



MODERN

QUARRYING

QUARTER 3 | 2024

28 Optimising sand production with a VSI

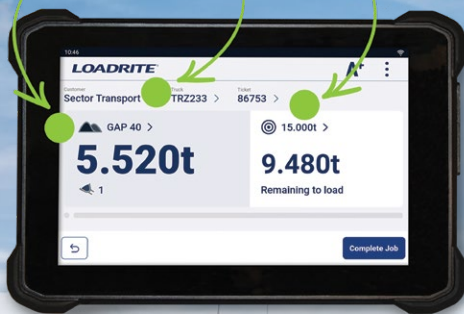
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The Right Product

The Right Amount



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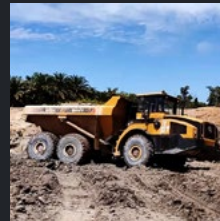
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Attracting more than 19 500 trade visitors and featuring an impressive 598 exhibitors across three show days.

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BLT WORLD 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 concerns, including in mining and quarrying.



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TRANSFORMING THE AFRICAN QUARRY WITH TECHNOLOGY

There has been an escalation in the employment of technology in the quarrying sphere.

This has influenced every aspect of the quarry operation, from the advanced techniques now being employed for exploration, to advancements in drilling and blasting, hauling and the technology being used for more accurate load out processes. The use of technology in this context has also led to a safer environment for quarry personnel.

The quarrying industry is closely linked to the success of the construction industry and, especially locally, the strains and margin squeeze this industry has endured in recent times. This is one of the reasons the quarrying industry now employs technology to maximise output and operations and to minimise cost. By embracing technology, the industry has also created a safer context, one that in the framework of ESG, has become vital.

The production of saleable products now encompasses the technology used for surveys, exploration, drilling and blasting,

crushing and haulage. Crushing and screening is integral to the quarrying industry and lately the introduction of automated crushing systems has heralded a new era in efficiency. Modern crushing technologies have negated costly blockages and the dangers of manually operating crushing machines. They use control systems and sensors that are employed to adjust crushing and screening parameters so that performance is optimised and the human element, minimised.

Underlying the technological advancements in quarrying is the positive impact it has had towards a safer work environment – from the technological advancements in drilling and blasting, to the ergonomic and safer equipment operators used to enhance safety features for hauling.

Through the involvement of Aspasa especially, quarry workers are increasingly trained on the latest equipment and best practices with which they can improve their skills. This will lead to improvements, an increase in production and the reduction of

errors. By empowering workers to take ownership of their work and make suggestions for improvement, it is possible to increase production and reduce errors.

Technological advances

Almost all the articles in this issue of **Modern Quarrying** focus on how technology plays an ever increasing role in the efficacy of the quarry environment – and how it indirectly makes this a safer environment.

On the cover we feature Loadtech. This company maintains that technological advancements and digital transformation are reshaping the mining and quarry sectors. Automation, artificial intelligence and data analytics are being adopted to improve efficiency, safety, and productivity in mining and quarrying operations.

Technological advancements are also increasingly being employed when aggregate is conveyed to or from the crusher. Conveyor belt scales are indispensable components for measuring bulk materials in mining and industrial operations. Read the article 'Tru-Trac sets new standards for belt scale accuracy' on page 14.

The magazine features various other articles that illustrate just how the quarrying industry has advanced. These range from the latest ADTs for hauling, to how tyres can be managed to maintain output, to new technology in drilling. ●

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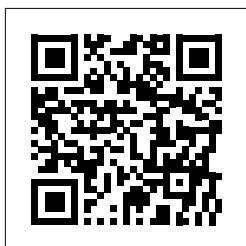
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HILLHEAD 2024: UNPARALLELED SUCCESS

Attracting more than 19 500 trade visitors and featuring an impressive 598 exhibitors across three show days, Hillhead 2024 – the biggest working quarrying exhibition on the planet – once again raised the ante, showcasing a plethora of new products, cutting-edge technologies, and innovative trends that promise to shape the future of the industry.

Hillhead 2024 is over for another year, but there is no denying that the biennial quarrying industry extravaganza once again delivered its trademark combination of exciting new product/service launches, countless technological innovations, and more live plant/equipment demonstrations than ever.

This year's hotly anticipated event – held from 25 - 27 June at Tarmac's Hillhead Quarry, near Buxton, Derbyshire – proved to be a huge success on all counts and underlined its status as the UK's (and perhaps even the world's) biggest live demonstration trade show for the quarrying, construction and recycling industries.

Building on the momentum of the hugely successful 2022 exhibition, Hillhead 2024 was

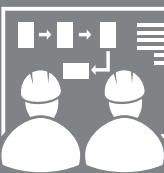
SNAPSHOT



A total of 26 626 visits over the three days – marking an 8% increase over the 2022 edition.



19 577 attendees from 67 countries.



Digitalisation, automation, and decarbonisation continue to drive change within the quarrying, construction, and recycling sectors.



The trade show featured new product/service launches, countless technological innovations, and more live plant/equipment demonstrations than ever.

#NEVER IDLE



JOHN DEERE





the most visited edition ever in terms of the volume of visits over the three days, with visitors spending more time at the show than ever before and a record number attending for more than one day. In total there were a staggering 26 626 visits over the three days – marking an 8% increase over the 2022 edition.

In terms of unique visitors, with 19 577 attendees from 67 countries (+6,2% compared with 2022) this year's edition had the second highest ever number of trade visitors (only 2018 was higher at 19 753, although that show had less volume over the three days). Hillhead 2024 also recorded the event's busiest ever show day in its 42-year history, with almost 10 800 visitors attending on day two.

Put simply, there is no trade show quite like it in the world. With every square metre of exhibition

space – including an extended Showground Pavilion – fully booked and occupied, and a record number of machines taking part in four live demonstration areas around the quarry, not to mention a host of site improvements (eg additional catering areas, more car parking spaces, new hydration stations etc.), Hillhead 2024 was bigger, better, and busier than ever before.

Commenting on this year's show, event director Richard Bradbury said: "With the sun shining and visitors spending more time at the show than ever before, it was fantastic to see Hillhead continuing to break new attendance records.

"It's an exciting time for the industry as digitalisation, automation, and decarbonisation continue to drive change within the quarrying, construction, and recycling sectors, and this was

represented by the scale and quality of the 600 or so companies that exhibited."

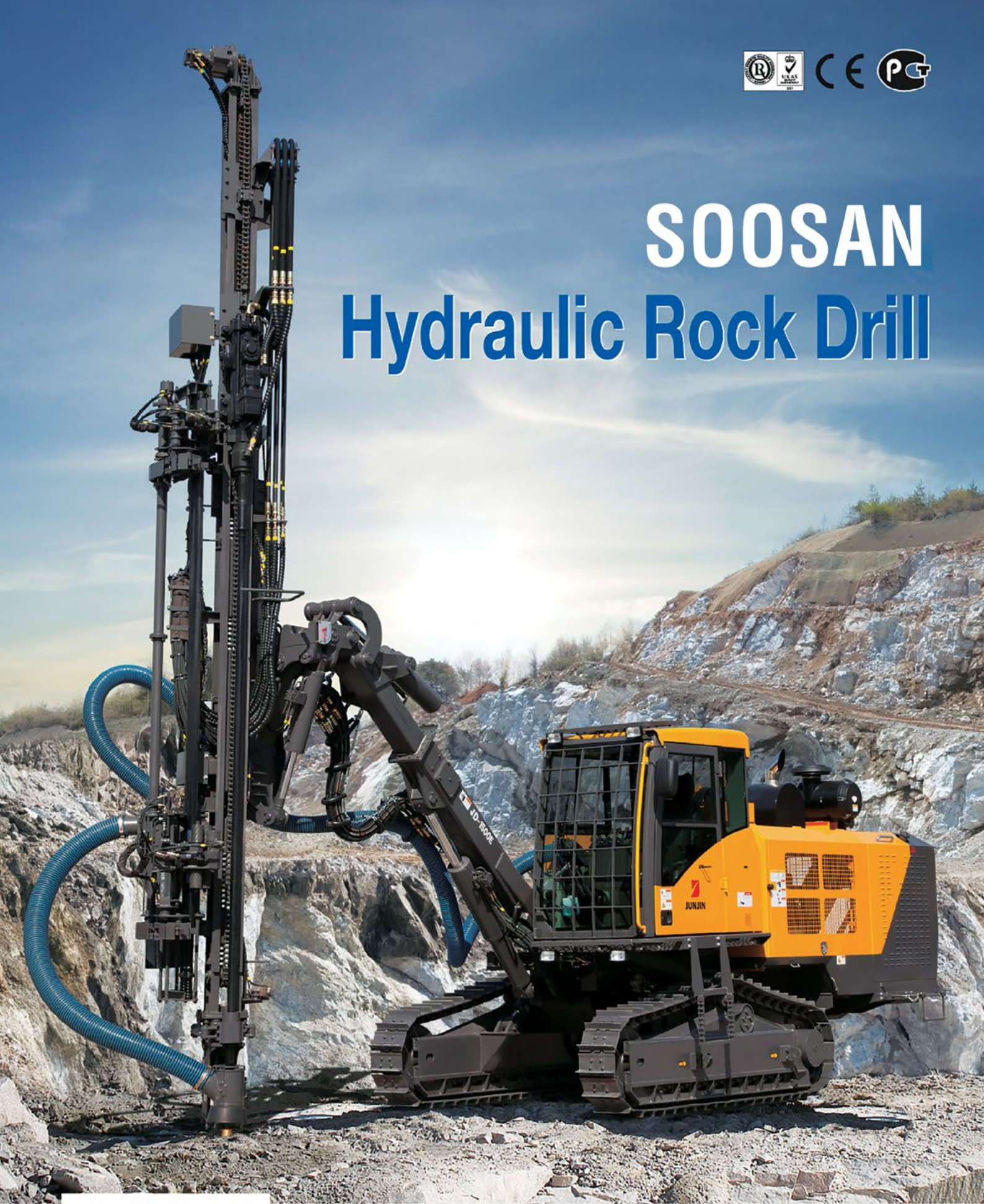
With nearly 600 UK and international companies showcasing new machines, breakthrough technologies, and cutting-edge service solutions at the event, and thousands of visitors flocking to the showground and pavilions, Hillhead is the grandest working quarry show in the world. As usual, key industry players and leading OEMs including JCB, LiuGong, Develon, Terex Washing Systems, Case, Komatsu, McLanahan, SANY, Bell Equipment, Wirtgen, HD-Hyundai Construction Equipment, Astec, SMT GB/Volvo CE, Liebherr, and Hitachi were all in attendance, together with a host of other Hillhead regulars and new companies making their show debuts.

The consensus among the exhibitors and visitors at Hillhead 2024 was that the trade show continues to be a highly popular showcase event for businesses to promote their latest plant, technological innovations, and services to a high-calibre international audience.

As usual, the middle day of the event (Wednesday) turned out to be the busiest of the three show days, with many exhibitors reporting very busy stands with deals being struck, plenty of high-quality leads to follow up, new contracts being made, and old contacts being renewed. ●



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AT THE FOREFRONT OF TECHNOLOGICAL ADVANCEMENTS IN WEIGHING SYSTEMS

Overall, the mining and quarrying sector in South Africa is evolving with a focus on sustainability, innovation, and resilience to navigate the changing market dynamics and achieve long-term growth.

Technological advancements and digital transformation are reshaping the mining and quarry sectors. Automation, artificial intelligence and data analytics are being adopted to improve efficiency, safety, and productivity in mining and quarrying operations.

When comparing durability versus accuracy in using smart scales on quarry equipment, it's essential to find a balance that meets the specific needs of the operation.

Quarry equipment operates in harsh environments with heavy loads and constant movement. A durable smart scale system would be able to withstand vibrations, extreme temperatures, and exposure to dust and debris without compromising functionality. For example, a rugged smart scale with reinforced casing and robust components

would ensure longevity and reliability in such conditions.

