

JOHN DEERE SHOWCASES THE NEW 310 L BACKHOE LOADER







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KHOE LOADERS: New 'BULL' in the backhoe pen



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SA'S HYDROGEN ECONOMY WILL DEPEND ON A HIGHLY-SPECIALISED WORKFORCE

By Viren Sookhun, MD of Oxyon

ith the world looking to countries that have optimal renewable energy resources to provide clean energy of the future, South Africa has the opportunity to revolutionise its economy and supply green hydrogen to the world.

Growth in the hydrogen sector will result in a significant number of new job opportunities for which new skills, training programmes and qualification assessments will be required. Ensuring an adequate supply of trained and competent individuals for such a rapidly growing sector will become a priority as the hydrogen energy sector grows and we work toward decarbonisation commitments. Society's decreasing reliance on traditional energy sources such as coal and petrochemicals will result in an employment shrinkage but reskilling these workers from traditional energy backgrounds to transition into the expanding hydrogen sector should be much easier with the training and skills already obtained.

South Africa has what it takes

In developing South Africa's green hydrogen value chain, we can become a key supplier into the global hydrogen market. Not only does South Africa have optimal environmental conditions, it is also rich in the natural resources required for the hydrogen economy, such as Platinum Group Metals (PGMs).

PGMs are used in the electrolysers that produce green hydrogen as well as a fuel in hydrogen fuel-cell vehicles. South Africa holds more than 80% of the world's platinum reserves and has one of



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the largest platinum mining companies in the world. South Africa is guided by the Hydrogen Society's Roadmap which identifies the production, storage and distribution of hydrogen, while highlighting the importance of research, development and innovation, alongside the promotion of gender equality and social inclusion in developing the hydrogen economy. By implementing this roadmap, within a few years it is anticipated that at least 20 000 new jobs will be created annually as part of the adoption of the hydrogen economy.

Challenges to a growing sector

The main hurdle in this industry lies in the fact that it is new, and when something is new, it requires extensive research. Here, South Africa will be reliant on global players and multinational organisations to assist with research and feasibility studies through partnership initiatives that focus on upskilling. This will enable the skills transfer to happen locally and ensure that training takes place within our borders.

Ultimately, more jobs will be created in renewable energy and hydrogen than what we will shed in traditional methods of energy so the net effect will be positive. However, this will require extensive upskilling and retraining for the future in terms of hydrogen fuel.

Looking around the world, Japan is currently testing hydrogen-fuelled trains, while Germany has just procured the first hydrogen train with plans to pilot test on certain routes from mid-2023. Airbus is assessing the feasibility of converting their aircraft 100% to hydrogen fuel, and Turkey and other European companies have already launched hydrogen-powered ships. As for the potential hydrogen-fuelled vehicles, such as trucks and buses, these hold much more promise for South Africa from a cleaner mobility perspective as current limitations with battery storage and unreliable electricity supply may hinder the adoption of electric vehicles. Given the similarity in infrastructure requirements for transitioning from fossil

to hydrogen fuels, this makes hydrogen a preferred candidate for mobility.

What's needed to grow the hydrogen economy?

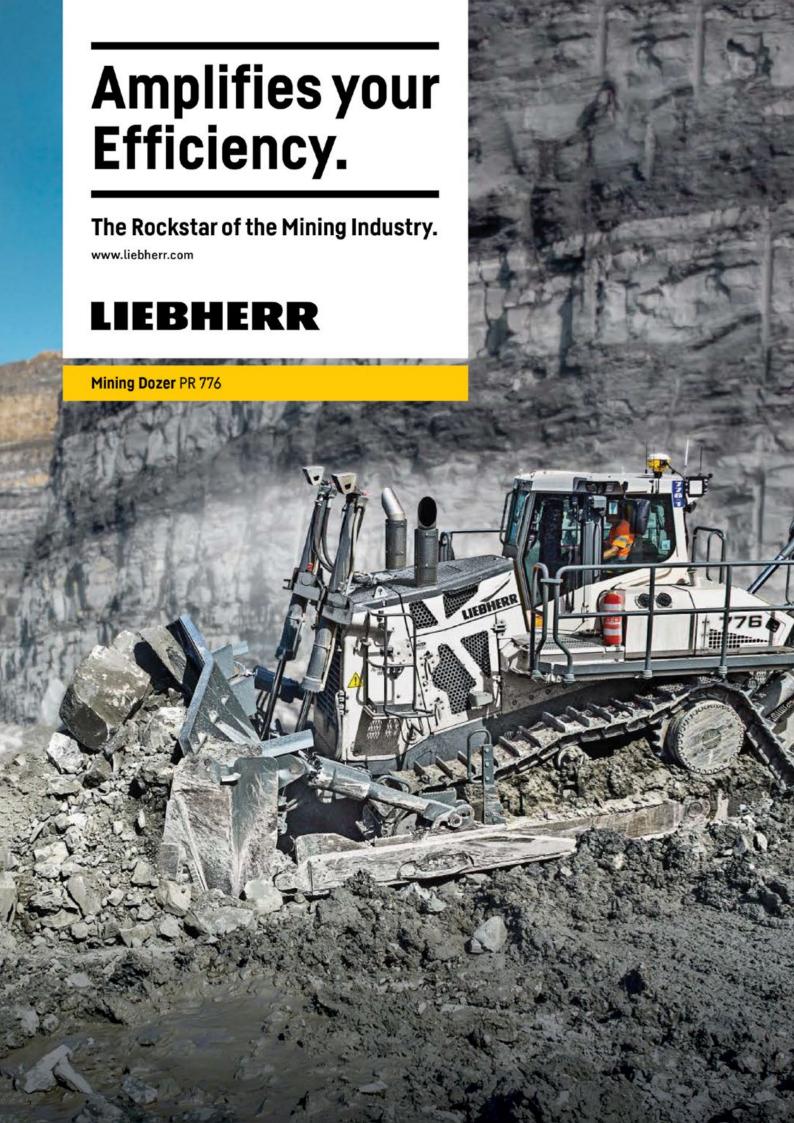
Starting at the top of the value chain, South Africa will need scientists, researchers, and highly-specialised individuals who can produce green hydrogen by electrolysing water. Further down the value chain, we need to start with training and upskilling people here within South Africa, particularly young, unemployed people, through health and safety courses to enforce the Occupational Health and Safety Act. This will become increasingly important as the hydrogen industry is regarded as a high risk due to the nature of fuel and gas.

Building the hydrogen economy is going to require cooperation and coordination between many stakeholders, particularly in education and training opportunities. Government entities, educational institutions and the private sector must collaborate to handle the increased demand for skills and qualifications in this industry. To make the most of these opportunities to build a highly-skilled workforce, industry would benefit from the assistance of Temporary Employment Services (TES) partners, particularly during the recruitment, upskilling and training processes.

New skills for a new industry

Given that labour and human resources is going to be the most important part of growing the hydrogen and renewables economy, the value of using a TES provider lies in their extensive resources, such as training companies and healthcare facilities, along with the staffing and outsourcing side, including recruitment.

With all the necessary accreditations, a TES partner can handle the entire labour component, from community stakeholder engagement, to creating training programmes and reporting back to client partners and government to ensure transparency in achieving the desired outcome: an inclusive, sustainable, and competitive hydrogen economy by 2050.



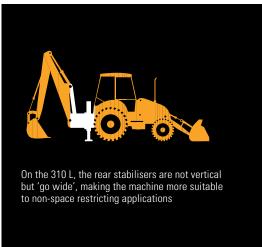


John Deere introduced the 310 L backhoe loader during Grain SA's NAMPO Harvest Day exhibition in May this year as a smaller, centre pivot version of the sideshift 315 SL, aimed at a different clientele.



"Because we have a strong agricultural platform with a strong dealership channel, our potential to sell the 310 L into the agricultural sector is quite huge."

Griffiths Makgate, John Deere Construction & Forestry sales manager, Africa and Middle East



riffiths Makgate, John
Deere Construction &
Forestry Sales manager
covering Africa and Middle
East, explains that, on the
315 SL model backhoe loader, the rear
configuration is designed for general

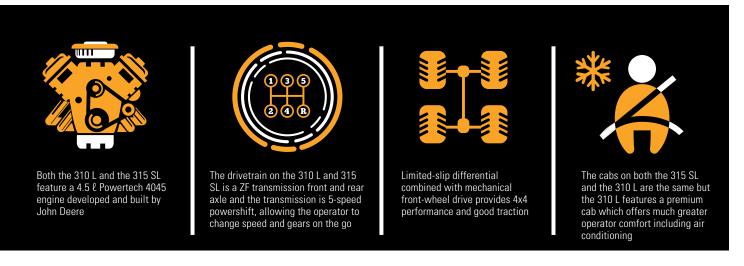




The ergonomics on the 310 L cab are improved to provide better vision, even with the seat turned 360 degrees to work on the backhoe.



The 315 SL backhoe loader from John Deere.



construction purposes and infrastructure development where workspace is often limited as it has a sliding backhoe. On the 310 L, the rear stabilisers are not vertical but 'go wide', making the machine more suitable to agricultural applications and non-restrictive applications based on the

rear stabilisers in the construction.

"Because we have a strong agricultural platform with a strong dealership channel," says Makgate, "our potential to sell the 310 L into the agricultural sector is quite huge.

He says the 310 L comes to the fore through a platform of dealers who know the

customers in the agricultural sector quite well where there is generally no restriction in terms of workspace. In fact, John Deere dealers countrywide identified the need for a smaller, nimbler centre pivot version of the 315 SL.

"The centre pivot model has been



On the 315 SL backhoe loader, the rear configuration is designed for general construction purposes and infrastructure development.



Because we have a strong agricultural platform with a strong dealership channel," says Makgate, "our potential to sell the 310 L into the agricultural sector is quite huge.

available in the market over the years and the market was sideshift focused so market penetration has always been difficult but, because of the shift in the market, we were able to bring the 310 L to the market because of our strong links with the agriculture, rental, general construction and other market segments that we participate in. Today, the 310 L is gaining popularity among farmers," says Makgate.

Both the 310 L and the 315 SL feature a 4,5 I Powertech 4045 engine developed

and built by John Deere. The difference, says Makgate, lies in the kilowatts: the 315 SL produces 69 kW while the new 310 L produces 62 kW at 2 000 rpm. The hydraulic flow on the 310 L is 106L/m compared to the 315SL, with hydraulic flow of 136 ℓ /min

The drivetrain on the 310 L and 315 SL is a ZF transmission front and rear axle and the transmission is 5-speed PowerShift, allowing the operator to change speed and gears on the go. There is also an option to select a gear appropriate for your operation if you don't want to select drive especially in shorter spaces loading and dumping scenarios.

Diff lock protection is also featured to prevent the differential from breaking down at speed, as is the case on some machines. The electronic diff lock system prevents gear engagement at high speed by disengaging the diff lock. This feature is also available on the 315 SL. Limited-slip differential combined with mechanical front-wheel drive provides 4x4 performance and good traction by delivering up to 65% of the available power to the wheel with the best traction.

The cabs on both the 315 SL and the 310 L are the same but the 310 L features a premium cab which offers much greater operator comfort including air conditioning. The ergonomics on the 310 L cab are improved to provide better vision, even with the seat turned 360 degrees to work on the backhoe. The cab frame on this machine is much leaner to provide 360-degree vision

and the number of LED lights within the cab for work at night has been doubled on the 310 L. A multi-language monitor displays machine diagnostics clearly.

In terms of attachments, an auger and a hydraulic hammer are available from John Deere in addition to many other attachments available through the dealership network.

These machines are designed, developed and built by John Deere which has production facilities in the USA and Brazil, where the machines for Africa and the Middle East are manufactured.

Market

"The 310 L has been available in the South African market since the end of March this year and, according Makgate, the product has been received well in the market".

