems to be a matter of thinking through several considerations and then evaluate which solution is, overall, most advantageous.

According to Nicoll, there will always be a place for both machines, adding that skid steers are well suited for very confined circumstances on sites, but outside of this parameter, "there is no contest that a compact wheel loader is a significantly more productive option". "The compact wheel loader is less of a compromise on a variety of design features that on a skid steer are barely optimal by virtue of the machine's fundamental design mandate, which puts manoeuvrability as top priority," argues Nicoll.

#### **Key considerations**

Leask says pricing plays a key role in any decision-making process but it is not always the main criteria. "In terms of purchasing, generally there is about a 25% difference in price between the top of the range skid steer loader and the mid to low range wheel loader. Thus, in terms of price, the skid steer loader has a significant advantage."

In today's challenging economic environ-



MultiOne South Africa says the compact loader is a better choice in digging applications than the skid steer, and believes it is one of the reasons why there is increased uptake in the local agricultural sector.

ment, one of the key factors that determines the choice of one machine type over the other is cost of ownership. Comparing the compact wheel loader and the skid steer by horsepower, the skid steer, because of its mode of steering, significantly requires more horsepower, perhaps 30 or 40% more than a compact wheel loader of similar rated operating capacity.

Van Wyk adds that a compact wheel loader doesn't need such a high horsepower motor as that found on a comparable skid steer. "Smaller horsepower means reduced fuel consumption," he says, adding that an articulated wheel loader generally uses six times less fuel than a comparable skid steer.

"The articulation of the wheel loader doesn't require huge amounts of power for

steering. Skid steers need added horsepower to generate a greater volume of auxiliary-hydraulic flow than most comparably sized compact wheel loaders. A positive upshot of less horsepower is lower fuel consumption," says Van Wyk.

The reason for reduced fuel consumption is not only down to the engine size. Van Wyk adds that a compact loader is throttle driven, which means that the engine revs only when the throttle is used. In contrast, a skid steer loader is regularly used at full throttle or at high runs per minute, even if it has a foot throttle. Van Wyk says the engine revs required for a skid steer to move are higher as it needs maximum torque to pull its heavier weight. He adds that the articulated loader's generally smaller engine places

#### **COMPACT WHEEL LOADER**

#### SKID STEER LOADER





#### **COMPACT WHEEL LOADER ADVANTAGES**

- Longer length and wheel base mean greater lift capacity (more inherent counter weight)
- Taller overall machine height and shorter loader arms mean better all-around visibility (loader frame is in front of the articulation point of the machine, so the arms do not affect the side vision of the operator)
- Taller overall height and length mean the operator is further away from sources of noise – engine and hydraulics
- Powerful hydraulics support a growing assortment of attachments
- Operator further away from bucket and attachments means less dirt and noise in cab when running brooms, power rakes, snow blowers, hammers and other attachments.
- Much longer wheel base means weight transfer is less pronounced between empty and loaded machines
- Machine stability fore and aft does not change much on slopes whether wheel loader is loaded or empty
- Frame or axle articulation suspensions mean all four wheels tend to stay in contact with the ground at all times
- Axles with differentials allow tyres to move at different speeds to minimise tyre scrubbing and turf damage
- Taller wheels and axles mean better ground clearance in soft muddy conditions
- More intuitive operation for inexperienced operators (foot throttle/transmission, steering wheel, joystick loader control)

#### **SKID STEER LOADER ADVANTAGES**

- Compact size
- Superior maneuverability (can spin 360° in its own length)
- Lower price (30-40% cheaper than a compact wheel loader)
- Versatility: universal-type quick attach and many different attachments (now also available on compact wheel loaders)
- Good power-to-weight and power-to-size ratio
- Excellent cycle times in most applications

   quick back and forth movements thanks
   to responsive steering and machine
   maneuverability
- Excellent visibility to the front of the machine and to the bucket's cutting edge or the point of a hammer, auger or other tool
- Load remains directly in front of the machine so stability does not change as the machine turns
- Low overall height allows entry into typical home garage, inside most buildings, underground parking garages, inside many barns and storage sheds

less torque stress in the drive train, and the articulated steering significantly reduces operating stress.

Operating costs are more of a long-term concern to take into account, according to Leask, who reasons that the two main factors affecting these costs are fuel and tyres. "Skid steer loaders have a higher tyre wear compared to wheel loaders due to the skidding. Wheel loaders are generally lighter on fuel due to their smaller engines," says Leask.

Van Wyk admits that a skid steer has a greater turning circle than a compact wheel loader, making it a better solution in space-restricted jobsites. Nothing matches the skid steer when it comes to manoeuvrability, he says, adding that it can counter-rotate in its tracks and the low cab height allows it under structures with low clearances.

"But, wherever it turns, the footprint is detrimental to the terrain because of its skidding nature," says Van Wyk. That also implies something else in terms of total cost of ownership: excessive tyre wear. "For every set of MutiOne tyres used, you will generally go through eight sets of skid steer tyres. The tyre change intervals on a skid steer, especially when working in rough terrain, is about three months per set of tyres."

According to Leask, it has been proven that wheel loaders are faster than skid steers over distances as well as being able to do work in fewer load cycles. "Wheel loaders operate at a quicker pace than the skid steer. The ground clearance is also much greater on a wheel loader, allowing it to work in more rugged areas, even though the skid steer can turn 360° on the spot," says Leask.

"Skid steer loaders tear up the turf compared to articulated loaders with their articulation and less ground pressure which leaves almost no damage to the terrain," adds Leask.

"One point to make is the general operating costs. Compact wheel loaders, due to their articulation, will not wear tyres as quickly as a skid steer loader and tend to have lower fuel consumption," adds Kundra.

#### Compact wheel loader disadvantages

- Articulated turning takes far more room to maneuver than a skid steer (and frequently several back-and-forth motions)
- Further away from bucket and attachments so visibility is not as good to cutting edge, auger point and hammer point
- Loader frame must remain in front of articulation joint, so loader arms and shorter and lift height is less than skid steers
- Taller height means compact wheel loaders cannot get to some jobsites/areas where height is limited
- Articulation of load means side-to-side stability changes as machine articulates when turning (not true of compact wheel loaders with rigid frame and steerable axles)
- Higher purchase cost

#### Skid steer loader disadvantages

- Small size/short wheel base makes it less stable when handling heavy loads
- Lower stability also translates into lower lift capacity
- Lower height means less ground clearance
- Turning action tends to tear up soft ground and damage turf
- Compact size, full safety cage, loader arms along the side all tend to restrict visibility to sides and rear of the machine
- Compact size (length and height) means operator is very close to sources of noise – engine and hydraulics

#### Compact wheel loader gains

Kundra says the compact wheel loader is a relatively easy machine to operate; it has a brake and accelerator pedal as well as a steering wheel, common elements found in any car. "So, before the ignition key is switched on, a novice operator can achieve a modest level of confidence relatively quickly," says Kundra.