Precision in weighing materials is crucial for quarry operations to optimise productivity and ensure accurate measurements for invoicing and inventory management. A high-accuracy smart scale system would provide precise weight readings consistently, allowing for efficient loading and tracking of materials. Features like load cell technology and advanced calibration capabilities contribute to accurate measurements.

Ultimately, it's important to select a smart scale system that offers a good balance of durability and accuracy to ensure reliable performance in quarry operations. Investing in a system that can withstand the rigors of the environment while delivering precise weighing results will contribute to improved efficiency and profitability in the long run.



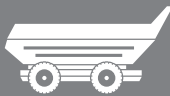
SNAPSHOT



The mining and quarrying sector in South Africa is evolving with a focus on sustainability, innovation, and resilience to navigate the changing market dynamics and achieve long-term growth.



A durable smart scale system should be able to withstand vibrations, extreme temperatures, and exposure to dust and debris without compromising functionality.



Loadrite's extensive experience in the weighing industry provides deep insights into the specific needs of quarry operations.



Loadrite offers a range of smart scale solutions that cater to various equipment types and operational requirements in the mining and quarrying sector.

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Intuitive Interface

Simple user interface for easier operation, enabling the operator to concentrate on what they do best: loading trucks.

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Day Mode and Night Mode to suit your loading environment

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Achieve daily targets by reviewing loading broken down by products, customers and more



Why Loadrite?

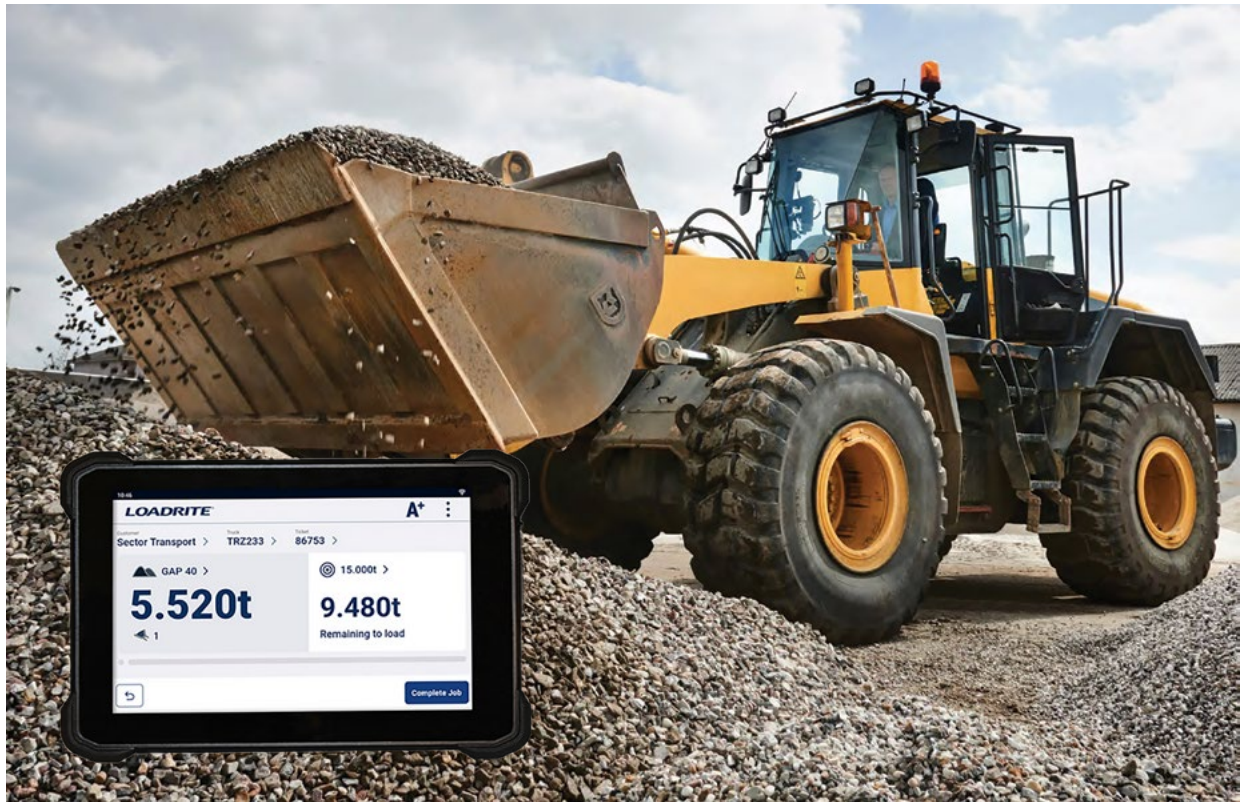
Industry expertise: Loadrite's extensive experience in the weighing industry provides deep insights into the specific needs of quarry operations. It understands the challenges and requirements of the sector, allowing it to develop

tailored solutions that cater to the unique demands of the industry.

Proven track record: With 27 years of experience, Loadrite has established a reputation for reliability, accuracy, and durability in its smart scale systems. Its track

record of successful implementations and satisfied customers attests to the quality of their products and services.

Innovative solutions: Over the years, Loadrite has been at the forefront of technological advance-



ments in weighing systems. Its commitment to innovation means that customers can benefit from cutting-edge features, improved efficiency, and enhanced productivity in their quarry operations.

Dedicated support: Loadrite's strong support network ensures that customers receive prompt assistance, training, and maintenance services whenever needed.

Comprehensive solutions: Loadrite offers a range of smart scale solutions that cater to various equipment types and operational requirements in the mining and quarrying sector. Whether it's wheel loaders, excavators, or conveyor belts, Loadrite can provide integrated weighing solutions for different applications.

Choosing a Loadrite as a smart scale system with 27 years of experience and robust support, can offer reliability, expertise, innovation, and dedicated assistance tailored to the specific needs of quarry operations, setting it apart from other brands in the market.

Data-data-data:

Loadrite's InsightHQ provides a powerful solution for data col-



Choosing a Loadrite as a smart scale system with 27 years of experience and robust support, can offer reliability, expertise, innovation, and dedicated assistance tailored to the specific needs of quarry operations, setting it apart from other brands in the market.

lection and distribution in quarry operations, offering real-time access to crucial information anytime, anywhere.

Real-time data accessibility: With InsightHQ, you can access important data on production, material movement, and equipment performance at your fingertips 24/7. This real-time visibility allows for quick decision-making and the ability to monitor operations remotely, enhancing efficiency and productivity.

Centralised data management: InsightHQ centralises data collection from Loadrite smart scales, providing a comprehensive view of quarry operations in one platform. This centralised approach

streamlines data management and analysis, making it easier to track key performance indicators and identify areas for improvement. ●

Loadrite's InsightHQ

Loadrite's InsightHQ offers a comprehensive solution for data collection and distribution in quarry operations, empowering you with real-time access to critical information, centralised data management, customisable reporting, data analysis capabilities, and remote monitoring features to drive operational excellence and maximise productivity and ultimately profitability.

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CHANGES ON THE HORIZON

FOR ESG DISCLOSURES IN SOUTH AFRICA

Boards should be aware of changes that are on the horizon for South Africa's ESG reporting landscape, including the potential incorporation of the ISSB Standards. However, the mechanics still need to be fleshed out. By Dalit Anstey, Knowledge Lawyer at Webber Wentzel.

The global reporting landscape has undergone a tectonic shift over the last decade, fueled by the recognition that Environmental, Social and Governance (ESG) or sustainability issues have the potential to impact financial value. Integrated reporting practices have become popular, allowing companies to report on material information about their strategy, governance, performance and prospects in a way that reflects the commercial, social and environmental context within which they operate. South Africa (SA) was one of the first countries to adopt the Integrated Reporting Framework as part of its corporate governance framework.

Globally, reporting on ESG or sustainability matters has become common and multiple sustainability-related disclosure standards have emerged containing diverging guidelines. Significant progress has been made towards the standardisation, convergence and consolidation of sustainability-related disclosure standards. The International Financial Reporting Standards (IFRS) Foundation, an organisation that was once only concerned with the global convergence of accounting standards (being responsible for the International Accounting Standards Board (IASB) who developed the 'IFRS Accounting Standards'), has now expanded its focus to sustainability-related disclosure standards by forming the International Sustainability Standards Board (ISSB) in November 2021. The ISSB is responsible for developing the ISSB Standards.

According to the IFRS Foundation, the IFRS Accounting Standards and the ISSB Standards are meant to complement each other to create high-quality,

transparent and comparable information in financial statements and in sustainability disclosures that is useful to investors and other participants in the world's capital markets in making economic decisions.

Global adoption of the ISSB Standards

Last year, the ISSB published inaugural standards (IFRS S1 and IFRS S2) (ISSB Standards) that aim to promote consistency and comparability in sustainability reporting and disclosure. The ISSB Standards broadly incorporate the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).

Various countries, including Canada, Japan, Singapore, Australia, and Malaysia, are consulting or have ended consultations on incorporating sustainability-related disclosures in their respective regulatory frameworks through the adoption or other use of the ISSB Standards. Brazil, Costa Rica, Sri Lanka, Nigeria, and Turkey have already indicated their intention to adopt or otherwise use the ISSB Standards. In June 2022, the European Union's Corporate Sustainability Reporting Directive (CSRD) maintained that the ISSB Standards be incorporated into the European Sustainability Reporting Standards to the greatest extent possible. China issued the Exposure Draft of Chinese Sustainability Disclosure Standards for Business Enterprises—Basic Standard and Explanation of the Drafting, which formulates the unified China Sustainability Disclosure Standards based on ISSB Standards but aligns with China's context. The USA Securities and Exchange Commission's (SEC) climate disclosure rule also has similarities

with the ISSB Standards (although there are also some important differences, for example relating to Scope 3 emissions).

In May 2024, the United Kingdom (UK) published an update setting out the next steps of implementing the UK Sustainability Disclosure Requirements, which states that the UK government aims to make UK-endorsed ISSB Standards. Australia is in the process of finalising legislation that would introduce mandatory climate-related financial disclosures. The proposed legislation has important consequences for potential director liability in relation to climate-related disclosures in Australia. The EU's CSRD (as well as the recently adopted Corporate Sustainability Due Diligence Directive) will also have consequences for directors in relation to sustainability disclosures and reporting.

How the ISSB Standards are adopted in a particular jurisdiction ultimately depends on the regulatory framework operational in that jurisdiction. According to the IFRS Foundation's Jurisdictional Guide for the adoption or other use of ISSB Standards, it usually begins with a policy decision to adopt ISSB, which identifies the policy rationale, defines which entities are in scope and the date of the application. This is usually followed by a regulatory implementation programme, which would include transitional arrangements.

ESG/sustainability-related disclosures in SA

The Companies Act, 2008 and the Companies Regulations, 2011 (Companies Regulations) require certain companies (including state-owned companies, public companies listed on an exchange and non-profit companies incorporated by the state or performing a statutory or regulatory function) to comply with the IFRS when preparing their financial statements. The Companies Regulations define the IFRS as "the International Financial Reporting Standards as issued from time to time by the International Accounting Standards Board or its successor body".

Sustainability-related or ESG disclosures and reporting are currently addressed in the King IV Code on Corporate Governance (King IV) (as part of the integrated reporting framework approach adopted in King IV), which is a set of voluntary principles but is mandatory for JSE-listed entities by virtue of the JSE Listing Requirements. However, King IV does not provide detailed guidance on what sustainability or ESG disclosure standards should be adopted.

In 2022, the JSE issued Sustainability and Climate Disclosure Guidance documents, that draw on and are aligned with influential global initiatives on sustainability/ESG and climate change disclosure, including the ISSB's prototype disclosure requirements (which ultimately informed the final ISSB Standards). On 10 May 2024, SA's Prudential Authority issued guidance notes to banks and insurers on climate-related disclosures, governance, and risk practices, which also draw on the ISSB Standards and recommendations of the TCFD.