He says that, although the current microchip shortage hasn't affected the company's production greatly "as our machines are less technological to the point where many computer chips are needed, production had been delayed on the lifetime JD Link telematics subscription provided with the machine as a free standard feature but we have overcome that and its business as usual for us."

Warranty

The standard warranty on these machines is over one year or 2 000 hours, whichever comes first.

"We offer a comprehensive warranty for





DRIVELINE	
Engine Manufacturer	John Deere
Engine Model	PowerTech EWL 4045HL050
Displacement, ltr (Inches³)	4.5 (276)
Rated Speed, rpm	1600
Engine Output - Net, kW (hp)	75 (100)
Transmission Type	Powershift
Service Brake Type	Wet Multi Disc
Service Brake Actuation	Hydraulic w/Power Assist
DIMENSIONS	
Max length with std. Stick, mm (ft/in)	7240 (23 ft 9 in)
Height over std Stick, mm (ft/in)	3390 (11 ft 1 in)
Height over ext Stick, mm (ft/in)	3390 (11 ft 1 in)
Maximum Width, mm (ft/in)	2200 (7 ft 3 in)
Width over tyres, mm (ft/in)	2200 (7 ft 3 in)
Wheelbase - 4WD, mm (ft/in)	2190 (7 ft 2 in)
Ground Clearance, mm (inches)	293 (12)
Width - General Purpose Bucket, mm (ft/in)	2184 (7 ft 2 in)
Bucket Rotation - Position 1, Degrees	190
Bucket Pin Height - General Purpose, mm (ft/in)	3480 (11 ft 5 in)
Dump Height - General Purpose, mm (ft/in)	2740 (9 ft)
Dump Reach - General Purpose, mm (inches)	702 (27.7)
Digging Depth - General Purpose, mm (inches)	70 (2.8)

engine and drivetrain, but customers who do not opt for the comprehensive warranty have the option of selecting a warranty on the hydraulics or drivetrain or on the engine, depending on where they see the risk posed by their business." He says warranties can go up to 10 000 hours or ten years.

The company's market at present is predominantly agriculture, followed by construction and forestry, in that order.

The African market

John Deere has been supplying machines into the African market from its USA

branch for over 20 years.

"Our construction business is still new in southern and East Africa but the John Deere Construction & Forestry brand has been present on the rest of the continent for decades. The company entered the construction sector in Africa just over two years ago.

Makgate says the uptake for the 310 L is greater in South Africa than in the other parts of the southern African region.

"We see a potential market in Zambia, where the clientele and the environment are similar to those of South Africa.

We have dedicated technicians for a secondary backup from the current agriculture dealers as well as dedicated construction technicians and the secondary backup here, too, are the current agriculture dealers.

Selling point

A unique selling point on the 310 L is the 5-speed powershift transmission which sets it apart in its size and range. Also setting the 310 L apart is its Ride Control function whereby the operator sets the front loader hydraulic cylinders on a loaded machine to act as a shock absorber, smoothing travel over rough terrain and preventing the machine from 'bouncing' with the weight of the load in front and little counterweight from the rear. This is a selling point on the 310 L but comes standard on all other machines whereas some competitors provide ride control on their larger machines only.

Aftersales

In terms of aftersales service, dealers have John Deere-trained technicians and parts departments for which they source parts from the John Deere regional distribution centre in Johannesburg.

"We have dedicated technicians for a secondary backup from the current agriculture dealers as well as dedicated construction technicians and the secondary backup here, too, are the current agriculture dealers."

Telematics

The JD Link telematics system allows the fleet operator to see where the machine is and how it is being operated by measuring parameters such as fuel usage, oil temperature, and idle time.

JD Link also includes expert alerts to notify the owner and dealer of problems. When a service is due, the customer or the dealer can log in to the parts catalogue to identify what service parts are needed, and then order them.



SNAP SURVEY: TYPES OF COMPACTION EQUIPMENT IN THE SA MARKET

Efficient compaction is vital to construction, road building, earthworks, paving and other applications. This feature sheds light on the types of compaction equipment available in the market, their respective features and new developments in terms of technology to simplify the compaction process and to provide quality compaction where it is needed. By *Mark Botha*



"Husqvarna's compaction equipment range features enclosed plastic hoods with forced cooling through the hydraulic radiator."

Lionel Zietsman, Husqvarna national sales manager, Construction and Stone

aylon Kukard, sales manager at Wirtgen Group South Africa, says Hamm offers the biggest roller portfolio in the compaction market, with the range including small ride-on tandem rollers; large tandem rollers; pneumatic tyre rollers and soil compactors.

He says the OEM's small ride-on tandem rollers, which range from 1,8 t to 4,5 t units, have different configuration options including vibration front and rear (VV); vibration front and oscillation rear (VO);



Hamm compactors are known for their operator comfort, excellent all-round visibility, simple maintenance, and servicing.

The Hamm roller portfolio from Wirtgen South Africa includes smal ride-on tandem rollers; large tandem rollers; pneumatic tyre rollers and soil compactors

Husqvarna has on offer pedestrian drum rollers in the form of the LP9505 remote controlled unit with an 850 mm wide drum, the LP7505 walk-behind with a 750 mm wide drum, and the LP6505 with a drum width of 650 mm

Hamm compactors are known for their operator comfort, excellent all-round visibility, great climbing ability, simple maintenance and servicing

Husqvarna's compaction equipment range features enclosed plastic hoods with forced cooling through the hydraulic radiator to improve operation in high temperature, humid environments and enclosed areas



"Hamm compactors are known for their operator comfort, excellent all-round visibility, great climbing ability, and simple maintenance and servicing."

Waylon Kukard, sales manager at Wirtgen Group South Africa

vibration front and tyres rear (VT), and full pneumatic tyre rollers.

The large tandem rollers in the range (7 t - 14 t) feature configuration options including vibration front and rear (VV); vibration front and oscillation rear (V0); vibration front and tyres rear (VT); vibration, split drums front and rear (VV-S); vibration split front and oscillation rear (V0-S), and oscillation front and tyres rear (OT).

Hamm pneumatic tyre rollers, which range from 8 t to 28 t, have flexible ballast weights, as well as single and double-axle brake options.

The company's soil compactors, which range from 10 t to 25 t, also offer a range of options including vibrating smooth drums (V); vibration and oscillation (VIO); padfoot drums (P) and vibratory crusher drums (VC).

Husqvarna, says national sales manager, Construction and Stone Lionel Zietsman, has on offer pedestrian drum rollers in the form of the LP9505 remote controlled unit with an 850 mm wide drum, the LP7505 walk-behind with a 750 mm wide drum, and the LP6505 with a drum width of 650 mm. These rollers, he says, are ideal for foundations, trenching, potholes and asphalt.

Edwin Zeeman, head: Product Support and Training at Kemach Equipment, says his company's rollers for asphalt compacting include the BW65H and BW75H pedestrian roller walk-behinds; the BW90 AD-5; BW 120 AD-5; BW 120 AD-5; BW 141 AD-50; BW161 AD-4; BW 161 AD0-50 and the BW202 AD-4 tandem roller sit-ons, as well as the BW 24 RH and the B27 RH pneumatic tyre rollers.

He says machines available for normal compaction, including road compaction, include the BW 211 D-40; BW 212 D-40; BW 220 D-5; the BW 213 BVC-5 single drum rollers and the BW 211 PD-40 and BW 212 PD-40 single drum pad foot rollers.

"We also supply the BMP 8500 DD remote controlled trench compactor and can offer our machines in different sizes," he says.

Features

Wirtgen's Kukard says Hamm compactors are known for their operator comfort, excellent all-round visibility, great climbing ability, simple maintenance and servicing with all daily maintenance and service items located in readily accessible positions on the same side of the machine.

"Our 3-point articulated joint is exclusive to HAMM and ensures optimum driving comfort as well as outstanding traction and off-road mobility, absorbs shocks and enables safe manoeuvring, even on rough terrain. Our easy drive concept ensures safe, intuitive operation thanks to clear,



"Optional on some of Kemach Equipment's machines is the ECONOMIZER feature, which measures the stiffness of material to be compacted."

Edwin Zeeman, head: Product Support and Training at Kemach Equipment

LF 80 L from Husqvarna is a fast-operating forward plate compactor, ideal for compacting thin to medium layers of granular soils.

Husqvarna's compaction equipment range features enclosed plastic hoods with forced cooling through the hydraulic radiator.



language-neutral operating elements and ergonomically optimised workspaces."

Zietsman says Husqvarna's compaction equipment range features enclosed plastic hoods with forced cooling through the hydraulic radiator to improve operation in high temperature, humid environments and enclosed areas.

He says the LP9505 has closed ends on drums for improved operation in trenches and a user-friendly remote control which has a large, informative display for guidance and trouble shooting. The LP9505's remote control comes with two batteries, one for

use and the other to charge in the on-board charger, in order to ensure that the operator never runs out of power.

Another feature on these machines is hydraulic brakes with an automatic braking function for easier handling and enhanced safety. Optional on some of Kemach Equipment's machines is the ECONOMIZER feature, which measures the stiffness of material to be compacted. The ECONOMIZER indicates optimal compaction to avoid under or over compaction, so saving reworking, time and money while improving quality. The TERRAMETER – also optional on some machines in the Kemach stable - shows compaction progress and soil stiffness (EVIB). On single drum rollers, the TERRAMETER shows EVIB in MN/m2. The stages show typical EV2 target values for lower bearing course, surface layer and gravel.

The ASPHALT MANAGER 2 provides intelligent compaction by means of linear oscillation, infinitely adjustable amplitude and automatic control. The operator simply chooses the layer thickness, and the roller optimises the compaction.

The optional BOMAG Compaction Management (BCM) feature continuously documents the entire compaction process and comprehensive compaction charts are generated in real time. BCM is available in three versions – BCMstart, BCM05 and BCMnet.

New developments

Kukard says Wirtgen's HAMM Compaction Quality (HCQ) feature ensures high quality compaction while providing documentation for archiving the compaction results.

The advantages of the HCQ system include homogeneous compaction over the entire working area; the prevention of over and under compaction; improved quality based on simple self-monitoring; comprehensive compaction documentation and simple and secure data archival.

"The system is also flexible as it is a modular system," says Kukard. "It has identical components for compactors, tandem rollers and static rollers. It can be used worldwide and is extremely simple to operate and fast to assemble. It also allows for data exchange between multiple machines."

He says HAMM has introduced power hybrid engine drives with fully electric units and fully autonomous units having been in development for a number of years already.

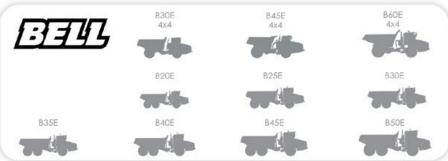
"Wirtgen South Africa is looking forward to launching our new soil compactor range, replacing the 3000 series, into the local market very soon."

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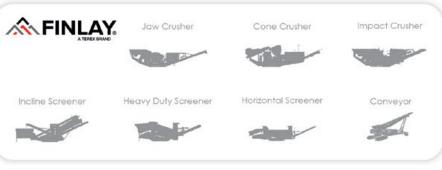


















NEW 'BULL' IN THE BACKHOE PEN

Having received its first batch of BULL backhoe loaders in December last year, Kemach Equipment has sold just over 20 machines thus far. Despite the competitive nature of the backhoe loader market, the company believes it has the ultimate tool to challenge for a 10 - 12% market share, writes *Munesu Shoko*.

s part of its business realignment strategy, Kemach Equipment signed a distributorship agreement for the BULL range of backhoe loaders in July last year. Despite the initial slow uptake, Mark Senyard, national support and marketing manager at Kemach Equipment, has seen a growing interest in the product in recent months.

While the BULL brand has been available in South Africa since 2017 through previous dealers, Senyard says many customers in the mainstream construction and plant hire sectors were not familiar with the brand.

