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## SAFETY FIRST, THANKS TO ALCONTROL SMART CONNECT

SCREENING AND PROCESSING: High-efficiency MDS mobile trommels enter the market

HEAVY COMMERCIAL VEHICLES: Electric trucks take to the roads

SOIL COMPACTION: Hamm set to launch new HC Series models in Africa

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### THE TECHNOLOGIES AVAILABLE TO PRIORITISING WORKPLACE SAFETY

n South Africa's heavy industry sector, workplace safety remains a paramount concern that demands ongoing attention.

The risks associated with heavy industrial activities can be significant, ranging from accidents and injuries to long-term health hazards. As the country strives for industrial growth and economic development, it is imperative that safety standards are rigorously enforced, and proactive measures are taken to protect the well-being of workers.

The heavy industry in South Africa encompasses such as mining, manufacturing, construction, and transportation. These sectors play a vital role in the nation's economy, providing employment opportunities and contributing to GDP growth.

However, the nature of these industries exposes workers to various hazards, including exposure to harmful substances, heavy machinery accidents, falls, and inadequate safety protocols. Consequently, the number of workplace injuries and fatalities remains unacceptably high.

One of the primary factors contributing to unsafe working conditions in heavy industry is a lack of strict enforcement of safety regulations. While South Africa

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has comprehensive legislation in place, including the Occupational Health and Safety Act, compliance and enforcement mechanisms need improvement. Insufficient inspections, inadequate penalties for noncompliance, and a lack of accountability have resulted in employers neglecting safety measures, jeopardizing the wellbeing of workers.

Moreover, there is an urgent need for comprehensive training programmes that prioritise safety protocols and promote a culture of awareness and responsibility. Many incidents occur due to a lack of awareness or inadequate training on the part of workers. By investing in comprehensive training initiatives, both employers and employees can be equipped with the necessary knowledge and skills to identify risks, implement preventative measures, and respond effectively in the event of an emergency.

Additionally, the heavy industry in South Africa can benefit from embracing technological advancements and innovations that enhance safety. Emerging technologies such as automation, robotics, and artificial intelligence can significantly reduce the risk of accidents and injuries by minimising human error and providing realtime monitoring of workplace conditions. Adopting such technologies would not only improve safety outcomes but also increase productivity and efficiency.

These technologies don't have to be completely digitised, or so high-tech they borders on science fiction.

Instead, available technologies can be ALCO-Safe's newest version of ALCONTROL Smart Connect which allows job sites or facilities to have unmanned breathalysers mounted onto a turnstile to control the entry of employees.

It offers a self-test breathalyser for employees to test themselves prior to entry. Sobriety is paramount to any workplace, but in heavy industries, the stakes are high and one drunken fumble can spell chaos.

Collaboration between industry stakeholders, including government bodies, employers, trade unions, and safety organisations, is also crucial in addressing workplace safety concerns.

By fostering a culture of cooperation and shared responsibility, stakeholders can work together to establish higher safety standards, conduct regular inspections, and create platforms for knowledge-sharing and best practices. Such collaboration should also extend to the exchange of data and insights, allowing for evidence-based decision-making and targeted interventions.

Public awareness campaigns and advocacy efforts are essential to further empower workers and educate them about their rights and responsibilities regarding workplace safety. Encouraging workers to report safety violations without fear of retaliation, and providing accessible channels for reporting hazards or incidents, can help create a safer working environment. Building a robust safety culture involves not only the implementation of policies but also a collective effort to change attitudes and behaviours towards safety.

South Africa's heavy industry has the potential to thrive while ensuring the wellbeing of its workforce. However, achieving this balance requires a genuine commitment from all stakeholders to prioritise workplace safety.

While the government should strengthen regulatory oversight, increase penalties for non-compliance, and allocate resources for regular inspections and audits, employers must invest in safety training, enforce safety protocols, and embrace technological advancements.

A safe and healthy work environment is not a luxury but a fundamental right of every worker. By prioritising workplace safety in South Africa's heavy industry, we can foster a culture of care and responsibility, safeguard lives, and drive sustainable development. The time for action is now, and that action can be simple. It's the action that is important.



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## New trommels available in SA



ELB Equipment now boasts high-efficiency trommels that are set to change the way screening is done in South Africa.

Its Powerscreen scalpers and screens already dominate the local market and the addition of the world's leading trommel manufacturer, MDS, is bound to close the circuit for miners who are already familiar with the ELB Equipment way and its highquality minerals processing offerings that are predominantly derived from the Terex Corporation.

MDS track, static and recycling trommels, as well as apron feeders, are quick and can handle a wide range of media including blasted rock and riprap, as well as varying substrates such as clay, limestone and even recycled concrete rubble. But, most importantly, it is the new trommels' ability to speed up processing and ability to handle oversize materials that is most exciting for the local market.

ELB Equipment divisional director, Wakefield Harding, says the range of static and tracked trommels is unmatched in the local market and is simply not available as standard production machines elsewhere. This means it will introduce a totally new way of doing things in the local market and is bound to turn up production volumes while increasing profitability on many new and existing plants in southern Africa.

MDS tracked and mobile units especially can be game-changers bringing the speed and versatility of trommels to sites wherever they are needed. Trommels can separate up to four streams of aggregates quickly and efficiently starting with soil and fines at the feed end and moving through to larger rocks and oversize rocks up to 1,5m at the discharge end.

It is this rugged ability of the MDSdesigned and manufactured trommels that makes them unique as they can shorten the processing equipment chain onsite – either direct from blasting and loading or from a primary crusher or even recycled materials and composting.

#### Hino introduces the all-new 700 Series

Hino South Africa has launched an allnew 700 Series to complete its local truck range.

The original 700 Series of extra-heavy trucks was introduced in 2004 and takes big steps forward in terms of its technology for the latest 2023 model.

According to the OEM, the latest update offers benefits regarding active and passive safety systems as well as improved fuel economy, all of which contribute to a lower total cost of ownership.

"Our current ranges of 200 and 300 Series medium trucks are proving very popular as is our 500 series in the heavy truck segment and now we will also have a strong competitor in the high volume, extra-heavy category," explains Anton Falck, the recently appointed Vice President of Hino South Africa.

"Minimising downtime for our customers was a prime aim with the redesign of this important model."

There is a compact range of four basic models, a tipper, a freight carrier, and two truck tractors, all 6x4 configurations.

The new range is powered by derivatives of the proven and reliable 13-litre Hino E13C six-cylinder turbocharged and inter-cooled diesel engine. The 2841 models are fitted with one version of this engine, developing 302 kW (410 hp) between 1 500 and 1 800 r/min, together with a peak torque of

## Wacker Neuson aims to strengthen attachment offerings

The Wacker Neuson Group aims to establish a dedicated business unit for attachments within the company.

This will raise the profile of this line of business – and meet customer needs more effectively. "Thanks to a diverse range of attachments and smart assistance systems, our wheel loaders, telehandlers, and our excavators are already veritable all-rounders. Our customers really value the flexibility of our machines and their wide application spectrum," says Alexander Greschner, CSO of the Wacker Neuson Group.

"This further professionalisation of our attachments business will enable us to strengthen and build on this field, positioning us here also as a comprehensive customer-centric solution provider in the construction and agricultural sectors."

The new line will be anchored in the Corporate Aftermarket unit and be headed by Managing Director Reinhold Baisch. 1 961 N.m between 1 400 and 1 800 r/min. The high-powered 2845 truck tractor utilises an engine model that produces 331 kW (450 hp) between 1 500 and 1 800 r/min, with a peak torque of 2 157 N.m between 1 050 and 1 400 r/min.

There are several fuel-saving changes including the switch from a variable nozzle type turbocharger to a conventional type that facilitates a weight reduction of 13 kg. Significant fuel saving is possible when the standard Eco Mode system is used.

The new 700 Series is the first Hino in South Africa to feature multi-functional controls on the steering wheel. These operate the multi-information display and cruise control without the need for the driver to take his or her hands off the steering wheel. •





"The right attachments transform our compact machines into the versatile helpers our agricultural and construction customers have come to know and expect," emphasises Reinhold Baisch.

"We are also seeing exciting developments in this area, with digital assistance systems and standardised interfaces playing an increasingly important role. I am very much looking forward to establishing and advancing this segment."

#### **BKM** builds faster with a Liebherr LTR 1220



In the summer of 2022, BKM Bau Beteiligungs-GmbH (BKM), a company specialising in precast concrete construction and assembly, upgraded its crane fleet with a telescopic boom crawler crane for the first time. It chose to buy the most powerful crane type that the market currently has to offer in this segment: the LTR 1220 from Liebherr.

After one year in permanent service and five completed projects with the newcomer, BKM's assembly manager Boris Cordes is thoroughly impressed.

As a supplier of precast concrete buildings, the company BKM produces reinforced concrete elements at several locations. Until now, the company, based in Nienburg between Hanover and Bremen, has erected warehouses or office buildings for its customers using mobile cranes. For the last year, however, an additional telescopic boom crawler crane from Liebherr has been handling its orders – with considerable success.

"With our new LTR 1220, we are significantly faster than before. By at least 20 per cent," explains Boris Cordes. As the assembly manager at BKM (alongside his other responsibilities), he supervised the company's most recent large project involving the crawler crane in Norderstedt near Hamburg.

#### Hino in Namibia partners with SA pumps specialist

Werner Pumps, a South African manufacturer of high-pressure jetting and equipment partnered with Hino Pupkewitz to supply its truck-mounted units (on Hino chassis) to the Namibian market.

Hino Pupkewitz is an authorised Hino dealer in Namibia.

Heinz Koll, Sales Manager at Hino Pupkewitz, says the company, which is part of Pupkewitz Motor Division, is expecting to take delivery of the first truck unit – a combination jetting and vacuum truck – in the second half of 2023. Werner Pumps is aiming to complete the build by August and to commission and deliver the truck in September.

"I heard of Werner Pumps through my colleagues at Hino South Africa," says Koll.

"When the Municipality of Walvis Bay advertised a tender for a combination vacuum tanker, it was a natural choice to work with Werner Pumps for this bid. The tender has been awarded to Hino Pupkewitz, and the Hino 500 2836 F/C 6x4 Chassis Cab is currently in the workshop at Werner Pumps, busy with fitments," he adds.

The Werner Pumps combination unit is predominantly used for cleaning and maintaining sewerage lines, but can also be used for other applications, including cleaning up spills, disaster recovery, and pumping slurry, among others.



#### DEVELON DL320-7 Wheel Loader shows its mettle



DEVELON was among the brands that participated in the special event in Washington, America this month.

Hosted by the Association of Equipment Manufacturers (AEM), the Celebration of Construction featured the DEVELON DL320-7 wheel loader and its exclusive Transparent Bucket technology.