Many JSE-listed companies have already been reporting on sustainability-related matters in their integrated reports or as part of their annual reporting suite. The IFRS Foundation notes that the transition to ISSB Standards may be easier in jurisdictions where guidance has been set on the Integrated Reporting Framework or the recommendations of the TCFD, as important elements of these reporting frameworks and standards are built into ISSB Standards. Nevertheless, the adoption of mandatory ESG disclosures, prepared in accordance with the ISSB Standards, would require significant changes to the existing regime. First, it would require a shift in the mindsets of many South African companies who do not currently perceive sustainability-related or climate-related disclosures to be financial in nature.

Second, it would require changes to the existing regulatory regime, which would need to be made to cater to a policy decision to adopt ISSB Standards on a mandatory basis (for example, the

definition of 'IFRS' in the Companies Regulations could be updated to include the 'ISSB', as the definition currently only refers to the 'IASB'). Third, in terms of application, a mandatory ESG reporting regime would likely apply to a wider range of companies than currently captured, create more specificity around the content of disclosures (although materiality would still matter), and could have implications for legal liability for non-compliance, non-disclosures or misstatements.

In March 2024, the Chair of the ISSB met with leaders in Kenya, Nigeria and South Africa to discuss considerations for the implementation of the ISSB Standards in Africa. Although the path towards adopting the ISSB Standards and/or mandatory ESG disclosures in SA has not yet been clearly paved, boards should keep up with developments taking place globally and should ensure that companies have robust ESG practices in place. Sustainability should not be relegated to a tick-box exercise. ●

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Tru-Trac's shock absorbent and locally produced load cells, designed for durability and quick replacement.

TRU-TRAC SETS NEW STANDARDS FOR BELT SCALE ACCURACY

Conveyor belt scales are indispensable components for measuring bulk materials in mining and industrial operations – but their value is compromised if accuracy is poor.

The ability to measure moving material in real time allows mines to monitor their mass balance and to ensure that the correct volumes are being fed by conveyor into various plant functions, for instance," says Tinus Ludik, Sales Manager Bulk Materials Handling at Tru-Trac. "Operating under demanding conditions, belt scales must ideally remain not only functional but accurate – which is why we have developed solutions which stand out in terms of quality, repeatability and accuracy."



Tru-Trac's range of belt scales are designed and manufactured to the highest standards, so operators can be confident of the readings they receive.

Ludik notes that belt scales can also become less accurate over time, so there needs to be regular calibration to ensure that any extreme deviation is quickly rectified. When accuracy errors are high, a plant is



Tru-Trac's skilled team installing a belt scale system, ensuring precise setup for optimal accuracy and performance.

prevented from operating at optimal productivity as plant operators can never be sure whether they are overloading critical equipment like mills.

"To avoid these risks, Tru-Trac's range of belt scales are designed and manufactured to the highest standards, so operators can be confident of the readings they receive," he explains. "This allows plants to operate at their highest efficiencies, with reliable data being provided for decision making."

The company's offering ranges from its TTR SI-2 single idler belt scale system to the TTR DI-4 dual idler belt scale system, and on to the top of the range TTR FI-4 belt scale system with a four-load cell design. Equipped with high precision load cells and a fully floating weigh frame, the mid-range TTR DI-4 achieves accuracy errors of below 0,25%. It integrates seamlessly with Tru-Trac's remote monitoring system.

SNAPSHOT



The ability to measure moving material in real time allows mines to monitor their mass balance and to ensure that the correct volumes are being fed by conveyor into various plant functions.



Tru-Trac's range of belt scales are designed and manufactured to the highest standards, so operators can be confident of the readings they receive.



The robust and shock absorbent load cells are locally produced, and Tru-Trac holds extensive stock to ensure quick replacement whenever necessary.



Specialised training is supplied to customers by the company's experienced team.



Tru-Trac engineers performing regular calibration on belt scales to ensure optimal accuracy and performance.

“Our flagship TTR FI-4 system boasts a fully floating pivotless weigh frame and four-load cell design, making it ideal for critical control point applications and high-precision demands,” he explains. “With an achievable accuracy margin under 0,1%, it sets industry standards in metallurgical accounting.”

Every application requires its own assessment and solution, says Ludik, starting with the belt speed. He points out that faster speeds give the belt scale less time to assess the weight on the belt, and it is best to allow at least one second to achieve a reliable reading. The company's rapidly growing installed base of belt scales includes installations at large plants with up to 150 belts in a single operation.

Demand has already extended well beyond the borders of South Africa, with Tru-Trac belt scales at work in Namibia, Zimbabwe, Mali and Tanzania – and sales increasing to Zambia, Botswana, Mozambique and Ghana. International distribution of scales in regions such as Southeast Asia is also demonstrating promising demand for the Tru-Trac range of belt scales.

The robust and shock absorbent load cells are locally produced, and



Our flagship TTR FI-4 system boasts a fully floating pivotless weigh frame and four-load cell design, making it ideal for critical control point applications and high-precision demands.

Tru-Trac holds extensive stock to ensure quick replacement whenever necessary. The integrator for each unit is well protected within a stainless steel housing for corrosive environments. Enclosures are designed to ingress protection (IP) ratings of 65 or higher to keep out dust and moisture.

“With our focus on quality, we are also excited to be underway with the process of accrediting our belt scales with the South African National Accreditation System (SANAS) through the National Regulator for Compulsory Specifications (NRCS),” he says.

He emphasises that regular maintenance and calibration is vital, and Tru-Trac offers support to do this, as well as guidance on the steps and intervals. Weekly or

fortnightly calibration is advised, and the company provides the necessary training to staff on site wherever required. The well equipped training facility at Tru-Trac's factory near Pretoria includes an operational 18 m conveyor on which its belt scales are installed. Specialised training is supplied to customers by the company's experienced team.

“We have all the communication protocols available, so our belt scales can link to the mine's PLC or SCADA systems,” he notes. “This allows seamless monitoring of key indicators such as totalised weight, belt speeds, load cell voltages, tonnes per hour and kilograms per metre; the data that can be reflected is also highly customisable according to the customer's needs.” ●

SIX ADVANTAGES OF ON-BOARD WEIGHING

By adopting this technology for articulated haulers, wheel loaders and excavators, construction companies can not only achieve their project objectives faster but also enhance their reputation as leaders in efficiency, sustainability, and safety in the industry.



Incorporating On-Board Weighing from Volvo Construction Equipment (Volvo CE) in load and haul operations is a game-changer for the construction industry. The system displays real-time load data on the Volvo Co-Pilot screen in the cab to avoid under- or overloading. Furthermore, on articulated haulers, external lights provide a visual signal to the operator of the loading unit when the nominal load has been reached. Here are just six of the benefits.

Increased accuracy and precision

One of the key advantages of On-Board Weighing is its unparalleled accuracy and precision. Traditional methods of determining loads, such as weighing stations or scales, often involve interruptions in the workflow. In contrast, the real-time data from the Volvo system empowers operators to make informed decisions on the spot, optimising load capacities and reduces the risk of overloading.

Increased efficiency, lower fuel consumption and less wear
Efficiency is the backbone of



any construction project. With On-Board Weighing, operators can load materials to the precise required weight, eliminating the need for unnecessary back-and-forth trips to load more materials or discard excess weight. This streamlined process leads to a significant reduction in fuel consumption, machinery wear and tear, and overall project time. By maximising efficiency, construction companies can enhance their bottom line and complete projects on schedule.

Improved safety

Safety is a paramount concern in the construction industry, and overloading equipment can pose significant risks to operators, other

workers, and the machinery itself. On-Board Weighing helps ensure that each truckload remains within safe operating limits, reducing the likelihood of accidents and minimising the potential for injury or damage.

Enhanced payload management

In load and haul operations, efficient payload management is essential for optimal performance. On-Board Weighing offers valuable insights into each hauler's load, enabling operators to optimise payloads, balance loads evenly, and minimise idle time. Consequently, this efficient payload management leads to increased productivity, reduced cycle times, and better resource allocation.

Data-driven decision making

In today's data-driven world, having access to real-time information is crucial for informed decision-making. On-Board Weighing collects and presents valuable data on material weights, load cycles, and operator performance. Construction managers can use this data to identify patterns, optimise workflow, and implement improvements where necessary. Additionally, this data can be used for accurate project costing, resource planning, and performance evaluations, fostering a culture of continuous improvement.

Reduced environmental impact

Besides the operational benefits, On-Board Weighing also contributes to environmental sustainability. By optimising load capacities and reducing fuel consumption, construction companies can minimise their carbon footprint. This aligns with the global shift towards eco-friendly practices, positively impacting the reputation of the company and attracting environmentally conscious clients. ●

EFFECTIVE DUST CONTROL MEANS SUBSTANTIAL COST SAVINGS

BLT WORLD 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 concerns, including in mining and quarrying.



The risk of explosions caused by dust emissions on conveyor belts is an ongoing problem that engineers around the world are trying to prevent. ScrapeTec experts developed a new dust control system about six 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.



The weight of the parts, the required running speed plus amplitude are all taken into consideration when balancing the screen. If an operation chooses to fabricate a side plate and the weight is wrong, for example, it could impact the machine's balance.

“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 caused by fugitive dust in dry bulk handling.

“Although conventional dust prevention side-seals do reduce conveyor problems in the short-term, these components quickly deteriorate as a result of friction and can also damage the belt of the conveyor during extended periods of use.

“The success of the combination of the DustScrape and AirScrape contact-free AirScrape conveyor belt skirting systems, is in effective energy-efficient dust suppression. This compact and easy to install skirting adheres with most new dust prevention guides, to



prevent health and safety issues on-site. This advanced system also minimises product loss, by effectively preventing material from escaping into the surrounding environment. As a result, users benefit from substantial savings of 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, as a result of dust and material spill.”

How it works

DustScape 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 surface 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 DustScape 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 service life of every component of the conveyor is extended.

SNAPSHOT



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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 escapes. Material spillage at transfer points

needs to be removed and regular maintenance of belt skirting and transfer points is necessary.

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 non-flammable and anti-static polyurethane materials and blades made from Stainless Steel. FDA-approved materials are also available for specific conveyor handling applications.

Support

BLT WORLD's 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, as well as 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 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 underside of the system, creates negative pressure in the conveying area, preventing the escape of materials. Dust is kept in the material flow by 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 high-performance 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 specialists offer a comprehensive bulk handling solutions service to all sectors, including shipping, mining and quarrying, civil engineering and construction, general engineering, food processing, agriculture and the sugar sector. ●

MITIGATING DUST RISKS WITH REAL-TIME DUST MONITORING SOLUTIONS

Mining operations, known for their dusty environments, face the critical challenge of protecting workers' health, safeguarding the environment, and maintaining positive relations with nearby communities while ensuring regulatory compliance.

As the leading value-added partner supplying M3SH monitoring solutions across Africa, Probe IMT introduces an effective solution for comprehensive air quality management – the M3SH D52 dust particulate matter monitor.

The D52 is part of a suite of monitoring solutions produced by M3SH Technology, a Canadian OEM with over 30 years of experience as an original equipment manufacturer (OEM) and strong research and development (R&D) capability. M3SH Technology is committed to creating an ecosystem of intelligent and integrated products that all work together to protect people and productivity.

CEO of Probe IMT, Gert Roselt, says “The M3SH D52 is an intelligent, sophisticated device designed to provide real-time data on dust levels, leading to immediate response measures and preventing workers from exposure to harmful dust levels. It is indispensable for protecting workers' health, optimising operational processes, and achieving compliance with regulatory standards.”

South Africa has stringent regulations about permissible dust exposure levels in mining operations. In May, the Mine Health and Safety Inspectorate of Gauteng issued new directives emphasising the vital role of real-time monitoring systems in mitigating risks associated with occupational hazards including airborne pollutants such as dust, requiring that these be implemented in a phased manner.

“Implementing real-time monitoring helps ensure compliance with South African mining regulations and international best practice, protecting the health of employees and helping to avoid potential



finest or shutdowns,” says Roselt. “M3SH Technology sensors have been carefully tested in harsh mining environments and meet all applicable standards and ratings required.”