"We initially had a slow take-up as many of our existing customers felt it was an unknown brand in South Africa," he says. "Having conducted a strong brand awareness campaign and demonstrated the machine range's capabilities, customers are starting to accept the BULL offering. Feedback from those who have used the machine has been positive."

The range

Kemach Equipment currently offers four BULL backhoe loader models, the HD76, the HD96 GP, the HD96 CS and the HD100 MP. Powered by a naturally aspirated Kiloskar engine delivering 56,7 kW of power at 2 200 rpm, the HD76 is said to offer 15% more bucket breakout force and 4% more backhoe bucket capacity than some of the closest competitors in its class size, thus maximising machine productivity.

The HD96 comes in two variants, the General-Purpose and the Clamshell Bucket versions. The machine is powered by a turbo charged Kiloskar engine delivering 70,6 kW power at 2 200 rpm. Driven by a 74,5 kW Perkins engine, the larger HD100 MP (Multi-Purpose) model comes with a standard clamshell bucket, foldover folks and an extended dipper. However, customers wishing to acquire the HD100 in a General-Purpose configuration can place special orders.

A key competitive edge of the machine range are the



The HD96 is powered by a turbo charged Kiloskar engine delivering 70,6 kW power at 2 200 rpm.

Having conducted a strong brand awareness campaign and demonstrated the machine range's capabilities, customers are starting to accept the BULL offering. Feedback from those who have used the machine has been positive.



As part of its business realignment strategy, Kemach Equipment signed a distributorship agreement for the BULL range of backhoe loaders in July last year

Despite the initial slow uptake, Kemach Equipment has seen a growing interest in the product in recent months, with over 20 machines sold since December last year

Kemach Equipment offers four BULL backhoe loader models, the HD76, the HD96 GP, the HD96 CS and the HD100 MP

Kemach Equipment is targeting a 10 – 12% market share

well-known components such as the Kiloskar and Perkins engines, as well as the Italian made Carraro transmission and Casappa pumps. This is complemented by the reputable Danfoss braking system and AKG radiators. In addition, the machine range comes with hammer piping, aircon as well as ROPS and FOPS as standard.

Senyard is encouraged by the OEM's cooperation in the brand building phase. "To provide context, as part of the initial evaluation of the first machines we brought in, we picked minor issues with hose routings and wiring harnesses, which we raised with the OEM. In our next batch of machines, these issues had been solved. We were impressed by the swift implementation of the requested changes to the machines, which is of great benefit to the end user and Kemach Equipment as the dealer

building a relatively new brand in the market," says Senyard.

As part of further dealer/customer feedback, the next batch of machines will come with a completely revamped cabin. Senyard is also impressed with BULL's quick factory production lead times. While some of the global OEMs are currently battling with lead times as long as 13 months on machine orders, due to factors such as the global steel and semiconductor shortages, the BULL factory currently has a three- to fourweek lead time on machine orders. The only challenge, however, remains the ongoing global supply chain disruptions making it difficult to ship machines timeously.

Market share

The backhoe loader market is fiercely contested in South Africa, with over 24 players vying for market share. Despite its competitive nature, it is a high-volume market averaging between 1 200 and 1 300 units a year in recent years.

Available industry figures show that the market totalled 1 430 unit sales in 2017, rising to 1 541 units the following year. The market however dropped to 1 280 units in 2019, before plummeting to 920 in a COVID-19 hit 2020. A notable market recovery saw 1 300 unit sales in 2021. Having already recorded 400 unit sales in the first three months of 2022, the market is expected to recover significantly this year.

In a competitive market dominated by some of the leading global OEMs, Les Lothian, CEO of Kemach Equipment, believes that the BULL backhoe loaders are the "ultimate wheelbarrows" of the market. To drive his point home, Lothian



The machine takes a range of attachments, allowing it to perform various tasks on site.



A key competitive edge of the machine range is the well-known components such as engines and transmissions.

says BULL is already a significant player in the Indian market, which averages between 40 000 and 50 000 units a year.

Leveraging an existing wide backhoe loader customer base, Senyard believes that Kemach Equipment will be a player of substance in the backhoe loader market in South Africa, targeting 10 – 12% market share in the next few years.

"The world has changed, and customer needs have evolved. We believe that with the addition of the BULL product to Kemach Equipment's expanding world-class offerings, we have the ultimate earthmoving solution across all industries," he says. "This is a robust product built on the right fundamentals. We will complement it with good support and an industry-first 3

year/4 000-hour wet drivetrain warranty as standard."

According to Senyard, the BULL offering is the tallest dumping backhoe loader in the world, yet it is competitively priced against some of the leading brands. "On the HD96 GP, for example, we are currently between 15 to 20% more cost-effective than some of the competitive offerings in that size class," he says.

Meanwhile, Kemach Equipment is expanding the BULL range with the AV490 skid steer loader. The two units initially brought in for evaluation have already been sold. Having recorded several enquiries in recent months, Kemach Equipment has ordered five more units, together with 20 more

The world has changed, and customer needs have evolved. We believe that with the addition of the BULL product to Kemach Equipment's expanding world-class offerings, we have the ultimate earthmoving solution across all industries

10 — 12%

Leveraging an existing wide backhoe loader customer base, Senyard believes that Kemach Equipment will be a player of substance in the backhoe loader market in South Africa, targeting 10 – 12% market share in the next few years.

backhoe loaders. The next batch of machines is expected to hit the South African shores in June.

Looking ahead, Senyard is excited about the prospects of growth for the BULL backhoe range. He believes that the backhoe loader remains the ultimate tool of choice across many industries and applications in South Africa. Despite the arrival of other new solutions such as compact and articulated loaders in recent years, the backhoe and skid steer loaders remain the ultimate "picks and shovels of the industry".

"The backhoe loader remains the workhorse of the industry and is deployed across various sites from general construction to agriculture and mining. It is also the go-to solution for smaller contractors finding their feet in business. That's probably where everyone starts in South Africa," concludes Senyard. •



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TIPS FOR EFFORTLESS TRAILER MAINTENANCE

It's only natural to want an easier solution for efficiency-draining tasks like maintenance. However, as any pro athlete will tell you, advancing to the point where something becomes effortless is rarely easy. It takes commitment and determination, not to mention buy-in from the whole team. By *Troy Geisler*, VP sales & marketing, Talbert Manufacturing



"The rewards that come with a well-honed trailer maintenance routine – increased safety, more productivity, longer service life and better ROI – make it a worthwhile goal of any operation."

Troy Geisler, VP sales and marketing at Talbert Manufacturing.

till, the rewards that come with a well-honed trailer maintenance routine – increased safety, more productivity, longer service life and better ROI – make it a worthwhile goal of any operation. Following here are some tips to help create an effective maintenance routine.

Invest in quality, low-maintenance equipment

Starting the game with quality equipment gives teams more time to focus on their skills and improve their performance. The same is true for trailer maintenance. Investing in equipment that minimises upkeep requirements from the outset makes it easier to establish a maintenance routine. Look for well-con-

structed units with quality components such as heavy-duty T-1, 100 000-psi minimum yield steel and premium primer and paint options. These trailers might cost a little more initially but provide long-term dependability that reduces overall maintenance.

Additionally, trailers designed for easy maintenance minimise the hassle for operators and technicians, increasing efficiency. For example, a technician won't have as much trouble keeping up with tasks like replacing bushings and axle seats if these wearables are easy to access. Solid clamp-in bushings don't require an expensive press for user-friendly replacement and offer an extended life over slotted designs. Extra-long, contoured axle seats provide a strong connection without the need of added U-bolts and reduce stress on the weld. Cylinders that are mounted parallel to the ground are another option to simplify maintenance. These can be replaced in a matter of minutes, saving a significant amount of time and effort over the life of the trailer.



In addition to inspecting the trailer body and systems for damage, operators should double check load securements.

QUICK **TAKE** The rewards that come with a well-honed trailer maintenance routine make it a worthwhile goal of any operation Investing in equipment that minimises upkeep requirements from the outset makes it easier to establish a maintenance routine A technician won't have as much trouble keeping up with tasks like replacing bushings and axle seats if these wearables are easy to access Building a solid maintenance foundation relies on good communication and detailed record keeping Creating a maintenance routine that becomes second nature to your team will increase efficiency and provide the best productivity and long-term ROI for your equipment

Keep open lines of communication

On the court, communication is key to making plays and racking up points. But it's also important in the maintenance bay. Building a solid maintenance foundation relies on good communication and detailed record keeping. Every operation is different, so design a maintenance programme and schedule that fits your specific needs. For example, if your trailers need to be on the road all the time, you'll want to ensure operators run through a thorough pre- and post-trip inspection to catch signs of wear or damage quickly, so you don't risk unscheduled downtime.

Keeping detailed records of these inspections and other preventative maintenance, including assessments of wearable items and structural observations, will optimise efficiency and keep small issues from becoming larger headaches down the road. Putting proper procedures in place will keep appropriate personnel accountable for performing the maintenance when needed.

Be sure to keep the lines of communication open between operators, technicians and management to ensure everyone is running the same play when it comes to maintenance requirements. Additionally, make sure anyone preforming maintenance is properly trained.

Create a routine that becomes second nature

While quality equipment and good communication will get an operation off to a good start, it's not enough to carry you over the goal line. For that, your team needs to put in the practice. Work with managers, operators and technicians to create maintenance routines that work for your operation. Pre-trip inspections are a great place to start. Here are a few steps you should consider incorporating for more efficient maintenance:

- Before every trip, thoroughly check the trailer body and system for signs of damage or wear. This includes brakes, tyres, suspension, electrical and cylinders, as well as the deck, gooseneck and other components.
- Ensure that tyres are properly inflated to the right psi. Underinflated tyres are one of the biggest culprits of premature ware, so keeping them properly inflated will increase longevity and boost fuel efficiency. Some top-tier manufacturers offer automatic tire inflation systems that make this important task easier for more efficient maintenance and increased peace of mind.
- Confirm hydraulic hoses are free from cracks or damage. If you're operating a detachable or rear-load model, be sure hydraulic pressure is correct even on self-



Creating a maintenance routine that becomes second nature to your team will ensure that from the yard on down the road, everyone pulls up safe and sound at the end of the day.

those with traditional paints and standard materials.

contained and wet lines.

- Inspect chains, binders, straps or other tie downs, as well - those securing the load and any spares stored on the trailer. Look for cracks, fraying, weak links or other signs of wear that might require replacement.
- Ensure hydraulic cylinders are fully retracted when not in use. This minimises the exposure of the stainlesssteel ram to the elements for maximum longevity.
- Make sure wheel-ends, brakes, cams and slack adjusters are properly lubricated to minimise wear and prevent leakage. For lighting connections, electrical components, lights and lighting harnesses, use dielectric grease to reduce corrosion.
- Double-check load securements to ensure everything makes it to the final destination intact.

A comprehensive maintenance plan is vital for keeping your equipment, employees and loads protected. Creating a maintenance routine that becomes second nature to your team will increase efficiency and provide the best productivity and longterm ROI for your equipment.

Heavy-haul trailers made from

high-quality materials and

finishes will last longer than

Additional tips

Heavy-haul trailers trek thousands of miles during their service lives and encounter many challenges - from rocks and ruts to bumps and jolts, no trailer gets out unscathed. To get the most from trailers, here are some additional tips to prevent costly Travelling with damage and keep your trailers in top

Start with the purchase

shape.

Minimising heavy-haul trailer maintenance starts long before the load hits the road. To ensure long-term durability, choose units with high-strength steel, such as 12-inch deep I-beams with a minimum yield strength of 100 000 psi.

High-quality finishes are also important. A trailer with premium primer and topcoat finishes will look great for years to come and will, as a result, have a higher resale value.

Load Capacity

To minimise wear on components such as brakes and tyres, and to ensure safety, follow the right loading capacity for the trailer. This means getting a true idea of load concentrations as well as weight, speed and safety ratings. Manufacturers are great resources for providing a clear picture of each trailer's true capacity.