The Transparent Bucket technology provides a supplemental visual perspective and allows operators to 'see through' the bucket from an in-cab display. This feature increases operator visibility and reduces the risk of job site accidents. The DL320-7 also featured the new around view monitor (AVM) — providing up to 270 degrees of visibility — and an object detection system.

"DEVELON was excited to be invited to participate in the 2023 Celebration of Construction event," says Todd Roecker, the company's Vice President of Growth Initiatives.

"This not only provided us with a chance to promote our new brand but, more importantly, raised awareness of the importance of construction equipment safety.

#### Manitou in North America shows off new equipment

Manitou North America will showcase its latest product innovations and technology at the Association of Equipment Manufacturers (AEM) Celebration of Construction on the National Mall festival in Washington last month.

The exhibit was part of 24 participating AEM members, featuring all-new Manitou machines launched at ConExpo earlier this year.

These machines included the all-new verticallift mid-range 2750VT Track Loader, the MTA 1055 10,000-pound lift-capacity Construction Telehandler and the 100% Electric ATJ 60e rough terrain aerial work platform.

Manitou Skid-steers, Track Loaders, Articulated loaders and MTA Construction Telehandlers are made in the USA. Altogether, Manitou Group has 10 production facilities located around the world, specialising in equipment for construction, agriculture and the industrial market.



#### Smart construction with the Epiroc SmartROC T25 R

Epiroc launched a new surface flagship radio remote drill rig, SmartROC T25 R.

The construction rig offers valuable features such as an exceptional coverage area, terrain-ability, application versatility and a smart Rig Control System (RCS).

These benefits future-proof digital functions and help to reduce the rig's environmental impact through fuel savings.

The Smart technology includes a smart RCS control system, providing the rig with the highest technology and automation level within its segment.

"We are excited to present this construction drill rig to the market, a rig that's built on a completely new platform. SmartROC T25 R can lead the way within its segment, with its optimised coverage area, excellent terrainability, application versatility and smart RCS control system. This rig can make a real difference for our customers' productivity," says Marcus Leü, Global Product Manager at Epiroc.

The available boom options include a turning radius of either 45/45 or 90/90. This can be combined with a 5.5-or a 6.1-metre boom system, giving the new SmartROC T25 R coverage areas of 28 m<sup>2</sup> (45/45) and 45 m<sup>2</sup> (90/90) respectively. These features are matched with a rotation unit which provides a 360-degree



feed swing and a boom geometry that enables it to drill right next to the machine. This gives the SmartROC T25 R an excellent coverage area leading to high efficiency. The rig will have the highest efficiency in the segment thanks to its coverage area and stability.

A low centre of gravity, wide crawler

spacing and a boom system with good manoeuvrability mean the new SmartROC T25 has excellent terrain-ability. The well-balanced rig with enhanced stability delivers a safe work environment and improved productivity when the rig can tram more efficiently and therefore enable more drilling time.

#### Technology to address heavy construction workflows

B2W Software, a Trimble company and leading provider of heavy construction management software, has added extensive new alerts and notifications capabilities in the current release of its B2W Platform.

The new features let contractors communicate automatically and in real-time across the office, field and shop for further efficiency in resource scheduling, field performance tracking, and equipment maintenance workflows.

"Things change constantly in construction, and immediate alerts and notifications are emerging as important options for getting information into the hands of people who need it, when they need it," according to Bob Brown, general manager for B2W Software.

More than two dozen actions taken in the B2W Schedule, B2W Track and B2W Maintain applications can now trigger immediate messages delivered to selected recipients by text message or email. These actions range from the creation of resource assignments and maintenance requests to the submission, approval or rejection of field logs and mechanic timecards.

The B2W Track application for field performance tracking and analysis can now

trigger alerts and notifications when field logs (for crews) or work logs (for individual employees) are created, submitted, approved, rejected or transferred. B2W Maintain users can now generate and manage messages indicating when preventive maintenance services are due and for the creation and status of maintenance requests, work orders, and purchase orders.

Electronic forms created with B2W Inform can also be set up to generate alerts and notifications based on the data entered into specific fields. Common examples include the identification of a defect on an equipment inspection form or notification of an injury on a safety incident form.

Notifications regarding new or changed personnel assignments, equipment moves or material deliveries can be sent to employees or external recipients with the B2W Schedule application for resource scheduling and dispatching. The May 2023 update includes enhancements for reviewing these notifications and for communicating acceptance, rejection or completion of the activities initiated by the alerts and notifications.



#### Effective engagement essential for infrastructure development projects

Behind every successful infrastructure project is an effective stakeholder engagement strategy. This can begin as early as during the design and even concept phase, says Amelia Visagie, Technical Director at leading consulting engineering and infrastructure advisory firm Zutari. Visagie, based in Cape Town, heads up Social and Stakeholder Engagement at Zutari, along with fellow Technical Director Tebogo Sebego, based at the Tshwane head office.

"Our role begins with understanding the interests, values, concerns, perspectives, and needs of various stakeholder groups, as well as assessing the relative influence and power that different stakeholders have on the proposed project.," explains Sebego. The broad-based social benefit aspect of any major infrastructure project involves many stakeholders, including communities, government officials, non-governmental organisations, and traditional authorities.

When stakeholders' voices are heard, their concerns and expectations can be addressed and managed effectively. This creates a sense of ownership and buy-in from stakeholders, increasing their commitment to the project's success. Moreover, engaging stakeholders fosters better communication, transparency, and trust, which contributes to building a collaborative and positive working environment.

"We open up engagement and communication, but most importantly we stay with the project throughout its lifecycle," notes Sebego. An early stage of construction should include establishing a steering committee and selecting community liaison officers. During the construction phase, Zutari undertakes extensive social monitoring, which is vital to the project's success.

"It is exciting to be upfront at the inception of any project," says Visagie. She and Sebego lead the team of social and stakeholder engagement champions. This team specialises in assuring maximum economic sustainability on projects by reducing social risks and enhancing companies' social licences to operate.

These champions conduct perception surveys and asset mapping to ascertain the needs and aspirations of local communities. "We build on that understanding as a basis to co-create an impact in conjunction with the client," says Visagie.

Sebego adds that the process is both rigorous and scientific, using tools such as Social Impact Assessment to analyse, monitor, and manage the planned and unplanned social consequences, both positive and negative, of proposed interventions and any social change processes created by those interventions.

"Once we are on the ground, we collect social or community intelligence which helps our team to understand the social dynamics, knowledge, experience, and attitude of the communities we work in. Such information equips us to know exactly how a community



Technical Director at Zutari. Tebogo Sebego, based at the Tshwane head office.

will act or react to the planned intervention. This informs how we plan our engagement in a manner that allows us to systematically identify, analyse, plan, and implement actions designed to ensure that we use the most effective strategy for the stakeholder engagement process," says Sebego.

Listening to stakeholders is crucial to any project's success. It ensures that their interests are aligned with the project's objectives, builds trust and collaboration, and ultimately leads to better outcomes for all involved. The scope and demand for the value derived from the impact created by the social and stakeholder engagement team represent a major opportunity for Zutari in South Africa as it continues to expand its presence in Africa.  $\bigcirc$ 

#### SAISC gives cladding the thumbs up

As the custodians of quality and technical excellence locally and pan-Africa, the Southern African Institute of Steel Construction (SAISC) has highlighted the trend of the increasing innovative use of steel cladding to enhance the architectural ornamentation of buildings in South Africa - and the myriad benefits of this durable, energysaving and environmentally friendly building option.

Steel cladding has always been the dominant material for industrial buildings, albeit purely functional rather than aesthetic - however, it is increasingly being installed as both roof and side cladding on upmarket residential and commercial buildings across the country, explains SAISC CEO Amanuel Gebremeskel.

The SAISC is one of just six similar industry professional bodies globally which is strategically positioned to track and understand key steel sector trends. Gebremeskel explains the rising trend: "Architects are delving into what can be done with steel cladding materials in a way that propels the industry towards (much-needed) energy conservation, environmental sustainability and improved aesthetics of buildings - and entire built environments - for the benefit of local communities and businesses, as well as the entire steel value chain."

Gebremeskel notes that South Africa has already been ahead of other global players for decades, as on-site steel rolling for cladding purposes was a local innovation back in the late 1960s and early 1970s.

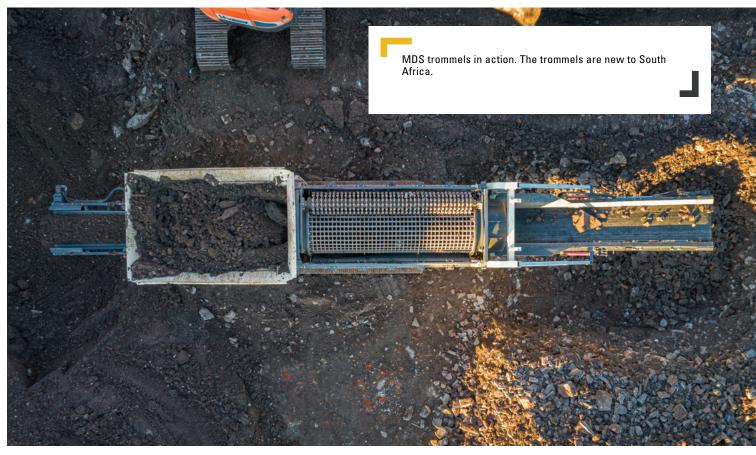
"More recently, sky rolling has been introduced to facilitate the rolling of exceptionally long, single lengths of cladding directly onto the roofs of structures. A local profiler recently achieved the world record for a single length of 240m."

However, Gebremeskel points out that architects and developers have now

embraced both the aesthetic appeal and environmental benefits of steel cladding, including its energy-saving fire-resistant properties.

"Developers have discovered that architects can make a big difference with cladding from a visual perspective, which is increasingly regarded as being worth the extra cost. Industrial buildings previously, for example, involved minimal design work, and were built largely to be functional 'boxes'. The innovative use of cladding makes them more distinctive and aesthetically pleasing. From an energy-saving perspective, the use of insulated metal cladding is still in its infancy in South Africa in this regard, but we are seeing examples coming through, which is an encouraging sign and a good value-add to the use of cladding for purely aesthetic reasons," he says.

Overall, Gebremeskel believes the market outlook for steel cladding is positive in the short-to-medium term. •



## HIGH-EFFICIENCY MDS MOBILE TROMMELS ENTER THE MARKET

From rubble to riprap, a complete range of high-efficiency trommels that are set to change the

way screening is done in South Africa.

t's a big feather in the cap for ELB Equipment to have completed the minerals processing equipment cycle locally with the introduction of MDS equipment. MDS, a Terex brand, added a complete range of high-efficiency trommels that could change screening in South Africa.