Industrial dust and particle exposure of 1 μm , 2, 5 μm , 4 μm , and 10 μm can cause serious respiratory health problems, Roselt highlights. Smaller particles pose more severe risks due to their ability to penetrate deeper into the lungs, leading to chronic diseases, respiratory issues, and even cardiovascular problems. “Regular monitoring allows for the implementation of measures to reduce exposure and protect workers' health. High levels of dust can reduce visibility, leading to accidents on site. Dust can also cause machinery to malfunction or wear prematurely, posing additional safety risks.”

Dust from mining operations can also harm local ecosystems and contribute to air pollution, explains Roselt. “Monitoring can help mines manage and minimise this impact.”

The D52 monitor leverages state-of-the-art intelligent laser sensing technology, boasting high sensitivity for detecting particles smaller than 10 micrometres with precision. Its extensive sensor range of 0,30 μm to 10 μm and

effective operating temperature range from -20°C to 50°C ensure dependable performance in the harshest environments. The D52 provides accurate readings of particulate matter on its easy-to-read LCD Display. Results display the time-weighted average (TWA) and particulate measured for 1 μm , 2,5 μm and 10 μm . With wired and wireless communication, the D52 can connect to any communication system that the user requires.

A hallmark of the M3SH D52 is its integration with automated ventilation or dust suppression systems, significantly enhancing workplace safety. The device's rapid response time of less than 60 seconds, coupled with flexible installation options – whether mobile or fixed and compatibility with wireless or site-specific interfacing, supports seamless integration into diverse work environments.

The D52 monitor is designed for low maintenance thanks to its self-cleaning capabilities, a feature that minimizes downtime and operational disruptions. Ensuring regulatory compliance in mining, manufacturing, and construction industries, the M3SH D52 represents a pivotal tool in maintaining both operational efficiency and worker safety. ●

INNOVATING DRILLING SOLUTIONS **WITH DTH AND TOP HAMMERS AND PRECISION BITS**

Powerbit Rocktools continues to set the standard in the drilling market with innovative drilling solutions. Their commitment to quality and performance is crystal clear in their range of high-quality drilling tools, including their DTH (Down-the-Hole) hammers and bits and top hammers and bits.

DTH Hammers and Bits: precision meets durability

DTH hammers and bits are essential for various drilling applications, from water well drilling to mining. These tools deliver a high-impact force directly to the bit, ensuring efficient penetration through the toughest rock formations. Powerbit Rocktools' DTH hammers and bits are designed with advanced materials and technology, providing durability and reliability in the most demanding conditions.

Top hammers and bits: seamless reliability and versatility

Top hammers and bits are widely used in surface drilling applications, offering high precision and efficiency. Powerbit Rocktools' top hammers and bits are precision-crafted to withstand the rigours of rock drilling, providing consistent performance and longevity. Despite their impressive specifications, however, these tools are more affordable than other brands and are ideal for construction, quarrying and mining projects, delivering the power and accuracy needed for successful drilling operations.

Quality and innovation come together

Powerbit Rocktools' dedication to innovation and quality is unmatched. Their continuous



From water well drilling to rock excavation, Powerbit Rocktools provides the tools that professionals rely on for efficient and effective drilling.

investment in research and development ensures that their products remain at the cutting edge of drilling technology. Thomas Chao, Managing Director at Powerbit, says, "Our commitment to quality and innovation drives us to create tools that not only meet but exceed the expectations of our clients. We believe in delivering solutions that enhance productivity and efficiency in every drilling project."

Powerbit works alongside advanced research centres and technology experts in Taiwan, China and Japan, recognising the need for consistent innovation and growth in the drilling industry. This ensures that Powerbit remains ahead of the game, effectively meeting clients' evolving needs.

Meeting the needs of global water and rock drilling experts
Powerbit Rocktools understands

the diverse needs of the drilling industry. Their comprehensive range of DTH hammers and bits and Top hammers and bits are designed to meet the specific requirements of various drilling applications. From water well drilling to rock excavation, Powerbit Rocktools provides the tools that professionals rely on for efficient and effective drilling.

Choosing the right drilling tools is crucial for the success of any project. Powerbit Rocktools' DTH hammers and bits and top hammers and bits offer the perfect combination of power, precision and durability. By investing in Powerbit Rocktools' products, clients can ensure they have the best tools for the job, backed by the company's non-negotiable commitment to quality and innovation.

Experience the power of precision-engineered rock drilling tools and exceptional customer support with Powerbit Rocktools.





Thomas Chao, Managing Director of Powerbit Rocktools.

Connect with us and embark on a journey of progress and empowerment that has been driving the Southern African mining industry for almost two decades. ●



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- Superb heat treatment for longer service life
- Diverse product ranges for various conditions

Top Hammer Drilling Tools:

- Various drilling options, carbide button types
- International standard thread types
- Excellent abrasion resistance, fast drilling speed

RC Hammers and Bits:

- Achieve high drilling speed, ideal energy transfer
- Long service life, easy repairs
- Carbonised sample collection tube surfaces

Tricone Bits:

- Various drilling options, carbide button types
- International standard thread types
- Excellent abrasion resistance, fast drilling speed

Casing Systems:

- Various options available
- Hardened part surfaces for anti-wear properties
- Unmatched drilling speed and reliability



SECONDARY CONVEYOR BELT CLEANER DESIGNED FOR SAFETY AND EASY MAINTENANCE

The global leader of belt conveyor accessories has announced the next generation of secondary conveyor belt cleaners engineered to reduce dusty carryback and lower maintenance time. Designed to withstand the stress of heavier loads carried on wider, thicker belts at higher speeds, the Martin® SQC2S™ Orion Secondary Cleaner features individually cushioned tungsten carbide blade cartridges for effective cleaning without risk to the belt or splices.



A two-tiered tensioning system means minimal adjustments and monitoring throughout the life of the blade. The heavy-duty blades are mounted on a slide-in/slide-out assembly for faster and safer one-worker external servicing. The result is improved belt cleaning with less dust and maintenance for greater workplace safety at a lower cost of operation.

“We field tested the Orion over several months side-by-side with competitor designs in punishing mining environments and found that the new design significantly outperformed the competition,” said Dave Mueller, Conveyor Products Manager for Martin Engineering. “At the end of the testing period, customer participants started the process of replacing all their heavy-duty secondary cleaners with the Orion. We now view this design as the

SNAPSHOT



Safety and ease of maintenance are key feature and a core priority for all Martin Engineering designs.



What sets this unit apart from others on the market is the innovative, dual tensioning system with independent heavy-duty tungsten blades, which are game-changing design features.



Every bulk handling operation is unique and requires equipment that is versatile and adaptable.



Tested on hard rock and slurry belts, the Orion blades offered superior cleaning results with a longer equipment life.



The mounting assembly firmly secures the secondary cleaner to the stringer.

future of our secondary cleaner line moving forward.”

Secondary cleaners play an essential role in the belt cleaning process by significantly reducing the volume of dust and fines dropped as carryback on the belt return. Primary cleaners release most of the abrasive material remaining on the belt after discharge. Located below the head pulley just behind the primary, secondary cleaners scrape off the fines and dust that hide in cracks and divots in the belt. Carryback is attributed to many environmental and operational issues such as air quality violations, fouling of rolling components and machinery, and increased labour for cleanup and maintenance.

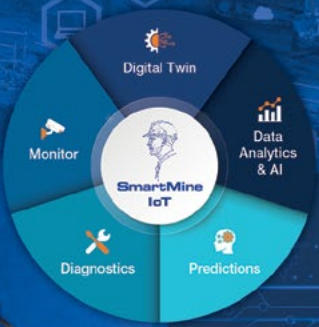
The Martin® SQC2S™ Orion Secondary Cleaner is appropriate for all bulk handling material applications. The unit is made up of individual 152,5 m blades mounted on a square steel tube assembly. Not designed for reversing belts, it is suitable for 457 – 2 438,5 mm belt widths, belt speeds up to 6 mps, and

Innovation that Saves

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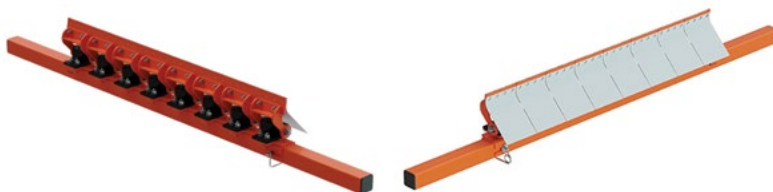
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Slick heavy duty deflector shields improve performance from wet applications that experience buildup.



Cartridges with individual tensioning improve cleaning efficiency and effectiveness.



A latch pin releases the cartridge from the mainframe allowing cartridge removal and replacement.

Deflector shields usher carryback into the discharge chute to prevent fouling the mainframe for easier maintenance.

temperatures up to 121° C.

“What sets this unit apart from others on the market is the innovative, dual tensioning system with independent heavy-duty tungsten blades, which are game-changing design features,” Mueller explained. “The first level of tensioning is supplied to the entire assembly using the heavy-duty SQC25™ Tensioner which applies light upward torque evenly across the belt profile for less friction and no wear on splices.”

The second level of tensioning is on the individual blade assembly. Each Orion blade assembly is attached to a steel square tube assembly which is secured to a mounting plate. The square tube houses a rubber tensioner with a torsion arm bolted to each side. A specialised tungsten blade is attached to the arm. The whole system is mounted at a 90-degree angle then tensioned so each blade is vertical and perpendicular to the belt. As the belt runs,

each blade assembly adjusts independently to precisely match the belt’s profile, permitting them to compensate for camber, flaws/blemishes, and stubborn material stuck to the belt’s face. To accommodate belt cupping and other uneven surfaces, the blade assemblies can be individually adjusted to match the belt profile.

The blades are specially designed for heavy-duty abrasive applications in both dry and wet environments. Tested on hard rock and slurry belts, the Orion blades offered superior cleaning results with a longer equipment life. This is due to the rugged tungsten carbide core surrounded by mild steel. Blades are also available in stainless-steel for specific corrosive materials.

The blade design features an attached deflector shield made from polypropylene or rugged nylon for high temperature applications. Mounted directly to the blade in an outward scoop design, the shield ushers loosened material away from the mainframe and towards the discharge chute. This mitigates buildup on the assembly, extending the blade’s effectiveness and reducing the amount of maintenance.

Safety and ease of maintenance are key features and a core priority for all Martin Engineering designs. The slide-in/slide-out design allows a single worker to perform maintenance with easy access outside of the conveyor structure, eliminating the need to crawl underneath or awkwardly reach inside. This greatly improves workplace safety and reduces the amount of time and labour required for maintenance, significantly lowering the cost of operation.

“Every bulk handling operation is unique and requires equipment that is versatile and adaptable, and I think we’ve achieved that with the Orion,” said Mueller. “Martin Engineering products are developed to improve efficiency and safety, without compromising belt health. This design gives customers more options and superior results, regardless of the material or the process.” ●



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▶ The Twister VS350 is the largest static VSI in the range and is designed to crush a wide range of rocks and minerals.

OPTIMISING SAND PRODUCTION WITH A VSI

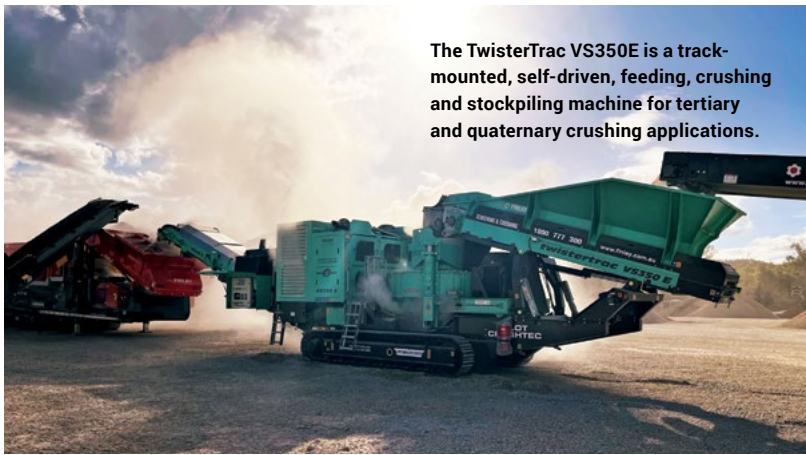
As quarries seek to meet growing demand for manufactured sand, vertical shaft impact (VSI) crushers are proving to be the ultimate solution due to their ability to produce high quality manufactured sand. With a rich heritage in the design and manufacture of VSIs, Pilot Crushtec can cater for production requirements by using various size VSIs with an installed power from 45 kW up to 315 kW

Traditionally, cone crushers have always been the preferred crushing solution in sand making, says Wayne Warren, Africa Sales Manager at Pilot Crushtec. However, the downside is that for a cone crusher to produce sand, it needs to be set on a very tight closed side setting (CSS), which renders it uneconomical due to the resultant excessive wear.