Pre-trip Inspection

Before taking off with each load, inspect your heavy-haul trailer, checking that brakes and tyres are in good condition. Also ensure tyres are properly inflated to the right psi and confirm hydraulic hoses are free from cracks or damage. If you're operating a detachable or rear-load model, be sure to properly maintain hydraulic pressure even on self-contained and wet lines.

A quick walk around the trailer to look at the frame, chains and straps for damage is a good idea, as well. Trailers see a lot of use and abuse, particularly in harsher weather conditions, so repairs or replacements could be needed sooner rather than later.

Hydraulic cylinders

Hydraulic cylinders should be fully retracted when not in use to minimise the stainless-steel rams' exposure to the elements and maximise their longevity.

Lubricate

Keep wheel-ends lubricated to minimise wear and prevent gear oil leakage. Welllubricated wheel ends also ensure proper and safe operation. Brakes, cams and slack adjusters need to be lubricated,

as well. In addition, use dielectric grease on lighting connections, electrical components, lights and lighting harnesses to reduce corrosion. Always refer to the manufacturer's recommendations and grease guidelines.

Travelling with underinflated tyres is one of the biggest culprits of premature wear, so keeping them properly inflated will allow them to last longer and

Tyres

Continued on page 23.



Smarter and sustainable logistics

The Euro 5 Croner combines a full range of features to help keep your truck on the road for longer while preserving the environment.

Key features include:

- GH5E and GH8E engine
- Automatic transmission
- Fuel coaching

Learn more at udtrucks.co.za

- New 5 inch LED instrument cluster
- UD Extra Engine Brake
- UD Extra Mile Support



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UD TRUCKS SOUTHERN AFRICA EXTENDS ITS EURO 5 RANGE WITH THE QUESTER AND CRONER

UD Trucks Southern Africa unveiled a new Euro 5 European emission standard range for the well-established Quester heavy duty and Croner medium duty trucks. The upgrade boasts enhanced features that will improve uptime, enhance efficiency, and optimise total cost of ownership (TCO), all while lowering the vehicle's environmental impact and retaining benefits from previous models.

or us," said UD Trucks
Southern Africa MD Filip
van den Heede during
the launch event, "this is
not just another vehicle
launch; it is a continuation of the transformation that we started with the launch of
the Quon in 2019 as a move towards a more
sustainable transport solution. Customers
and their customers demand a greener
solution. We have been listening to our
customers over the years and the Croner
and Quester are built partly on customer
demand and input, and partly on UD Trucks'
innovation drive."

The new Euro 5 range has been introduced in other fast-growing and emerging regions around the world that are moving to adopt more stringent international emission standards in a bid to cut pollution and improve air quality. In most markets, as in South Africa, UD Trucks' new Euro 5 range has been introduced ahead of these regulations to better prepare businesses for

the switch to a cleaner fleet.

"In the last five years, we have sold 35 000 units in this product range outside Japan. Some 15 000 units were sold in Africa, so we have a big reliable fleet of vehicles in the market and now we are adding the Better Life Euro 5 dimension," says Van den Heede.

This latest launch bolsters UD Trucks'
Better Life purpose — to be better for
logistics, the planet, people, and business.
Better Life drives the integration of
sustainability across all of the company's
operations and processes to realise lower
environmental impact, higher customer
satisfaction, higher profitability, and a better
place for people to work and live.

"In today's world," says Van den Heede,
"sustainability is more important than ever.
COVID-19 is also placing more emphasis
on a more sustainable approach to driving
a post-pandemic recovery. Modern and
efficient logistics is vital to keep the world
moving in these fast-evolving times, and our

latest launch will ensure greater resilience for businesses while ensuring environmental impacts are minimised.

"In South Africa in particular, we see a wider customer base opting for a more sustainable and at the same time more fuel-efficient logistics solution and UD Trucks, being the market leader in the Euro 5 market with Quon, is now expanding the offering with Quester and Croner."

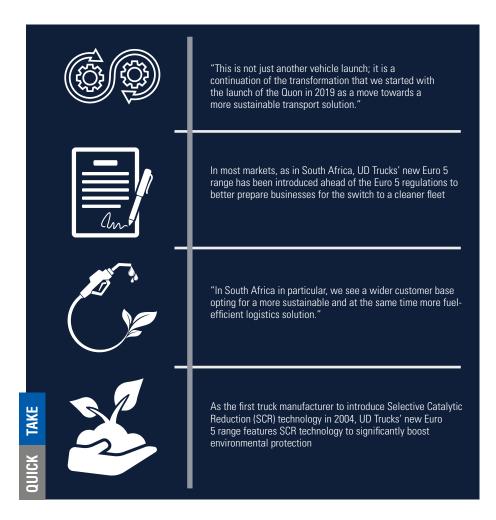
Ensuring businesses stay competitive

Air pollution is one of the largest health threats facing the world today. According to the International Energy Agency (IEA) global energy review 2021, global energy carbon emissions are projected to rebound in the post-COVID era to grow by 4,8%. This would represent the largest single increase in over a decade. Emissions from transportation alone are at risk of increasing global emission levels by over 1,5%.

"The Euro 5 solution was designed for environmental reasons," says Van den



In the last five years, UD Trucks has sold 35 000 units in this product range outside Japan.



Heede. "We now have a solution that can bring better fuel efficiency to the customer. We see a shift among bigger fleet owners shifting towards Euro 5 but we believe that the smaller companies will start to see the benefits, especially in the context of rising fuel prices."

Moving towards cleaner fleets is imperative. Euro 5 reduces NOx emissions by about 43% compared to Euro 4 and significantly reduces the carbon footprint of the vehicle through cleaner emissions.

As the first truck manufacturer to introduce Selective Catalytic Reduction (SCR) technology in 2004, UD Trucks' new Euro 5 range features SCR technology to significantly boost environmental protection and fuel economy. With these benefits, SCR technology is proven to be more reliable when compared to other emission control technologies for reducing NOx emissions.

Aside from featuring a Euro 5 system with SCR technology, the new range of Quester and Croner also features a new instrument cluster with real-time fuel coaching. This enhancement provides drivers with immediate and specific feedback on driving

techniques that are more fuel efficient.

Quester, a heavy-duty truck that combines excellent fuel efficiency with durability, has evolved further to meet today's transport and environmental challenges. The latest Euro 5 upgrade and new instrument cluster add to Quester's other standout features:

Smart

Connected and business-ready with innovative UD Telematics — a high-tech wireless communications system that allows transportation companies to maximise efficiency with real time vehicle tracking and geofencing.

Sustainable

Increased fuel efficiency with numerous features including ESCOT automated manual transmission. Combined with lighter tare weight and optimised driveline, fuel economy can improve by up to 10% compared to the previous Quester model.

Safe

Quester with ESCOT takes away the driver's need to shift an average of 1 000 – 1 500 times a day by automatically selecting the right gear at any given time. This leads to less stress and improves safety by allowing the driver to focus more on the road.

A reliable and versatile medium-duty truck, Croner has been designed to make every moment count. The latest Euro 5 upgrade and new instrument cluster add to Croner's other tried and tested features:

Wide and customisable model offering: Croner can be configured to suit specific applications and optimised for better productivity.

Fuel efficiency: Aerodynamic cab design reduces the drag coefficient by 5% compared to previous models.

Drivability: Allison automatic transmission and superior ergonomics provide more comfort for the driver, resulting in less fatigue and higher productivity.

More space, comfort, convenience: Croner's cabin has been designed to put driver comfort first. It also comes with numerous active and passive safety features to protect the driver, cargo, and surrounding traffic.

"For 86 years, we have grown UD Trucks to be a truck brand of choice for our customers and this year in we celebrate 60 years of operating in South Africa," says Van den Heede. "We are committed to continuing our endless pursuit of bettering lives in the spirit of our 'Gemba' philosophy, leveraging smart and sustainable logistics solutions to provide ultimate dependability for our customers, business partners, colleagues and society at large."



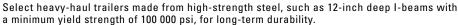
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Learn more at udtrucks.co.za

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77

To minimise wear on components such as brakes and tyres, and to ensure safety, follow the right loading capacity for the trailer.

This means getting a true idea of load concentrations as well as weight, speed and safety ratings.

77

boost fuel efficiency. Regularly check tire pressure and keep them properly inflated, either manually or with an automatic tire inflation system.

In addition to keeping tyres inflated, it's just as important to replace them when they become worn to avoid a blowout and downtime. Always select the right size and rating to ensure optimal performance and keep tyre pressure equalised for the greatest longevity.

Preventative maintenance programme

Developing a preventative maintenance programme that aligns with an owner's business needs will minimise breakdowns and optimise longevity of trailers as well as their components. It will also enhance safety. Trailer fleet owners should match their equipment needs to a maintenance schedule. For example, will the trailer need to be on the road all the time or will it sit idle for longer periods of time?

One of the best ways to see a direct reflection of the success of your maintenance programme is through the Commercial Vehicle Safety Alliance's inspection programme. The nonprofit organisation scores commercial motor vehicles based on inspection procedures and CVSA criteria — and the lower the number, the better.

Keep a record

Proper record keeping is also important so you know when preventative maintenance is needed and what has already been done. This helps your operation optimise efficiency and prevent any small issues from becoming larger headaches down the road. Putting proper procedures in place will keep appropriate personnel accountable for performing the maintenance when needed.

Training/mechanics

Trailer owners should ensure anyone involved with any aspect of the trailer's use has proper training, not only to prevent damage to the trailer, but also for their safety and the safety of others. In addition, ensure mechanics are well-trained on maintaining heavy-haul trailers and that they follow manufacturers' guidelines.

Communication

Drivers and maintenance technicians should have open lines of communication in regard to trailer issues or required maintenance. This will ensure the right kind of maintenance is performed and that it's done in a timely manner.

From fleets of five trailers to 50, proper selection, maintenance and preventative programmes are equally important in ensuring the greatest longevity, safety and performance of each unit. •



UNPACKING THE RISKS FACED BY HEAVY COMMERCIAL VEHICLE OPERATORS AND GOODS IN TRANSIT

Vuyisani Titi, CEO of Lynx Transport Underwriting Managers, underwritten by GENRIC Insurance Company Limited, unpacks the risk and insurance challenges facing heavy commercial vehicle (HCV) operators in the current transport operating environment, both in terms of the vehicle assets and the goods in transit.

he cost of insuring an HCV fleet faced a massive premium increase in SASRIA cover for loss or damage due to civil commotion, riots, strikes and terrorism. Following a spate of looting and rioting in KwaZulu-Natal (KZN) and Gauteng in July 2021, February 2022 brought increases of over 1 700% as the special risk insurer looks to rebuild capacity after losses totalling R32-billion, spread over 14 000 claims. The massive losses mean that policyholders will face very large increases on certain classes of business to ensure the sustainability of the insurer and its ability to pay claims on this crucial cover again in future.

HCV operators have been hardest hit with trucks exceeding 3 500 kg attracting a 1 736% increase. In material terms, that means that SASRIA cover for an HCV worth R2-million will increase from R375 per annum to R6 900 per annum for 2022. An HCV insured for R500 000 saw a premium hike from R94 to just over R1 720. Light commercial vehicles (under 3 500 kg) saw premiums increasing by 1 455%. Extrapolate this across a fleet of vehicles and the financial implications for HCV operators are onerous — where SASRIA cover was previously a relatively insignificant driver of insurance costs for a fleet operator, it is now a major cost, likely to be passed on to the end-user. However, when one considers the risks of the operating environment, and the continued risks for violent protests, riots, looting and even simmering xenophobic tensions, the risks posed to the insurer and the insured are very real and present.

While HCV operators may be tempted to forgo this crucial cover, it is strongly advised that fleet operators engage with their brokers to find ways to reduce their overall insurance costs with certain voluntary deductibles, co-insurance options and even self-insurance where it makes sense to do so, to keep their SASRIA cover in place. While insuring assets and goods in transit against riots, strikes, civil commotion and terrorism is going to cost a lot more going forward, its critical importance in a balanced risk management programme in the current transport operating environment is not debatable.