ELB Equipment's own Powerscreen scalpers and screens already dominate



"As a result of this trusted combination, and with our footprint throughout southern Africa, we expect the MDS offering to expand quickly across all mining types and into the growing recycling markets."

Wakefield Harding, ELB Equipment divisional director

the local market, but the addition of MDS, specifically their trommels, is bound to close the circuit for miners who are already familiar with high-quality mineral processing offerings.

MDS track, static and recycling trommels, as well as apron feeders, are quick and can handle a wide range of media including blasted rock and riprap, as well as varying substrates such as clay, limestone and even recycled concrete rubble.

The new trommels' charm lies in the ability to speed up processing and ability to handle oversized materials.

#### **Bigger volumes**

ELB Equipment divisional director, Wakefield Harding, says the range of static and tracked trommels is unmatched in the local market and is simply not available as standard production machines elsewhere.

This means it will introduce a new way







MDS track, static and recycling trommels, as well as apron feeders, are quick and can handle a wide range of media



MDS manufactures a variety of tracked trommels to make mobility easier for customers and improve mobility on site.

They aid in separating and sorting different types of recyclable materials, such as wood, plastics, metals, and aggregates

Trommel screens play a crucial role in mineral processing plants by separating valuable minerals from waste material Trommels can separate up to four streams of aggregates quickly and efficiently starting with soil and fines at the feed end moving through to larger rocks and oversize rocks up to 1,5m at the discharge end.

of doing things in the local market and is bound to turn up production volumes while increasing profitability on many new and existing plants in southern Africa.

MDS tracked and mobile units especially can be game changers bringing the speed and versatility of trommels to sites wherever they are needed. Trommels can separate up to four streams of aggregates quickly and efficiently starting with soil and fines at the feed end moving through to larger rocks and oversize rocks up to 1,5m at the discharge end.

It is this rugged ability of the MDS designed and manufactured trommels that makes them unique as they can shorten the processing equipment chain onsite – either direct from blasting and loading or from a primary crusher or even recycled materials and composting. The addition also supports ELB Equipment's growth strategy to expand its offering into new crushing, screening and environmental industries with products that complement its existing portfolio.

#### **Trommel types**

MDS design and manufactures heavy duty static trommels in the M615 and M820 models. These can process from 500 to 750 tons per hour with 3-4 outputs each.

The trommels are built with portability in mind for applications processing overburden, recycling/skip waste, general scalping, all quarried aggregates, demolition waste, riprap/armour rock and blasted rock.

CAPITAL EQUIPMENT NEWS JUNE 2023



MDS manufactures a variety of tracked trommels to make mobility easier for customers and improve mobility on site making this an ideal solution for mining contractors. These versatile trommels can handle material up to 1m in size and have outputs from 300 to 750tph. Some applications include:

#### **Placer Mining**

Trommel screens are commonly used in placer mining operations to separate valuable minerals from the surrounding gravel or alluvial deposits. The rotating drum of the trommel screen allows the fine particles to pass through while larger rocks and debris are separated and discarded.

#### **Gold Mining**

Mobile trommel screens are extensively used in gold mining operations. They help in the screening and separation of goldbearing material from other debris, such as rocks, clay, and sand. Trommel screens are particularly effective in capturing fine gold particles.

#### **Coal Mining**

Trommel screens are utilised in coal mining to separate coal from waste material. The trommel screen separates the coal based on size, ensuring that the appropriate coal product is processed further while discarding larger rocks and debris.

#### Quarrying

Mobile trommel screens are used in quarrying operations to separate different sizes of stone and aggregate materials. By utilising different screen sizes and configurations, trommel screens can produce various sizes of screened material for further processing or sale.

#### **Mineral Processing**

Trommel screens play a crucial role in mineral processing plants by separating valuable minerals from waste material. They are often used in conjunction with other equipment like crushers and conveyors to efficiently process bulk materials.

#### Sand and Gravel

Trommel screens are commonly employed in sand and gravel operations to separate and classify different sizes of material. The screens help remove oversize rocks and debris, allowing the sand and gravel to be processed further for various construction and industrial applications.

#### Recycling

Mobile trommel screens find applications in recycling operations, such as construction and demolition waste processing. They aid in separating and sorting different types of recyclable materials, such as wood, plastics, metals, and aggregates.

#### Available nationwide

"We believe that the addition of the MDS brand will open up new markets for both the company and for our clients. These are top quality machines from the world's leading supplier within the portfolio of our long-time supplier, Terex Corporation, which also owns Powerscreen and Terex branded processing equipment which has been distributed by ELB Equipment for decades," says Harding.

He says they expect the MDS offering

It is this rugged ability of the MDS designed and manufactured trommels that makes them unique as they can shorten the processing equipment chain onsite – either direct from blasting and loading or from a primary crusher or even recycled materials and composting.

to expand quickly across all mining types and into the growing recycling markets in South Africa.

"There are also some commonalities between equipment under our umbrella and it simply makes sense to go with a single supplier for all equipment requirements on site. This type of approach also supports our 'Best of breed from a single supplier' approach which means that customers can buy the best types of equipment from specialist manufacturers around the world from a single supplier – ELB Equipment," concludes Wakefield. ©

## **EXPECT A SHIFT IN SA'S ROAD SYSTEMS**

By Justin Manson, Sakes Director, Webfleet South Africa.

egacy sectors, like mining and resources, remain a staple of South Africa's economic growth and the growth of its road transport and logistics systems, along with the dominant manufacturing sector.

Al-enabled telematics solutions is urgently needed to get the most out of our existing roads, as well as those under development.

The South African economy has long been characterised by an overreliance on its resources sector, transporting its wealth of minerals reserves directly to its harbours along the eastern and western coasts for export without much value-adding.

Although manufacturing has now grown to be the largest sector, utilising South African freight and logistics systems, the fastest growing sectors include the oil, gas, mining and quarrying sectors.

According to a study by Mordor Intelligence, the entire commercial transportation sector is expected to experience a compound annual growth rate (CAGR) of 6.19% between 2017 and 2029, with manufacturing as the largest sector and resources as the fastest growing, at 7.61% CAGR for the period.

Natural resources will likely remain a large generator of South Africa's income, at least into the medium-term. This, however, should not mean a return to old production methods, but rather a commitment to sophistication at every leg of the value chain.

Even mining has evolved since the settler days, which were thick with the fever of an international gold and diamond rush into the continent, and thin on the tech side of things.

Artificial intelligence-powered telematics systems that guarantee progressive improvements in vehicle traffic flows, supply chains, and overall efficiencies in the running and maintenance of equipment over the years, have now become a crucial component of maintaining margins at aging mines.

This technology can further help improve safety and reduce ecological impact by enabling predictive maintenance of equipment, real-time monitoring of environmental conditions, and automating dangerous tasks. Additionally, Al-powered simulations can aid in training workers to handle emergency situations effectively.

The South African mining industry, like any other, needs continuous innovation just to stay above water. In the National Infrastructure Plan 2040 (NIP 2050), Government will be spending US\$146.07 billion (nearing the three-trillion mark in Rands) in 276 projects over the ten years from 2020. A comprehensive review of the entire road system serving logistics operators from mining shaft and access design, including public roads, as well as the mine's own internal network. Roads need to bear greater loads, while being safer and more suited to high-volume transportation.

This thinking needs to be applied to ports, manufacturing facilities, warehouses, national highways and the municipal roads that form the last mile of access for manufacturers and extractors alike. From fast moving consumer goods, agricultural producers, retail traders, as well as the fishing and forestry industry, will all be strong drivers of the economy.

Leveraging the power of a growing artificial intelligence ecosystem

Although manufacturing has now grown to be the largest sector, utilising South African freight and logistics systems, the fastest growing sectors include the oil, gas, mining and quarrying

sectors.



Justin Manson, Sales Director, Webfleet South Africa.

can alleviate a lot of the dispute of opinions. The design, development and maintenance of roads, as well as the daily management of road traffic, would be done on a single, live system that is able to detect even minor changes in road quality. This system would then tell navigational tools on nearby vehicles to collectively redirect traffic while assessments are carried out on the same platform.

This is the inevitable future of telematics technology, where the old silos between these various supply chain functions are truly broken down and managed centrally.

Transport operators able to connect their fleets to a centrally managed telematics platform will have the opportunity to not only be at the forefront of these rapid technological advancements, but over the long-term, they will unlock fuel and maintenance cost savings, more reliable delivery of goods and, above all, the safety of drivers, motorists, passengers, and other road users.



## **ELECTRIC TRUCKS TAKE TO THE ROADS**

Volvo Trucks South Africa has officially launched its electric truck range. The company is offering its most popular extra heavy trucks in its electric line-up: the Volvo FH, the Volvo FM, and the Volvo FMX.

olvo Trucks has been committed to social, environmental, and economic responsibility since the start of our

company," said Waldemar Christensen, managing director of Volvo Trucks South Africa. "Now, protecting the environment is the biggest challenge we face. The Volvo Group is a leading force in the shift towards the electrification of the transportation, mobility, and equipment sectors, making a real impact on our customers' efforts to reduce their carbon footprint."

While the environment is safeguarded through the purchase of electric trucks,



"There is also no single silver bullet transport solution that can address all the fleet owner's requirements. Therefore, Volvo Trucks offers gasfuelled trucks, electric trucks, and fuel cell trucks under its three-pronged approach. We believe electrification will happen segment by segment and region by region."

Waldemar Christensen, managing director of Volvo Trucks South Africa

they also stack up in terms of what is needed in nearly any fleet. The electric line-up in South Africa will be available in truck tractor or rigid configurations, from 4x2 to 8x4, giving it the industry's most extensive portfolio of zero exhaust emission trucks.

#### Global technology, locally applicable

Eric Parry, Volvo Trucks SA's sustainable solutions manager, said the trucks have been designed, developed and built to handle commercial operation demands of South Africa.

"Our trucks are designed to handle high-temperature ranges and a variety of operational conditions. With a driveline that has 490kW of power and 2400Nm of torque, it will not struggle on the hills," explained Parry.

"One of the main advantages of going electric is that it provides drivers with





This month the Volvo Trucks Electric Truck Handover took place at KDG Logistics in Sandton, Gauteng. The company took ownership of the first electric trucks that will be on the road in South Africa.

Volvo trucks has sold almost 5,000 electric trucks since 2019 in 40 countries.

Volvo Trucks is the market leader in Europe with a 32% share of the market for heavy electric trucks.

The Volvo electric trucks range is up to 300 km, enough for most city and regional applications.

Battery lifetime will be determined by many different factors, like how much energy is cycled through the battery.

a silent and vibration-free ride while delivering power."