He adds that egress and ingress are also key factors in the popularity of compact wheel loaders. "Whether on a small work site on the side of a road, or on a larger residential/commercial project, an operator will frequently climb in and out of machines, and the Cat compact wheel loader with its two doors provides unmatched cab entry," says Kundra. "Unlike a skid steer, there is no need to climb up and over a work tool, simply climb in from either side of the cab and you are ready to go."

Site safety is becoming ever more prominent, and Kundra tells **Capital Equipment News** that Cat compact wheel loaders with fully glazed doors, low level glazing and sloped rear hood offer a great 360° field of visibility from within a cab that sits higher than a skid steer.

Van Wyk shares this view, saying one of the most important issues to consider when choosing between the two solutions is the visibility factor. "The skid steer has very low visibility because of the design of the machine. The operator is in a cage with zero visibility to the back of the machine. With the articulated wheel loader, the operator is literally on top of the machine with a clear view of both the front and the rear."

"The operator is higher above the work tool and enjoys a better forward visibility as well as behind. More importantly it can be argued that it is easier to catch the attention of an operator in a compact wheel loader when needed," says Kundra.

Leask is also of the view that the wheel loader has a big advantage of a 360° view around the cab from a higher sitting position. "The entry and access points on the sides of a loader are more accessible compared to a skid steer, where the operator is required to climb over the attachment."

Kundra adds that on the other hand, nothing beats a skid steer for attachment usage, especially if you are working in tight spaces. "The linkage and coupler positioning allows for a large number of attachments to be used clear free of any rack back or clearance issues. It has simply been designed as the ultimate tool carrier," adds Kundra. However, he argues that over the past few years there has been a significant improvement in hydraulic power for running hydro-mechanical attachments on compact wheel loaders, increasing the number of hydro-mechanical attachments it can operate.

Leask says both the skid steer and the wheel loader support a wide variety of attachments, compared to most other construction equipment. "The skid steer, however offers more application specific attachments as well as a wider variety," argues Leask.

#### More comparisons

Van Wyk says the compact loader's ease of transportability between jobsites, a common practice in the rental market, is an appealing feature for busy contractors. Nicoll adds that the compact wheel loader's longer wheelbase, steering-wheel equipped cab and generally higher travel speeds, can make it easier to drive over reasonable distances than a skid steer.

Kundra says the top ground speed of a compact wheel loader allows the machine to be 'roaded' from site to site making the need for additional transport redundant, but a skid steer relies on transportation to move it from its site, adding to the cost of ownership.

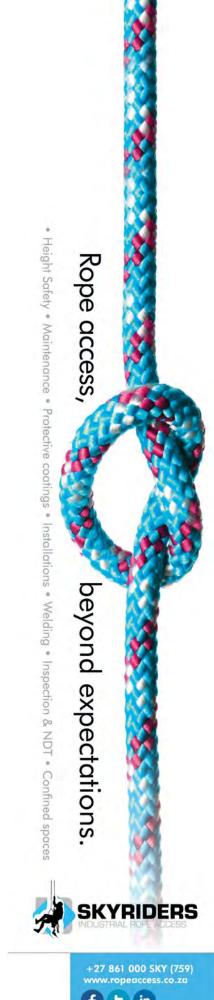
One of the key disadvantages of the compact wheel loader versus a comparable skid steer loader is its pushing force. According to Van Wyk, this is because a compact loader generally weighs a third of the weight of a same-sized skid steer. This gives a skid steer a lot better bucket penetration, especially when shovelling.

However, when it comes to loading, because of the boom extension, a compact loader can load higher and further than a skid steer. This is one of the downsides of the skid steer which JCB recently addressed with the launch of its Teleskid, the world's first skid steer and compact track loader with a telescopic boom, at CONEXPO CON/AGG 2017. The JCB Teleskid is a revolutionary new product that can reach 60% further forward than any other skid steer on the market and — in an industry first — it is the only skid steer in the world that can dig below its chassis to a depth of around 1 m. In addition, this innovative new machine can reach 8% higher than any other skid steer.

"Through innovation, this machine will surpass the expectations of our customers as the world's first skid steer and compact track loader with a telescopic boom. The JCB Teleskid can reach further forward and lift higher and dig deeper than any other skid steer," says Tim Burnhope, JCB's chief innovation and growth officer. The JCB Teleskid has a forward reach of 2,4 m — making it 60% better than the nearest competitive skid steer. With a lift height of 4 m, the JCB Teleskid can reach 8% higher than any other skid steer in the world.

To sum up the value proposition of the compact wheel loader, Nicoll says the machine scores on a variety of features, namely longer wheelbase (stability), longer reach, better fuel consumption, better tyre wear, as well as ease of maintenance as accessibility to service points is generally better. "Operator comfort and visibility is vastly better too, as the machine pitches less and the operator sits higher with a more panoramic view."

That said, the possible choice between the two solutions in a particular operation really distils down to which is best suited to the job at hand. Both need to meet the specifications required for the application, all the way from lift height, reach at full height, lift capacity, through to type of control and auxiliary hydraulic circuits to manage attachments. In conclusion, the decision between the two machine types is often not cast in stone, nor a black-and-white issue. Plodding through all the details, before making the best-informed choice will pay sustainable dividends.  $\bullet$ 









# LOADING TERRITORIAL GAINS

Terex Trucks continues to make strong market share gains in southern Africa, and Africa at large, following a renewal of its dealer network in some key regions. Speaking to *Munesu Shoko* at this year's CONEXPO CON/AGG, Guy Wilson, director of sales and marketing, EMEAR, at Terex Trucks, shared the benefits of Volvo CE's strong support and expanded footprint which Terex Trucks can leverage, as well as plans to further bolster the OEM's dealer network on the continent.

Munesu Shoko (MS): You assumed your current position as director of sales and marketing for Terex Trucks' EMEAR region in early 2015. Tell me more about your role.

**Guy Wilson (GW):** I began my construction equipment career with Volvo Construction Equipment (Volvo CE) as chief financial officer of its UK dealer in 2005, before moving into the position of managing director for Volvo CE Italia.

Following Volvo CE's decision to acquire Terex Trucks, I moved to my present position as director of sales and marketing, EMEAR, in February 2015. I am responsible for growing the sales of the company across Europe, Middle East, Africa and Russia, strengthening our network through the appointment of new dealers and supporting existing partners, as well as meeting with customers to gain further understanding of their operational requirements.