“A very tight CSS means that the crusher works on



A very tight CSS means that the crusher works on a liner-on-material crushing concept, which is not ideal because the wear rate increases dramatically, and the shape is generally poor.



The TwisterTrac VS350E is a track-mounted, self-driven, feeding, crushing and stockpiling machine for tertiary and quaternary crushing applications.



Wayne Warren, Africa Sales Manager at Pilot Crushtec International.



The Twister VS100 is the latest generation of static VSI crusher and is a robust and reliable skid mounted vertical shaft impact crusher, for use in tertiary and quaternary crushing applications.



The Twister VS350 uses rock-on-rock or rock-on-steel crushing principles to create perfectly shaped end-products.

a liner-on-material crushing concept, which is not ideal because the wear rate increases dramatically, and the shape is generally poor,” explains Warren.

The VSI’s rock-on-rock crushing principle is more efficient in producing manufactured sand as it directly crushes the rocks without any intermediate crushing stages. “The VSI makes use of material-on-material crushing – the stone is accelerated at a high speed into a rock box of the same hardness material, resulting in maximum breakage of the feed material,” explains Warren. “Depending on the speed, this can accomplish two things: stone shaping with some sand generation or, on a higher speed, a higher percentage of sand.”

Charl Marais, Sales Manager at Pilot Crushtec, says a VSI’s ability to achieve constant product grading makes it the ultimate crusher for sand making purposes. “If you feed a VSI constantly, it gives you a constant grading. On the contrary, with a cone crusher there is inconsistency in quality because of the way the liners wear. As soon as you have an uneven wear pattern on your mantle and bowl liners caused by intermittent feed conditions, your grading fails as well,” says Marais.

Pilot Crushtec’s VSI offering covers a broad range of kilowatt (kW) units in three shells, from 45 kW to 315 kW. The three base models comprise the VS100, VS200 and VS350, covering five different rotor diameters from 600 mm to 1 000 mm and 14 different configurations to suit differing customer needs. ●

SANDVIK STEPS UP REMOTE MONITORING FOR BETTER MINING

While the ability to remotely monitor the performance and condition of mining equipment is not new, Sandvik Mining and Rock Solutions has taken great strides in applying data analytics and dedicated algorithms to give mines even greater value from their machine data.

This has been witnessed in the company's remote monitoring service (RMS), which has rapidly evolved from the company's telemetry data reporting solution, better known as My Sandvik Insight and Productivity for underground. RMS takes further digital steps to give mines even more uptime and productivity while prioritising safety and driving down maintenance costs.

"The digital age has seen mines embracing the value of data in their decision making, and as an OEM we support this by raising the value of data to another level," explains Zandre de Witt, Portfolio Specialist for RMS and Digitalisation at Sandvik Mining and Rock Solutions. "We use data to generate more detailed insights into machine health, which allows mining operations to embrace a proactive maintenance mind set."

The My Sandvik telemetry data reporting solution, already operational in the field for about eight years, has allowed data to be gathered on the 'Knowledge Box' installed on Sandvik equipment

By enhancing the power of data, Sandvik Mining and Rock Solutions' RMS takes proactive maintenance to another level.

– and even transmitted and stored to be displayed on digital dashboards. RMS takes this further towards meeting the strategic objectives of mining customers, according to Logan Pillay, Sales Support Manager at Sandvik Mining and Rock Solutions.

"The strategic focus today is on safety, cost effectiveness, productivity and sustainability – and RMS allows us to find the opportunities in the data to accelerate our path on this journey," says Pillay. "It is about the conclusions to be drawn from the various combinations of

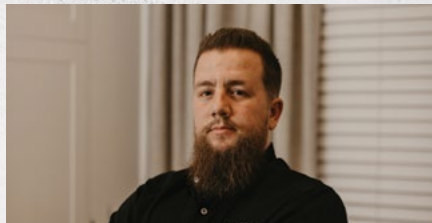
readings from our technology; these insights then feed into response processes and our interactions with customers, to improve and streamline operations."

RMS is most capable on Sandvik's i-series drills, loaders and trucks, which come standard with intelligent capability. Through the company's Global Reliability Centre, reports on each item of equipment are generated through a range of powerful algorithms, pointing to potential issues demanding attention.

"We can pick up indicators that

”

The digital age has seen mines embracing the value of data in their decision making, and as an OEM we support this by raising the value of data to another level



Zandre de Witt, Portfolio Specialist for RMS and Digitilisation at Sandvik Mining and Rock Solutions.



Logan Pillay, Sales Support Manager at Sandvik Mining and Rock Solutions.



By enhancing the power of data, Sandvik Mining and Rock Solutions' RMS takes proactive maintenance to another level.

there is dust ingress into an engine, for instance, which could severely damage components within a matter of days," he says. "Through the protocols that we have established with customers, we would then contact the correct person on site and alert them to the identified risk before it leads to an unplanned stoppage."

The report to the customer would include not only the readings and analysis, but also practical recommendations for maintenance teams to follow in the investigation of the issue. It is therefore little surprise that the uptake of RMS has been enthusiastic – with over 40% of the entire connected fleet in Southern Africa having moved onto the RMS customer base.

De Witt highlights that the mining sector includes a growing number of younger managers, engineers and technicians who readily embrace the digital revolution, and want to put technology to work in improving operations.

"Our experience is that mining staff are increasingly data hungry when it comes to monitoring and maintaining equipment," he says. "They also want to see this data in real time, and in a fully analysed format to guide quick decisions."

Local understanding of mining operations is also a key factor in the successful application of RMS, says Pillay. Sandvik Mining and Rock Solutions is therefore continuously upgrading the skill levels of its local staff, to contextualise and apply the support being received from the company's global data experts. There has been considerable experience developed in applying RMS in underground mining, and the company now has exciting pilot initiatives underway in the opencast environment.

The benefits of RMS have been demonstrated not only through avoiding unscheduled downtime, but by achieving longer lifecycles between maintenance through improved operator techniques and behaviour. RMS also allows production cycles to be tracked and analysed, creating opportunities to identify more productive strategies that boost the bottom line. ●

SNAPSHOT



The digital age has seen mines embracing the value of data in their decision making.



The My Sandvik telemetry data reporting solution has allowed data to be gathered on the 'Knowledge Box' installed on Sandvik equipment.



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The strategic focus today is on safety, cost effectiveness, productivity and sustainability.

TEREX WASHING SYSTEMS MARKS FIVE YEARS OF MANUFACTURING FILTERPRESSES

Terex Washing Systems (TWS), a global leader with over 60 years of expertise in the design and manufacture of washing equipment, proudly celebrates five years of manufacturing filterpresses.

This milestone underscores the team's commitment to environmental responsibility in quarry operations worldwide, with their filterpresses processing approximately 100 million tonnes annually across the globe. "Our journey in the design and development of our own filterpresses began in 2019 and today, we stand as a global leader in delivering complete 'Feeder to Filterpress' solutions," says Mark Fisher, Business Line Director of Terex Washing Systems. "The evolution of our filterpress technology underscores our commitment to driving efficiency and sustainability in the quarrying industry."

Benefits of filterpress technology

One of the key advantages of the Terex Washing Systems filterpresses is their efficiency in water recycling, which reclaim over 95% of the water used in the washing process, minimising water consumption and reducing the need for freshwater input. Filterpresses also aid in waste reduction by producing a dry filter cake waste product. This dry cake is easily transportable and can be reintegrated into the quarry or used for other applications.

By maximising water recycling and minimising waste generation, these systems help quarry owners meet environmental regulations and demonstrate a strong commitment to responsible quarrying practices. Another benefit of filterpresses is improved overall efficiency of the wash plant by streamlining the water treatment process. By effectively separating solids from liquids, they produce cleaner water for reuse and optimise the performance of downstream equipment. Quality assurance



Terex Washing Systems installed a full 'Feeder to Filterpress' solution at Albin Borer, which achieves throughputs of 250 tonnes per hour of C&D and excavation waste, producing nine saleable products.




Terex Washing Systems Filterpress at Albin Borer.

is another significant advantage as filterpresses provide clean, recycled water to re-enter the washing process, improving the quality of washed sand and aggregates.

Leadership in technology

Since the inception of in-house filterpress manufacturing in 2019 at the Terex Washing Systems headquarters in Dungannon, Northern Ireland, the team has refined its filterpress technology and integrated it into their comprehensive 'Feeder to Filterpress' washing solutions. These systems divert waste from landfills while recycling the water used

during the process, significantly reducing environmental impact, and improving aggregate production for quarry customers. Beyond innovation, Terex Washing Systems offers comprehensive global support and service. With 40 distributors worldwide and regional offices in the US, Europe, Asia-Pacific, and Australia, Terex Washing Systems provides localised expertise and service. Supported by a dedicated technical team and advanced laboratory facilities, Terex Washing Systems ensures optimal equipment performance and sustainability throughout its customers' operations. ●



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Weir is a global leader in mining technology. We recognise that our planet's future depends on the transition to renewable energy, and that transition can only happen with the metals and minerals our mining customers deliver.

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[global.weir](https://www.global.weir)



Mining technology for a sustainable future

Mufaro Muzvondiwa, Process and Products Director at Weir Minerals Africa



Weir's fully mobile plant can be moved to any site and set up within a few hours.



FROM SMART MINING TO PORTABLE CRUSHING FROM WEIR

At this year's Electra Mining Africa exhibition, visitors will be attracted to the Weir stand by innovations such as the Weir Modular Wheeled Plant (WMWP), a fully mobile crushing and screening plant, as well as the latest in the company's cutting edge digital solutions for smart mining.

Supporting customers to mine for a more sustainable future, Weir will showcase not only its leading range of equipment and solutions, but the digital technology to further optimise its performance and reliability.

"Our exciting Motion Metrics mine operation monitoring systems will be one of the main features at the show," says Mufaro Muzvondiwa, Process and Products Director at Weir. "These systems provide mines with real-time particle size analysis of material carried on shovels, loaders, conveyor belts and haul trucks – helping to avoid blockages at the crushing stage and optimise the mine-to-mill value chain."

Using stereoscopic vision combined with artificial intelligence (AI), Motion Metrics™ cameras leverage machine learning to enhance its predictive capabilities

SNAPSHOT



Supporting customers to mine for a more sustainable future, Weir will showcase not only its leading range of equipment and solutions, but the digital technology to further optimise its performance and reliability.



In addition to the display of its latest pumps, screens, cyclones, valves, liners and ground-engaging tools, Weir will also have its recently launched mobile crushing and screening plant at its outdoor stand.



Weir's intelligent solution which features condition monitoring technology will be on display. This is portrayed through 3D conceptualisation, showing all associated benefits including safety, savings and maintenance optimisation.



The combination of quality products and dedicated service means that Weir can be confident in the warranties and predictions it provides to customers regarding the productivity of its solutions.



and provide actionable insights to customers, says Muzvondiwa.

Another highlight will be Weir's intelligent solution which features condition monitoring technology. This is portrayed through 3D conceptualisation, showing all associated benefits including safety, savings and maintenance optimisation.