The power of up to 490 kW/665 hp is handled by a unique traction control system also developed to master slippery surfaces.

Different drive modes are available to set the desired performance, comfort and energy usage levels.

When fitted with six battery packs, depending on the application, it has 378kWh of energy, ensuring sufficient range for most regional haul assignments.

The electric driveline also makes manoeuvring in tight and challenging spots easy and controllable. The Volvo electric trucks are just as flexible as their diesel equivalents and can be built for virtually any task. And the absence of noise and emissions makes them perfect for nighttime assignments.

Volvo's electric trucks also meet the same high crash safety standards.

"So, no adaptations were necessary before introducing the vehicles in SA. They have been homologated and continuously tested in real-life operations and we are happy to say that so far, all is going well," adds Parry.

#### Staff can assist

At Volvo Trucks' major sites in South



The electric line-up in South Africa will be available in truck tractor or rigid configurations, from 4x2 to 8x4, giving it the industry's most extensive portfolio of zero exhaust emission trucks.

Africa, staff have been trained in the new technologies and tools and equipment acquired to support electric truck customers.

"Having this in place was a pre-requisite before any one of the vehicles touched rubber on our shores, for the ultimate benefit of our customers," says Christensen.

A Volvo electric truck will need to be serviced only once a year, so fleet downtime will be kept to a minimum. The company has also installed 120kW DC fast chargers at each of its main dealerships, primarily as a workshop tool, but also to support demo vehicles.

The batteries and the overall condition of the trucks are monitored to allow any measures that need to be taken during the next service visit to be identified in good time.

"A commercial vehicle is worked hard. So, while the servicing requirement will reduce, the vehicles will still need maintenance and repair. But our focus is going to need to shift more toward services that can support the customers' business to become more efficient, productive and safer," says Parry.

When approached by customers who want to make the move to electric trucks, Volvo Trucks uses specialised simulation tools to model a fleet's operations and then advises them on whether the proposed route or application is feasible.

"We also use this to advise on ideal charging locations, route planning, traffic information, topography and more. We are also making a customer version of this available within Volvo Connect that will allow customers to check the feasibility and challenges of routes on their own," mentions Parry.

"Going electric can be a straightforward process. We'll look through your objectives, needs and routines and help you turn them into a transport solution. As well as defining the best charging setup, we're on hand to make sure that you get exactly the right trucks and services to match your requirements for productivity and performance through to the day-to-day planning and administration of your business.

#### **Developing infrastructure**

The Volvo electric trucks range is up to 300 km, enough for most city and regional applications. However, the trucks can cover up to 500 km during a normal workday if a top-up charge is added, for example during the lunch break.

Volvo's electric trucks can be charged with an AC charger (for example a charging box) at up to 43 kW and with a DC system (stationary charging station) with a capacity of up to 250 kW. Using a 43kW AC charger, it takes around nine hours to fully charge the batteries. With a 250kW DC charger, the charging time is reduced to approximately two hours. The battery can be charged more quickly up to 80% capacity, in just the same way as a smartphone, because the charger slows down towards the end of the process to protect the battery cells.

The electric trucks use lithium-ion batteries produced at the Volvo battery assembly plant in Ghent, Belgium. The extra heavy electric trucks will initially be offered with five or six battery packs. Each battery pack has a total energy of 90 kWh, which means either 450 kWh or 540 kWh of total energy. Each battery weighs approximately 500 kg.

Load shedding is also not necessarily a problem when it comes to charging these trucks.

"Operators will have the necessary tools to plan their charging options according to their workload and routes, even though there is load shedding. In addition, most of the first movers already have some sort of off-grid power solution and, in a lot of cases, they can be upgraded to supplement grid charging," says Parry.

Currently the electric trucks are mostly aimed at regional distribution customers. In most of those cases, they return to a home base at some point in the day. This is usually the point where charging will take place. Public charging is not as relevant for these operations right now. Having control of their own charging allows customers to fix their costs of energy, on top of having exact fleet management.

"As a company, we are not bringing a specific charging solution but are working with locally based suppliers who can install, maintain, and manage chargers. We are going to be able to offer charger financing through Volvo Financial Services if required," adds Parry.

Battery life will be determined by many different factors, like how much energy is cycled through the battery. Volvo Trucks has a service contract that not only covers service and maintenance for the truck but also ensures that the batteries are functional throughout the contract period.

#### The pros of electromobility

Electric trucks can make deliveries at night and in off-peak periods and can access more locations than their diesel counterparts, including the inside of buildings. This is due to low noise.

While night-time deliveries aren't the norm in South Africa, Volvo is expecting the technology to be at low volume for the time being. As it grows, the use of



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Volvo's electric trucks can be charged with an AC charger (for example a charging box) at up to 43 kW and with a DC system (stationary charging station) with a capacity of up to 250 kW.

electric machines can change the way fleets are managed. But, with the right implementation electric trucks have the potential to blossom in South Africa.

"Ultimately, we hope to assemble electric trucks locally at our Durban plant. This will be heavily influenced by the regulatory environment. If we can get the necessary support to help drive uptake, then we can have a market big enough to support the economies of scale to justify further investments to assemble locally," concludes Christensen.

#### SA success story

Christensen says the company was surprised by the amount of local interest in its electric trucks, and that the first movers in South Africa are companies that value their environmental impact and already have programmes to reduce emissions.

"The size of the company is largely irrelevant. Transporters can see that electric drivelines are going to play a bigger role in our near future, and many want to get early exposure on how the technology works in real operations, so they are positioned well for the shift," says Christensen.

"There is also no single silver bullet transport solution that can address all the fleet owner's requirements. Therefore, Volvo Trucks offers gas-fuelled trucks, electric trucks, and fuel cell trucks under its three-pronged approach. We believe electrification will happen segment by segment and region by region."

Locally, the first electric FM 4X2 Tractor

Our trucks are designed to handle hightemperature ranges and a variety of operational conditions. With a driveline that has 490kW or power and 2400Nm of torque, it will not struggle on the hills.

was presented to KDG Logistics. The company will use the truck in its operations to move new passenger vehicles between factories/storage facilities and the Durban Port.

"Our move to electric trucks was driven by our objective to be more efficient in every aspect of our business," said Abdool Kamdar, KDG Logistics' manager of Decarbonization and Net Zero.

"We believe what sets us apart from our competitors is the fact that we focus on operational and environmental efficiencies in our business, which includes steps to lessen our impact on the environment and enhance safety for all road users."

Kamdar explained that the company wanted to be one of the first movers on battery electric trucks to gain experience, knowledge, and operational miles in the first generation of these units, to fully understand and take advantage of future efficiencies as the technology develops and expands.

The KDG Group has a longstanding relationship with Volvo Trucks and has 175 diesel units in its fleet already.

"We have been a 100% Volvo Trucks fleet since 2015, and that is because we believe that the trucks are inherently designed to be the safest possible trucks on the road, but at the same time they are the most operationally efficient from a reliability and fuel consumption point of view," explained Kamdar.

"So, it comes down to understanding what the brand can deliver from past experiences and building on that for a more sustainable future, and to bring our customers more value mile after mile."



## UD TRUCKS CRONER BASE OFFERS BUS Solutions in South Africa

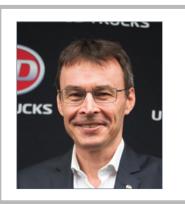
Providing safe and reliable transportation is becoming essential in South Africa. The

medium-duty, UD Trucks Croner has proven itself on the country's roads. Now the model is

also the basis of new commuter bus solutions.

ay UD Trucks re-entered the commuter bus market with the new UD Croner Bus. The fanfare of the launch, taking place in KwaZulu-Natal, gave UD Trucks the opportunity to introduce the new bus line with two variants, which will be available as a commuter bus (PKE 280) and a rural bus (LKE 210) this year the new

buses aim to strengthen commuter experiences in South Africa. "The growing demand for sustainable and comfortable travel options has been a significant development over the past few years. The Croner



"We are proud to extend our Croner product line into the bus market while still maintaining the same quality, architectural design, and reliability."

Filip van den Heede, Managing Director, UD Trucks Southern Africa. Bus is the perfect answer to Africa's need for an economical, sustainable ride that will reduce carbon the footprint," said Jacques Michel, Senior Vice President, of UD Trucks International Sales.

#### **Trusted trucks**

UD Trucks has manufactured trucks for more than 60 years. The trucks have also become trusted, so it is natural for the South African market to introduce buses to the mix.

"It is an exciting time for our organisation, a new chapter," says Filip van den Heede, Managing Director, of UD Trucks Southern Africa.

"We are proud to extend our Croner product line into the bus market while still maintaining the same quality, architectural design, and reliability."

Re-entering the bus market is part of UD Trucks Southern Africa's product diversification plan.



The UD Croner Bus connects rural communities with economic hubs and workers with the workplace. The Croner Bus features USB ports on all seats to accommodate commuters' ability to stay connected whilst on the move.

Both the PKE 280 and LKE 210 buses are based on the same architecture as the South African medium duty leader. UD Trucks Croner.

#### Croner Bus PKE 280

The Croner Bus PKE 280 can seat

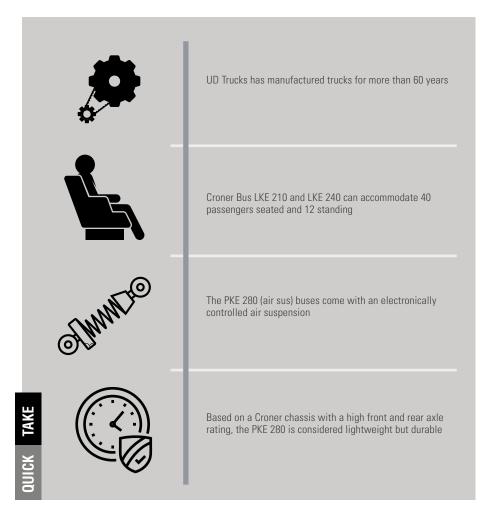
65 passengers and has space for an additional 10 people standing.

This variant is powered by a D8A280 engine that meets Euro III and Euro V emissions standards while also being fuelefficient and equipped with high capacity.

#### Croner Bus LKE 210 and LKE 240

The Croner Bus LKE 210 and LKE 240 can accommodate 40 passengers in seating and 12 standing.

The bigger bus variants feature a



D5A210 Euro V engine for the LKE210 while the LKE 240 is equipped with a D5A240 Euro V engine. Both engines can deliver excellent torque even at low speeds.

#### **Top transport**

"Considering African transport infrastructure challenges, these features will result in rapid response and smooth driving properties, which makes the UD Croner Bus a more fuel-efficient choice," says Rory Schulz, Sales Director, UD Trucks Southern Africa.