MS: You moved to Terex Trucks following the company's acquisition by Volvo CE. What sort of benefits has the Terex Trucks brand realised following the transaction?

**GW:** From the onset, Volvo CE's investment in Terex Trucks was meant to bring long-term growth for the company and the central message of the acquisition was that both companies were 'stronger together'. Almost

three years on, the new vigour is leading to tangible benefits for our articulated and rigid hauler customers.

Despite a further downturn in demand for haulers in general due to challenging economic conditions globally, a series of product, service and distribution improvements have firmly taken root at Terex Trucks. For example, Volvo CE has invested significantly in Terex Trucks' plant based in Motherwell, Scotland to improve the manufacturing processes, which also translates into improved product quality.

Since the acquisition, Terex Trucks needed to push forward and stabilise its position in the market. This has occurred by Volvo investing in making products more reliable, as well as easier to use and support. It has also helped promote the brand by championing Terex Trucks at conventions such as Bauma, Intermat and CONEXPO.

The influence of having a large parent isn't always obvious from the outside but there's been a large amount of support given. A lot of time has been spent improving the way Terex Trucks goes to market, how the brand is supported and in strengthening the sales team and dealer network. In that respect, we have been exposed to Volvo CE's strong dealer network in some regions, for example, Babcock in southern Africa and SMT in central Africa, as well as FerroNordic in Russia.



MS: The Gen 10 TA400 ADT is Terex Trucks' first product to roll off the production line since becoming part of the Volvo Group. Is this product driven by Volvo CE's technological focus or follows Terex Trucks' simplicity path?

**GW:** The 'Gen 10' TA400 has gained plaudits following its international launch at the Bauma exhibition in Germany back in April last year and even here when it made its debut in North America at CONEXPO. The introduction of the Gen 10 was a conscious effort to showcase Terex Trucks' robust simplicity and highlight its position in the articulated hauler market. Terex Trucks offers a well proven reliable product that can be sold into tough environments and needs a straightforward maintenance approach.

Many of our customers have told us not to make the product any more complicated, as they run these machines in arduous environments, miles away from workshops and need to fix the product in a straightforward and easy way themselves. As a result, although the Gen 10 TA400 comes with a range of new improvements, it still follows Terex Trucks' strong position in offering a reliable product that can be easily maintained in difficult environments, especially in emerging markets.



MS: You mentioned the importance of emerging markets to Terex Trucks. Just how important is Africa for you?

GW: In terms of potential market, the whole of Africa, especially for ADTs, is massive. In my EMEAR region, there are other important territories such as Russia with its big focus on coal and gold mining as well as the UK and Germany but Africa is a major focus point for us. South Africa, for example, remains a key ADT destination and we see more growth opportunities in the future.

#### MS: What is the state of market in southern Africa at this stage?

GW: Last year was a very good year for ADTs despite the slump in commodity prices. The southern African market took delivery of just over 500 articulated hauler units, and was one of our priority marketing areas in the EMEAR region.

However, it was very different for rigids. The whole market performed poorly with 34 machines sold last year. The main setback was the commodity prices and a lot of second hand machines available in the market. There has also been a big hold back on the release of mining contracts, and mining contractors have also held back on any capital projects.

We have a very positive outlook for 2017 and are encouraged by an increase in requests and orders from across the global market.

Despite the downward market conditions, Terex Trucks continues to do well, especially helped by a strong dealer in the region, Babcock, which has also invested heavily in our product and aftermarket support capabilities. For example, the recent R100 million Middleburg facility is testimony of Babcock's commitment to the brand. The high cranage in the facility is able to work on our 100 t rigids.

#### MS: You mentioned that the RDT market was in the doldrums last year. In a good year, how big is that market?

GW: The total market in a good year could be as high as 200 units plus. It is also important to note that the rigid market is renowned for being unsteady, as it goes up and down a lot. Last year was a perfect storm around the world. The driver of the market is mostly coal and it is a commodity that didn't enjoy the best of times globally as demand lowered in China.

#### MS: You mentioned the significance of a strong dealer such as Babcock in southern Africa. Have you seen improved business since you went into the Babcock stable?

GW: Absolutely, Babcock is a wellrespected dealer well-known for its strong backup support structures. We have benefitted from Babcock's good reputation, as well as its widespread support infrastructure throughout the region. Babcock has many professional teams working on the ground and has invested heavily across the region to be able to support the product. They also have extensive market knowledge due to working in the region for a very long time, which has exposed us to some customers we didn't have before.

#### MS: How big is your dealer footprint across Africa?

**GW:** We cover the majority of the continent. There are a few open areas where we are currently looking for representation. Our biggest dealer to date is obviously Babcock, which covers the whole of southern Africa. We also have SMT, which covers 20 territories in central Africa including Uganda and DRC, and is also a very strong dealer.

#### MS: What would you say is the jewel in the crown in your product range?

GW: Basically the TR100 is the most longterm successful product we have in the stable. We sell RDTs in the 40 t. 60 t. 70 t and 100 t range. The most successful in this range are the TR60 and TR100. For the big mining projects, the TR100 is the flagship product.

Our focus is on a simple product driven by mechanical engines. For us, our strength over the years has always been a relatively simple product. Around 80% of the global market is still the non-regulated markets where a simple product absolutely thrives. If you are working in the middle of nowhere, you don't want to be hanging around waiting for service because you are not able to fix the product yourself. The reason why the TR100 is very popular, apart from being the best climber in the market and good on fuel efficiency, is that it is simple to maintain, given its mechanical basis.

#### MS: What is your outlook of the business this year?

GW: We have a very positive outlook for 2017 and are encouraged by an increase in requests and orders from across the global market. 😂

#### **Commitment to Africa is not just about money – Zest WEG**

When companies invest in Africa by setting up local production facilities, they contribute far more than just finances, buildings and equipment; they offer their host countries a shortcut into the global mainstream, opening the doors to trade and development on an unprecedented scale.

According to Louis Meiring, CEO of the Johannesburg-based Zest WEG Group, by far the most important aspects of foreign investment are the access to global operations, the transfer of technology and the ongoing training and skills upliftment.

Zest WEG Group is part of the global WEG Group, whose commitment to Africa is evident in its ongoing financial investment in local manufacturing operations. "WEG initiated a programme to uplift the Zest WEG Group facilities to become world class," says Meiring. "This puts our local manufacturing facilities onto an international platform so our products can be considered for international markets, including the existing WEG network of operations worldwide."

He says Zest WEG Group will also use the WEG world network as a source for enquiries, to create business opportunities and bring much-needed international business to South Africa. "This is all perfectly feasible through technology transfer, as we have the resources to skill and train our people," he says. "Once again, however, there is more to technology transfer than just training."