"Visitors to our stand can witness the value of real-time monitoring in enhancing plant performance and optimising uptime," he explains. "This is where Weir is supporting our customers' ambitions to be more cost effective by driving down their total cost of ownership of equipment while driving productivity and sustainability."

In addition to the display of its latest pumps, screens, cyclones, valves, liners and ground-engaging tools, Weir will also have its recently launched mobile crushing and screening plant at its outdoor stand. With Weir's WMWP fully mobile plant mounted on an on-road trailer, the plant can be moved to site and set up within a couple of hours – as a 'plug-and-play' solution.

"This innovation has already generated great excitement in the aggregates and small scale mining sector," he says. "The design provides a fully mobile plant, making it ideal for road projects requiring aggregate crushing at



Motion Metrics' smart rugged cameras alerts operators of lost GET and oversized boulders being loaded which could lead to unplanned crusher downtime.



Weir's presence in countries across Africa ensure a dedicated service to customers.

various points along the route."

Muzvondiwa highlights that Electra Mining Africa provides a useful forum to remind visitors of Weir's concerted focus on partnerships for sustainable mining. This includes the extensive footprint of OEM service centres and partners across Africa, ensuring technical support is always available in close proximity to mines.

"In addition to our South African presence, we are present in countries including Cote d'Ivoire, Ghana, Botswana, Namibia, Senegal, Tanzania and Zambia," he says. "Our three manufacturing centres in South Africa also

ensure high levels of local manufacture, to promote African economies and to streamline the supply chain to our customers."

The combination of quality products and dedicated service means that Weir can be confident in the warranties and predictions it provides to customers regarding the productivity of its solutions. "This is demonstrated by our ability to enter into cost per ton agreements with customers," he says.

He adds that local skills development is also a priority for the company in building its service infrastructure, including its Mill Circuit University. ●



SAFETY AND FUEL EFFICIENCY ENHANCED WITH PROPER TYRE PRESSURE MANAGEMENT

Anteneh Gebremeskel, GPE Product Manager at Volvo Construction Equipment, explains the importance of proper tyre management and how the OEM's Tyre Pressure Monitoring System makes it easier and more convenient to keep tyres in optimum condition.

As quarry operators strive for better efficiency, cost-effectiveness, and safety in their operations, one crucial factor that could be overlooked is the tyre pressure on their articulated haulers and wheel loaders. When these machines move, their tyres encounter rolling resistance, a force that opposes their movement, and the right tyre pressure plays a vital role in how well they perform on the job.

If tyres are underinflated, they have a larger contact area with the road, generating more friction and increasing the rolling resistance. This means the engine needs to work harder to overcome the resistance and consumes more fuel. In addition, the tyre carcass will be exposed to unnecessary loads, which

SNAPSHOT



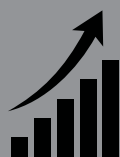
As quarry operators strive for better efficiency, cost-effectiveness, and safety in their operations, one crucial factor that could be overlooked is the tyre pressure on their articulated haulers and wheel loaders.



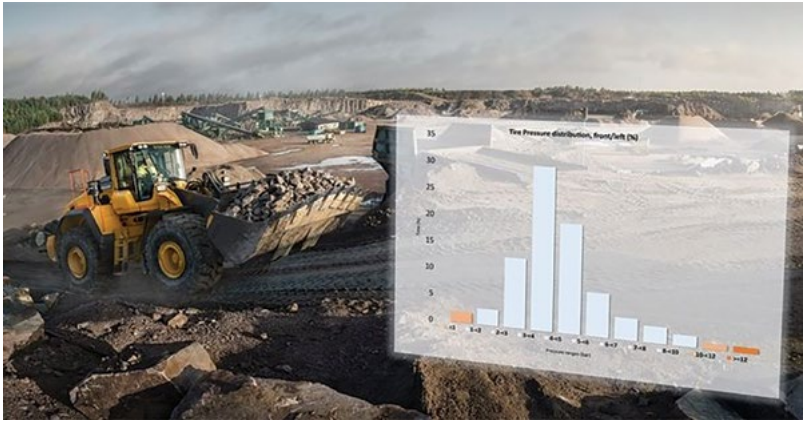
Incorrect tyre pressure can pose a serious safety risk as underinflated or overinflated tyres make it more difficult to handle an articulated hauler or wheel loader.



To maximise fuel efficiency and safety, regular tyre pressure checks and maintenance following the operator's manual are essential.



Tyre pressure management is not just a maintenance chore; it's an essential aspect of construction equipment management that directly impacts operations.



Antenteh Gebremeskel, GPE Product Manager, Volvo Construction Equipment.

To maximise fuel efficiency and safety, regular tyre pressure checks and maintenance following the operator’s manual are essential.



worsened, and the operator must take action.

Cloud-based insights for fleet and site managers

As well as being displayed in real-time, all data from the Tire Pressure Monitoring System is fed to the cloud and deviations in pressure or temperature are displayed as error codes in the CareTrack telematics portal. By reviewing and analysing trends, they can make informed decisions on tyre parameters based on similar site conditions.

Tyre pressure management is not just a maintenance chore; it’s an essential aspect of construction equipment management that directly impacts operations. With our cutting-edge Tire Pressure Monitoring System, customers can conveniently benefit from increased safety, lower fuel consumption and emissions, enhanced operator comfort, greater uptime, and lower maintenance costs. ●

Tyre status data is also saved in the cloud.

causes premature failure. Overinflated tyres, on the other hand, wear prematurely in the centre of the tread pattern, leading to decreased tyre service life and operator comfort, as well as increased fuel consumption.

Furthermore, incorrect tyre pressure can pose a serious safety risk as underinflated or overinflated tyres make it more difficult to handle an articulated hauler or wheel loader. Traction and stability are decreased, braking distances are longer, and blowouts are more likely. This is when a tyre rapidly deflates during operation and can lead to a sudden loss of control.

To maximise fuel efficiency and safety, regular tyre pressure checks and maintenance following the operator’s manual are essential. This straightforward step can save money on fuel costs and reduce the risk of accidents for everyone on site.

Check tyre status in real time from the cab

To make it easier and more convenient for operators to maintain optimum tyre pressure, we have included a Tire Pressure Monitoring System as an app on Volvo Co-Pilot with Haul Assist for articulated haulers and Load Assist for wheel loaders. The system, consisting of a transceiver and six tyre valve sensors, can also be fitted retroactively.

Tyre pressure and temperature are displayed in real-time on the screen in the cab. Each tyre is monitored independently, and pressure limits are set per axle. If any tyre deviates from the set parameters, the operator is alerted – alarm limits are displayed as nominal values and percentages.

A blue message lets the operator know there are inconsistencies in pressure or temperature and that the situation should be monitored, while an amber message indicates that these inconsistencies have



MOVING MOUNTAINS WITH JOHN DEERE ADTs

Introducing John Deere's 410 and 460 P-Tier Dump Trucks for Southern African coal and quarrying applications.

John Deere, a renowned leader in the construction and agricultural sectors, continues to innovate with its latest offerings, the John Deere 410 and 460 P-Tier Dump Trucks. These articulated dump trucks (ADTs) are designed to deliver exceptional power, productivity, and performance, highlighting John Deere's commitment to meeting the evolving needs of its customers, particularly in the coal and quarrying industries.

Powerful and efficient

At the core of the P-Tier Dump Truck is a robust and fuel-efficient engine, generating impressive torque and horsepower to handle the toughest tasks effortlessly. The advanced engine management system in both the 460 and 410 P-Tier models optimises torque curves and differential locks while selecting the ideal gear ratio, ensuring peak productivity and fuel efficiency. Whether navigating rugged terrains or transporting heavy loads, these ADTs excel in challenging South African conditions.

Enhanced productivity and technology

The P-Tier Dump Trucks elevate productivity through cutting-edge technology and intelligent design. These

ADTs automatically adjust engine torque curves, differential locks, and select the optimum gear ratio, ensuring seamless operation and enhanced productivity.

John Deere's suite of construction technology in the ADT series offers solutions to help you accomplish more, more efficiently. In-base JDLink connectivity provides machine location, utilisation data, and alerts to help maximize productivity and efficiency. JDLink also enables John Deere Connected Support™ to maximise uptime and lower costs. Dealers use Expert Alerts, based on data from thousands of connected machines, to proactively address conditions that could lead to downtime. Your dealer can also monitor machine health and leverage remote diagnostics and programming capability to diagnose problems and update machine software without a time-consuming trip to the job site.

Operator comfort and safety

John Deere places a high priority on operator comfort and safety in the design of the P-Tier Dump Trucks. The spacious, ergonomically designed cabin offers a comfortable working environment with features such as adjustable seating, intuitive controls, and excellent visibility. The lowered hood



a new era of power, productivity, and performance in the coal and quarrying industries. With their robust engines and advanced technology features, these ADTs provide a comprehensive solution to meet the evolving needs of industry professionals. Whether it's hauling heavy loads, manoeuvring challenging terrains, or optimising productivity, the 410P and 460P Dump Trucks are reliable partners that deliver exceptional results, reinforcing John Deere's reputation as an industry leader.

Delivering more than just machinery

At AFGRI Equipment, we are committed to more than just delivering machinery; we are dedicated to building lasting relationships with our customers. Serving Botswana, Zimbabwe, and South Africa, our significant growth in the construction and mining sectors is a testament to our dedication and expertise. Our mission is to ensure that customers have the best tools and resources to succeed. By understanding the unique needs and challenges of industry partners, we provide tailored solutions that enhance productivity and drive success.

Trust AFGRI Equipment to deliver more than equipment; we deliver success. Experience the #AFGRIEquipmentEDGE and transform your quarrying operations with the power, precision, and productivity of John Deere ADTs.

For more information on adding the John Deere P-Tier Articulated Dump Truck to your fleet, visit your local AFGRI Equipment branch or read more at www.afgriequipment.co.za.



design improves forward visibility, enabling operators to navigate with confidence. Additionally, the optional LED light package and rear-view camera enhance visibility in low-light conditions, ensuring a safer and more efficient work environment.

The quiet, pressurised cab features an easy-to-read monitor and rear-camera display, plus

an optional automatic temperature control (ATC) system that allows operators to maintain a comfortable temperature. The standard high-back air suspension seat offers multiple adjustments for all-day support.

Reliable partners for the industry

The John Deere P-Tier Dump Trucks signify



TOUGH NEW COMPACTOR FROM AMMANN

Quarry operators and their customers in roads and construction are eagerly anticipating the new Ammann ARS 110.2 T1 with its exceptional compaction power and cost-saving features.

In South Africa, Ammann compaction equipment, including the ARS 110.2 T1 compactor, is distributed by ELB Equipment, the nation's largest multi-franchise equipment supplier. With an extensive branch network, ELB Equipment ensures that customers receive not only premium machinery but also unmatched service and support.

Craig Sheppard, ELB Equipment national product manager, emphasises the ARS 110.2 T1's has some unique and useful capabilities welcomed by locals. "The Ammann ARS 110.2 T1 is equipped with a two-stage vibratory system that provides exceptional compaction output. This system is adjustable, allowing operators to fine-tune settings to match the specific demands of different site conditions.

"It is engineered to endure the harshest sites and conditions for many years. Yet, despite its rugged construction, it boasts advanced ergonomics, including a spacious cab designed for operator comfort and safety. The cab is quiet and offers 360° visibility, enabling operators to work efficiently and safely. This significantly enhances

productivity and reduces operator fatigue, contributing to a safer, more efficient work environment," he says.

"While operators appreciate the comfort and ease of use, owners and maintenance crews are particularly impressed by the roller's low maintenance requirements and easy serviceability. The ARS 110.2 T1 is built with heavy-duty components that reduce downtime. Its extended service intervals mean the machine spends more time in operation and less in the workshop, which is crucial for keeping projects on schedule and within budget."

He adds that one of the standout features is the compactor's design that eliminates the need for an exhaust after-treatment system. This design choice significantly lowers maintenance costs, as there are no after-treatment components to service or replace. It not only reduces downtime but also simplifies the maintenance process, making the machine more reliable and easier to manage."