The expansion of UD Trucks transportation solutions into the African market is expected to improve efficiency and accessibility and, at the same time, reduce environmental, social, and economic costs for commuters.

With Euro 5 and Selective Catalyst Reduction (SCR), it addresses safer environmental challenges while meeting current market demands.

#### Safety first

The Croner Bus design prioritises passenger safety and comfort, and these are seen as critical features. For improved safety and visibility, bus entrances are illuminated to enhance commuter safety.

Providing support for standing passengers and preventing them from falling while the bus is in motion, fulllength handrails enhance the ergonomic features and safety of the bus. Each unprotected seat has a lap-type safety belt to protect against sudden stops or collisions.

#### Transport technology

The PKE 280 (air sus) buses come with an electronically controlled air suspension system that is designed to improve driving comfort, contributing to better vehicle ergonomics. On the move, the system automatically controls chassis height and compensates for uneven weight distribution to ensure the bus is balanced.

Based on a Croner chassis with a high front and rear axle rating, the PKE 280 is considered lightweight but durable. Because of the reduction in chassis and bus weight, the bus can carry high loads of luggage inside and outside the coach. The increased carrying capacity of the bus enables the customer to carry more load thus maximizing productivity.

As part of our vehicle health monitoring feature, UD Telematics has been implemented, which comprises customer and dealer telematics and displays all critical alerts from UD Trucks buses. ©

The Smart Doc app from Hamm makes it very easy to create compaction reports for self-monitoring and documentation.



## HAMM SET TO LAUNCH NEW HC SERIES Models in Africa

A total of six new Hamm HC Series models will be introduced in key African markets, as well as South East Asia and the Middle East in the coming months. The new models are aimed at make compaction easy and ultimately affordable in these key markets by addressing rising fuel prices and providing the latest technology to compaction sites.

amm will launch new models of its UN ECE R96 (Tier 3)-compatible soil compactors. A total of six new HC Series models will be introduced, namely the HC 208 D,

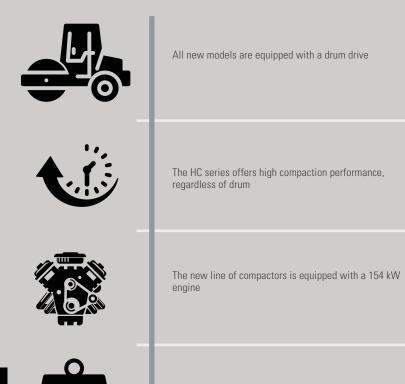
HC 208 P, HC 228 D, HC 228 P, HC 268 D, and the HC 268 P, each with a weight of either 20 t, 22 t, or 26 t.

All these soil compactors are equipped with a powerful 154 kW engine (UN ECE R96, Tier 3) and the Hammtronic electronic machine management system.

They combine high compaction quality with easy operation and maintenance. Moreover, there are several optional features available, so customers can select machines that match their requirements. Low maintenance costs and low fuel consumption ensure cost-effectiveness.

The new Hamm compactors can be used for a wide range of stabilization, earthworks, and CBT applications, compacting different types of material.





The six models have a weight of either 20 t, 22 t, or 26 t

QUICK

#### Unique cooling system

To achieve excellent compaction performance, all new models use a highly efficient Cummins engine with a rated output of 154 kW. The engine complies with the UN ECE R96 (Tier 3) specifications and is fuel-efficient.

The innovative cooling system, in which the cooling air is drawn in from behind the operator's platform and emitted at the rear, provides an optimised air supply and increases the lifespan of the power packs. It also prevents hot air from reaching the operator's platform.

#### **Productive and ergonomic**

Hamm soil compactors come with an ergonomically designed operator's platform, offering a high degree of comfort as well as all-round visibility that allows an unrestricted view to the rear, the tires, and the surroundings for greater We compensate for the power loss with the cylinders. This has the advantage, especially when driving concrete piles, that they are not damaged as much as when using accelerated hammers.

safety on the job site.

The soil compactors can be optionally equipped with a cabin featuring heating and air conditioning. Alternatively, they are available with a canopy. In both cases, a spacious platform provides ample legroom and allows individual adjustment of the seat and steering wheel.

A user-friendly operating panel features a clearly designed information display and intuitive operation using international symbols.

Displays for engine RPM and drive speed are standard equipment for the Chinese market. The Hamm Compaction Meter (HCM) for obtaining quick information on compaction progress can be added optionally. High-power LED working lights are another optional feature, generating enhanced visibility.

#### Homogeneous weight distribution

All new models are equipped with a drum drive. This helps in scaling gradients of up to 61% with confidence. The Hamm soil compactors are equipped with a 3-point articulated joint that is unique on the market and offers outstanding driving and steering characteristics, guaranteeing unsurpassed directional stability, and driving comfort. The chassis design ensures homogeneous weight distribution across the drum and the wheels - even at the full steering angle. Moreover, the new soil compactors can effectively absorb impacts, even on rough terrain, and can also handle tilting when driving along curves.





With a weight of 20 – 26 t, a 154 kW engine (Tier 3), a working width of 2,140 mm, and many optional features, they fulfil the needs of the local construction markets in South East Asia, the Middle East, and Africa.

#### Reducing CO<sub>2</sub> emissions

Increasing price pressure, rising fuel prices, and the need to protect the environment render efficient and economical machines indispensable.

With the Hammtronic electronic machine management system and a powerful ECO mode, the soil compactors of the HC series meets these requirements.

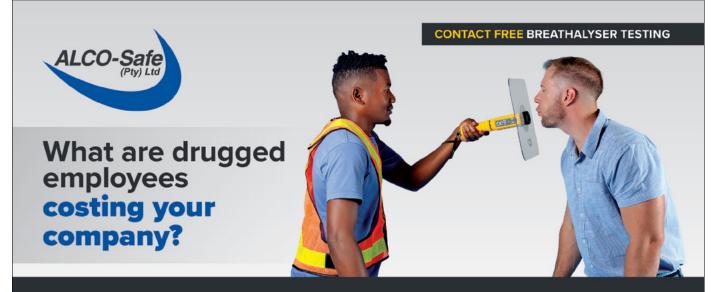
Hammtronic is standard in all soil compactors of this series, enabling optimised load distribution that leads to tremendous gradeability and low fuel consumption. It adjusts the diesel engine speed to meet the power requirements of the individual drives. In addition, the efficient ECO mode generates fuel savings of up to 20% and results in reduced  $CO_2$ and noise emissions. The models also offer manual traction control to transfer the torque as required. As an option, customers can choose models with differential gear for even greater traction.

#### March to your own drum

The Hamm soil compactors of the HC series offer a consistently high compaction performance, regardless of whether they are equipped with a smooth drum or padfoot drum ("P" models). Customers who need both drum types can use the optional padfoot shell kit, consisting of three components. This enables easy conversion of the smooth drum to a padfoot drum, making it ready to compact cohesive soil.

#### **Easy maintenance**

When it comes to maintenance, the new Hamm soil compactors offer a huge advantage in terms of their engine, since this is freely accessible from all sides. In addition, the key points for daily checks are located on one side of the machine, and the hood opens towards the operator's platform via gas springs, all of which make maintenance tasks fast and uncomplicated. •



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## MORE VALUE FROM ASSETS THROUGH MAINTENANCE AND MANAGEMENT

According to ISO 55000 (International Standard, Citation 2014), an asset can be defined as "an item, thing or entity that has potential or actual value to an organisation". Furthermore, asset management is a "coordinated activity of an organisation to realise value from assets".

By Suren Naidoo, Vice President: Services, Anglophone Africa at Schneider Electric

o derive the most value from assets, they must be managed and maintained that in turn optimises equipment reliability and availability whilst reducing the operation and maintenance costs.

Which brings us to the next important point, investing in assets should go together with after-sales maintenance, service, and repair. One can go so far as say it's non-negotiable as no business can realistically afford downtime or, worst yet, complete, and catastrophic failure of equipment.

A recent research paper *An approach to improve asset maintenance and management priorities using machine learning techniques* describes asset maintenance and management activities typical services provided by a physical asset maintenance firm.

"A combination of these services would result in an optimised asset management solution that would satisfy the needs and challenges of the asset operators to improve the asset system availability and reduce the downtime of the assets, while following a systematic planning of operation and maintenance activities," cites the research paper.

It is therefore paramount that organisations choose the right partner for the job. Your asset maintenance partner should be reputable, knowledgeable and understand your environment and the equipment that runs it.

Investing in the asset management partner, backed by a robust maintenance programme must form part of business operations and resultant OPEX expenditure. Not only do these programmes run systems efficiently and maximise equipment expectancy, but thet also play a fundamental role in mitigating downtime and system failure.

#### Let's start at the beginning

The saying "It's a simple task to make

things complex, but a complex task to make things simple" couldn't be more apt when choosing an asset maintenance partner. In a nutshell, there are five attributes an organisation should look when choosing a partner:

- 1. Expertise of the maintenance personnel.
- 2. Quality assurance.
- 3. Onsite response time.
- 4. Remote monitoring capability.

5. Comprehensive onsite inspection. Human error can often lead to operations issues which is why it's so important to ensure the service personnel are experts. Your asset maintenance partner should feature a pool of system specialists who receive ongoing training which includes safety protocols and are certified by regulatory bodies such as OSHA (Occupational Safety and Health Administration).

The service and maintenance team must have access to the necessary vendor tools and software that allow for system diagnostics and newest field service bulletins, created by the system vendors, that alert them to trending issues.

Also, access to international support that feature technical experts from various regions as well as global case studies will provide valuable insight into particular challenges organisations might face.

#### Monitoring and inspection

Both remote monitoring and onsite inspection play an all-important role in preventive maintenance. Remote connectivity for example allows for quicker diagnostics of problems, which can be addressed without having to send a technician to visit the site.

However, onsite visits are extremely important and can provide the following benefits:

• A visual inspection will in a noninvasive way identify potential



Suren Naidoo, Vice President: Services, Anglophone Africa at Schneider Electric.

problems like dust or debris on a condenser, dirty condenser coils, bloated or leaky batteries, etc.

 An environmental inspection will allow the specialist to assess how a system can be impacted by humidity, air, and water quality. This all can have a direct impact on the function and life of the system.

Lastly, technologies such as data analytics and Al now play a vital role in asset maintenance and repair. The more connected and smarter services become, the more your service provider will become an invaluable and trusted advisor. ©



## SAFETY FIRST THANKS TO ALCONTROL SMART CONNECT

One of South Africa's leading providers of alcohol and drug testing equipment, ALCO-Safe, has launched the latest version of its workplace alcohol testing system, ALCONTROL Smart Connect. This unmanned breathalyser is mounted onto a turnstile to control entry of employees or can be mounted onto a wall as a self-test breathalyser for employees to test themselves prior to entry into their respective workplace.