While technology transfer does include the upliftment of people's ability to design or engineer products, it is also about the benefit of lessons learnt in the process of research and development (R&D).

"These lessons, which have been learnt by the WEG Group through decades of experience, will have an immeasurable impact on our local operations, due to the high levels of R&D already conducted," says Meiring. "The technology is then transferred to the local operation without us having to incur the cost or the time to develop it."



## **Zonke Engineering expands** product offering

Zonke Engineering, South Africa's designer and supplier of process equipment and local representative of some of the world's key players in process and mechanical equipment, has added a new range of pumps to its existing product offering.

The new addition to the Zonke products family is housed under the new fluid transfer division and boast, among others, Abel's positive displacement pumps; Börger's rotary lobe pumps; Kamat's plunger pumps and Lewa's high pressure dosing pumps.

Commenting on the company's new additions, Brandon Loots, MD of Zonke Engineering, says the company is excited about the newly-launched fluid transfer division, which is bringing the world's best in pumps technologies to the South African market.

"Abel's positive displacement pumps, for instance, are designed to suit varying flow rates and pump pressures. Depending on the design, Abel's pumps are also suitable for abrasive, aggressive and even shear-sensitive media," says Loots, adding that every Abel pump can be adapted to meet the individual

#### Wirtgen's strong showing at 2017 Symposium Mines Guinea

Wirtgen will use the 5<sup>th</sup> Symposium Mines Guinea event to take place in the capital Conakry from 9-11 May, to showcase its technological advancements to the mining industry.

With its economical and environmentally friendly solutions, Wirtgen has been active in the African market for more than 30 years. In addition to supplying machines, the local Wirtgen Group sales and service company Wirtgen South Africa and selected dealers in the other African states ensure fast reaction times with their dense service network.

Technical support is provided directly in the mine or in workshops that are specially designed for the large machines. The ingenious logistics concept ensures the continuous provision of original spare parts. Wirtgen experts also support customers at any time with customised, on-site project planning which is specially tailored to their needs.

With the surface miners 2200 SM/2200 SM 3.8, 2500 SM and the 4200 SM, Wirtgen offers machines in three performance classes that can be configured variably and specifically for each project. The

surface miners cut and crush the rock with a special cutting drum and load it onto heavy-duty trucks with their conveying systems, all in a single operation.

The material can also be deposited between the crawler units as a windrow or sidecast alongside the machine. Featuring three different operating methods, Wirtgen surface miners are said to be versatile, with cutting widths ranging from 2,2 m to 4,2 m, cutting depths of 0 cm to 83 cm and an unconfined compressive strength of 120 MPa.

Special machines for rock operations even cut hard granite up to 260 MPa. Wirtgen claims to be the only manufacturer to cover a performance range that extends up to 3 000 t/h in combination with direct loading via a loading belt.

As surface mining does not require blasting or drilling, it avoids vibrations, noise and dust, reducing the environmental impact while increasing safety in open cast mining. The selective mining process not only boosts material quality, but also increases the exploitation of the deposits, as the Wirtgen surface miners can efficiently mine raw materials that were



previously unprofitable to extract, creating added value. For mining companies, this translates into significant quality and financial advantages during mining and subsequent processing.

Wirtgen surface miners have been working in the West African Republic of Guinea for more than 10 years. A fleet of around 20 machines operate primarily



#### **New era for Atlas Copco**

As of January 1, 2018, Atlas Copco will separate into two global groups of companies. The company says the split will provide the best growth opportunities for both listed companies with Atlas Copco focusing on the industrial market and the new company, NewCo, dedicated to the mining and civil engineering sector. As global powerhouses in their respective areas, the two companies will be well positioned to deliver sustainable productivity solutions to respective customers.

Globally, the entire Mining & Rock Excavation Technique business, as well as the Construction Tools Division of Atlas Copco, will become part of "NewCo". Shareholding will remain unchanged. Alongside the establishment of a new

be appointed during the year. With a new company name to be approved towards the end of April 2017, an exciting journey lies ahead for "NewCo."

head office, a new board and CEO will also

Atlas Copco has been operating in South Africa for over 70 years and Mining & Rock Excavation Technique is a key supplier of product and service solutions to the mining and allied industries in southern Africa. Meanwhile, former general manager, Jason Smith, has left South Africa to head up Atlas Copco Mining & Rock Excavation Technique in Canada. Under new leadership, Atlas Copco Mining & Rock Excavation Technique Southern Africa will continue to build on its solid reputation and drive the mining and civil engineering businesses forward. ②

requirements of the application.

Loots says that another exciting new addition to the Zonke Engineering product offering is the Börger rotary lobe pumps range, which boasts self-priming and valve less pumps.

Kamat's plunger pumps also feature prominently on Zonke Engineering's new products range. 3



in bauxite mines. Customers are supported directly from the Wirtgen brand headquarters in Germany and a local facility in Conakry that provides on-site services, ranging from technical assistance to MARC (Maintenance and Repair Contracts), with personnel from the brand headquarters as well as local technicians. 3

#### Multotec launches Botswana subsidiary

After five years of successfully growing its market in Botswana, mineral processing solutions provider Multotec will now be relaunching its existing branch as a fullyfledged subsidiary - locally registered and rooted in Botswana.

"With our head office in Letlhakane and additional site offices at Jwaneng, Orapa and Letlhalane diamond mines, Multotec's success in the region has been built on staying close to our customers," says Kris Vergote, general manager for Multotec Botswana. "We are now also an active part of the local community and have created employment for 148 local residents."

With 23 years of industry experience, Vergote is supported by metallurgist Kennedy Maputla in his role of sales and contracts manager, while Allen Roussouw, the company's field services manager, adds his 20 years of operational plant experience to the capacity of the management team.

According to Multotec Africa managing director Jaco du Toit, the company's proximity to customers allows high levels of technical and maintenance backup. The Botswana premises include 1 350 m<sup>2</sup>, with 350 of those under cover, dedicated to stockholding, effectively reducing lead times and ensuring that customers are never kept waiting for parts.

"Our personnel are at customers' sites daily, so there is always strong technical expertise on the ground," says Du Toit. "While the metallurgists and plant experts in the Letlhakane office manage our maintenance contracts, they are, in turn, supported by product specialists in the Johannesburg head office, who visit sites as and when required." ۞

#### IN BRIEF

#### New compressed air solutions from **Ingersoll Rand**

Ingersoll Rand, a global maker of compressed air and gas systems and services, recently used ComVac 2017 to debut new Ingersoll Rand CARE Suite service offerings. CARE Suite, said to be a comprehensive service and maintenance offering, increases reliability and reduces total costs of ownership for a plant's valuable compressor assets.