He also highlights the machine's efficiency with fluids, noting that it requires 17% less engine oil



The Ammann ARS 110.2 T1 is a versatile performer.



The Ammann ARS 110.2 T1 is equipped with a two-stage vibratory system that provides exceptional compaction output. This system is adjustable, allowing operators to fine-tune settings to match the specific demands of different site conditions.

and 5% less hydraulic oil compared to previous models. “These reductions translate into lower operating costs and fewer environmental impacts due to less frequent oil changes and disposals.”

The Ammann ARS 110.2 T1 is extremely fuel efficient and able to run for up to three shifts without refuelling. This capability minimises interruptions during critical operations and maximises productivity on site. Additionally, the machine features a self-lubricated vibratory system housed in an oil bath which ensures consistent performance and a longer service life. It also reduces the need for frequent manual lubrication,

decreasing maintenance efforts and increasing uptime.

The drum is also built to last for the entire life of the machine, which ensures that the machine remains operational and productive throughout its lifespan. With thoughtful design maintenance tasks are streamlined with accessible maintenance points for quick access to maintenance and draining points.

“Locally, it is the Ammann ARS 110.2 T1’s versatility that is the major drawcard for South African operators. It is widely used across civil, construction and mining applications due to its broad performance capabilities in an 11-ton configuration. Whether on a road construction project or in a mining operation, the ARS 110.2 T1 delivers unparalleled performance with the highest compaction force in its class. It’s a vital asset for projects requiring deep compaction, offering excellent value for money with its robust construction and low maintenance needs.” ●

SUMITOMO EXCAVATORS FOR QUARRYING APPLICATIONS

Rugged Sumitomo excavators have become a firm favourite of quarry operators for their ability to perform backbreaking work around-the-clock in a reliable and cost-effective manner.

The distinctive yellow Sumitomo excavators are at the heart of some of the most challenging quarry operations in South Africa where they perform a wide array of applications from loading and digging to rock breaking. In these quarrying applications the Japanese excavators are able to outperform their peers for speed and efficiency leading to them enjoying preferred status.

According to Keon Kardolus of ELB Equipment, the distribution, operational efficiency and reliability of Sumitomo excavators in quarrying applications is unmatched. Most contractors are already aware of the high production rates of Sumitomo's previous generation excavators and are astonished that the latest Sumitomo machines are able to surpass previous versions' productivity and fuel economy figures - by a wide margin.

ELB Equipment's nationwide footprint ensures that wherever quarry operations are located across South Africa, Sumitomo excavators are readily available and supported, making them a reliable choice for contractors throughout the country. The range comprises excavators from the 21-tonne Sumitomo SH210-6 to the heavy Sumitomo SH490LHD-5B, up to the 82-tonne class Sumitomo SH800LHD-5B and everything in between to meet the diverse needs of the quarrying industry.

"What sets the Japanese Sumitomo apart is the use of premium quality components that are built to work all day in the toughest conditions. The power and performance are unmatched and incorporate advanced hydraulic systems for faster digging capabilities. The



The Sumitomo SH800LHD.



The Sumitomo SH490LHD.

carefully matched Isuzu engines and advanced management systems also make for unmatched efficiency. As a result, excavators across the range enjoy class leaders efficiency and reduced emissions aligning with global environmental standards and regulations," says Kardolus.

He adds that operator comfort and safety are equally important and all Sumitomo excavators feature spacious and ergonomic cabs, advanced noise reduction technology and enhanced visibility. These features result in increased productivity and reduced operator fatigue.

ELB Equipment has a

comprehensive service and support network throughout Southern Africa with strategically located branches and service centres across the region, including South Africa, Namibia, Botswana, Zambia and Zimbabwe. The company's network includes fully equipped workshops, a robust spare parts inventory and highly skilled technicians trained to service and repair its equipment. This extensive infrastructure ensures that customers receive reliable and timely maintenance to minimise downtime and maximise operational efficiency across diverse industries. ●

POWERSCREEN CRUSHERS THE **BACKBONE OF QUARRYING IN SA**

Quarrying in Africa's harsh conditions is a demanding task that requires the utmost reliability and support for production machines that are the backbone of operations.

In Southern Africa, crushers are at the heart of most operations and where the performance and durability of Powerscreen crushers dominate the landscape. The brand's decades long relationship with quarry operators is supported by the country's largest multi-franchise equipment supplier, ELB Equipment, which also provides one of the largest branch and dealer networks in the region.

Powerscreen offers a broad selection of crushing equipment tailored specifically for quarrying applications. Its mobile crushers are engineered to handle a wide variety of materials, from the hardest rocks to softer aggregates, making them versatile options throughout the lifecycle of a quarry where they produce premium materials across different quarrying types.

In South Africa, the demand for mobile crushers is growing and the range of Maxtrak cone crushers and Trakpactor impact crushers provide a variety of choices to suit the needs of most quarry operators. The Maxtrak mobile crushers provide solutions from 150 tons per hour to larger units well over 300 tons per hour, while the Trakpactor also fulfil roles in recycling and other applications where the machines provide solutions for production rates of up to 550 tons per hour.

According to ELB Equipment divisional director, Wakefield Harding, these crushers critical components that drive efficiency and productivity in quarry operations across Southern Africa. Beyond the performance of the Powerscreen they are also a preferred choice for durability and dovetail perfectly with the Powerscreen's full suite



The Trakpactor 320.

of equipment to support the entire quarrying process, as well as ELB Equipment's wide array of loading and quarrying equipment.

The Powerscreen solutions offered include screens, scalpers and conveyors that are essential for efficient material separation and handling. The modular design of this equipment also allows for flexibility and enables quarry operators to switch between different applications with a higher degree of ease.

"The integration of Powerscreen's crushing and screening equipment into quarrying operations helps streamline

processes, reduce downtime and increase overall productivity. This is particularly beneficial in Southern Africa, where the industry often faces challenging conditions that require tight margins and high-quality materials.

ELB Equipment is a trusted partner in the quarrying industry in the region and is supported by one of the largest equipment distribution networks in the business. The 100-year-old company boasts some of the most respected technical advice and aftersales support, and quarry operators have access to this to maximise their operations. ●

MOBILE CONVEYORS **CUT THE COST OF LOADING**

Quarry operators and suppliers of aggregates to the building industry are increasingly turning to ELB Equipment's range of Powerscreen mobile conveyors to improve productivity and material quality on site.

Powerscreen mobile conveyors offer a robust alternative to load and dump-type operations and enable operators to dramatically reduce costs of equipment while being able to redeploy operators to other critical applications within



Powerscreen CT100 Stacker.

the quarry.

According to ELB Equipment divisional director, Wakefield Harding, the range includes tracked conveyors with lengths ranging from 21 to 30 metres, capable of handling between 500 to 1000 tons per hour (tph). For those requiring greater stockpile capacities, the tracked radial mobile conveyors offer lengths of 20 to 24 metres, with stockpile capacities up to 7 500 m³ and a sweeping range of 180 degrees.

With continued pressure on quarry operators to reduce costs, the Powerscreen range offers operators simplified onsite material handling solutions that reduce the requirement for load and dump operations and that dovetail with the company's crushing, screening and loading solutions for optimised performance.

"This versatility makes the Powerscreen range an ideal choice for a variety of applications within the aggregate supply chain, whether it's loading, stockpiling or even recycling materials onsite. By integrating these mobile solutions into their operations, quarry operators can reduce material degradation and segregation during the stockpiling process, thereby maintaining the quality of their aggregates.

"Our Powerscreen lineup also includes fully mobile tracked hopper feeders ranging from 15 to 23 metres, with hopper capacities between four to ten cubic metres. For operations requiring direct feeding from loaders or excavators, the low-level feeder option with a seven cubic meter capacity offers an efficient and seamless solution. Additionally, the availability of lattice frame and telescopic conveyors up to 50 metres in length provide operators with unparalleled flexibility in material handling," says Wakefield.

He adds that the conveyors can be operated on an automated program, offering further benefits in terms of reduced site traffic, labour costs and maintenance requirements. The pin-less deployment feature allows for quick adjustments to the stockpile angle, minimising downtime and the risk of blockages – a crucial advantage for maintaining uninterrupted production flow.

ELB Equipment is synonymous with excellence in supplying material handling solutions for quarries across Southern Africa. Their "best of breed" approach ensures that quarry operators and aggregate suppliers receive the highest quality equipment tailored to their specific operational

needs. The company's extensive experience and success in the industry underscores its position as the leading supplier of mobile conveyors in the region.

With some clients operating as many as seven mobile conveyors simultaneously across different sites, the effectiveness and reliability of these machines are well-documented.

The company's commitment to client success extends beyond the supply of equipment. Its comprehensive aftermarket service ensures equipment operates at peak performance and it has a large fleet of field service vehicles available to provide maintenance and support. This level of service is critical for maintaining high availability and productivity in quarry operations.

With a significant presence in major South African cities and a reach extending across the Southern African Development Community (SADC) region – including Namibia, Swaziland, Zambia, the DRC and Zimbabwe – ELB Equipment offers unparalleled support and accessibility. This extensive network ensures that clients across the region can access the best equipment and services, maximising their operational efficiency. ●

50th celebrations at Electra Mining 2024

BMG – which marks 50 years of business this year – has much to celebrate at this year's Electra Mining show.

BMG is a complete process solutions provider to all sectors of industry, which means customers can access all essential quality branded engineering components, technical services and support from one well-established, reliable supplier. This integrated approach guarantees lower production costs and higher efficiencies.

BMG's stand will showcase the company's comprehensive

engineering solutions and technical services, that have been developed over 50 years, to optimise productivity and enhance process plant operating reliability.

BMG has become an integral part of mining industry processes, providing design and selection of equipment and solutions to projects houses, supply to original equipment manufacturers and supply and technical support to the end user. It has secured distribution and service agreements with some of the world's most respected manufacturers.

On display will be the latest



BMG's stand can be found at J10, J12 & K17.

products from its specialist divisions – Bearings, Seals and Gaskets, Power Transmission, Drives and

Motors, Materials Handling, Tools & Fasteners, Hydraulics, Filtration, Lubrication and Field Services. ●

Service, sustainability underpin FLS quality portfolio

Visit FLS in Hall 6
Stand D16.



Supporting customers in achieving optimal plant performance is today more vital than ever, in the face of inflationary cost increases and volatile commodity markets.

These concerns are behind FLS's service focus at Electra Mining Africa this year, where the company is driving sustainable productivity through its solid and growing support and maintenance

infrastructure. According to Alistair McKay, Vice President Mining: Europe, Arabia and Africa at FLS, this includes engaging visitors at the event on the value of the company's innovative digital solutions.

"In addition to our market leading solutions for mining plants, we will be sharing our extensive foundation of expertise, technical services,

spares and consumables to support customers," says McKay. "The show gives us the opportunity to demonstrate how these resources can lower operating costs and drive profitability."

Key to FLS's success in doing this is its understanding of exactly how its solutions are performing in customers' processing facilities. As the original equipment manufacturer, he argues, the company is best placed to partner with mines to optimise performance and to maintain equipment health at the highest level.

Visitors at the exhibition can also see how FLS's digital solutions integrate with its control centre, from which it can provide customers with 24/7 support.

In terms of new offerings at the FLS stand, visitors will be witness to the launch of the new NexGen Polyurethane formula for the company's wear products and can discuss application opportunities with the company's experts. The NexGen Polyurethane is relevant to screening media and mill trommels – particularly at the front-end of the concentrator where impact and abrasion is high.

FLS's leading slurry pumps will also be showcased for their performance and energy efficiency. McKay concludes that this year's Electra Mining Africa will be the first since the company's acquisition of Thyssenkrupp's mining business. ●

Tru-Trac showcases groundbreaking conveyor innovations

As global leaders in solutions for conveyor belt misalignment, Tru-Trac will excite visitors to Electra Mining Africa this year with a whole new range of belt trackers among its innovative offerings. The latest range is the outcome of two years of design, development and testing, according to Tru-Trac Chief Operating Officer, Shaun Blumberg.