"Where previously it was difficult to get a technician out to remote mining locations for installation, ALCONTROL is now extremely simple to install, and can be done by almost anyone with basic technical skills."

Rhys Evans, MD at ALCO-Safe

A

simple change to where employees enter their workspace or jobsite can do a lot for general safety. Testing for alcohol is one of those

things. This new version of ALCOCON-TROL Smart Connect addresses significant integrability challenges experienced in the past, between the breathalyser device, the biometric system and the turnstile.

"For industries where repeated positive alcohol testing impacts work performance, and can result in job losses, voluntary alcohol testing is an important safety measure," explains Rhys Evans, MD at ALCO-Safe,

"Voluntary alcohol testing is for employees who occasionally overindulge, giving them the opportunity to go home and avoid endangering themselves or their colleagues, should they experience a positive breath alcohol result," he adds.

#### Technician-friendly, easy to install

"Where previously it was difficult to get a technician out to remote mining locations for installation, ALCONTROL





QUICK TAKE	
The system also enables proper visitor control	
The ALCONTROL unit has an option for camera installation that can be used for identity verification purposes	
Companies can track positive alcohol test results to monitor for absenteeism and abuse	
The system alleviates congestion during peak arrival times when workers need to pass through turnstiles in large volumes	

is now extremely simple to install, and can be done by almost anyone with basic technical skills," Evans notes.

It introduces Wiegand, RS485, LAN, Wi-Fi and Bluetooth connectivity and a new communication protocol, and the device is easily compatible with any of the existing biometric employee identification and access control system companies may already have in place.

The name Alcontrol Smart Connect leads to its focus on easy connectivity and integration.

#### Simplifies employee performance monitoring

The ALCONTROL unit has an option for camera installation that can be used for identity verification purposes, and along with a new RS-485 communication port, the system can be easily integrated with facial recognition technology.

All of these features make it easy for companies to track positive alcohol test results in order to monitor for absenteeism and abuse of the voluntary testing system, while streamlining HR disciplinary processes related to the company's alcohol and substances policy.

#### Simplifies visitor control

In addition to simplifying employee access control, ALCONTROL also enables proper visitor control and is the only system currently available that can integrate with the Bluetooth-based devices used to scan license discs upon arrival at a business complex.

#### **Easy calibration**

Now capable of easy on-site swop out of pre-calibrated modules, the calibration process is essentially plug-and-play. This minimises downtime to a minute or two, which is very important to ensure that production is unaffected, particularly during peak arrival times where workers need to pass through turnstiles in large volumes.

"With this new version release, we have successfully addressed a number of challenges experienced with the previous model launched in 2017, ensuring that the instrument is now easy to install, service and calibrate."

A number of new features and connectivity updates mean that the testing system integrates easily with other workplace technologies, such as biometrics and access control systems, completely simplifying the enforcement of the company substance abuse policy and contributing to a safer, alcohol-free workplace, " Evans concludes. •



## THE SWEET TECHNOLOGY OF SCRAPETEC AT SUGAR PROCESSING FACILITIES

BLT World's DustScrape dust filter system, which is used in conjunction with the contact-free AirScrape conveyor belt skirting system, has been specially developed for the control of dust formation and material spill at critical sections along the conveyor route and transfer points and is now effectively used at sugar processing plants in South Africa.

t sugar plants, the risk of explosions from sugar dust emissions is a real one. To circumvent the problem BLT World's specialists, work in conjunction with the global ScrapeTec team, to offer dependable solutions for specific problems at the transfer points of conveyor systems in many industries where dust and material spillage are concerned, including the sugar sector.

#### Safe materials handling

"The risk of explosions caused by sugar dust emissions on conveyor belts in sugar production is an ongoing problem that engineers around the world are trying to prevent. ScrapeTec experts developed a new dust control system about five years ago, that is proving to be highly effective – not only for preventing dust formation and material spill but also to minimise the risk of explosion at critical sections along the conveyor route and transfer points and for more efficient belt-cleaning," explains Ken Mouritzen, Managing Director, BLT World, distributors for ScrapeTec in Africa and the Indian Ocean Islands.

"ScrapeTec products - which are engineered in Germany to pristine quality and environmental standards – are proving to offer even greater operational cost savings in materials handling, than anticipated at the launch of the range.

"Apart from the benefit of cost savings, DustScrape and AirScrape dust suppression systems are highly effective in minimising exposure of workers to environmental pollution, which is a major problem in dry bulk handling, caused by fugitive dust," adds Mouritzen.

According to him, conventional dust

prevention side-seals reduce conveyor problems in the short term, but they also deteriorate.

This is a result of friction that can also damage the belt of the conveyor during extended periods of use.

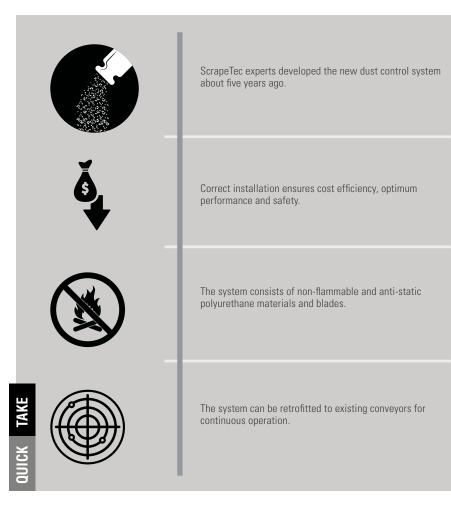
#### **Combined success**

"The success of the combination of the DustScrape and AirScrape contact-free AirScrape conveyor belt skirting system systems is in effective energy-free dust suppression. This compact and easy-toinstall skirting is available in food-grade compliant materials and adheres with most new dust prevention guides, to prevent health and safety issues on-site," says Mouritzen.

This advanced system also minimises product loss, by effectively preventing material from escaping into the



BLT World's DustScrape dust filter system, which is used in conjunction with the contact-free AirScrape conveyor belt skirting system, has been specially developed for the control of dust formation and material spill at critical sections along the conveyor route and transfer points.



In a recent installation, we have solved many production problems for our customer, who was losing almost 5% of materials on conveyor belts due to dust and material spill.

surrounding environment. As a result, users benefit from substantial savings in energy, housekeeping and maintenance costs, without the need for collection of material spills.

"In a recent installation, we have solved many production problems for our customer, who was losing almost 5% of materials on conveyor belts due to dust and material spill," says Mouritzen.

#### How it works

DustScrape consists of a durable filtering cloth that is installed above the conveyor belt to retain dust particles created by conveyed materials, while remaining permeable to circulating air.

This long-lasting filter cloth, with cleaning and dust-releasing properties, is available with different qualities, including anti-static features, for specific applications - for example, in sugar processing or underground mining.

The dust-retaining filter cloth, which is manufactured in rolls, can be extended to any required length and is suitable for any conveyor belt width.

The DustScrape dust emission prevention system comprises a filter cloth, support arches and skirts, arms to hold the system above the belt and a rubber curtain to eliminate further dust development – all sized to specific requirements. This system is easy to install and can be retrofitted to existing







conveyors, for continuous operation and for extended periods.

The contact-free AirScrape conveyor belt skirting system is a highly effective side seal that lies over the conveyor belt, without contact and creates negative pressure on the belt, due to its specially-designed blade structure. Because this system hovers freely above the conveyor belt, skirt friction and belt damage are eliminated and the service life of every component of the conveyor is extended.

Conventional skirting is pressed against a conveyor belt to keep dust and material in the middle of the belt, but after a period, wear of the skirting and belt can be so severe that material and dust escape. Material spillage at transfer points needs to be removed and regular maintenance of belt skirting and transfer points is necessary.

#### For the long-run

Studies show that even five years after installation and with continuous use in harsh conditions, the AirScrape system shows hardly any signs of wear.

This durable system consists of nonflammable and anti-static polyurethane materials and blades made from Stainless Steel. FDA-approved materials are also available for specific conveyor handling applications.

The recently launched SureSupport system works in conjunction with DustScrape and AirScrape to deliver support and stability to the belt at transfer points. Other advantages of this system include quick and simple installation and reduced maintenance time and costs.

The PrimeTracker ensures the belt is constantly in the correctly aligned position during operation, thus eliminating problems with belt mistracking.

The TailScrape system enhances the performance of the AirScrape, by sealing the transfer tail in the rear area and also works according to the Venturi concept, to prevent dust generation and material spills. The intelligent blade structure on the system's underside creates negative pressure in the conveying area, preventing the escape of materials. Dust is kept in the material flow by the air intake.

The SpeedScrape secondary belt cleaner design is based on the inclined and staggered positioning of Tungsten blades, which increases the scraping surface to as much as 150% of the conveyor belt width. This highperformance system allows scraped material to be easily discharged.

Correct installation of suitable equipment ensures cost efficiency, optimum performance and safety, reduced risk of breakdown and extended service life of the conveyor system.

BLT World specialises in comprehensive bulk handling solutions service to sectors that include shipping, mining, and quarrying, civil engineering and construction, general engineering, food processing and agriculture.

## SOUTH AFRICA NEEDS A WASTE TYRE Management plan

The second-hand tyre industry in South Africa presents enormous challenges, with an estimated 63% of second-

hand tyres sold in the country being illegal and unfit for road use.

he local industry estimates the second-hand tyre market to comprise between 1,5 to 2 million tyres, with 750 000 to 900 000 of these being illegal and posing a threat to road safety.

Lubin Ozoux, CEO of tyre manufacturer Sumitomo Rubber South Africa (SRSA), which distributes the Dunlop, Sumitomo and Falken brands, stresses the detrimental impact of this issue on the entire tyre retail value chain, both financially and in terms of reputation.

"Waste tyres present environmental hazards due to their large volume and slow decomposition rate, leading to visual pollution and potential health risks when they accumulate in landfills or are illegally dumped. In South Africa, waste tyres have also been misused during protests and riots," he said.

"As a tyre manufacturer and member of the South African Tyre Manufacturers Conference (SATMC), we have a responsibility to ensure that the practice of selling unsafe, ill-suited and illicit second-hand tyres to unsuspecting and uninformed customers, is stopped. There needs to be a solid protocol for all tyre dealers to ensure that once second-hand waste tyres are correctly mutilated and have been assigned for waste pick up from their stores, they do not resurface in the market," he added.

However, concerns persist regarding the lack of a comprehensive Tyre Waste Management Plan in South Africa, with the draft section 29 Integrated Industry Waste Management Plan for Tyres (IndWTMP) still pending finalisation.