"Industries are looking for ways to increase reliability and reduce energy use, as pressure mounts on regulatory compliance, cost-efficiency and meeting customer demands. High-quality reliable air and gas compression helps these industries increase their profitability and competitiveness," says Eric Seidel, vice president of product management for compression technologies and services at Ingersoll Rand.

#### **TLT ACTOM launches complete** ventilation solution

Following the announcement of the collaboration between TLT-Turbo, TLT ACTOM and TLT MechCaL, TLT ACTOM is set to offer complete ventilation solutions to firms operating in the mining, industrial HVAC and power generation sectors.

TLT ACTOM's Total Ventilation Solution approach aims to provide complete solutions to the challenges of subterranean mines, thermal power plants and numerous industrial process applications including cement production and waste incineration. According to Craig Johnston, operations director at TLT ACTOM, the main focus will be on making clients' operations more efficient in terms of both performance and energy consumption, thereby having a significant impact on total cost of ownership.

#### KSB expands into Zambia

Global pump manufacturer, KSB Pumps and Valves, has established an independent operation in Zambia to ensure that its rapidly expanding customer base has full access to the company's sales and support services.

Having previously been represented by a network of agencies and dealers throughout the country, the growing number of pumps in the field, as well as the increasing demand from the agricultural and mining sectors, has prompted the company to invest in more suitable infrastructure within the region.

#### Cat and Barloworld in joint venture to boost aftermarket

Barloworld Equipment has announced an agreement with its principal Caterpillar to establish a Barloworld Equipment Cat retail parts operation in the recently announced Caterpillar Parts Distribution Centre in Kempton Park near Johannesburg, South Africa. Barloworld Equipment, the official dealer of Caterpillar products and services in 11 southern African countries, will consolidate the over the counter aftermarket parts activities from Linbro Park and Isando into the new location.

Caterpillar and Barloworld Equipment conducted a joint supply chain study uncovering multiple benefits of colocating operations in a new site. Benefits of this approach include improved parts availability to customers, as well as increased velocity in filing parts orders given the proximity of the parts sales counter to the regional distribution centre and an expanded ability to invest in capacity across southern Africa.

The collaboration is a demonstration Caterpillar's and Barloworld Equipment's combined commitment to provide improved aftermarket service to customers in the region. "Together we continue to deliver on the long standing commitment to support our products through the aftermarket supply chain while building on Barloworld Equipment's 90-year history of serving customers who help build and power communities and, ultimately, improve lives in southern Africa," says Emmy Leeka, CEO of Barloworld Equipment.



Barloworld Equipment will occupy a surface of 3 500 m<sup>2</sup> of the 60 000 m<sup>2</sup> Caterpillar Distribution facility in Kempton Park. Caterpillar Distribution facility in Kempton Park.

"This arrangement is the first of its kind in the Caterpillar network and further improves our industry-leading aftermarket parts distribution network across the region. The initiative is another example of our close collaboration and partnership with Barloworld Equipment by leveraging our parts inventory data to significantly improve the Caterpillar customer experience," adds Chris Monge, manager of Caterpillar's Office for the Southern African region in Johannesburg, South Africa.

"The increased collaboration between Barloworld Equipment and Caterpillar gets replacement parts to our customers as quickly as possible. This is extremely important as it allows our customers to reduce idle time and save money. When our customers win we all win," says Bonnie Fetch, director of Cat Parts Distribution.

Caterpillar's operations are planned to be underway in the second quarter of 2017. Barloworld Equipment's operations will commence early in the third quarter of 2017. Barloworld Equipment will occupy a surface of 3 500 m² of the 60 000 m² Caterpillar Distribution facility.

The consolidation is part of the previously announced plan of Caterpillar, its independent dealers and the Caterpillar Foundation to invest more than \$1 billion in countries throughout Africa over five years.

#### No-dig solutions to the rescue

Dangerous trenches spanning roads and sidewalks in urban areas can be a thing of the past if contractors laying new utilities adopt the latest horizontal directional drilling (HDD) technologies.

South Africa's already congested roadways and pavements can ill-afford disruptions caused by trenching activities. As a result, project owners are increasingly calling for technologies, such as HDD, to provide a means of burrowing beneath roads and pavements with minimal disruption to surface traffic, while also being able to avoid disruptions to existing underground infrastructure.

According to Keith Smith, area sales manager of ELB Equipment, one of South Africa's leading suppliers of HDD systems, the roll-out of large-scale fibre networks in cities and suburbs has highlighted the necessity to curb conventional trenching to avoid large-scale congestion, as well as potentially costly and disruptive damage to buried utilities such as electricity and water supplies.

HDD technology effectively employs a drill rig to steer a drill pipe on a set horizontal path underground from one side of an obstacle to the other. Once on the other end

the drill crew is then able to attach a backreamer which is pulled through the narrow pilot hole to cut and remove the soil in stages till the required diameter is met.

With equipment ranging from small rubber-track machines that can fit through a garden gate (Ditch Witch JT 5) for small confined areas or large machines such as the Ditch Witch JT 100, Ditch Witch also offers all-terrain machines which can drill and steer in solid rock and span long distances with enough pullback force to pull large backreamers where large diameter utilities are required.

"Using HDD trenchless technology means road traffic can remain unhindered while sidewalks only require a small area to be cordoned-off for launch and receiving pits, as well as equipment on either side of the roadway. What's more, utilities buried over many decades can be avoided without disruption to services. Whereas the only way around utilities in the old days was to go aerial, HDD now means that we can thread new utilities in among the old ones safely without damaging or disrupting services," says Smith. ©



## New Leica ConX simplifies collaboration, data transfer for construction

Leica Geosystems, specialist in measurement technology, has launched the new Leica ConX, a cloud solution and web interface to seamlessly integrate, manage and analyse surveying and machine control workflows for heavy construction projects.

Personnel and machines on the jobsite need to share the same data and stay in sync with changes, so work can be carried out effectively, on time and within budget. ConX allows users to share and visualise positioning, reference model and constructed data. Field and machine control solutions connected to ConX can remotely receive and share information, and the web interface for visualising the data is available anywhere with internet access.

ConX is designed to increase collaboration and simplify the data handling of machine control operations by integrating workflows, enabling remote control of connected machines and real-time data exchange from the office to the field and back. The cloud-enabled platform and web interface enable users to increase their efficiency on site and decrease downtime while reducing the burden of data collection, aggregation and reporting.