Truck, cargo hijackings on the rise

With alarming unemployment levels and a decline in visible and capable policing, trucks and cargos on the roads are increasingly in the sights of criminal syndicates operating sophisticated hijacking operations. Crime statistics released by Police Minister Bheki Cele for the first quarter of 2021 showed that four courier vehicles were hijacked every day in South Africa, and that truck hijackings increased by 24,6% compared with the same period in 2020. A total of 354 trucks and courier vans were targeted during this period for their high value cargo which was typically food, appliances, mobile phones and other goods.

In addition to cover for the vehicle asset, HCV operators need to ensure that they have adequate Goods In Transit (GIT) cover in place from the start of when goods are loaded at the depot until the time it is offloaded at the destination and responsibility is transferred to the



Vuyisani Titi, CEO of Lynx Transport Underwriting Managers.



receiving party. GIT would provide cover for accidental damage of goods if a truck should be involved in an accident; load shifting where the load moves during transit causing damage to the goods; theft of goods where goods are stolen at approved and sanctioned truck stops, and loss of cargo due to fire.

Unqualified and unverified drivers

A growing trend is the lack of rigorous verification of driver qualifications, licences and work permits where applicable on the part of the employer. This is often only picked up at claims stage where the insurer would find that the driver does not in fact have a valid licence to operate the vehicle — leaving the truck owner in a serious financial predicament as any claim is likely to be declined if the vehicle was driven illegally.

It is crucial that HCV operators invest the time and resources to conduct thorough verification and background checks on every employee, especially considering that they are putting the driver behind the wheel of a multimillion rand asset, not to mention the potential for hefty third-party liability in the event of an accident where there are injuries or worse. The costs saved by not doing proper verification pales in insignificance when you consider the liability of putting an unlicensed and unqualified driver, or one with falsified work permits, behind the wheel of your HCV and valuable cargo.

Driver fatigue and loading negligence

According to Lynx, around 40% of its accident claims are attributed to driver fatigue and negligence. With transport operators trying to make up for lost time and revenue as a result of the pandemic lockdowns and supply chain bottlenecks, many HCV long-haul drivers are subjected to challenging conditions and pressure to meet deadlines despite weather, road and safety conditions.

From a loading perspective, overloading, and even incorrect loading, is a dangerous risk. It inevitably means that the HCV will not operate as it should, it won't stop or brake as expected and steering and controlling the vehicle on the road will be precarious at best. It is crucial that drivers and transport operators know how to load and offload cargo correctly, as well as the correct storage and handling conditions of such goods. It is also vital to understand when and how your goods in transit coverage applies once cargo is offloaded and ownership or possession is transferred to another party.

Driver fatigue is another crucial issue. Legally, a driver is only allowed to drive for a set number of hours before having to stop and rest. Best practice demands that there should be two drivers to every vehicle for long hauls, so that drivers are able to relieve each other at the appropriate intervals. Unfortunately, some operators cut corners on the additional costs, and push drivers to do longer hauls without rests at scheduled

It is crucial that drivers and transport operators know how to load and offload cargo correctly, as well as the correct storage and handling conditions of such goods. It is also vital to understand when and how your goods in transit coverage applies once cargo is offloaded and ownership or

possession is transferred to

another party.



intervals, putting not only the driver, vehicle and load at risk, but other road users too.

Skimping on risk management, mitigation and insurance

The importance of having a comprehensive risk mitigation programme in place cannot be emphasised enough. All industries are dealing with the impact of economic slowdown and slow recovery in the midst of the pandemic, coupled with trade tensions and political upheaval which are exacerbating the traditional risks. In such an environment, the HCV and transport sectors are under tremendous pressure in terms of costs and achieving operational efficiencies, while also having to balance the risks faced in safeguarding people, high value vehicles and high-risk cargos through insurance solutions

It's crucial to fully interrogate the value and nature of risk faced by your HCV operation, and in turn ensure that you are adequately covered for your assets, people risk and cargo. The temptation to cut costs and skimp on insurance must be avoided at all costs, and operators need to apply proper risk management and assessment protocols to reduce their exposures in uncertain and challenging economic conditions. It is here where the skills and sector knowledge of an experienced HCV insurance underwriter and professional broker proves invaluable, ensuring that even in a worst-case scenario, your business can operate as normal, safeguarding your bottom line and reputation. ③



FLEET MANAGEMENT



OUTDATED FLEET MANAGEMENT COMMUNICATION DEVICES THAT PUT SA ROAD USERS AT RISK

As industries across the globe commemorate World Telecommunication and Information Society Day, the United Nations has highlighted the possibilities that the internet and other information and communication technologies (ICTs) can bring to societies and economies. By *Justin Manson*, sales director at Webfleet Solutions

doption of these technologies is an urgent requirement in South Africa's fleet management sector, where countless businesses still use cell phones to communicate with drivers. But unfortunately, this method of communication is both hugely expensive and incredibly unsafe.

Despite innovations like two-way radios and push-to-talk Voice over Internet Protocol (VoIP) devices promoting safer and more cost-effective communication methods than cell phones, network coverage still heavily impacts the effectiveness of these solutions. Additionally, some of these devices still require drivers to take their eyes off the road.



"Digital technology now allows fleet managers to communicate with drivers more safely and effectively, whether they're managing one or one hundred drivers on the road."

Justin Manson, sales director at Webfleet Solutions

Cellphone use while driving a growing concern

A video recently emerged of a South African truck driver using his cell phone while driving. First, he checks the road ahead to see a side tipper truck a few metres ahead. He then proceeds to use his cell phone with both hands. However, the side tipper in front of him stops abruptly while his attention is on his mobile device.

By the time he realises the imminent danger, it's too late and there's no way for him to avoid colliding into the back of the truck. The crash happened in under two seconds of him looking down at his cell phone.

This is just one example of how cell phone use remains a serious concern for drivers, other road users, and fleet operators whose concentration continues to be compromised by these devices. According to a report by Transport Research Laboratory, drivers who read and compose text messages while driving had a 35% slower



Relying on cell phones would require the fleet manager to dial several different mobile numbers individually.

reaction time and reduced ability to maintain vehicle control.

The research also found that, when texting, drivers slowed significantly, indicating that they recognised the impairment and attempted to mitigate risk by reducing speed.

Digital technology eliminates distracted driving

A driver's use of a cell phone, or even a two-way radio, to communicate puts the lives of other road users at risk. It can also be costly for businesses, especially considering that even the best-planned schedule or route might need to be adjusted when the unexpected hits.

For example, suppose a business relies on cell phones to communicate with drivers. Those drivers could miss notifications about a route or schedule change because of a sudden hail storm or even protest action along their way. This could lead to delivery delays or damage to the vehicle and its cargo.

Additionally, relying on cell phones would require the fleet manager to pick up the phone and dial several different mobile numbers individually and perhaps only get through to a few drivers because of a lack of network coverage.

Thankfully, digital technology now allows fleet managers to communicate with drivers more safely and effectively, whether they're managing one or one hundred

drivers on the road.

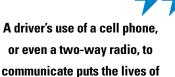
For instance, digital solutions like Driver Terminal sit on the driver's dashboard and read messages from the fleet manager aloud. That means the driver doesn't need to pull over to check the new instructions or compromise their safety by taking their eyes off the road.

Fleet managers can also use this technology to digitise drivers' job cards and send clear instructions straight to a group of drivers. This allows them to optimise each driver's tasks and routes and share the updates electronically with the drivers on duty.

As a result, fleet managers don't need to wonder whether jobs have been completed, what the ETAs are for the following location, or whether a driver has completed a specific job, which improves customer satisfaction, can increase billable hours or reduce overtime.

Businesses that manage fleets across multiple provinces can use these systems to simultaneously alert all vehicles in one specific location about traffic updates, schedule changes and weather events, allowing them to provide accurate ETAs to customers. They can then manage customers' expectations effectively while reducing wear and tear and the likelihood of drivers working overtime.

By optimising these day-to-day operations, businesses will benefit from long-term savings. For example, given that petrol



other road users at risk. It can also be costly for businesses, especially considering that even the best-planned schedule or route might need to be adjusted when the unexpected hits.

and diesel prices are expected to increase substantially in June this year, fleet managers running ten or more deliveries a day can determine the fastest routes for drivers and communicate these updated routes effectively, which will reduce fuel costs.

South African businesses no longer have an excuse to rely on cell phones to communicate with drivers. The sector now has an even more comprehensive range of safer and cost-effective digital technologies that can provide a competitive advantage to companies and eliminate the distraction of using mobile devices while driving.





LEVERAGING LOCAL CAPABILITIES TO SIDESTEP SUPPLY CHAIN SNAGS



"The supply chain shortages are wreaking havoc everywhere, but leveraging our local capacity, from design to fabrication, we have been able to manoeuvre through these challenges."

Kim Schoepflin, CEO of Kwatani



"In terms of production in the factory, we are comfortably doing around 200 t of fabricated steel a month. Whenever there is need to fabricate more than that, we outsource the fabrication of non-intellectual property items to selected local fabricators that we have good relationships with."

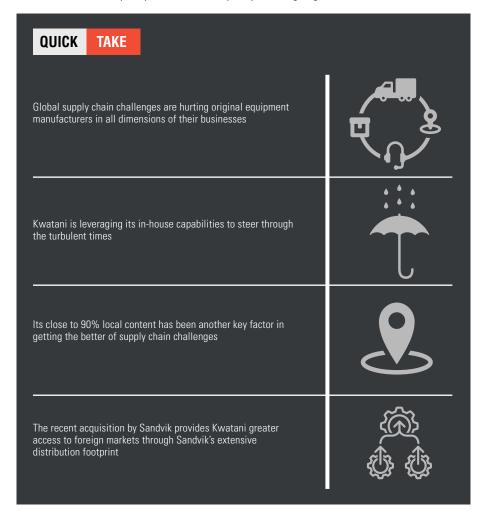
Kenny Mayhew-Ridgers, chief operating officer at Kwatani

The COVID-19 pandemic has affected every part of the global supply chain, putting untold pressure on manufacturers. Leveraging its in-house design, manufacture and supply capabilities, complemented by a high local content, vibrating screen specialist Kwatani has successfully navigated the supply chain challenges and minimised the impact of disruptions on operations and lead times. By *Munesu Shoko*.

he COVID-19 pandemic has
exposed the fragility and shortcomings of global supply chains.
This has been exacerbated by
other non-pandemic factors, such
as the geopolitical turbulence in Eastern
Europe, pushing the entire system to the



The Kwatani assembly shop floor filled to capacity with ongoing orders.



breaking point and creating one big global logistical nightmare.

Issues such as the ongoing shortages of steel, shipping delays, shipping container shortages and ultimately higher shipping costs are hurting original equipment manufacturers (OEMs) on all dimensions of their businesses. Consequently, end users have had to bear the brunt of record lead times for their mission-critical capital equipment.

While the global supply chain challenges have tested the organisational resilience of the majority of OEMs across the globe,

Kwatani has strongly leveraged its in-house capabilities to steer through the turbulent times, says CEO Kim Schoepflin.

"The supply chain shortages are wreaking havoc everywhere, but leveraging our local capacity, from design to fabrication, we have been able to manoeuvre through these challenges," says Schoepflin. "Our high local content, which is close to 90%, has been another key factor in getting the better of supply chain challenges. We have over the years heeded government's call for localisation, and therefore most of our suppliers are local. The only imported items in our manufacturing processes are unbalanced motors and bearings, which limits our exposure to the global supply chain disruptions."

Strong growth

When COVID-19 hit in early 2020, there was general trepidation throughout the market that commodity prices could fall closer to trough levels in the short term and make significant cuts to mining companies' earnings forecasts. Production losses were also a cause for concern, especially at the height of the hard lockdown, which called for a complete shutdown of most mines.