Shaun Radbone, owner of Dunlop franchise, Orion Auto & Tyre, echoed the need for urgent attention and resolution of waste tyre management issues. "It's unclear if a plan is in place to address this critical environmental challenge. There is a significant lack of transparency from the relevant authorities on whether these products are being transformed into new products or used as a source of energy," he commented. This lack of information hampers efforts to establish sustainable waste management practices in the tyre industry.

Radbone said Orion Auto & Tyre's waste tyres are collected regularly, either weekly or every second week. However, he noted occasional disruptions in collection due to storage facility constraints. He also raised concerns about waste tyre fees, which are typically included in invoiced pricing from suppliers, and called for more transparency regarding the utilisation of these levies.

Drawing from international best practices, Radbone points out the successful use of rubber crumb from scrap tyres as an additive in tar roads in European countries.

He stressed the importance of sharing information about the dangers associated with second-hand tyres. "If it's a secondhand tyre that someone is looking to purchase, they must ask themselves, why is it second hand? Usually, it's because the original owner had issues with the tyre, that's why they changed it."

Better-informed consumers would result in a decline in the sale of such tyres.

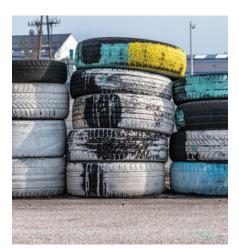
Ozoux called upon industry stakeholders, regulatory bodies, and the government to bridge information gaps, enhance regulation, and raise public awareness.

"Recycling and proper disposal methods are crucial to minimise the adverse consequences of waste tyres. Additionally, ensuring that retreaded and part worn tyres meet safety standards is vital for preventing accidents and maintaining roadworthiness," he said.

The SATMC has been collaborating with the Tyre Importers Association of South Africa (TIASA), the Tyre Equipment Parts Association (TEPA) and the government



Lubin Ozoux, CEO of tyre manufacturer Sumitomo Rubber South Africa



to ensure that steps are taken to drive improvements and sustainability in both collection and processing of tyre waste. Some pressure has been released by identifying additional municipal landfill sites to serve as temporary storage facilities in Limpopo Province.

#### RMB Ventures acquires stake in engine rebuild company

In one of their largest private equity investments to date, RMB Ventures has purchased a 45% stake in Mafika Engineering, Africa's largest independent rebuilder of high horsepower ("HHP") diesel engines used in the mining industry.

RMB Ventures is investing alongside the existing management team that has delivered impressive growth over the past 20 years.

Mafika Engineering recently opened their new state-of-the-art rebuild centre where they have already established themselves as a leading HHP engine remanufacturer and one of the few OEM agnostic HHP engine rebuilders in the world. Mafika Engineering preforms "Zero-Hour" rebuilds (returned to new) of HHP and ultra-HHP engines used in high value front-line mining equipment such as ultra-class haul trucks, dozers and excavators. These machines are fundamental drivers of mine efficiency and profitability.

Says Amina Pahad, senior transactor at RMB Ventures: "We are proud to be partnering with a homegrown South African business that provides a world-class service to some of the largest mining houses on the continent and around the globe. RMB Ventures will help instill the appropriate systems, processes, and funding to position the business for further growth without losing the flexibility and responsiveness so important in servicing its customers."

Through remanufacturing mission-critical engines for its customers, Mafika Engineering allows its customers to participate more fully in the circular



Mafika is well-positioned to offset the long equipment lead times and costs of downtime experienced by mining companies around the world.

economy. Remanufacturing offers mining houses an opportunity to recycle existing resources, restoring the efficiency and output of their equipment at a lower price for OEM-comparable quality. Furthermore, Mafika is well-positioned to offset the long equipment lead times and costs of downtime experienced by mining companies around the world.

Globally, remanufacturing has been receiving growing attention and the heavy machinery industry strives to not only extend the life of high-value mining assets, but also reduce waste and emissions. The environmental benefits of sustainable remanufacturing are numerous, including reduced consumption of raw materials, reduced energy consumption during the remanufacturing process and significantly reduced waste sent to landfills.

There is also a positive impact on power consumption. Studies show that rebuilt engines need 50% less energy to produce compared to a new engine, with annual energy savings by remanufacturing worldwide equal to the electricity generated by five nuclear power plants or 10.7m barrels of crude oil.

Concludes Pahad concludes: "RMB Ventures' will work with Mafika's management team to build the foundation to support a different scale of operations and help Mafika Engineering reach its full potential."

#### Bid to unlock Botswana's mining potential

The mining and quarrying industry in Botswana emerged as one of the major contributors to Botswana economy in 2022, accounting for 24.6% of its GDP.

James Othapile, Managing Director of Erudite Botswana, notes that the key to meeting this potential and ensuring the country's long-term mining growth lies in optimising the country's operations. This is where engineering, procurement, and construction management (EPCM) firms like Erudite can play an invaluable role, assisting in transforming Botswana's mining sector and economy, and positioning themselves as partners in the nation's socio-economic development.

"Multinational EPCMs have primarily been serving the local mining industry, with a modus operandi of setting up remote offices with minimal staff within the country's borders and delegating tasks to their internationally based head offices. While this may seem efficient, this approach has brought little to no substantial local empowerment to the local engineering sector in which they operate," he says.

A significant advantage of partnering with more localised, African-based EPCMs is their commitment to local ownership and skills development. Rather than relying primarily on international expertise, these firms invest in developing the skills of local engineering and project management professionals. The goal is to build teams that can ultimately manage local projects independently from their parents and contribute to the nation's skills development in a sustainable manner.

Othapile points out that operational

methods generally employed by large multinational EPCMs are ill-suited to assisting Botswana and other developing nations to build locally driven, knowledge-based economies. By contrast, Erudite believes in fostering local ownership, developing local teams, and collaborating with existing local engineering firms. This approach ensures the transfer and development of valuable skills and expertise within local businesses. It further results in the retention of funds within the borders rather than exporting funds to international destinations.

#### What you need to know about Pulse diagnostics at mines

Haver & Boecker Niagara provides preventative maintenance support with a full suite of Pulse diagnostic services for vibrating screens in aggregates and mining.

Haver & Boecker Niagara designed the Pulse diagnostics suite specifically to monitor the health of vibrating screens and identify issues before they become critical, improving operations' productivity and proficiency.

The suite combines advanced vibration analysis, condition monitoring and impact testing to give aggregates and mining producers a more holistic view of their individual machines and allow them to maximize uptime and screening efficiency through planned maintenance.

"The development of the Pulse portfolio came from our efforts to provide producers with reliable, measurable data through diagnostics," said Wilm Schulz, Haver & Boecker Niagara's parts and service manager.

"Our goal is to give producers a better understanding of their equipment and quick, easy testing options to maximize uptime by predicting maintenance requirements before they lead to unplanned downtime."

The Pulse Diagnostics portfolio includes Pulse Vibration Analysis, Pulse Condition Monitoring and the Pulse Impact Test. Each diagnostic option offers unique insight into machine performance and health.

Pulse Vibration Analysis gathers information through eight wireless, triaxial sensors which measure multiple parameters including speed, stroke and amplitude.

The data is collected electronically and stored in an online database for an easily accessible historical overview of each machine. Haver & Boecker Niagara completes the first analysis at the factory on every new vibrating screen manufactured to capture a baseline and recommends biannual on-site analysis to optimize efficiency.

Producers receive a Pulse Diagnostics Report, which provides an analysis of their vibrating screen and detailed recommendations from Haver & Boecker Niagara screening experts to prevent unscheduled downtime. This increases operation profitability by minimizing maintenance costs with predictive technology.

Pulse Condition Monitoring is a permanent, wireless system that can monitor equipment 24/7. Condition monitoring continually assesses the acceleration of the vibrating screen and provides a forecast of the equipment's dynamic condition in intervals of 48 hours, five days and four weeks. The system captures real-time information on the monitored equipment and provides e-mail alerts when it detects the first sign of system anomalies.

With consistent use, condition monitoring will accurately pinpoint and predict critical issues so that producers can schedule maintenance accordingly to help negate critical failure or unplanned downtime. With just one machine failure prediction, ROI on a 3-year Pulse Condition Monitoring contract jumps to 100%. ©

#### SA thought leader joins a global discussion on mining vehicle technology

The development of electrification to synthetic diesel, green hydrogen and non-detonating explosives was the talk of the town during the latest Global Trends OTR, and Indian talk show last week.

On the show, three guests were able to share valuable mining insights. The guests included Paul Muller, Fellow of the Institution of Mechanical Engineers in London and Technical Sales Manager of Perkins Engines, one of the world's leading suppliers of diesel engines, which has been committed for years to the development of electric and low-energy-impact power-supply systems The second guest Jonathan Cohen is the Director of Product Commercialisation for AutoStem Technology, a South African company that has been in the manufacture of non-explosive products to facilitate mining activities since 1997.

The third guest, Piero Torassa is the Field Engineer Manager of BKT Europe who is in charge of testing tires to evaluate their performance and quality.

Muller shared the importance of electric power in the ecological transition process and how it can reduce the environmental impact in the OTR sector without compromising engine efficiency and performance. Some of his points include the application of new, modular 300V-and-600V-electric battery systems



on large equipment as well as 48V batteries on smaller machinery.

In the mining sector, the adoption of electrical systems is closely related to availability, or the potential adaptability to often inadequate existing infrastructure is however crucial.

According to Muller, the mining sector plays a key role in the vast decarbonization process. If implemented, the electrification of vehicles and infrastructures will lead to the reduction of emissions such as NOx, other particulates, and greenhouse gases.

He emphasizes that in some cases different solutions than electrification are required, suggesting in this regard the use of alternative fuels such as synthetic diesel, biodiesel, or HVO (Hydrotreated Vegetable Oil) - alternative fuels that would make it possible to combine the use of traditional internal combustion engines with the reduction of carbon emissions without involving investments in new equipment.

Cohen illustrated a new type of alternative energy in relation to the use of non-detonating explosives, particularly useful in the mining sector.

This type of controlled explosion by means of the AutoStem Technology is based on deflagration, a subsonic combustion phenomenon, which occurs at a speed of about 300 m/s and is activated by a chemical reaction and a cartridge system.

"We describe our technology as the world's first non-detonating blasting product. We don't even call it explosive", Cohen points out. ۞

#### Babcock makes DAF trucks buy-back easier

Babcock has launched DAF Premium Select. Incorporated in Babcock's used trucks division, DAF trucks are fully refurbished and certified before entering the pre-owned trucks market.

Only A-grade used DAF trucks cut. The trucks go through mechanical and cosmetic inspections, full-service history verification and roadworthiness tests. To qualify as a DAF Premium Select vehicle, trucks have to be less than five years old and have no more than 650 000 km on the clock.