"The digitisation of the construction industry is driving major improvements in productivity, data acquisition and job site safety. This can, however, bring practical issues of how to manage, share and analyse all of the data. We have developed

The Ditch Witch JT5 HDD rig is ideal for confined drilling applications.

ConX as a cloud solution to seamlessly manage 3D model, positioning, quality assurance and productivity data across the job site and bring it back to the office so field surveyors, machine operators, designers and project stakeholders can get the job done right with a little less stress," says Doug Eggert, product manager at Leica Geosystems. •

## Komatsu completes Joy Global acquisition

Komatsu America Corp, a subsidiary of Komatsu Ltd, has completed the acquisition of Joy Global Inc, a global supplier of high-productivity mining solutions.

Retaining its headquarters in Milwaukee, WI, Joy Global Inc will be renamed Komatsu Mining Corp and operate as a subsidiary of Komatsu. The company will continue to promote and invest in the P&H, Joy and Montabert product brands. Komatsu remains committed to directly servicing the global mining industry and through its products, services and technologies, is focused on helping customers improve productivity and safety in their operations worldwide.

"The combination of our Komatsu-brand surface mining equipment with the P&H, Joy and Montabert brands of surface and underground products will allow us to offer a complete range of mining solutions," says Tetsuji Ohashi, President and CEO of Komatsu. "We plan to build on the strength of our shared cultures, including our unwavering belief in safety first and our passion for providing innovative solutions, to become an unrivalled mining solutions and services provider."

The close of the transaction adds to the Komatsu team more than 10 000 people with extensive knowledge and experience in the mining industry, bringing the company's global total to more than 57 000 employees.

With a focus on providing uninterrupted and unrivalled service and products for its customers, Komatsu plans to leverage the best practices of both companies while aligning the organisation and operation for optimal customer support.

Komatsu Mining Corp will be led by Jeffrey Dawes, formerly leader of Komatsu Latin America. Following the close of the transaction — valued at approximately \$3,7 billion, including Joy Global's outstanding indebtedness — Joy Global shares will be delisted from the NYSE and will no longer be publicly traded. ©

## Cross-border power to help African economies

With the recent announcement of an ambitious power project to connect Cape Town and Cairo within the next three years, the opportunities for reliable cross-border electricity generation are once again in the spotlight.

Mark Makanda of global fasttrack power provider APR Energy says that cross-border power deals have the potential to exponentially accelerate GDP growth for the whole of the African continent, adding that mobile fast-track power should play a significant part in making this a reality.

"The correlation between electricity supply and economic growth is irrefutable and the fact remains that no government adequately grows its GDP if power distribution reaches less than half of its population," argues Makanda.

A report published by McKinsey & Company, *Powering Africa*, notes this is exactly the situation that the vast majority of African countries are facing. According to the report, only seven countries on the continent have electricity access rates exceeding 50%. The report also indicates that countries with electrification rates of less than 80% of the population consistently suffer from reduced GDP per capita.

"The only countries that have electrification rates of less than 80% with GDP per capita greater than US\$3 500 are those with significant wealth in natural resources, such as Angola, Botswana and Gabon. But even they fall well short of economic prosperity," the report states.

Makanda notes that a major issue in sub-Saharan Africa, even in booming economies such as Nigeria and Kenva, is the fact that electricity distribution is confined to major urban centres. "It is estimated that there are over 625 million people in sub-Saharan Africa living outside of these main distribution grids. Generation capacity is certainly one of the foremost challenges in most countries. The cost of installation, as well as the time frames involved are major barriers to expanding a country's energy footprint — thereby stifling economic growth." ③

#### IGO crane's simplicity ideal for smaller jobs



Contractors wanting a quick, easy and efficient solution to their lifting and moving requirements on smaller building sites, and perhaps even the larger ones, will find a friend in Potain's IGO self-erecting crane.

Now available in the rental fleet of SA French, South Africa's Potain distributor, the IGO boasts superb ease of movement and simple erection, making it an easier and less expensive option than a conventional tower crane. SA French reports a growing demand for these self-erecting cranes and has increased

the number available in its rental fleet.

With capacity to lift a maximum of 4 t, and 1 t at 40 m, the Potain IGO crane can be dismantled, erected and commissioned in just six to seven hours. The installation of ballast does not need to be performed by a mobile crane, as this can be done independently by means of a frame beam.

The IGO is particularly popular for lifting applications at projects such as small apartment blocks, and supplementary lifting on construction projects such as shopping

centres. It isn't even necessary to employ a truck crane to move the crane around a building site; an ordinary freight truck will do the trick, thanks to its compact size. The crane can also be used as an auxiliary unit on high-rise projects.

The crane places materials quickly and accurately, giving contractors and builders the opportunity to utilise their site storage more efficiently. The level of health and safety on site is also improved, as there is less movement of wheeled equipment on the ground with its risk of man-machine collisions.

Arranging the crane into operating position takes only 10 to 15 minutes, saving substantially on working time on site and it requires only one operator with a remote control to assemble the crane and move cargo.

The IGO's compact footprint needs only a 4,5 m x 4,5 m base, and there is no need to prepare a special platform for the crane; it can even be installed at a height of several floors.

The jib of the IGO crane can be shortened or luffed, should the need arise, which allows it to neatly bypass obstacles it may encounter. When dismantled, the crane takes up even less space, with dimensions of 2,5 m wide x 3,5 m high (maximum).

#### **Goscor lifts for Famous Brands**

Famous Brands, one of Africa's largest branded food service franchisor with several household brands in its stable, has taken delivery of Crown and Doosan materials handling equipment from local supplier Goscor Lift Truck for its new warehouse in Longmeadow, Johannesburg.

Gavin Welsh, Famous Brands logistics executive for the Gauteng region's Centre of Excellence, says the company reduced the primary activity at its Midrand facility and ring-fenced it at the new Longmeadow warehouse.

Famous Brands recently took delivery of 10 units for the new facility, including 2 x Doosan BR16JW Reach Trucks; 1 x Crown SC6040 1.8 three-wheel Electric Counter-Balance forklift; 1 x Crown WT3020 2.0 Ride-on Powered Pallet Truck and 6 x Crown PTH-50 Pallet Jacks.

Welsh says the buying decision was not only influenced by Goscor's world class product. "Goscor's willingness to be part of the preparation of the facility's materials handling equipment, their general conduct during the sale and the quality of the after sales service all match the quality of the product," he says.

He adds that the Goscor team's advice on



Famous Brands recently took delivery of Crown and Doosan materials handling equipment for its new facility in Johannesburg.

the best equipment for the new warehouse was invaluable as was the supplier's involvement in the design and construction of the battery room, which is so crucial to the efficiency of the entire operation.