Despite the supply chain challenges, Kwatani has seen strong business growth in the past year. This, Schoepflin says, is largely due to high commodity prices. With record rand prices for gold, the platinum group metals basket, iron ore and more recently, coal, 2020 – 2021 has truly been rewarding for mining industry stakeholders.

Having previously deferred both their equipment replacement cycles and maintenance programmes when the



Kwatani screens, gearboxes and motors on the assembly shop floor.

pandemic struck, mining companies are revving their procurement engines once again, leveraging the current good run in commodity prices.

Consequently, Kwatani has seen a sturdy growth trajectory, with bundling orders as mines seek to increase production to meet the rising global demand for commodities. "We are seeing an uptick of both brownfields and maintenance projects in South Africa and Africa at large," says Schoepflin.

Meeting rising demand

To meet the rising demand, and simultaneously limit the impact of supply chain shortages, Kwatani has implemented a production shift system to increase capacity in the factory. In addition, the company has boosted its inventory levels for the few imported items to ensure continued and uninterrupted supplies and mitigate supply chain issues.

"In terms of production in the factory, we are comfortably doing around 200 tonnes (t) of fabricated steel a month. Whenever there is need to fabricate more than that, we outsource the fabrication of non-intellectual property (IP) items to selected local fabricators that we have good relationships with," explains Kenny Mayhew-Ridgers, chief operating officer at Kwatani.

As a customised equipment manufacturer, Kwatani benefits from its flexible production processes to get the better of unpredictable demand patterns. "Customised manufacturing means that every job is different. The flexibility of our production

line allows us to fit in a single machine emergency job with ease, while executing an order of 50 machines at the same time. Unlike the batch process, the job-based system gives us the flexibility we need to meet unpredictable demand patterns," says Schoepflin.

Kwatani's highly skilled workforce, adds Schoepflin, has also been key to success, allowing the company to work around some of the current challenges, including the global supply chain issues and the incessant power blackouts in South Africa.

"Planning is key in today's manufacturing environment. We work on a short-, mediumand long-term planning basis, which gives us the flexibility to respond to issues as they arise. These challenges we face now (global supply chain issues and load shedding), are not going away any time soon and we should therefore be able to work around them," says Schoepflin.

"To be able to do that, you need to have the correct skills in your system. Skills are more important than ever in the manufacturing sector. Our staff's innovative approach has been a major recipe for success in these difficult operating conditions," she adds.

Consequently, Kwatani has been able to stick to its normal lead times. Leveraging its skilled fabrication staff base, certified to American Welding standards, the company is able to 'design around problems', especially for critical equipment, to minimise customer downtime.

In a recent machine revamp project for a customer in West Africa, the company

was able to remanufacture a large vibrating screen in just two weeks. Given the current shipping challenges and the criticality of the screen to the client's plant, the machine was flown to the customer to avoid shipping delays.

Sandvik synergies

With continued growth of its export business, Kwatani will further leverage Sandvik's global reach to better service its customers. The recent acquisition by Sandvik, says Schoepflin, provides Kwatani with greater access to foreign markets through Sandvik's extensive distribution footprint.

She adds that an added benefit for customers is the support they will receive through the well-established Sandvik service network of engineers and technicians in the field. The proven interface between Kwatani and Sandvik equipment — for instance, a Kwatani screen feeding into a Sandvik crusher — will add considerable value to customer's purchasing choices.

"The Kwatani product fits nicely into Sandvik's broad portfolio. Our customised vibrating screens are complementary to the Sandvik product. We therefore see a lot of synergies between the two companies, with little overlap," she says.

"Sandvik is a technology driven company with a strong digitalisation drive, which complements our own digitalisation drive. As a leader in Fourth Industrial Revolution technology, Sandvik brings state-of-the-art resources to the benefit of Kwatani customers. This includes access to monitoring processes as well as an



Large Kwatani double deck banana screens completed and ready for despatch to the end user.

unparalleled research and development regime," adds Schoepflin.

Kwatani continues to invest heavily in its capabilities at its Kempton Park

facilities, which employ and develop local expertise, while sustaining a strong supply chain of local players. Sandvik supports this model and shares the vision that

business sustainability must be based on effective engagement, investment and commitment to the local economy. Kwatani's local empowerment strategy supports transformation and is compliant with the South African Mining Charter.

"We work closely with local supply partners in our value chain — many of them being small businesses — to ensure quality systems and manufacturing capacity," she says. "Customers can therefore be assured of quality throughout our products' construction, with a reliable, sustainable and cost-effective local production base."

With its cost base rooted largely in the South African economy, Kwatani can offer customers a consistent pricing regime that is not vulnerable to frequent exchange rate fluctuations. This has added to the popularity of Kwatani's products at home and abroad, with the company twice being recognised in the Exporter of the Year awards hosted by the South African Capital Equipment Export Council (SACEEC).

"Our growth has allowed us to build our complement of competent staff, who are continuously upskilled to stay a step ahead of industry needs — with the help of our in-house training centre," concludes Schoepflin. •



Volvo Trucks Nelspruit moves into a new home

Volvo Trucks South Africa's dealer in Mbombela, Mpumalanga, has moved into a new facility to enhance its service offering to its growing number of truck and bus fleet customers in the region. The new site offers more workshop capacity and increased functionality through its drive-through work bays.

Mbombela (Nelspruit) is on the Maputo Corridor, a major trade route linking Gauteng to Mozambique, and a significant transport artery for many cross-border fleets.

"Our dealers form the backbone of our customers' success," said Reshie Balkisson, director of aftermarket and business development at Volvo Trucks South Africa. "Customers rely on us to service, repair and thereby extend their competitive advantage over other operators. A qualified technician offering a professional service with original OEM parts to our customers will reduce downtime, thereby making our customers more successful and

keeping them operating optimally."

Key to this is planned downtime for service and repairs as it minimises standstills, extends service intervals, and saves time and money. Thanks to connectivity and Volvo Trucks' advanced telematics and diagnostic tools, the dealership can plan and prepare service according to a fleet's actual vehicle usage. And with Real-Time Monitoring, unexpected stops can be predicted and turned into planned workshop visits.

Volvo Trucks is now celebrating its 22nd year in South Africa and has 19 dealer and service sites across the country.

"As one of the world's leading commercial vehicle manufacturers, we focus a lot of attention on aspects such as advanced training, the innovative use of technology, communication, financial and business guidance, as well the implementation of international best practices, in order to enhance our dealers' service to our



customers," explained Balkisson. "The team here in Mbombela has extensive experience and expertise, and is therefore able to meet the unique requirements of local operators."

Volvo Trucks & Buses Nelspruit also provides roadside assistance, parts sales, and the full range of Volvo service and maintenance offerings in the Mbombela area. ©

MiWay launches Environmental Transport Liability product

MiWay has launched a specialised product to cover the spillage risk inherent in the transport of dangerous goods, including environmental damage as a result of a riot or strike. The company's Environmental Transport Liability is specifically designed to cover the environmental impairment risks of transporting dangerous products following a release into the environment.

"Our roads carry thousands of tankers transporting hazardous substances, and the accident rate is significant. With environmental issues high on the agenda at the moment, we believe this new product is timely on many fronts," says Jason Mellow, head of MiWay Business Insurance. "Businesses need to be covered for the risks they run when these dangerous goods are transported and an accident does happen, specifically with regards to the rehabilitation of any contamination of the environment during the period in which the dangerous substances are on the move."

The policy covers the clean-up and environmental rehabilitation required as a result of a release of hazardous substances into the environment from an insured vehicle. Clean-up includes emergency containment and measures to reduce further spread into the environment. Rehabilitation includes, but is not limited to, the removal and treatment of contaminated soil and water sources. A MiWay expert claims team will handle the complexities that arise from these types of incident and guide the transporters through the various compliance and reporting processes that are legislatively required.

"Another important element of MiWay's Environmental Transport Liability insurance is that the policyholder's employees are covered while engaged in the policyholder's business, provided of course that they adhere to the policy's conditions as applicable," says Mellow.

"Given the growing body of environmental legislation, and in line with King IV's emphasis on every company's reliance on the six capitals, which include environmental capital, responsible companies are taking their responsibility to cover their liabilities when transporting dangerous goods seriously. MiWay's Environmental Transport Liability policy is responding to a clear market need," says Mellow. ©

Engen refuels Truck Test 2022

Engen is continuing its fuel sponsorship of the annual Truck Test, with all participating trucks running on Engen Dynamic Diesel 50ppm with Pro-Drive.

This year's event starts from Engen Blockhouse North to the Engen Highway Junction Truck Stop on Day 1 and will end at the Engen Trafford Road Truck Stop.

The annual Truck Test event is all about finding the best-in-class trucks with respect to fuel efficiency and productivity in a diverse field of formidable contenders. When the results are published at the end of the test, thee afford transport companies a clear picture of the performance of the tested vehicles under very real conditions.

As a major supplier of fuels and lubricants to the transport sector, Engen has once again partnered with Focus Magazine as this year's Truck Test Platinum sponsor.

Engen Dynamic Diesel 50ppm with Pro-Drive is designed based on drivers' needs in today's driving conditions and in anticipation of future engine technology. It has also been developed by Engen fuel experts leveraging the knowledge gained from its involvement with the PETRONAS DE ROOY IVECO Dakar Rally Team to deliver a smoother drive, more responsive engine performance and enhanced fuel efficiency proven via vehicle testing.

The company's most advanced combustion improver technology delivers 2% more power for a smoother drive; more responsiveness during stop-go, cruising, and heavy loads with 4% better acceleration. The unique dual detergent for deep cleaning across old and modern diesel engines enables a drive up to 3% further.

Most modern diesel-powered vehicles built after 2006 use SCR (Selective Catalytic Reduction) technology to inject AdBlue into the vehicles' exhaust gases. When AdBlue combines with exhaust emissions, it breaks down the harmful nitrogen oxides in the diesel exhaust and produces harmless nitrogen and oxygen.

Today, the demand for AdBlue is significantly greater as more and more Euro-5 and Euro-6 vehicles are operating on our roads. Engen AdBlue trades under the name Air1® and is supplied to most major OEMS in SA.

When a vehicle is fitted with an SCR unit, it needs AdBlue. It doesn't end there. It is important to use Low Sulphur Diesel and

New report: Fleet management in South Africa $-5^{ ext{th}}$ edition

A recently released market report, Fleet Management in South Africa — 5th Edition from Berg Insight analyses the latest developments on the South African fleet management market. This study provides 120 pages of unique business intelligence, including 5-year industry forecasts, expert commentary and reallife case studies on which to base your business decisions.

Berg Insight expects a strong growth period for fleet management in South Africa in the years to come. The number of FM systems in active use is forecasted to grow at a compound annual growth rate (CAGR) of 12,6% from about 2,0-million units at the end of 2021 to reach 3,6-million units by 2026. The penetration rate in the total population of fleet vehicles used by businesses is at the same time estimated to increase from 41,5% in 2021 to 68,0%

in 2026. South Africa is a relatively mature telematics market and the penetration rate is comparably high from an international perspective. Far from all deployments are, however, full-scale advanced FM solutions. A notable share of the installed fleet telematics systems on the South African market is represented by comparably low-end tracking systems such as light FM solutions, including SVR systems extended with basic FM features.