With DAF Premium Select Babcock has made it easier for customers to sell well-maintained trucks back to Babcock through competitive buy-backs and tradein deals on all makes of trucks. This enables owners to consistently upgrade and rotate their fleet whilst expanding their operations. Second economic line owners get peace of mind, knowing they are purchasing a superior quality DAF truck.

DAF Premium Select customers have access to the same comprehensive aftermarket support from Babcock that comes standard with new DAF trucks. This includes tailor-made maintenance plans, 24-hour breakdown services and nationwide availability of workshops.

Sales manager – Used Trucks, Elliot Twani heads up the DAF Premium Select portfolio.

Twani says that all the trucks sold meet international standards governing used vehicle sales, and all trucks are sold with full service and maintenance histories. Every used vehicle also undergoes rigorous one-on-one checking by Babcock technicians before being given a clean bill of health.

By investing in a reliable, quality used DAF truck, customers can be confident they are purchasing a vehicle that's tried, tested and ready to hit the road. Babcock customers also benefit from reduced total cost of ownership without compromising on the brand's key features, such as fuel efficiency, driver comfort and reliable performance which has made it Europe's leading truck brand.

Babcock has been the sole distributor and importer of DAF trucks and parts in southern Africa since 2010. New and used truck options include the fuel-efficient DAF CF and XF series, specifically designed to meet the demands of South Africa's local road conditions and offering



Sales manager, Used Trucks, Elliot Twani.

owners an average of 10% reduction in fuel costs.

Other notable features of the CF and XF series include aerodynamic designs, optimised drivelines, smart electronics and high-efficiency rear axles. Multi-torque PACCAR MX-13 engines provide an extra torque at lower revolutions per minute (rpm), which minimises noise and reduces  $CO_2$  emissions.

#### Perform truck safety checks online

Certification body JC Auditors has announced that it will provide transport operators with free access to an online safety performance assessment tool.

This initiative aims to assist fleet operators, especially smaller fleets, which often lack the resources to evaluate their overall safety performance. This online assessment would also enable an operator to identify its performance with the Road Transport Management System (RTMS) National Standard.

The RTMS is a comprehensive framework designed to improve safety, efficiency, and compliance within the transport industry. It consists of several key pillars, including load management, driver wellness, vehicle maintenance, journey management, and driving behaviour.

By making this online safety performance assessment tool accessible, JC Auditors aims to enable transport operators to identify and mitigate risks, which will not only help the individual business but also contribute to improving South Africa's road safety record.

The assessment tool comprises a series of carefully crafted questions focusing on the key pillars of RTMS. Operators can complete the online evaluation, the results of which



Oliver Naidoo, Managing Director of JC Auditors (centre), with two traffic officers.

will be available in a report detailing key risks and recommended improvement actions.

This feedback empowers operators to identify potential risks and take proactive measures to enhance safety standards within their operations.

Oliver Naidoo, Managing Director of JC Auditors, highlights the importance of this initiative, saying: "It is vitally important that transport operators - regardless of their fleet size - have access to resources that can help them enhance their safety performance. By providing this online assessment tool for free, we aim to support South African fleets in adopting RTMS and holistically improving road safety and operational performance."

Additionally, Naidoo emphasises the growing need to promote initiatives aimed at changing the driving culture within the industry.

Furthermore, it was observed that the transport sector often does not fully optimise telematics capabilities, despite its ability to identify high-risk behaviour- a matter that requires urgent attention.

Lastly, he notes the importance of fostering increased stakeholder collaboration in collective efforts to improve fleet safety performance, which emerged as the fourth key takeaway.

#### Infrastructure boost will help N3 transport flow

After years of traffic congestion on the N3 Section 2 from Dardanelles (km 26.6) to Lynnfield Park (km 30.6), GIBB was appointed by the South African Roads Agency (SANRAL) to assist with the design and construction of four bridge widenings, a new ramp bridge and v-drains, among other responsibilities.

The N3 project saw GIBB employing a host of new technologies and innovations to complete the project, including a specialist traffic modelling software called Aimsun, new LED lighting for streetlights, and stronger and heavier road pavement material.

"The construction industry is notoriously slow regarding the implementation of new technologies since the commercial risks related to the use of untested technologies are simply too high. For this reason, the tendency has always been to revert to the tried and tested methods and materials," said Innocent Magwa, GIBB's Bridge Design Engineer.

"Where possible, technological advancements have been embraced and implemented. Sufficient trials were conducted to motivate the use of alternatives," Magwa said.

The construction part of the project,

which started in January 2021, and is set to be completed by its deadline of May 2025, has not been without its challenges. Magwa said accommodating traffic on the busy road, the supply of materials from the SANRAL quarry, land acquisition and issues around groundwater have all been challenges the team has had to deal with.

"In addition, during the design stage, most of the existing structures did not have as-built drawings. We had to employ other means like conducting structural surveys and 3D scanning of the structure to establish the sizes, spans of the existing structures and the amount of reinforcement on the existing structure," Magwa said.

"This information helps us establish the capacity of the existing structures and also to determine any strengthening if required with the increased loads on the existing structure," he said.

During the construction phase, Magwa said the local and regional communities would experience positive and negative effects as a result of the construction process. On a positive note, there may be temporary job creation for semi-skilled and unskilled workers. However, the local



Innocent Magwa, GIBB's Bridge Design Engineer.

communities might experience poorer access and travelling conditions during construction.

"With mitigation, the negative economic and socio-economic impacts of the project during construction are expected to be low," he said. Magwa added that there will be "increased opportunities for local contractors and SMMEs, and a general increase in spending on a wide range of goods and services in Durban,

#### Mega-T returns for a second year

Mega-T, the new outdoor trucking, trailer and transport expo, will be hosted for the second time on 5, 6 and 7 October at the Diamantvallei Landgoed showgrounds, 20km east of Pretoria.

After a successful first edition in 2022, this event, powered by The Road Freight Association (RFA), is firmly positioned as a powerful Business to Business Expo.

"Mega-T Expo is the perfect combination of business and pleasure," explains HP Steyn, the event organiser.

"It serves as a hub for the trucking industry to network, showcase cutting-edge technology, connect with suppliers, and exchange business ideas. Established businesses can exhibit their products and services, reaching their target market. The show covers a wide range of categories including trucks and trailers, tracking and security, parts and maintenance, financing and insurance, navigation and fleet management, and refuelling systems."

Gavin Kelly, CEO of The Road Freight Association (RFA), adds that the feedback received from participants in the 2022 show was overwhelmingly positive.

"Some exhibitors signed deals during

the two-day event, whilst others networked tirelessly and started building/growing relationships with potential customers and learning about the latest innovations in trailers, trucking and transport," he says.

"We had quality visitors and quality time for many businesses seeking new contacts or reviving old ones." As a result of feedback received, the show has been extended by one day to include a Saturday, enabling families to come and experience Mega-T.

"All in all, most people I interacted with said that they had benefitted from being at Mega-T. There were several exhibitors who wish to increase the size and style of their stands for the Expo this year or move into the upper sections of the Expo closer to the entertainment area and market the Expo amongst their circle of businesses and friends."

Several prominent brands in the industry have already secured their space for



the 2023 event. This includes petroleum wholesaler Mammut Petroleum, Indian multinational tyre company Apollo Tyres and German braking systems manufacturer Knorr-Bremse AG.

Building upon the achievements of the previous edition, Mega-T will introduce an exciting new focus on career planning.

Recognising the importance of nurturing future talent and promoting the transport industry as a viable career path, the expo will incorporate educational elements to enlighten students about the vast career opportunities available in this

## ADDRESSING CHALLENGES WITH REAL-TIME TRANSPORT VISIBILITY

Distribution and logistics companies in Africa face challenging times. Fuel prices are high, inflation is rising, road and rail infrastructure is patchy, and supply chains have yet to settle following years of pandemic disruption. At the same time, consumers and B2B customers are becoming more demanding, and competition is getting fiercer.

By Heinrich de Leeuw, Managing Director, SEIDOR in South Africa



Heinrich de Leeuw.

o grow and remain profitable in this landscape, leading transport and logistics companies are seeking to leapfrog traditional supply chain practices and gain a real-time view of transport and logistics. By adopting digital tech and accelerating automation of business processes, they can gain a vital edge in a tough market.

Real-time transport and logistics visibility is a priority for most leading players in transport and logistics. Supply chain visibility enables companies to reduce waste, optimise performance and exceed customer expectations. There are powerful as-a-service solutions that integrate seamlessly with ERP software to offer real-time, end-to-end transport visibility for transport companies, including SMBs.

Real-time visibility in transport refers to the tracking and tracing of the movement of assets in every step of the supply chain. Today's solutions use GPS technology and advanced software to keep track of receipts, materials, shipping details, regulatory information, cargo and vehicle location, and more—all in real time. This allows for greater control and predictability in the transportation of goods.

With instantaneous information about the location, status, and estimated arrival time of a shipment at their fingertips, transport and logistics businesses can more effectively plan their operations and respond to any issues that may arise. Companies also gain valuable insights from geo-fencing, vehicle speed, odometer reading and route data. They can, for example, look out for fuel theft or speeding in their fleets.

Here are a few ways an integrated solution for real-time visibility in transport can maximise ROI:

Tracking and calculating cost and profit per kilometre: A good solution enables a transport company to measure and control variable cost factors like fuel, tyres, maintenance, and repairs.

Streamlined scheduling and warehouse management: The level of real-time data transport companies can access today enables them to schedule loading and dispatch of cargo more accurately. They can avoid having trucks and labour idling as they wait for cargo to be loaded. This also means they can offer customers more accurate and predictable delivery schedules.

Reduced downtime and increased asset availability: The tech supports preventive maintenance of vehicles, which helps minimise vehicle downtime, reduce costs and avoid breakdowns that result in safety and security risks. Alerts ensure that vehicles are serviced regularly, and parts are available when needed thanks to streamlined requisition systems.

Better customer satisfaction: Transport businesses are always able to get information when they need it. This helps them to offer better customer service at each point of contact, helping ensure repeat business.

Enhance cash flow: A transport company can improve cash flow through accurate monitoring and management of revenue and expenses. They can issue bills as soon as a delivery is made. Integration to mobile payments, meanwhile, eases the handling of cash to drivers and other payments.

Vehicle asset management: The ideal solution enables automated tracking, vehicle details, licensing, tracking and reporting on vehicle values and costs, as well as annual depreciation as a result of distances travelled. The system also ensures that the business complies with regulations, enabling fleet managers to reduce risks.

Modern-day supply chains are complex, with growing regulatory burdens, rising costs, diverse customer needs and expansive supplier networks.

The right technology can help SMB transport companies ensure that their operations run smoothly, reducing their risks and improving profitability. Knowing what's happening to each truck or shipment in real time is a powerful capability that can help companies vastly enhance ROI and competitiveness.



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