"We expect that the new facility will handle a throughput in the region of 500

pallets per day, delivering to six depots: Cape Town, Bloemfontein, Midrand, Nelspruit, Pinetown and Port Elizabeth. It is a 24-hour operation and to facilitate this Goscor has supplied additional batteries to ensure uptime around the clock."

#### Heavy lift projects pay dividends for Johnson Crane Hire

Development in Africa continues and this has seen an increased need for capable lifting specialists. Johnson Crane Hire's established reputation as a lifting specialist that gets the job done is starting to pay dividends for the company. Significantly, the company operates a fleet of cranes that offers the necessary depth and range of cranes, but it is the heavy lift capability that really sets the company apart from other crane hire operators.

Operating the largest heavy lift fleet of cranes in sub-Saharan Africa, the company is able to undertake complex heavy lift assignments with ease. Steve Robson, executive business development at Johnson Crane Hire, is quick to point out that this is not just because of the enormous investment in its fleet of cranes, but also because the company has the depth of resources to underpin its service offering.

"Having such large and comprehensive fleet is without doubt a major differentiator, but we believe that the proficiency of our people is just as important," he says. "Undertaking such a complex and specialised activity as heavy lift requires the ability to engineer the lift from the initial assessment right the way through to the actual completion of the job. Of importance is that Johnson Crane Hire can undertake these mammoth projects in a seamless operation," adds Robson

Johnson Crane Hire's heavy lift division uses 3D CAD software for both the design and engineering of the lift, as well as the simulation thereof. "With full time and dedicated mechanical engineers as part of our heavy lift team, we understand the complexity and requirements that go into the planning and execution of these complex lifts," says Robson. "This level of attention to detail is essential during the planning stages."

Planning is a critical activity, especially when undertaking specialised lifts in remote areas. Robson says the company is no stranger to working in Africa and is well positioned to extend its footprint even though there are differences from country to country. The lifting specialist has the distinct advantage of understanding the conditions across the continent.



Johnson Crane Hire operates the largest heavy lift fleet of cranes in sub-Saharan Africa.



#### CDE EvoWash 72 to the rescue

Following the installation of a CDE EvoWash 72 on its Analiza quarry site, South African brick and block manufacturer Multi Crete Bricks "just can't keep up with orders", according to CEO Christo Niemand.

Multi Crete has been supplying the South African construction industry for 16 years, delivering premium brick and block products nationwide as well as supplying customers directly at its Brakpan factory. The company not only ensures that the best raw materials are selected but also guarantees the best end product by overseeing production from start to finish.

In 2016, Multi Crete saw an opportunity to take the lead in the local materials washing market. To achieve this, an upgrade of its sand screw washing plant was necessary to remedy the substantial loss of valuable fines that ended up in its quarry's dam. By installing a new CDE EvoWash sand washing plant on its Analiza quarry, Multi Crete can now continue to produce its own bricks, blocks and manufactured washed sands with an additional plaster sand.

Niemand, a savvy and practical businessman who relies on a combination of word of mouth and direct communications, visited a close-by quarry with a CDE representative to witness the efficiency of the CDE materials washing equipment in action.

Convinced by the high tech but userfriendly aspect of CDE installations, Niemand took the next step and challenged Nicolan Govender, CDE's regional manager for Africa, to find the best-value-for-money washing solution that would significantly reduce the amount of lost fines, increase



production levels and sand quality, and crucially allow for multiple sands to be manufactured.

The objective was to boost Multi Crete's product offering and subsequently demand. The CDE EvoWash 72 dual sand washing plant ticked all of the boxes and Niemand says that he is now ready to further upgrade his equipment to meet the newly created and ever increasing demand for Multi Crete's products.

"The combination of a solid relationship with our local CDE experts and the commissioning of an ultra-performant EvoWash has given Multi Crete's activities a positive boost. Our plaster sand is hands-down the best in the region and being able to produce two products at the same time, including plaster sand, is truly remarkable," says Niemand.

The Analiza quarry treats raw materials including crushed rocks, a mixture of granite and silica, some being heavily clay-bound. It now produces 23 t per hour of plaster sand and 19 t per hour of river sand. The EvoWash allows for two products to be produced at the same time and can also be set to alter the amount of finer sand in the end product, allowing the quarry to produce two off plus zero products (-2 mm + 0 and -6 mm + 0).

#### Pilot Modular range promotes enterprise development

One of the perpetual problems facing would-be entrepreneurs is that while they may have a great idea for a product and potentially receptive customers, entry costs remain a barrier to doing business.

Pilot Crushtec International's range of modular crushing and screening plants is providing a workable solution to this problem by offering affordable products that enable fledgling businesses to gain a foothold into industries as diverse as quarrying, recycling, road building and agriculture.

The latest example is the purchase of a complete, comprehensively equipped semi-mobile plant by Aletro Trading Enterprise, located in Meyerton, Gauteng. The total purchase price — including

shipment, installation and commissioning – came in at under R1,8 million, providing trouble-free access to new and potentially lucrative markets.

Owner and operations manager Alert Thovhakale explains why he identified Pilot Crushtec International as his supplier of choice. "Before starting my company, I gained a lot of experience working with a market leader in waste management solutions. I was responsible for sourcing recycling equipment, which is how I first came into contact with Pilot Crushtec International. I got to know its products and the technical and service support that comes with them."

Thovhakale, who is a metallurgist by profession, explains that the plant will

initially be used to process raw or waste graphite and carborundum material for use by steel and titanium producers in the smelting process.

This is, however, the first stage in an expansion programme that is intended to see Aletro Trading Enterprise making its mark in converting an increasing variety of deemed waste materials into usable and commercially viable products.

"Pilot Crushtec International's range of modular plants is designed to provide low-cost, turnkey solutions to entry level participants in the crushing and screening market. This can include applications ranging from recycling high volumes of construction and demolition waste to processing hard rock," says CEO Sandro Scherf. •

#### **Crushing solutions for mines, from start-ups to majors**

Designing and building its own crushing and screening plants, Raubex company B&E International brings over four decades of experience in contract crushing to its mining sector offerings, which are tailor made for applications from small to large.

With most major mining firms already on its customer list, B&E International has even developed a solution for start-up miners who may need to conserve their cash-flows in the early days of operation.

B&E International MD Dewald Janse van Rensburg says the company's engineering capability and operational experience allows it to assume some of the start-up risk faced by new mines, by designing and running a plant on a 'toll' basis for the customer.

"We can design, manufacture and commission a plant to client specifications, and then operate it on a 'tonnage rate' for an agreed period of time," says Janse van Rensburg. "The customer pays for the amount of material processed, without having to pay for the equipment upfront."