The stand also features Tru-Trac's

robust range of belt scales, engineered for precision and dependability, and a pioneering step into the future with a cutting edge belt rip detection system.

"With our belt trackers setting the gold standard for effective belt alignment, the new range builds on the success of its predecessors, elevating them to an entirely new level of performance," says Blumberg.

A real drawcard for visitors will be Tru-Trac's investment in Internet of Things (IOT) technology, specifically the integration of digital solutions to facilitate predictive maintenance through

real-time monitoring of equipment.

"The mining sector is increasingly turning to IoT to refine data collection and analytics, enhancing overall efficiency. Our IoT-enabled conveyor solutions offer predictive and preventative maintenance, reducing downtime and enhancing productivity," he says.

Demonstrating this commitment will be at least two product offerings on show at Electra Mining Africa: the company's proven range of belt scales and a revolutionary new belt rip detection system that promises to be a real disruptor in the sector. ●

Visit Tru-Trac in Hall 6
Stand F16





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Integrated range of eco-efficient solutions for crushing & screening



Visitors to Electra Mining Africa this year are looking for crushing and screening solutions that will boost productivity while enhancing sustainability – and Sandvik Rock Processing Solutions has what they need. Exciting developments in the company's integrated offering of crushers, screens, screening media, lifecycle services and digital

technologies will be on display with the company's competent team on hand to share technical information and insights.

According to Tarynn Yatras, Vice President for Sales Area Africa at Sandvik Rock Processing Solutions, the lineup will include a working demonstration screen with digital connectivity. Yatras highlights how the

company's pioneering technology is driven by its aim to advance the world through engineering.

The focus on eco-efficiency ensures customers can process rock using the fewest possible resources. In addition to the multi-function test screen on the company's exhibition stand, visitors can inspect and discuss the Sandvik screening media and cone crusher that will be on display.

"Another exciting element of our Electra Mining Africa presence will be the digital technology that enhances our equipment's performance and longevity," she says. "Our automation and connectivity system (ACS) will be on display, as applied to our cone crushers (ACS-c) and

our screens (ASC-s)." These connectivity systems link back to Sandvik's digital SAM platform, which uses data to drive insights, support and performance.

"Among our continuous improvements in condition monitoring has been an upgrade from wired sensors to self-powering sensors on our screens," she says. Local digital experts and those from Sweden will be available on the Electra Mining Africa stand to discuss the systems in detail – including the range of benefits that customers can derive.

"Our vision – as a leading player in the mining sector – is aiming for a more circular economy while driving productivity to extract maximum value from resources." ●

Visit Sandvik Rock Processing in Hall 6 Stand C22.

SEW doubles down on drive innovation at EMA

With so much innovation to see, SEW-EURODRIVE has expanded its presence at Electra Mining Africa this year with added exhibition space in Hall 7 that showcases its innovations in automation and electronics.

This exciting addition

complements the company's large landmark stand in Hall 6, which has always been a favourite for the event's visitors, according to Jonathan McKey, National Sales and Marketing Manager at SEW-EURODRIVE. The message that the company is 'closing

the loop' with its growing portfolio of product developments is loud and clear, says McKey.

Visitors will also see how sustainability is built into the business's growth into the

continent, including the intensive upskilling underway at its local facilities in various African countries.

"As leaders in this industry, we play a key role in empowering artisans – both in-house and for customers – through our Drive Academy which pushes the boundaries in augmented reality (AR) as a learning tool," he says.

At the SEW-EURODRIVE stand in Hall 6, visitors can witness new solutions like the purpose-built SEW X.e agitator, fresh from its launch in Europe last year. Also being launched is a range of planetary solutions that will close the loop in new market segments, as well as the new ECO2 design drive that features environmentally friendly

manufacture.

"We also look forward to discussing our DriveRadar technology with visitors, as the mining sector embraces predictive maintenance to achieve better uptime levels and enhance equipment lifespans," he says.

Among the insights to be gained at SEW-EURODRIVE's Hall 7 stand is the potential of the latest generation SEW MOVI-C® modular automation technology.

Electra Mining Africa also allows visitors to physically meet the SEW-EURODRIVE experts who would accompany them through their automation journey. The company prides itself on supporting customers from the purchasing decision right through to commissioning and operation. ●



Jonathan McKey, National Sales and Marketing Manager at SEW-EURODRIVE.

Visit SEW-EURODRIVE at Hall 6 Stand J20 and Hall 7 Stand D4

New surface drill rig offerings

Founded in 2019 Azize Equipment markets, services and supports a comprehensive range of SUNWARD DTH and Hydraulic surface drill rigs to customers across Southern Africa.

Established by a professional team with a thorough understanding of the technical and commercial aspects of owning, operating, and maintaining all types of drill rigs and associated equipment, Azize brings a new level of fast, flexible, and customer-orientated service to the market via established sales and service facilities in Carolina, the heart of the coal mining industry.

AZIZE and SUNWARD target surface drilling companies engaged primarily in blast

hole drilling in all geological formations across the mining, quarry, and construction industries. Aligning to these sectors, the SUNWARD range is ideally suited to mine owners and drilling contractors who are looking for modern, safe, efficient and reliable surface drilling rigs that positively impact their bottom line.

The company offers one of the most comprehensible product ranges available in the market.

The SWDH102S hydraulic rig is ideal for quarries and construction operations, effortlessly drilling holes in the range of 76 mm to 115 mm to depths of 25 m.

The comprehensive DTH crawler model range covers all possible blast hole requirements, covering hole

diameters in the range of 90 mm up to 270 mm and hole depths of up to 36 m.

The unique SWDR138B is one of the only fully OEM certified excavator drill rigs available in the market, offering exceptional

manoeuvrability, balance and production speed. Angle and elevated drilling capability is enhanced and knowing that all components and systems are factory certified means peace of mind for owners and operators. ●



AZIZE will be located outdoors in the Red zone, on stand numbers P15 and P16.

Bell to showcase BHI and new motor grader at Electra Mining

Bell Equipment, which celebrates its 70th anniversary this year, will be showcasing two new developments at Electra Mining, the Bell Motor Grader and Bell Heavy Industries (BHI), the company's new contract managing business unit.

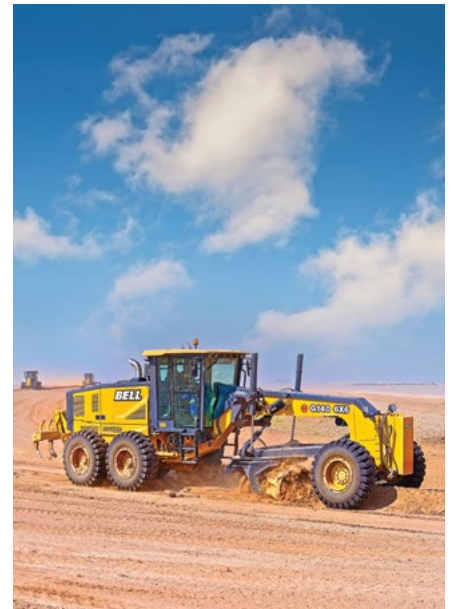
"Electra Mining is the largest mining, electrical, automation, manufacturing, power, and transport trade show in Southern Africa and we are thrilled to connect with potential customers in a forum of this size and nature," says Stephen McNeill, Bell Equipment's Head of Group Marketing.

"We believe BHI is well positioned to stimulate the South African manufacturing sector and look forward to discussing opportunities for collaboration. Our factory in Richards Bay has significant capabilities and operates to world-class standards. BHI follows lean manufacturing principles for efficiency and cost-effectiveness. The latest



technologies and innovations drive continuous improvement throughout the processes and assure the quality of end products. In addition, it is 55% black-owned and 24% black women-owned, enhancing B-BBEE scores and creating localisation opportunities."

The new Bell G140 6x4 Motor Grader, which will go into production in 2025, will also be on display. "Ideal for road maintenance and construction tasks, this cutting-edge



product highlights our passion for innovation and our ability to deliver quality precision engineering solutions, and we look forward to showing it's features to visitors," said McNeill. ●

STATISTICS PROVE INFRASTRUCTURE'S OUTSIZED RETURNS FOR PEOPLE AND ECONOMIES

Infrastructure has been named a top priority for South Africa over the next few years as we seek to bounce back from global economic shocks such as the pandemic and war in Ukraine, and refocus attention on promoting socio-economic development. **By: Roelof van den Berg, CEO of the Gap Infrastructure Corporation (GIC)**

But beyond major national concerns such as logistics and energy infrastructure, it's important not to overlook the fundamental role of less headline-grabbing, "bread and butter" infrastructure development projects for uplifting households out of poverty and driving economic growth.

Here are just three examples that demonstrate the importance of infrastructure development as a key mechanism for nation-building:

Roads

Several studies suggest a direct link between road development and economic growth. But one particularly significant World Bank study by Fedderke and Bogetic, which analysed three decades of data for South Africa from 1970 to 2000, found that a 1% increase in the road network led to a 2.8 percentage point increase in the country's productivity growth.

Similar studies in other countries also demonstrate what can be achieved through road infrastructure development. In China, for example, the economic impact of road infrastructure development on rural roads was four times higher than on high-grade roads. Meanwhile, Sri Lanka, another developing country, saw a more than 60% increase in industry output following investment in its highway infrastructure.

Ultimately, roads are how we connect people to job opportunities, healthcare, education, services, and each other. Plus, higher quality paved roads lower travel times and costs, provide access to a wider range of vehicles such as delivery trucks, and enhance overall road safety.

So, as the public sector continues working diligently to upgrade road networks, this could unlock immense

economic and social benefits. For example, in our experience, the long-term positive effects of GIC's work on roads in rural communities have been exponential.

Housing

Homes have the potential to generate a steady income for homeowners. According to the Centre for Housing Finance in Africa, informal housing generates an estimated 11% of total rental income in South Africa, which creates a crucial income stream for homeowners who rent out rooms in their backyards.

Furthermore, research shows that a rise in house prices leads to an increase in job creation, as homeowners can leverage their homes as assets as collateral for loans to invest in their businesses.

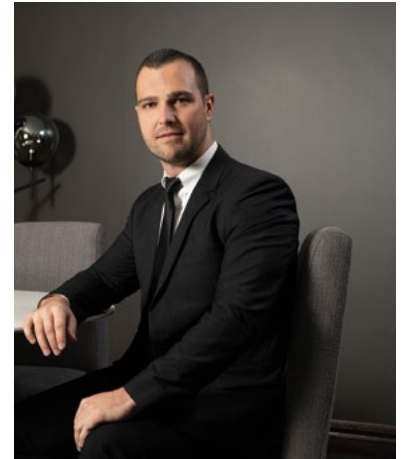
Beyond being an important source of income for many households and a key driver of economic growth, housing also acts as a catalyst for improved living standards.

Having a safe place to live and sleep provides a sense of security, improves people's health and well-being, and better enables breadwinners to find employment and children to further their studies. The impact of housing on lives and on the wider economy is therefore tremendous, serving as a powerful tool to combat poverty.

Water and sanitation

Clean running water and reliable sanitation systems are critical for preventing disease, maintaining food safety, and supporting a strong and productive workforce that can participate in economic activities and earn an income.

Notably, water-related health issues are still a major concern worldwide. It's estimated that some 1.4 million deaths,



Roelof van den Berg, CEO of the Gap Infrastructure Corporation (GIC).

or about 2,5% of all annual deaths globally could be prevented by providing more people with access to clean drinking water, sanitation, and hygiene.

Installing in-home water points and sanitation networks in towns across South Africa greatly reduces people's risk of diarrhoea and resulting undernutrition, as well as respiratory infections, and other health risks. And in the long-run, a healthy population has the capacity to take the broader economy to new heights.

Fortunately, the country has been making strong headway in this regard, having already provided access to clean drinking water to around 90% of the population. Additionally, this number is set to increase as new infrastructure development projects get underway.

While often underappreciated, these areas of infrastructure remain vital to breaking the barriers to opportunity, and building a supportive environment for a brighter, more equitable future. ●



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