The South African fleet management market is clearly dominated by five domestic players with broad telematics portfolios that together represent 70% of the total number of fleet management systems in use in the country. Berg Insight ranks Cartrack and MiX Telematics as the largest providers of fleet management solutions in South Africa. Cartrack alone has more than half a million active FM

units in the country. The remaining top-5 players are Tracker, Netstar and Ctrack. Other top-10 players on the South African fleet management market include local providers such as Bidtrack (Bidvest Group), Digicell and GPS Tracking Solutions (Egstra Fleet Management), as well as international players including Webfleet Solutions (Bridgestone) and Gurtam. Autotrak, Digital Matter, PFK Electronics, Key Telematics/ Radius Payment Solutions and Pointer SA (PowerFleet) are additional top-15 providers, all having estimated installed bases of at least 15 000 fleet management units in the country. Players just outside the top list include Mtrack (Electronic Tracking Systems), Geotab and Globaltrack. International commercial vehicle OEMs including Scania, Daimler, Volvo Trucks, UD Trucks, MAN and Toyota have further introduced fleet telematics solutions in South Africa.



low SAPS (Sulphated Ash, Phosphorous & Sulphur) lubricants like Dynamic Diesel 50ppm and PETRONAS Urania 5000 LS. This is important as high sulphur fuel and high SAPS lubricants can affect the efficiency of the SCR unit.

ELB adopts telematics across its range

Construction and mining equipment supplier ELB Equipment has launched its own custom-developed telematics system to radically enhance the effectiveness of its machines on sites.

The telematics solution comes standard with equipment across the entire medium and heavy range providing a host of valuable information to the user via easy-to-use web-based reporting software. While the machinery supplied by the company is at the pinnacle of reliability, the telematics systems assist the fleet manager to locate and manage fleets from remote locations on any device in real-time.

According to Keon Kardolus, ELB Equipment earthmoving and construction sales manager, the addition of telematics as a standard feature on its equipment is the next logical evolution of fleet optimisation. Premium quality equipment nowadays is made to be productive, is ultra-durable and reliable. The addition of a telematics management system further ensures operator conformance, assisted service and maintenance scheduling, alarm parameters, geolocation and a host of other parameters to ensure the equipment remains optimised.

"Our hardware solution provides users with operating details such as driving, idle and standing times, as well as providing an engine hour meter reading, operating event recording, real time reporting of critical events and accurate GPS positioning with playback," says Kardolus.

"The web-based software package provides the user with tools to manage and

report on the fleet. It enables the user to manage both operator and machine information, define and report on custom events, analyse fleet data and to extract summary and detailed reporting. The software can be accessed by multiple users in real time on any device from any location.

"The operator and machine specific reporting allows the manager to assess the operator's operating style, position, productivity and others on Google style mapping. Certification management, ad-hoc reminders and machine service reminders can be done online" says Kardolus.

ELB Telematics has been developed in association with Mix Telematics, global leaders in fleet management. Mix Telematics is distributed by Tectra Telematics in South Africa. The technology that forms the backbone of the system ensures reliable operation and gives customers peace of mind that equipment tracking and monitoring is taken care of and management software ensures machines remain in the best possible condition with minimal down-time.



Metso Outotec develops its field service capabilities with digital tools

Metso Outotec has launched a new digital platform and a set of tools to support, streamline and develop its field services. The global implementation of the new Field Service Management Solution (FSM) started in 2021; currently, approximately 1 000 field service professionals are using the system in their daily work. The comprehensive platform is helping Metso Outotec to deliver a consistent high-quality service to customers, while improving efficiency in their internal operations.

"Our customers are already expressing strong confidence in our service experts' knowledge and technology competences," says Martin Karlsson, senior VP, Professional Services, Metso Outotec. "When a customer has a request for field service support, they can trust that they will get the best service solution executed on time, safely and with high quality. To achieve our

ambition of being the preferred services provider in our industry, we are continuously developing our field service capabilities. The Field Service digital platform is already widely implemented, and we have received very positive feedback from our customers and technicians," says Karlsson.

Metso Outotec's Field Service offering meets customers' maintenance, repair and refurbishment needs and supports customers in maximising the performance of their equipment throughout its lifecycle. Metso Outotec has a footprint of more than 3 000 field service professionals and 140 service locations close to customer operations.

The new platform unifies and simplifies the way field service operations are planned, dispatched and executed. Operating on one platform helps to deliver a consistent high-quality service to customers both onsite and online, while improving

efficiency and transparency in internal operations.

For customers, it offers a more uniform experience through the digital connection. Information about ongoing actions during a site visit is shared reliably and in real time. The customer can review and confirm the completed work order on their mobile device. The technician can create a preliminary site visit report for the customer immediately onsite and a full technical report later.

The digital inspection application captures inspection information electronically and supports service technicians in performing equipment inspections for fast onsite reporting of possible critical issues.

The platform also allows excellent remote connectivity between service technicians and customers. The use of advanced technologies such as augmented reality (AR), is now enabled.

New backhoe attachment for Bobcat compact loaders for MEA

Bobcat has launched a new generation backhoe attachment for its skid-steer and compact track loaders for markets in the Middle East and Africa. The new backhoe attachment converts a Bobcat loader into a powerful excavator, allowing customers to increase the versatility of their machines and the return on their investment.

The new generation backhoe attachment is ideal for applications in construction, utility, road work, landscaping, and other industries. It is available in four configurations (the two Versatile (V) B32V and B35V models and the two Standard (S) B32S and B35S models) that offer a choice of digging depths, reach and hookup systems. The largest model in the range offers a maximum digging depth of 3,3 m and a maximum reach of 4 m. Unlike the standard models, the Versatile versions can be equipped with additional hydraulic attachments such as augers and breakers.

Versatility and efficiency have always been great features of Bobcat compact loaders, with the quick-change Bob-Tach attachment mounting system, allowing them to be combined quickly and safely with over 100 different families of Bobcat attachment.

Daniele Paciotti, product line director Attachments Bobcat in Europe, the Middle East and Africa, said, "We are seeing increased demand for the backhoe attachment and have added even more versatility for the MEA market with the Versatile V-versions of the new generation



product. They have a double acting auxiliary line that allows more attachments to be used with the backhoe attachment, including Bobcat hydraulic attachments such as augers, breakers and tilt buckets. The previous version of the backhoe attachment only allowed for non-hydraulic attachments, such as buckets to be used. For increased safety and to optimise the lifetime of the attachment, all hoses are now placed inside the boom."

Operators can therefore transform their loaders into excavators that can dig holes, trenches and foundations. But as a result of the increased versatility offered by the new V-version backhoe attachments, customers can now add other attach-

ments via the backhoe for applications in demolition, landscaping, horticulture and other markets. In fact, the new generation backhoe attachment is compatible with seven different families of Bobcat attachment, comprising over 30 different attachments: augers; breakers; clay spade buckets; grading buckets; digging buckets; skeleton buckets and tilt buckets.

The V-versions of the backhoe attachment are also equipped as standard with the Klac™ mechanical coupling system, which ensures that attachments can be changed more quickly, resulting in even greater productivity. The S-versions of the backhoe attachment have a dedicated pinon system for changing attachments. ❖

Trail construction without exhaust emissions

A region completely without internal combustion engines – this is the Bettmeralp in the Swiss Aletsch Arena. Here, a mountain bike trail park 3 km long is being developed – fully in harmony with nature. The Wacker Neuson zero emission solutions are ideal for this, as they work without direct exhaust emissions and are particularly low in noise.

Velosolutions, a business with long years of experience in trail construction, is responsible for the implementation.

"Working in this special setting without noise or exhaust emissions is the right thing to do," says Roman Gadient, trail builder at Velosolutions. "We are using the zero emission machines by Wacker Neuson for nature's sake. Meanwhile, manual labor is a big component of our work.

"The emission-free construction machines and equipment by Wacker Neuson are an ideal fit for the Bettmeralp concept: no combustion engines," says Patric Stillhart, sales manager for Wacker Neuson Switzerland. "A trail park can be developed in the middle of nature without causing exhaust emissions."

Two Zero Tail excavators EZ17e showed what they could do during excavation work. With its high-quality lithium-ion technology, the machine meets the high demands for performance, durability, and sturdiness. This technology has already been in use by Wacker Neuson for several years now and has proven its worth many times.



The generous battery capacity ensures that the hydraulic functions are available the whole workday long. The machines were charged by the power supply of the existing permanent snow cannons (415 Volts). For transporting material, the track dumper DT10e by Wacker Neuson was used. The low location of the batteries makes it particularly stable, which is especially useful in the rough terrain of the Alps. For soil compaction, two battery-powered vibratory plates APS1135e were put into application. An advantage is that the large crane yoke is built for stability and can therefore also

be used for steering sideways. Like all zero emission solutions by Wacker Neuson, the plate has the same output as its conventional counterpart.

The zero-emission series by Wacker Neuson includes, besides the electric excavator EZ17e, the track dumper DT10e and the vibratory plate APS1135e, as well as other construction machines and equipment. These include several battery-powered plates and various vibratory rammers, an internal vibrator system for concrete consolidation, a wheel dumper and a wheel loader.

The Wirtgen Group premieres five machines at Hillhead 2022

The Wirtgen Group booth at the show in Buxton from 21 to 23 June will be focusing on sustainable and cost-effective solutions for earthworks, road construction and materials processing. The Kleemann MOBICAT MC 110(i) EV02 jaw crusher, the MOBICONE MCO 90(i) EVO2 cone crusher and the MOBISCREEN MSS 802(i) EVO screening plant for coarse elements will be celebrating their show premiere in the United Kingdom. The show will also see the world premiere of the W 100 Fi one-metre-class milling machine from Wirtgen's new range of compact milling machines. The company group's quintet of machine premieres will be rounded off by the John Deere 672 GP motor grader.

In addition to the premieres, industry visitors to the show can look forward to getting a first-hand impression of market and application-specific solutions for soil and asphalt compaction from Hamm in addition



to the WR 240(i) wheeled soil stabiliser and recycler from Wirtgen. Benninghoven will be showing the EVO JET burner from its range of combustion equipment for asphalt mixing

plants, while two asphalt pavers from the Vögele Mini and Universal classes will be representing the company's broad spectrum of product solutions for asphalt paving. •

Wirtgen Group presents sustainable road construction solutions at WoA 2022

With a total of 11 exhibits from Wirtgen, Vögele, Hamm, Kleemann and John Deere, the visitors to World of Asphalt was shown a cross-section of market-oriented and holistic solutions for the road construction process chain.

With the W 120 Fi, Wirtgen celebrated the premiere of a model from the new generation of compact milling machines. Technologies from the proven F-Series of large milling machines have now been installed onboard machines of the 1-metre class — most notably the digital assistance systems Mill Assist, Wirtgen Performance Tracker (WPT), and the Level Pro Active leveling system.

The pavers from Vögele are distinguished by optimal efficiency and ease of operation, and visitors got a closer look at the SUPER 700i Mini Class paver with the AB 200 which, with a standard working width of only 1,1 m, is the smallest extending screed from Vögele. The Special Class was represented by the SUPER 1800-3i SprayJet, which applies bitumen emulsion and places the asphalt pavement in a single pass. The SUPER 2000-3i 10-foot

class paver, in combination with the VF 600 extending screed with front-mounted extensions, attracted particular interest at the show.

As examples of its extensive product portfolio, Hamm presented the HD 12i VV and HD+ 120i VV-HF (High Frequency) articulated tandem rollers, and the DV+ 70i VV-S pivot-steered tandem roller.

The MOBIREX MR 110i EVO2 impact crusher from Kleemann stands for the efficient processing of recycling materials. The machine's SPECTIVE CONNECT operating concept is an upgraded version of the SPECTIVE operating concept and can now display all relevant process information and reports on a smartphone.

In Nashville, the MR 110i EVO2 was presented together with a 904 P-Tier wheel loader from John Deere. As a production system, this pair of machines on display at World of Asphalt also stood as a striking example of the complete portfolio the company group offers as solutions for the entire road construction process chain.

"The Wirtgen Group assists its customers in the fast and cost-effective fulfillment of



the growing demand for infrastructure, and simultaneously addresses the important global challenges with regard to meeting the requirements of environmental protection and the safety of man and nature", explains Jim McEvoy, president & CEO Wirtgen America. Speaking of the show, he draws a positive conclusion: "The face-to-face discussions with the attendees were very good. We had meaningful discussions, and the visitors showed a keen interest in our solutions."