This arrangement typically builds the capital value of the plant into the rate-per-tonne, so that the rate ensures the throughput is delivered while the capital portion is steadily paid off.



"The advantage to the customer is that we carry some of the start-up cost, and they get the assurance that the plant will function effectively as a vital part of the production process," he says. "Ownership of the plant then reverts to the mine after the capital is repaid through this toll fee; the customer can even decide to buy out the residual value of the plant at an earlier stage, if their cash-flow is good and they are confident of their own inhouse expertise."

B&E International's roots date back to 1972 when it started operating in blasting and excavating, soon expanding into crushing and screening, and then entering the mining services sector in 1993. It was acquired by the JSE-listed Raubex Group in 2008.

Today, it mines some 22 million t a year for some of South Africa's largest mining companies — as well as crushing, screening and processing about 12 million t a year of ore and aggregates.



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#### New lab instruments generate faster sample results

Leading condition monitoring specialist WearCheck recently invested in excess of R1,7 million in new high-tech equipment in both the transformer and fuel sections of its Johannesburg-based Speciality laboratory.

The Kruss K11 tensiometer, an ADU 5 distillation unit, a SVM3001 stabinger viscometer, as well as the PMA 5 Pensky-Martens closed-cup flash point tester are among the new pieces of equipment to grace the countertops in WearCheck's laboratory.

The highly accurate, sophisticated instruments — which have boosted lab productivity by offering new tests and saving time on existing ones — have also reduced the turnaround time to generate customers' sample results.

The ADU 5, a fully-automated distillation unit which is operated by a touch screen interface, performs distillation tests according to ASTM D86. This is recognised as one of the most reliable methods to determine the boiling range characteristics of petroleum products, and is a critical measurement of the overall performance and safety of fuels.

A given volume of sample is placed in a distillation flask and distilled according

to strict guidelines as specified in the standard. The sample is heated and vapourised. The vapour is then cooled in the condenser line and the condensate is collected in a graduated cylinder. The temperature of the recovered volume of condensate is recorded precisely during the test.

The SVM3001 is a Stabinger viscometer which is capable of multiple parameter measurements in a single analysis, eliminating the need for many separate tests.

The instrument can simultaneously measure kinematic viscosity according to ASTM D7042, dynamic viscosity, as well as the density according to ASTM D4052 in lubricating oils, base oils, additives and fuel oils. The sample is simply injected using a syringe and measurement is started via a touch screen panel.

The automatic PMA 5 Pensky-Martens closed-cup tester measures the flash point at the lowest temperature at which the application of an ignition source causes the vapours of a sample to ignite. The instrument is suitable for flammability applications on fuels such as diesel, heating oil, kerosene as well as both biodiesel and biodiesel blended fuels



WearCheck's senior lab technician Lizzy Chabangu operates the new ADU5 distillation unit.

The ADU 5, SVM3001 and PMA 5 are upgrades to existing equipment operated by WearCheck. The acquisition of the instruments has boosted the company's service delivery by yielding highly accurate results and reducing turnaround times, which is of benefit to customers.

#### Training on the move with Atlas Copco's RCS Mobile Trailer

Atlas Copco Mining and Rock Excavation Technique has invested in a Rig Control System (RCS) Mobile Trailer to make training more accessible, convenient and affordable by taking it to the customer's doorstep.

RCS is all about faster fault detection, lower maintenance costs and enhanced rig availability, creating more productive conditions to improve drilling rates and drill steel economy. Since Atlas Copco first introduced computerised control systems for drilling rigs as early as 1998, there are more than 3000 RCS rigs currently in operation around the globe.

Ongoing R&D and subsequent continuous improvements, developments and modification have resulted in even smarter systems and functions from Atlas Copco. The most recent development is the new, award winning fifth generation automation (RCS 5) which takes the control to an even higher level, offering refined functions for planning, conducting and analysing the drilling process, including wireless online data transmission between rig and



site office. Customers can choose their preferred level of automation, from the simplest form of automation to the latest sophisticated RCS5.

"We have introduced Rig Control Systems on a large portion of our equipment offering, from our underground loaders, dump trucks, drill rigs, roof bolters, simbas and scalers to our exploration rigs (Diamec range), our small to medium surface drill rigs (PowerRoc, FlexiRoc and SmartRoc) and finally our

medium to large range of Blasthole Rotary rigs (Pit Viper range)," explains Richard Lotheringen, Atlas Copco South Africa's MRS Training manager.

"The Mobile Trailer is in response to increasing customer requests for training on our Rig Control Systems and to meet customers' ever increasing needs to continuously improve technical staff competencies on Atlas Copco mining equipment's industry-leading technological features."

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#### **Volvo Trucks assists drought-hit farmers**



Volvo Trucks donated three trucks to assist farmers hit by the recent drought throughout South Africa. The three trucks travelled a distance of 443 557 km and delivered over 12 000 bales of hay weighing a total of 3 456 t.

The facilitation of the deliveries to over 1 200 farmers in various sectors that have been affected by the drought was done through a non-profit organisation, Boere In Nood.

"We realised that while the drought is taking its toll on a lot of communities the people that feel the impact of the drought first hand is very often our customers — farmers. To this end we investigated various manners in which Volvo Trucks Southern Africa would not only be able to assist the drought stricken farmers but also see first-hand the impact of the assistance given to the farmers," says Valentia Hobbs, general manager of Marketing and Communication at Volvo Trucks Southern Africa.

Volvo Trucks not only offered the three trucks but also provided drivers and diesel. "We are proud of our association and the impact that we have been able to make through this collaboration with Boere in Nood. The work may be far from over, however, it is a privilege to have been able to make a real difference to the people affected, as well as the animals whose lives were saved from the deliveries of the feed," adds Hobbs.

## Farms raise safety and productivity through asset tracking

With workers and machines occupying the same working area in busy farming operations, proximity detection systems (PDS) are becoming vital tools to promote safety and productivity.

According to Anton Lourens, managing director of PDS supplier Booyco Electronics, the technology allows for intervention where a potentially dangerous situation exists between a pedestrian and a machine such as a tractor.

Essentially, the PDS is a sensing device that detects the presence of an object, an interface that provides an audible and/or visual alarm to the equipment operator, and wiring between the two.

Both the vehicle operator and the pedestrian can then be warned of potential collisions and danger. Warning zones are stable and predictable, and can be adjusted to suit the specific agricultural application and standardised to particular equipment.

In addition to avoiding accidents on a site, the data from the PDS can be analysed for patterns, allowing farm managers to identify unsafe behaviour and design an appropriate intervention. In terms of productivity, monitoring of machine movements by the PDS can also help managers to make better use of equipment at work, for instance by optimising cycle times.





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