Volvo CE's steady Q1 performance impacted by China

Volvo Construction Equipment (Volvo CE) saw a modest increase in net sales for Q1, 2022 in all areas outside Asia — with its overall growth momentum impacted by the market decline in China, triggered in part by the ongoing Covid-19 restrictions there.

The ongoing pandemic in China has had a significant impact on sales in the construction equipment industry's largest market in the world, leading to a drop of 9% in overall global sales for the first quarter of 2022. However, all other regions have demonstrated a steady increase in sales for the first three months of the year.

Melker Jernberg, president of Volvo CE, says: "The industry is in the midst of extremely challenging times, but we are tackling these issues head on — supplying our customers with the products and services they need today."

During Q1 2022, Volvo CE saw net sales decrease to 22,613-million Swedish Krona (SEK) from SEK 24,742-million in Q1, 2021. Adjusted operating income amounted to SEK 2,810-million (SEK 3,822-million in Q1, 2021), corresponding to an adjusted operating margin of 12,4%, down from 15,4%. The operating income has been negatively affected by lower machine volumes and higher material costs, which were partially



mitigated by improved price realisation and higher service volumes.

The elevated levels of order intake from the same period last year as the world recovered somewhat from the impact of the pandemic has meant there has been a drop in order intake for Q1, 2022 – declining by 42%. While mainly due to the continued decline in China, order intake has also felt the effect of a cancellation of orders in Russia.

The European market grew by 13% in the first two months of the year, influ-

enced by a large number of investments in infrastructure and housing, while North America increased by 20%. Due to the strong demand for commodities, South America has continued its robust rise in market demand with a 45% increase on the same quarter last year. However, all of this has been affected by a 33% decline in the Chinese market. Asia outside China has also been negatively impacted by price increases on machines in India, and has reported an 8% fall.











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Crushing performance starts with aligned priorities

Under the pressure of demanding timelines and production targets, operations staff on a crushing site will always want the best equipment with the most responsive service offering. Too often, however, they are at odds with the procurement division, who can be over-focused on upfront capital costs and operational expenditure.

This tension is natural, explains Pilot Crushtec director of sales and marketing Francois Marais, but the answer lies in a strategic alignment of company priorities across all its functional units. This will ensure that the incentives of different parts of the business do not conflict.

"Successful companies are those who can direct all their resources in the same direction," says Marais. "In the crushing business, this means meeting production targets on time with optimal equipment uptime and the lowest possible cost of ownership in relation to output."

Getting this equation right requires that companies have quick access to core information on product output and maintenance costs, but are also able to measure aspects that are more difficult to quantify – such as downtime and production losses. Over time, the business is able to identify whether its capital and operational expenditure are balanced.

"Without this kind of in-depth data, it can



be difficult for businesses to know if their capital investments are effective in driving their value proposition to customers," he says. "If a piece of equipment is purchased at a discount price, for instance, the business' tracking maintenance costs should raise a red flag if that capex discount has been swallowed up in opex within months of the purchase."

The focus on value-for-money must be based on the output achieved from both the upfront investment and the ongoing costs of maintenance and repairs. Businesses also need a disciplined method of calculating the cost of project disruption

due to unplanned downtime.

"The cost of unexpected equipment failure is much higher than that of regular maintenance, as the resulting disruption usually has knock-on effects across the project. There may also be financial penalties payable if the contractor does not meet contractual obligations."

Perhaps the most devastating impact of procuring equipment which does not deliver to expectation, however, is on the reputation of the business. He warns that unplanned breakdowns on site will always undermine the customer's faith in a contractor's promise to deliver.

Correct screen media selection key to lowering TCO

Screen media is a critical part of the metallurgical process, and it is therefore essential that the appropriate screen panel or screen panel combinations are selected to improve efficiencies, and to lower the overall cost of operation.

This is according to Gerrit van den Heever, sales director at Multotec, who says that when it comes to procurement of screen media, few end users and their procurement teams ever think about the bigger picture — total cost of ownership (TCO).

"Although a screen panel is a relatively low-priced component in a processing plant, there is often a big focus on this cost, at the expense of TCO, which in my view is a flawed procurement practice," he says. "Incorrect media selection can result in the screen not being able to handle the duty requirements."

In a dense media separation (DMS) plant, the cost of the ferro silicone or magnetite is significant. Effective screening can result in improved medium recoveries and huge savings. A range of factors should be considered when selecting a screen panel for the

application. One of the principle parameters is whether the screening application is wet or dry. "In a wet application, the supplier should establish whether blinding, pegging and scaling are a problem. In a dry screening application, check whether impact and pegging are issues of concern," says Van den Heever. Different construction materials should be considered with the most appropriate being selected for a given application. The company has invested in a substantial range of material compound manufacturing capabilities. These include 21 different types of injection moulded polyurethane compound, 17 types of hand caste polyurethane compound, 17 types of compression moulded rubber compound, and 18 types of injection moulded rubber compound.

All screen panels are manufactured with tapered, self-relieving apertures, resulting in the unrestricted downward movement of any sized particle, reducing pegging and blinding. "It is important to deal with a reputable screen media manufacturer who can assess these application requirements and recommend the most appropriate screen



panels and screen deck configurations," says Van den Heever.

Multotec offers a variety of compounds and various aperture sizes and configurations to meet different customer needs. Overall, the company has over 1 000 apertures available to choose from. ©

Metso Outotec introduces renewed crusher wear offering

Metso Outotec is introducing its renewed crusher wears solution catering to the industry's widest variety of wear parts and services. The portfolio is categorised to three different product ranges — Metso Outotec O-Series, Expert Series and Max Series. The renewed crusher wears and services offering has been developed in response to customers' demand for continuous improvements in crushing process performance.

Through the renewed offering, aggregates and mining customers can easily compare the advantages and select just the right level of parts and services to reach the best crushing economy.

"Keeping our customers' crushers running is our core expertise," says Mika Saariaho, senior VP, Crusher Wears business line, Metso Outotec. "Whatever the scale

of crushing, customers need crusher wear parts that suit their demand specifically, they need services to keep their operation running, and they need expertise that helps them to develop efficiency, profitability, and sustainability in crushing," says Saariaho

Crushing circuit is one of the biggest cost generators in mining and aggregate operations. It is also one of the most critical ones. The selection of the crusher chamber impacts the whole crushing process and its efficiency. Being able to select the optimal chamber requires insight into the process and the customer KPIs. Therefore, an integral part of the offering is digital tools that enable the gathering and utilisation of process data, such as the Metso Outotec Metrics and simulation tools.

"We think that the optimal selection of the chamber can only be achieved with a deep understanding and expertise of the process and its requirements to the crusher wear material and technology."

The O-Series provides affordable standard parts from the company's stock. With the right, reliable parts selected through the Chamber Selection Service, customers' workdays are more productive and the operating costs are lower.

The Expert Series provides the broadest range of wear parts in the market with a wide, selection of materials and designs with the Chamber Expert Service enabling more efficient, optimised processes.

With the holistic approach of the Max Series, Metso Outotec can optimise with the Chamber Optimisation Service each step of the customer's process with custom parts to maximise performance, economy, and sustainability. Metso Outotec has experience from 700+ optimisation cases. ©

Volvo R100E rigid hauler offers low TCO for SA mining contractor

In the South African province of KwaZulu-Natal, an R100E rigid hauler from Volvo Construction Equipment (Volvo CE) is proving a reliable, productive and profitable member of Sandton Plant Hire's fleet

Since the 95 t payload hauler was delivered in August 2017, it has racked up 7 625 engine hours, working 20 – 22 hours a day at an anthracite mine, moving overburden, topsoil, and blasted rock in hot, humid, and corrosive conditions.

"Our operators like the R100E because it is simple to operate and has a comfortable and ergonomic cab," says Craig Mottram, operations manager at Sandton Plant Hire.

The biggest benefits to Sandton Plant Hire, however, are the Volvo R100E rigid hauler's high productivity, low fuel consumption and low maintenance requirements, which have combined to deliver a low total cost of ownership and operation (TCO) over the last few years.

The design of the 60,4 m3 capacity body ensures optimum load retention and minimal carry-back, while the best-inclass rimpull and ability of the hauler to navigate tough ground conditions and gradients easily ensure fast cycle times.

The Volvo Dynamic Shift Control builds on the already efficient engine to adapt transmission gearshift patterns automatically, according to varying conditions, ensuring a smooth, consistent ride and low fuel consumption.



A low center of gravity and even weight distribution ensure the heavy-duty machine spreads the load, as well as any impacts and structural stresses, equally across the truck. At the same time, all components have been tested rigorously under extreme conditions to achieve longevity. Certain features, such as the neutral cost inhibitor, overspeed protection and transmission retarder, help prevent unnecessary wear for extended service intervals, lower maintenance costs and increased uptime.

"The low fuel consumption and maintenance make the R100E cheaper to operate than other rigid haulers in our fleet," says Mottram.

Sandton Plant Hire operates a vast fleet of machines including hundreds of Volvo wheel loaders and articulated haulers, as well as a substantial fleet of rigid haulers. The company has worked with the local Volvo dealer Babcock for over 25 years for the supply and service of mining and construction equipment.

SUPPLY CHAIN RISKS NEED TO BE BUILT INTO CONSTRUCTION CONTRACTS

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Current logistical bottlenecks present high risks for contractors in completing capital projects, for miners and other industries, and they need to protect themselves against penalties. By *Tyron Theessen* and *Megan Jarvis*, partners at Webber Wentzel.

upply chain disruptions, which emerged as a result of Covid-19 lockdowns in 2020, and were joined by rising inflation towards the end of 2021, have intensified in the first part of 2022. With the war in Ukraine and the Covid-19 shutdown in Shanghai, it looks as if disruptions may worsen.

The other side of logistical disruption and the war in Ukraine is that it is causing a spike in the prices of certain commodities, so mining companies are more anxious than ever to accelerate expansion projects — even

as their contractors are battling to secure the necessary inputs.

For example, the shortage of microchips, which are used in a vast range of consumer products, including cell phones and automotive vehicles, stemmed not only from the closure of factories but also rising demand for technology, when more employees had to work from home. Three-quarters of microchip production is located in East Asia.

according to the New York Times.

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The costs and timelines for importing goods have increased dramatically, with a 500% increase in the freight costs of using a 12-metre container to send goods by sea from China to South Africa.

Additionally, Covid-19 cases continue to affect the outputs of suppliers, manufacturers and contractors at various levels of the

supply chain. For example, an outbreak of Covid-19 at a supplier or sub-supplier compromises its capacity to complete production timeously, which in turn delays delivery to manufacturers and contractors.

These delays and heightened costs are causing contractors and OEMs to seek ways to manage risks and disclaim responsibility for time and cost overruns on large capital projects. Material Adverse Event or Force Majeure clauses may not assist, as the materiality threshold may not be met in respect of the former and supply chain disruption is unlikely to be construed as an unforeseen or

unavoidable event in relation to the latter.

With no immediate prospect of this problem being resolved, contractors that need to procure critical capital items reliant on inputs like steel, microchips or the logistics chain are having to consider including additional clauses in their contracts to protect themselves from the ramifications of failing to deliver within anticipated

timelines. Contractors need to acknowledge that there are higher levels of commercial risk and manage these differently.

Where there are concerns that a potential delay in the supply chain will have an unintentional knock-on effect on the construction period, the time for completion and the defects date (and these delays are not attributable to the contractor), the contractor may consider including back-to-back provisions in their contracts with suppliers in order to mitigate these risks. In addition to providing for contractual relief, contractors should reduce their reliance on a single critical source of supply and look for alternatives.



Tyron Theessen.



Megan Jarvis.

Sourcing products closer to home or using local products may also alleviate risk.

The knock-on effect of risk to corporate reputation should be considered when selecting a supplier and the relevant geopolitical risk ought to form part of this evaluation. Sustainability of supply may form an important part of ESG reporting for contractors too. •

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